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THE UNIVERSITY OF
NEW SOUTH WALES



*Faculty of
the Built
Environment*

HANDBOOK

1999

THE UNIVERSITY OF
NEW SOUTH WALES



*Built
Environment*

HANDBOOK

1999

Subjects, courses and any arrangements for courses including staff allocated as stated in this Handbook are an expression of intent only. The University reserves the right to discontinue or vary arrangements at any time without notice. Information has been brought up to date as at 11 November, 1998, but may be amended without notice by the University Council.

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Introduction

This Faculty includes disciplines that deal with the built environment at a variety of levels. Our range of interests includes the micro level, such as the chair that a person uses and it extends to encompass the building in which a person is housed, the environmental and urban design issues that relate to the overall placement of the building, the urban setting and the urban region in which that setting is located. As potential custodians of the built environment, our students are expected to be conversant with the range of important issues.

Since 1998, the Faculty of the Built Environment has a new structure aimed at encouraging synergy among the disciplines in the Faculty and providing flexibility for students. We expect our students to gain expertise in their chosen disciplines but we also expect that they will take the opportunities to become familiar with the concepts and ideas of the other disciplines in the Faculty. The world in which our graduates will pursue their chosen profession is one where interdisciplinary teams of professionals work together to achieve the best results for the built environment. We believe that the earlier the student is introduced to the range of ideas and concepts that the disciplines in the built environment represent, the more complete a professional he or she will become.

The Faculty has also streamlined the services provided to the student through the establishment of a Faculty Student Centre, which is the place of first call for students and potential students. All routine matters dealing with general inquiries, enrolment, subject changes and other related matters should be first directed to the Faculty Student Centre. Where a referral is necessary, the FSC staff will make the arrangements. This Handbook contains the detailed information on all the courses and programs of the Faculty as well as descriptions of available subjects and research areas. The same information is also available on the university web page. The information contained in this Handbook is important for you to understand the structure of the courses, the subjects in the courses and the requirement of each of the courses. Study it and use it well.

Chung-Tong Wu
Dean

Calendar of Dates

The academic year is divided into two sessions, each containing 14 weeks for teaching. Between the two sessions there is a break of approximately six weeks, which includes a one-week study period, two weeks for examinations, and three weeks recess. There is also a short recess of one week within each session.

Session 1 commences on the Monday nearest 1 March.

Faculties other than Medicine, AGSM and University College, ADFA

	1999	2000
Session 1		
(14 weeks)	1 March to 1 April 12 April to 11 June	28 February to 20 April 1 May to 9 June
Mid-session recess	2 April to 11 April	21 April to 30 April
Study period	12 June to 17 June	10 June to 14 June
Examinations	18 June to 6 July	15 June to 29 June
Mid-year recess	7 July to 25 July	30 June to 16 July
Session 2		
(14 weeks)	26 July to 24 September 5 October to 5 November	17 July to 10 September 7 October to 17 November
Mid-session recess	25 September to 4 October	11 September to 6 October
Study period	6 November to 11 November	18 November to 22 November
Examinations	12 November to 30 November	23 November to 7 December

Important dates for 1999

January 1999

F 1	New Year's Day - Public Holiday
M 11	Medicine IV - Term 1 begins
Th 14	Medicine V - Term 1 begins
T 26	Australia Day - Public Holiday

February 1999

M 8	AGSM EMBA GMQ and GDM Programs - Session 1 begins
M 22	AGSM MBA Program - Year 1 classes - Term 1 begins
	Medicine VI - Term 2 begins

March 1999

M 1	Session 1 begins - for Faculties other than Medicine, AGSM and University College, ADFA
	University College, ADFA - Session 1 begins
	AGSM MBA Program - Year 2 classes - Term 1 begins
F 12	Last day applications are accepted from students to enrol in Session 1 or whole year subjects
S 14	Medicine IV - Term 1 ends
M 15	Medicine IV - Term 2 begins
Su 21	Medicine V - Term 1 ends
M 29	Medicine V - Term 2 begins
W 31	Last day for students to discontinue without failure subjects which extend over Session 1 only
	HECS Census Date for Session 1

April 1999

F 2	Mid-session recess begins - for Faculties other than Medicine, AGSM and University College, ADFA Good Friday - Public Holiday
S 3	Easter Saturday
Su 4	Easter Sunday
Su 11	Mid-session recess ends - for Faculties other than Medicine, AGSM and University College, ADFA Medicine VI - Term 2 ends
M 12	Medicine VI - Recess begins
Su 18	Medicine VI - Recess ends
M 19	Medicine VI - Term 3 begins
Su 25	Medicine IV - Term 2 ends
M 26	Anzac Day - Public Holiday

May 1999

S 1	University College, ADFA - Mid-session recess begins
Su 2	Medicine IV - Recess ends
M 3	Medicine IV - Term 3 begins
F 7	AGSM MBA Program - all classes - Term 1 ends
M 10	AGSM MBA Program - all classes - Examinations begin
T 11	Publication of provisional timetable for June examinations
F 14	AGSM MBA Program - all classes - Examinations end
Su 16	University College, ADFA - Mid-session recess ends
M 17	AGSM EMBA GDM Programs - Session 1 ends
S 22	AGSM EMBA GDM Program - Examination
M 24	AGSM EMBA GMQ Programs - Session 1 ends
S 29	AGSM EMBA GMQ - Examination
Su 30	Medicine V - Term 2 ends Medicine VI - Term 3 ends
M 31	Medicine VI - Term 4 begins AGSM MBA Program - all classes - Term 2 begins

June 1999

T 1	Publication of timetable for June examinations
M 7	Medicine V - Term 3 begins
F 11	Session 1 ends - for Faculties other than Medicine, AGSM and University College, ADFA
S 12	Study period begins - for Faculties other than Medicine, AGSM and University College, ADFA
Su 13	Medicine IV - Term 3 ends
M 14	Queen's Birthday - Public Holiday
T 15	Medicine IV - Term 4 begins
Th 17	Study period ends - for Faculties other than Medicine, AGSM and University College, ADFA
F 18	Examinations begin - for Faculties other than Medicine, AGSM and University College, ADFA
M 21	University College, ADFA - Examinations begin

July 1999

S 3	University College, ADFA - Examinations end
Su 4	University College, ADFA - Mid-year recess begins
T 6	Examinations end - for Faculties other than Medicine, AGSM and University College, ADFA
W 7	Mid-year recess begins - for Faculties other than Medicine, AGSM and University College, ADFA
M 12	AGSM EMBA GMQ and GDM Programs - Session 2 begins
Su 18	University College, ADFA - Mid-year recess ends
M 19	University College, ADFA - Session 2 begins
F 23	Medicine VI - Term 4 ends
S 24	Medicine VI - Recess begins
Su 25	Mid-year recess ends - for Faculties other than Medicine, AGSM and University College, ADFA
M 26	Session 2 begins - for Faculties other than Medicine, AGSM and University College, ADFA

August 1999

S 1	Medicine VI - Recess ends
M 2	Medicine VI - Term 5 begins
F 6	Last day applications are accepted from students to enrol in Session 2 subjects Last day for students to discontinue without failure subjects which extend over the whole academic year
Su 8	Medicine IV - Term 4 ends Medicine V - Term 3 ends
M 9	Medicine IV - Recess begins
F 13	AGSM MBA Program - all classes - Examinations end
Su 15	Medicine IV - Recess ends
M 16	Medicine IV - Term 5 begins
M 30	AGSM MBA Program - all classes - Term 3 begins
T 31	Last day for students to discontinue without failure subjects which extend over Session 2 only HECS Census Date for Session 2

September 1999

S 4	Open Day
Su 12	Medicine VI - Term 5 ends
M 13	Medicine VI - Term 6 begins
F 24	Closing date for applications to the Universities Admission Centre
S 25	Mid-session recess begins - for Faculties other than Medicine, AGSM and University College, ADFA University College, ADFA - Mid-session recess begins
Su 26	Medicine IV - Term 5 ends
M 27	Medicine IV - Term 6 begins

October 1999

M 4	Labour Day - Public Holiday Mid-session recess ends - for Faculties other than Medicine, AGSM and University College, ADFA University College, ADFA - Mid-session recess ends
T 5	Publication of provisional timetable for the November examinations
W 13	Last day for students to advise of examination clashes
Su 17	Medicine V - Term 4 ends
M 18	AGSM EMBA GDM Program - Session 2 ends
F 22	University College, ADFA - Session 2 ends
S 23	AGSM EMBA GDM Program - Examination
Su 24	Medicine VI - Term 6 ends
M 25	University College, ADFA - Examinations begin AGSM EMBA GMQ Program - Session 2 ends
S 30	AGSM EMBA GMQ Program - Examination

November 1999

F 5	Session 2 ends - for Faculties other than Medicine, AGSM and University College, ADFA
S 6	Study period begins - for Faculties other than Medicine, AGSM and University College, ADFA
Su 7	Medicine IV - Term 6 ends
M 8	AGSM MBA Program - all classes - Examinations begin
Th 11	Study period ends - for Faculties other than Medicine, AGSM and University College, ADFA
F 12	Examinations begin - for Faculties other than Medicine, AGSM and University College, ADFA University College, ADFA - Examinations end AGSM MBA Program - all classes - Examinations end
T 30	Examinations end - for Faculties other than Medicine, AGSM and University College, ADFA

December 1999

S 25	Christmas Day
M 27	Boxing Day - Public Holiday

Comprises School of the Built Environment with Programs of Architecture, Building and Construction Management, Landscape Architecture, Planning and Urban Development, Industrial Design and Interior Architecture.

Dean

Professor Chung-Tong Wu, BArch *Calif. Berkeley*, PhD *Calif. Los Angeles*, MSc *Col.*, MRAPI

Presiding Member

Paul-Alan Johnson, BArch *Syd.*, DipCD PhD *UNSW*, FRAIA

Associate Dean (Research) Head of School

Professor Jon Lang, BArch *Witw.*, MRP PhD *Cornell*

Associate Dean (Postgraduate Studies)

Professor Alexander Rankine Cuthbert, DipArch DipTP MSc *Heriot Watt*, PhD *Lond.*, MRIBA, MRTPI, MHKIP

Associate Dean (Undergraduate Studies)

James David Plume, BArch MArch *Syd.*

Research Student Coordinator

Bruce Herbert Judd, BArch PhD *Syd.*, ARAIA

Executive Officer

Brian John Newell, BCom *UNSW*

Administrative Assistant to the Dean

Patricia Anne Poynting

Architecture Program

Head of Program

Desley Olwyn Luscombe, BSc(Arch) BArch MArch *UNSW*

Professor of Architecture

Jon Lang, BArch *Witw.*, MRP PhD *Cornell*

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Deo Prasad, BArch *Auck.*, MArch MSc PhD *UNSW*, FRAIA

Peter Reginald Proudfoot, BArch *Syd.*, MArch *Penn.*, PhD *UNSW*, Rome Scholar, ARAIA

Vinzenz Franz Josef Sedlak, DiplIngArch *T.U. Graz.*, MPhil *Sur.*

Senior Lecturers

John Richard Cooke, BArch PhD *Syd.*, LLB MSc(Build) *UNSW*, FRAIA, AIArBA

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Steven King, BArch DipBdgSc *Syd.*, ARAIA

Peter Kohane, MArch *Melb.*, MSc PhD *Penn.*

William Richard Lawson, BSc PhD *UNSW*, MAPS, MAIHR

James David Plume, BArch MArch *Syd.*

Robert Samuels, BA *Witw.*, MURP *UCT*, MSc *Sur.*, PhD *R'dg.*

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 Stephen Peter, BArch DipArchComp *Syd.*
 Ann Maree Quinlan, BSc(Arch) BArch *UNSW*, ARAIA

Visiting Professors

Philip Cox, AO, BArch DipTCP *Syd.*, FRAIA
 Laszlo Peter Kollar, MArch PhD *UNSW*, ASTC

Adjunct Professor

Peter Thompson, DIC, MIEAust, FStructE
 Louise Cox, BArch, DipTCP, LFRAIA, RIBA
 Ken Maher, BArch, March, G.Dip Landscape Des.,
 G.DipEnv.Studies, FRAIA
 Richard Hough, BSc, B.E., Meng, MIE Aust, CPEng.

Adjunct Associate Professor

Victor Martin Berk, BArch DipAdmin *UNSW*

Building Construction Management Program

Head of Program

Paul Kingsley Marsden, ASTC, MSc *UNSW*, GradDip
Syd. Teachers' Coll., AAIQS

Professor of Building

Vacant

Associate Professors

Marton Marosszeky, BE *N'cle.(N.S.W.)*, MEngSc *UNSW*,
 MIEAust, MAIB
 Roger Mark Anthony Miller, BBuild *UNSW*, SM CE
M.I.T., FAIB
 Thomas Edward Uher, BBuild MSc(Build) PhD *UNSW*,
 FAIB, MAIPM

Senior Lecturers

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 Martin Loosemore, BSc(QS) PhD *Reading*
 Karl Goran Runeson, BA MBuild *UNSW*, PhD *QUT*

Lecturers

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 Ojars Indulis Greste, BE ME *UNSW*, DEng *Calif.*
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Emeritus Professor

Arthur Raymond Toakley, BCE BA MEngSc *Melb.*, PhD
Manc., CPEng, LMus, FIEAust, FAIB

Adjunct Professors

Tom W Crow, BE, Mbuild, FIEAust, MIMC
 Brian Farmer, DipCivEng *NSWIT*, MEngSc, MBA *UNSW*,
 FIEAust, FIAMA, FIVMA

Stephen Hibbert, BE(Civil), LLM *Syd*, MIEAust, MIAMA
 Ngee Huat Seek, BSc(EstateMgt) *NUS*,
 MSc(BusinessAdmin) *British Columbia*, PhD *A.N.U.*
 WG Mick Ryan, BE(Civil) *Syd.*, ME(HighwayEng)
UNSW, FIEAust, MICT(UK), MACI(USA), FIEAust,
 FIQAust, FAIMAust, FAATSE

Industrial Design Program

Head of Program

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UNSW, CPEng, FIEAust, MDIA, FRSA

Lecturer

Rina Bernabei, BD(ID) *U.T.S.*
 Jonathan Talbot, BSc(IndArts) DipEd *UNSW*

Adjunct Senior Lecturers

Adam Laws, BAppScIndDes *UC*, IDSA
 Mark Armstrong, DipArt(ID) *R.M.I.T.*, MDIA

Honorary Visiting Professor

John Redmond, BA DipIDEng, MA *RCA*, FRSA, MESA,
 AADM, FDIA

Technical Officer

Antony Yarham, DipEd *U.T.S.*

Interior Architecture Program

Head of Program

Harry Anthony Stephens, BArch DipLD *UNSW*, FRAIA

Lecturer/Senior Lecturer

1 Vacancy

Landscape Architecture Program

Head of Program

Elizabeth Mossop, BLArch *UNSW*, MUrbPlan *Macq.*,
 AAILA

Professor of Landscape Architecture

James Weirick, MLA *Harv.*

Lecturer/Senior Lecturer

2 Vacancies

Planning and Urban Development Program

Head of Program

Stephen Harris, BTP *UNSW*, FRAP

Professor of Town Planning

Alexander Rankine Cuthbert, DipArch DipTP MSc *Heriot Watt*, PhD *Lond.*, MRIBA, MRTPI, MHKIP

Associate Professors

Robert Gordon Freestone, BSc *UNSW*, MA *Minn.*, PhD *Macq.*, MRAP

Peter Ashton Murphy, BA *Syd.*, PhD *Macq.*

Robert Bolles Zehner, BA *Amherst*, MA PhD *Mich.*, MASA, MRAP

Senior Lecturer

Peter John Williams, BSc *UNSW*, BLegS, MEnvPlan *Macq.*, MPubPol *N.E.*, MRAP

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Adjunct Professor

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Associate Dean (Undergraduate Studies)

James David Plume

Administrative Staff

Margaret McInnes

June Odum

Tulika Singh Yadav

Postgraduate Studies and Research Office

Associate Dean (Research)

Professor Jon Lang

Associate Dean (Postgraduate)

Professor Alexander Cuthbert

Research Student Coordinator

Dr Bruce Judd

Adjunct Professor

Sonya Svetlana Lyneham, BA *MTCP Syd.*, FRAP

Administrative Staff

Julia Hauman

Wendy Hoggard

Postgraduate Course Directors

Architecture

Dr Paul-Alan Johnson

Building Conservation

To be advised

Construction Management

Associate Professor Tom Uher

Industrial Design

Lance Green

Landscape Planning

Elizabeth Mossop

Real Estate

Dr Jinu Kim

Sustainable Development

Associate Professor Deo Prasad

Urban Development and Design

Professor A Cuthbert

Faculty Administrative Units

Faculty Student Centre

Manager

To be advised

Administrative Assistants

Kath Bradburn

Adam Holman-Lee

Shirley McNamara

Isobel Waters

Julian Wong

Shi-ling Zhang

Faculty Finance and Facilities Unit

Administrative Officers

Edith Chu

Harry Chambers

Faculty Computing Unit

Manager

Graham Hannah

Support Staff

Jizelle Dabaghi

Marco Furschke

Faculty Resource Centre

Faculty Librarian

Ruth Buntman

Faculty Printing and Audio Visual

Faculty Printer

Edward Ward

Handbook Guide

This Handbook is divided into two main sections comprising undergraduate study and postgraduate study. Initially, course outlines are presented in each section, providing a guide to the degrees within organisational units. Read the opening sections of the handbook first, and then read the information contained under Course Outlines (Undergraduate or Postgraduate as appropriate). Detailed information on each subject can then be found under Subject Descriptions which provides full details of subject content, contacts and prerequisite details.

As changes may be made to information provided in this Handbook, students should frequently consult the noticeboards of the schools and the official noticeboards of the University.

Information Key

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

CP	credit points
HPW	hours per week
P/T	part-time
S1	Session 1
S2	Session 2
S3	Full year subject
SS	Single Session, but which Session taught is not known at time of publication
WKS	weeks of duration
X	external
X1	Summer Session
X2	Winter Session

Prefixes

The identifying alphabetical prefixes for each organisational unit offering subjects to students in the Faculty of the Built Environment follow.

Prefix	Organisational Unit	Faculty/Board
ACCT	School of Accounting	Commerce and Economics
ARCH	Architecture Program	Built Environment
BENV	School of the Built Environment	Built Environment
BLDG	Building Program	Built Environment
CIVL	School of Civil Engineering	Engineering
COMP	School of Computer Science and Engineering	Engineering
GEOG	School of Geography	Science and Technology
GEOL	School of Geology	Science and Technology
GMAT	School of Geomatic Engineering	Engineering

Prefix	Organisational Unit	Faculty/Board
GSBE	School of the Built Environment	Built Environment
IDES	Industrial Design Program	Built Environment
INTA	Interior Architecture Program	Built Environment
LAND	Landscape Architecture Program	Built Environment
MARK	School of Marketing	Commerce and Economics
MATH	School of Mathematics	Science and Technology
PHYS	School of Physics	Science and Technology
PLAN	Planning and Urban Development Program	Built Environment
SESC	School of Safety Science	Science and Technology

Faculty Information

Some People Who Can Help You

If you require advice about enrolment, degree requirements, progression within courses, information and advice about subject content and requirements, contact the Faculty Student Centre, Level 2 Foyer, Red Centre Building.

To speak to the Associate Dean (Undergraduate Studies) or any of the Undergraduate Program Heads, you need to make an appointment through the Undergraduate Programs Office on Level 4.

For an appointment with the Head of School, or any of the staff responsible for the postgraduate programs offered in the Faculty, go to the Postgraduate Studies and Research Office on Level 2.

It is University and Faculty policy to promote equal opportunity in education (refer to Equal Opportunity in Education Policy Statement, University of New South Wales Calendar and the 1999 Student Guide).

Faculty of the Built Environment Enrolment Procedures

All students re-enrolling in the Faculty will receive pre-enrolment forms containing information concerning their 2000 enrolment, before the end of Session 2, 1999.

Rules for Progression

Progression in courses offered in the Faculty of the Built Environment is generally dependent on the successful completion of prerequisites and/or co-requisites for subjects as listed in the schedules of subjects for each course.

Where the academic record of students is not of a satisfactory standard, the Head of Program may recommend a restricted program. This applies to all undergraduate courses offered by the Faculty.

Credit Points

From 1996, UNSW introduced a university wide credit point system for all subjects offered to both undergraduate and postgraduate students. The system means that a subject will have the same credit point value irrespective of which faculty's course it is counting towards. Students are able to determine the value of subjects taken from other faculties when planning their programs of study. The student load for a subject is calculated by dividing the credit point value of a subject by the total credit points required for the program for that year of the course. Student load is used to determine both HECS and overseas student fees. Students who take more than the standard load for that year of a course will pay more HECS.

Old subject measures have been replaced by new university credit points. Every effort has been made to ensure the accuracy of the credit point values shown for all subjects. However, if any inconsistencies between old and new credit point measures cause concern, students are advised to check with their faculty office for clarification before making 1999 subject selections based on the credit points shown in this handbook.

Library Facilities

Although any of the university libraries may meet specific needs, the staff and students of the Faculty of the Built Environment are served mainly by the Physical Sciences Library and the Resource Centre housed in the Faculty of the Built Environment.

The Physical Sciences Library

The Physical Sciences Library, located on levels 5, 6 and 7 of the Library Building, provides information for students and staff from the Faculties of Science, Engineering, the Built Environment and Applied Science.

During the academic year, the Library is open from 8.00am to 10.00pm Monday to Thursday, 8.00am to 6.00pm on Friday and 12.00pm to 5.00pm Saturday and Sunday. During vacations, Library hours of opening will vary.

Staff are available to provide assistance after 10.00am, including help with catalogue, CD-Roms, interlibrary loans, maps and online searching. An information skills program is in place with emphasis on developing basic information access and management skills for first years and advanced skills for final year and postgraduate students.

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

Physical Sciences Librarian: Rhonda Langford.

Undergraduate Services

The undergraduate collection caters for the needs of students in Years 1 and 2 and other groups where large numbers require mass teaching. Levels 3 and 4.

The Open Reserve section, houses books and other material which are required reading. Level 2.

The Audio-Visual section, contains multimedia, videos and cassette tapes of lectures. The Audio-Visual section has wired study carrels and cassette players for student use. The map collection is also housed here. Level 3.

The Reader Education program provides orientation tours and introductory library research method lectures to students.

Faculty of the Built Environment Resource Centre

The Resource Centre is located on the ground floor of the Red Centre Building and serves the day to day needs of the staff and students in the Faculty. It provides information services based on both print and electronic resources. The reference collection which has no lending facilities consist of textbooks and recommended reading, background information to courses, serials and standards, (these being duplicated in the Physical Sciences Library). Unique materials held consist of donations, undergraduate thesis, trade catalogues and an open reserve collection of specific materials left by lecturers to supplement course work.

The Resource Centre also provides 24 computers with access to library catalogues and other on-line databases, e-mail facilities and the Internet. Six computers have word processing facilities. Photocopying facilities are provided.

Assistance is provided by the librarian in using the Centres' resources and developing of information retrieval skills. In addition a printed guide on how to use the Resource Centre is issued to each student. During Session 1 & 2, the Resource Centre is open from 8.30am to 6.00pm Monday to Thursday, 8.30am to 4.00pm on Friday. Out of session, the Resource Centre is open from 8.30am to 4.00pm Monday to Friday, closed all January, weekends and public holidays.

Faculty Laboratories

Research Laboratories

The Faculty controls research laboratories located on campus at Kensington, at the University of New South Wales Research Station, King Street, Randwick and the Little Bay Campus. The laboratories have sections equipped for work on environment and climate, materials, model testing, services, lighting and acoustics. Extensive testing and research equipment and workshop facilities are available, including a structural modelling facility and a structural testing bay. Research work and testing programs carried out in the laboratories include:

- Condensation behaviour of double-glazed windows.
 - Transfer of heat and moisture through wall elements.
 - Penetration of moisture into and through concrete.
 - Development of methods of extending the use of solar energy in domestic architecture.
 - Study of noise transmission in buildings.
 - Investigation of traffic noise measurement, analysis and prediction.
 - The effectiveness of artificial luminous environments.
- The Building Research Centre with its main office in the Red Centre and laboratories at Randwick, offers additional services to the building industry.

The Faculty has recently completed a new field testing and research facility at its Little Bay Campus (1408 Anzac Parade). This facility has accredited testing of thermal performance of building components, energy evaluation, renewable energy integration in buildings and other energy – environmental testing and research facilities. State-of-the-art hot box, double hot box and solar calorimeters are part of the equipment. In addition spectrophotometric studios on materials including degradation studies are also undertaken. Industry specific professional development programs are also being conducted through this facility. Other energy and environmental activities of the SOLARCH Group can be accessed through this facility as well.

Computing Facilities Laboratory

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

30 computers which provide net access and office applications to all students.

These lab 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 has just established a new 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 subjects offered in the Built Environment's disciplines.

The above facilities are generally for use by coursework students. For postgraduate research students, there are a total of around 20 dedicated computers within the Faculty ranging from low-end wordprocessing devices to high-end graphics and multimedia computers to support postgraduate research work.

All these computers are connected to the Campus Wide Network, providing secure on-line file storage, access for students to the information resources supported by the Faculty and the University generally, as well as the international resources of the Internet. All students are provided with email, which can be accessed from all the faculty's labs as well as remotely. For remote access the University provides a good value dial-up service to students.

Faculty World Wide Web Site

The Web/Internet and the Faculty's web site form a vital resource for both staff and students. The Faculty's web site is internationally acclaimed in the Built Environment field providing detailed information on the Faculty's courses, staff, research and events as well as exhibits of student work and an extensive online learning resource.

The Built Environment web address is <http://www.fbe.unsw.edu.au/>

The UNSW central web site forms another important resource, providing access to information on every aspect of the University. This site also links into other important web resources on campus like the library, UNSW computing and more.

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

Student Ownership of Personal Computers

The Faculty encourages all students to consider the purchase of a personal computer to support their studies. The prevailing policy is that the Faculty endeavours to provide for the high-end computing needs of students, in the belief that many students are able to meet their own needs for more basic applications. To that end, the Faculty publishes a document which is available from the Web Site, providing advice to students regarding the purchase of personal computers.

Computing at UNSW

The Division of Information Services (DIS) encompasses information technology and the University Library at UNSW.

Specific University information which is frequently updated is available on the World Wide Web (WWW) in the UNSW home page at <http://www.unsw.edu.au/> which has an index to its contents which includes URLs <http://www.acsu.unsw.edu.au/> and <http://www.misu.unsw.edu.au/>. You can access this information from your workstation and in any computing laboratory with access to WWW.

The information provided on the WWW includes more details about DIS information technology units such as points of contact for particular areas of responsibility and services provided.

Student Clubs and Societies

Students have the opportunity of joining a wide range of clubs and societies. Many of these are affiliated with the Students' Union. There are numerous religious, social and cultural clubs and also many sporting clubs which are affiliated with the Sports Association. Within the Faculty are a number of student societies. These include BEAT (Built Environment Action Team), TAC (The Architecture Club), BUGS (Building Undergraduate Society), IDSOC (Industrial Design Society), SOLA (Society of Landscape Architects) and OOPS (Organisation of Planning Students).

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

Students With Disabilities

The University of New South Wales has a policy of equal opportunity in education and seeks wherever possible to ensure maximum participation of students with disabilities.

The University offers a range of assistance: examination support; specialised equipment; educational support; parking provisions; library assistance.

A Resource Guide for students and staff with disabilities and a map showing wheelchair access is available from the Adviser to Students with Disabilities, the EEO Unit, the Library and the Students Union.

It is advisable to make contact with the Adviser to Students with Disabilities prior to, or immediately following enrolment, to discuss your support needs.

The Adviser can be contacted on 9385 5418 or at Student Services, Quadrangle Building.

Equal Opportunity in Education Policy Statement

Under the Federal Racial Discrimination Act (1975), Sex Discrimination Act (1984), and Disability Discrimination Act (1992) and the New South Wales Anti-Discrimination Act (1977), the University is required not to discriminate against students or prospective students on the grounds of age, disability, homosexuality (male or female), marital status, pregnancy, race (including colour, nationality, descent, ethnic, ethno-religious or national origin, and immigration), religious or political affiliation, views or beliefs, sex, and transgender or transsexuality. Under the University of New South Wales Act (1989), the University declares that it will not discriminate on the grounds of religious or political affiliations, views or beliefs.

University Commitment to Equal Opportunity in Education

As well as recognising its statutory obligations as listed, the University will eliminate discrimination on any other grounds which it deems to constitute disadvantage. The University is committed to providing a place to study free from harassment and discrimination, and one in which every student is encouraged to work towards her/his maximum potential. The University further commits itself to course design, curriculum content, classroom environment, assessment procedures and other aspects of campus life which will provide equality of educational opportunity to all students.

Special Admissions Schemes

The University will encourage the enrolment of students who belong to disadvantaged groups through programs such as the University Preparation Program and the ACCESS Scheme. Where members of disadvantaged groups are particularly under-represented in certain disciplines, the responsible faculties will actively encourage their enrolment.

Support of Disadvantaged Students

The University will provide support to assist the successful completion of studies by disadvantaged group members through such means as the Aboriginal Education Program and the Learning Centre. It will work towards the provision of other resources, such as access for students with impaired mobility, assistance to students with other disabilities, the provision of a parents' room on the upper campus, and increased assistance with English language and communication.

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

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

Equal Opportunity Adviser Scheme

The University will continue its Equal Opportunity Adviser Scheme for students who feel that they have been harassed or who consider they have been disadvantaged in their education by practices and procedures within the University.

Harassment Policy

The University is committed to ensuring freedom from harassment for all people working or studying within the institution. It will continue to take action, including disciplinary action, to ensure that freedom from harassment is achieved.

Special Government Policies

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

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

Health-related courses

Criminal record checks

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

Infectious diseases

Students required to complete clinical training in the NSW hospital system will be subject to various guidelines and procedures laid down for health workers by the NSW Department of Health relating to vaccination and infection control.

An information sheet is available from your course officer and further details can be obtained from your Course Authority.

Education courses

Criminal record checks

It is a requirement that a check of police records be conducted for all teacher education students applying for an unsupervised internship placement in a New South Wales Government school.

Contact your course co-ordinator for further details.

Student Equity

The University of New South Wales is committed to providing an educational environment that is free from discrimination and harassment. Both commonwealth and state anti-discrimination law requires the University not to discriminate against students or prospective students on the following grounds: sex, race/ethnicity, age, disability, sexual harassment, racial harassment, disability harassment, marital status, pregnancy, sexual preference, HIV/AIDS. Also included are acts of vilification on the grounds of: race and HIV/AIDS.

Complaint/Disputes

The University has internal dispute handling procedures to deal with complaints against staff or other students. The Discrimination and Harassment Grievance Procedures are handled by the Student Equity Unit of the Equal Employment Opportunity Unit. Complaints that largely concern academic matters are usually handled through the Head of Program.

Advocacy and Support

Students can seek assistance getting disputes resolved, either in relation to discrimination or academic matters. Assistance can be sought from various areas in the University including:

Student Equity Unit; Student Guild Advocacy Service; Student Counselling; Equal Employment Opportunity Unit; Course Co-ordinators; Senior Academic Staff; Heads of Programs.

Students may be confident that their interests will be protected by the University if a complaint is lodged. This means that students should not be disadvantaged or victimised because they have, in good faith, sought to assert their rights to equal opportunity in education.

Faculty of Built Environment General Education Rules

The University undertook a major review of the General Education program in 1994, the results of which laid the ground rules for the present program, introduced in 1996.

Every undergraduate student (who is not otherwise exempt – see below) must take 30 credit points of General Education. In addition, UNSW policy requires that all students must complete up to 56 hours of study that fosters acceptance of professional and ethical action as well as social and environmental responsibility. Most courses in this Faculty fulfil that latter requirement as part of the normal course curriculum. However, in the case of both the BBCM

and BSc(Arch) courses, students are required to take GSBE0002, Social Responsibility and Professional Ethics.

The objectives of General Education, and details of the subjects offered across the University, are published in the General Education Handbook, which is distributed free each year from Faculty Student Centre.

Certain restrictions apply to students' choices:

- Students cannot take General Education subjects offered by the Faculty of the Built Environment. Do not therefore select subjects in the range GENR0001 to GENR0025
- Students should not take General Education subjects (which are judged by the Faculty's General Education Committee or course authority as being) in discipline areas similar to the major discipline area(s) of the student's course.

Students' first choices cannot be guaranteed, as students in later course stages will be given preference over those in earlier stages; quotas may be set for different Faculties, and subjects. Subjects with insufficient enrolments will be cancelled by 31 January (for Session 1 subjects) and 27 June (for Session 2 subjects).

Students who commenced their courses prior to 1996

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

- Such students must satisfy the rules which applied in 1995 regarding the number of credit points of General Education to be undertaken.
- Previously, these requirements had to be split between General Education "Categories" in prescribed ways. This is no longer the case, and such students will be permitted to choose any General Education subjects for which they possess the prerequisites, and from which they are not excluded. Subjects taken prior to 1996 will be aggregated with those taken subsequently, with hours converted to credit points at the rate of 28 hours = 7.5 credit points.

Exemption from part of or all of the General Education program

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

Special Student Exemptions

Students transferring to the Faculty from another Faculty at UNSW, or from another higher education/tertiary institution, who believe that their prior learning and/or qualification satisfies the University's General Education objectives are eligible to seek exemption from all, or part of the UNSW General Education requirements (4 subjects or 30CP).

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

- the extent to which the subjects nominated for exemption satisfy sufficient GE objectives (ie cooperative interaction with students in other disciplines, most importantly; skills/competencies complementary to the major discipline area; social and ethical responsibility and development; empowerment to challenge traditional knowledge/paradigms);
- the extent to which the previous course is different in paradigm and content to that in which the student is presently enrolled;
- the length of previous study undertaken, where, in principle, 1 year might qualify for exemption from one GE subject (7.5 credit points), 2 years from 15CP, 3 years from 22.5CP and 4 years from 30CP.

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

Note:

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

Practical experience/industry placement or a UPP GE subject are not grounds for exemption.

Substitution

Students may apply to the Faculty's General Education Committee for approval to substitute any subject(s) from other Faculties, for which they have the prerequisites, for

General Education subjects up to a total maximum of 22.5 credit points of General Education. Substitution requests must state how the proposed subjects will, together with the remainder of the student's GE program, satisfy the GE objectives. The Committee will approve the request if satisfied that the substitution(s) will indeed allow this to occur.

Students may substitute the study of Language Other Than English (LOTES) within their General Education program. English is excluded, remedial or otherwise; students are not to have any previous skill in the language chosen; a maximum of 2 language subjects/sessions can be substituted for General Education subjects.

- If students substitute a mainstream subject for a General Education subject they will be charged the HECS fee for the mainstream subject.
- Irrespective of the amount of Credit Points associated with a mainstream subject, students can only count 7.5 CPs towards the General Education Requirement.
- Students should ensure that the substitute subject has a seminar component. It is unlikely that the Faculty General Education Committee will accept it otherwise.

Prerequisites, co-requisites, and exclusions

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

Honours calculations: Include General Education subjects.

Enquiries

Any General Education enquiries should be directed in the first instance to The Faculty Student Centre, Red Centre Building.

Undergraduate Study

The Faculty of the Built Environment offers the following undergraduate degree programs: BArch, BSc(Arch), BIA, BBCM, BIndDes, BLArch, BTP. These programs provide professional education in the fields of architecture, industrial design, building, quantity surveying, interior architecture, landscape architecture and town planning. Put more generally, these courses provide education and training in the arts and sciences involved in the design and construction of buildings, in the development of cities, in landscape design and the development of manufactured products. In addition to professional and vocational training, the courses include general education subjects to provide graduates with a broad understanding of the humanities and the social sciences.

Architecture Program

Head of Program

Desley Luscombe

Architecture today is an art, a technology and a business. In the modern building industry the architect is the one person who considers the building as a whole end product: serving a purpose, built of materials using technology, to a cost, for a client, providing an environment of space, light and climate, changing its context by its location and form and conveying artistic meaning.

For small buildings the architect can lead and manage the whole process. As projects become larger and more complex the architect becomes a member of a team, sometimes captain of the team, often just one member but always from the beginning seeing the end product as a whole. From a comprehensive study of the requirements for a building the architect prepares a design concept which is continually adjusted and refined over the life of the project. The architect's role is one of continual creativity.

The BArch course provides graduates with an understanding of the forces that shape buildings and with the skills to guide those forces to a desired end product.

3260

Bachelor of Architecture Course

Bachelor of Architecture BArch

General Description of the Course

The Bachelor of Architecture Course provides academic education and practical experience leading to professional qualifications in architecture. It requires full time attendance for five years with six months practical experience taken concurrently with course progress and prior to the Graduation Project. There are two central goals. The primary goal is to equip students with the theoretical and practical knowledge, skills and techniques needed for the design, documentation and administration of building construction. A more general goal is to provide students with an all-round general problem-solving education. Lectures and practical sessions cover theoretical knowledge in the following areas:

1. Architectural Design
2. Architectural Communications
3. Architectural History and Theory

4. Architectural Technology
5. Architectural Practice

Progression through the course is by years, each comprising two semester-long design studios and their corresponding corequisites. These design studios and corequisites may be taken in either order in any one year to facilitate mid-year entry to the program where required. However, admission to each year is subject to the successful completion of the preceding design stages and a majority of their corequisite subjects, except where approval has been given by the Head of Program.

The subjects in this course are ascribed a credit point value. This value is an indication of the level of commitment and workload students may expect. While there is often a relationship between credit points and class contact hours, this is not so in all cases.

BSc (Architecture) General

Students may apply for transfer to the BSc (Architecture) program anytime after the completion of Year 1, and prior to entry into Year 3. This program allows students to undertake a selected program of study, generally based on a defined major. Any transfer to this degree will be done at the discretion of the Head of Program. The requirements for the course are given in the Course Description for BSc (Architecture). This degree does not fulfil the requirements for professional registration, but may lead to further studies and specializations at postgraduate level.

General Education Requirement

All students are required to satisfy the University's General Education requirements by completing 30 credit points worth of General Education subjects taken outside the Faculty of the Built Environment. These subjects are part of the normal course load and are included in the subject schedule, although in some cases they are offered during the summer or winter recess periods.

It is UNSW policy that all students must complete up to 56 hours of study that fosters acceptance of professional and ethical action as well as social and environmental responsibility. This course satisfies that requirement within the subjects that are included in its core.

Elective Requirements

The BArch degree requires the completion of 157.5 credit points of elective studies. These electives are of three types:

1. Extension Core: The discipline streams of Architectural History and Theory, Architectural Communications and Architectural Technologies have specific requirements for the fulfilment of Extension Core. Each student must complete 2 x 15 credit points in Architectural Technologies, 1 x 15 credit points in Architectural History and Theory and 1 x 15 credit points in Architectural Communications. These may be undertaken in any Session of study after Year 3 Session 1. The subjects currently recognised as

extension core in each of these streams are listed at the start of the section providing elective subject descriptions.

2. Elective Specialization: Students may mount a program of specialization either within the Faculty of the Built Environment or other faculties in the University. Those taken within the Faculty may be developed from subjects in the extension core or from the electives presented by the Faculty or core subjects within other UG Programs. Specializations will be documented in a testimonial from the Faculty when the student fulfils the BArch Program. Specialization programs must be approved by the Head of Program (Architecture) prior to being undertaken and must have the approval of the subject authority concerned when undertaken outside the program or Faculty.

3. Electives: Electives within the Faculty are generally taken as either 7.5 or 15 credit point subjects. These elective studies may be taken in conjunction with an Architectural Studies research subject if the lecturer in charge has approved a particular research study. Electives may be taken from other Faculties in the University if prior approval has been granted by the Head of Program (Architecture) and the appropriate Subject Authority in the other Faculty.

Practical Experience

Each student is required to undertake 24 weeks of off-campus activity in the pursuit of architectural practical experience. This is required to be taken before Year 5. It may be carried out in several components, any one of which must not be less than eight weeks in duration. If students wish to propose an alternative experience to that carried out in a registered architect's office, approval must be given by the Head of Program. Assessment is only within the terms of the subject ARCH1583 Practical Experience in the Bachelor of Architecture degree course 3260. The Architecture Program takes no responsibility for any assessment or consideration for registration with the Board of Architects of New South Wales or membership of the Royal Australian Institute of Architects. Full details are given in the subject description.

Student Exchange Programs

The university has established an extensive and growing number of Student Exchange programs with universities around the world. The Faculty strongly encourages all students to consider participating in one of the programs for one or two semesters. Students in the BArch program can go on exchange any time from the middle of year 3 (as indicated in the Subject Schedule). For detailed information on course options and scholarships contact the International Student Centre.

Honours

The Bachelor of Architecture degree may be awarded with honours based on the quality of performance in the course and in accordance with current Faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 division 2.

Registration and Professional Recognition

The Degree of Bachelor of Architecture from the University of New South Wales is recognised by the Board of Architects of New South Wales for the purpose of legal registration. In addition, to become registered the candidate must satisfy the following requirements:

1. Produce evidence of two years approved practical experience, at least one of which has been subsequent to the completion of the course; and
2. Pass a special examination in Architectural Practice administered by the Board of Architects.

Graduates with two years approved practical experience are eligible for Associate Membership of the Royal Australian Institute of Architects.

Students enrolled in the BSc (Arch) program (3265) or the BArch program (3260) are eligible to become Student Members of the Royal Australian Institute of Architects.

Schedule of Subjects

Year 1

Session 1		CP
BENV1101	Design Fundamentals: Studio 1	20
ARCH1121	Architectural History and Theory 1	10
BENV1141	Computers & Information Technology	10
BENV1171	Architectural Technologies 1	20
Session 2		
ARCH1102	Architectural Design Workshop 1	20
ARCH1122	Architectural History and Theory 2	10
ARCH1142	Communications 1	10
BENV1172	Architectural Technologies 2	20
Total		120

Year 2

Session 1		
ARCH1201	Architectural Design Workshop 2	20
ARCH1221	Architectural History and Theory 3	10
ARCH1241	Communications 2	10
ARCH1271	Architectural Technologies 3	15
	<i>General Education Elective</i>	7.5
Session 2		
ARCH1202	Architectural Design Workshop 3	20
ARCH1222	Architectural History and Theory 4	7.5
BENV1242	Computer-Aided Design	10
ARCH1272	Architectural Technologies 4	10
ARCH1282	Research Practice	7.5
	<i>General Education Elective</i>	7.5
Total		125

Year 3

Session 1		CP
ARCH1301	Architectural Design Studio 1	20
ARCH1321	Architectural History and Theory 5	7.5
BENV1341	Design Modelling and Visualisation	10
ARCH1371	Architectural Technologies 5	10
	<i>Electives</i>	7.5
	<i>General Education Elective</i>	7.5
Session 2		
ARCH1302	Architectural Design Studio 2	20
ARCH1382	Practicum	10
	<i>Extension Core/Electives</i>	22.5
	<i>General Education Elective</i>	7.5
Total		122.5

OR, students may participate in an alternate Student Exchange Program during this Session at the discretion of the Head of Program.

Year 4

Session 1		
ARCH1401	Architectural Design Studio 3	20
	<i>Extension Core/Electives</i>	37.5
OR, students may participate in an alternate Student Exchange Program during this Session at the discretion of the Head of Program.		
Session 2		
ARCH1402	Architectural Design Studio 4	20
BENV1381	Professional Practice 1	10
	<i>Extension Core/Electives</i>	30
Total		117.5

OR, students may participate in an alternate Student Exchange Program during this Session at the discretion of the Head of Program.

Year 5

Session 1		
ARCH1501	Investigation Workshop	20
ARCH1581	Politics, Community and Practice	10
ARCH1583	Practical Experience	0
	<i>Extension Core/Electives</i>	30
Session 2		
ARCH1502	Graduation Project	20
ARCH1582	Professional Practice 2	10
	<i>Extension Core/Electives</i>	30
Total		120

Students must complete 2 Extension Core subjects from Architectural Technologies Stream, 1 from the Architectural History and Theory Stream and 1 from the Architectural Communications Stream. See conditions above.

ARCH1583 Practical Experience to be taken between Year 1 and before Year 5.

Science (Architecture) Program

This course provides an opportunity for students to undertake studies within the discipline of architecture, generally within a well-defined area of specialization. At present, a formal specialization is offered in the area of architectural computing, but the opportunity exists for any major to be identified through consultation with the Program Head. Where at least 80 credit points of study is undertaken in subjects (not including the two research projects in Year 3) dealing with an identified area of specialization, then that major will be identified on the degree testamur. The program can also be undertaken with no identified major, in which case it is referred to as the generalist stream and no major is identified on the testamur at graduation.

3265

Bachelor of Science (Architecture) Course

Bachelor of Science (Architecture) BSc(Arch)

General Description of the Course

The course is normally completed in three years of full-time study. Year 1 is taken in common with BArch students. In Year 2, students undertake subjects in their area of specialization. During Year 3 of the course students undertake two research projects that provide an opportunity to explore areas of specialized interest in considerable depth.

There are at present two alternate streams in the course with differing requirements. The Generalist stream allows students to select subjects based on their interests. These could include: Technology, History & Theory or Communications. The Computing stream educates students in Architectural Computing and allows students to specialize in an area of computing such as: Computer-aided Design (CAD), Building Modelling, Rendering, Animation, Multimedia or IT Management.

General Education Requirement

All students are required to satisfy the University's General Education requirements by completing 30 credit points worth of General Education subjects taken outside the Faculty of the Built Environment. These subjects are part of the normal course load and are included in the subject schedule, although in some cases they are offered during the summer or winter recess periods.

It is UNSW policy that all students must complete up to 56 hours of study that fosters acceptance of professional and ethical action as well as social and environmental

responsibility. This is known as Objective 5 in the General Education policy. This course satisfies half of that requirement within the subjects that are taken in common with the BArch program. The remaining 28 hours is to be satisfied by taking GSBE0002 Social Responsibility and Professional Ethics in the third year of study.

Honours

The Bachelor of Science (Architecture) degree may be awarded with honours after the successful completion of a two-semester honours program following the completion of the BSc(Arch) program, and in accordance with current Faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

Students must qualify by achieving a minimum credit average during the first three years of study before being admitted to the honours year.

Schedule of Subjects

Generalist Stream

Year 1

<i>Session 1</i>		CP
BENV1101	Design Fundamentals: Studio 1	20
BENV1141	Computers & Information Technology	10
ARCH1121	Architectural History and Theory 1	10
BENV1171	Architectural Technologies 1	20

Session 2

ARCH1102	Architectural Design Workshop 1	20
ARCH1142	Architectural Communications 1	10
ARCH1122	Architectural History and Theory 2	10
BENV1172	Architectural Technologies 2	20
Total		120

Year 2

<i>Session 1</i>		CP
ARCH1241	Architectural Communications 2	10
	<i>Electives</i>	45
	<i>General Education Elective</i>	7.5

Session 2

BENV1242	Computer-Aided Design	10
ARCH1282	Research Practice	7.5
	<i>Electives</i>	32.5
	<i>General Education Elective</i>	7.5
Total		120

Year 3

<i>Session 1</i>		CP
ARCH1398	Research Project 1	15
GSBE0002	<i>Social Responsibility & Professional Ethics</i>	7.5
	<i>Electives</i>	30
	<i>General Education Elective</i>	7.5

<i>Session 2</i>		
ARCH1399	Research Project 2	22.5
	<i>Electives</i>	30
	<i>General Education Elective</i>	7.5
	Total	120

Year 4 (optional honours year)

<i>Session 1</i>		CP
ARCH1498	Honours Project 1	60
<i>Session 2</i>		
ARCH1499	Honours Project 2	60
	Total	120

Typical Program for a Computing Major

Year 1		CP
<i>Session 1</i>		
BENV1101	Design Fundamentals: Studio 1	20
BENV1141	Computers & Information Technology	10
ARCH1121	Architectural History and Theory 1	10
BENV1171	Architectural Technologies 1	20
<i>Session 2</i>		
ARCH1102	Architectural Design Workshop 1	20
ARCH1142	Architectural Communications 1	10
ARCH1122	Architectural History and Theory 2	10
BENV1172	Architectural Technologies 2	20
	Total	120

Year 2

<i>Session 1</i>		
ARCH1241	Architectural Communications 2	10
BENV2405	Computer Graphics Programming	15
BENV2406	Design and Computation	7.5
	<i>Electives</i>	22.5
	<i>General Education Elective</i>	7.5

<i>Session 2</i>		
BENV1242	Computer-Aided Design	10
ARCH1282	Research Practice	7.5
BENV1042	World Wide Web in Presentation and Communications	15
BENV2403	Information Technology for Design and Construction	7.5
	<i>Electives</i>	15
	<i>General Education Elective</i>	7.5
	Total	125

Year 3

<i>Session 1</i>		
BENV1043	Multimedia in Design Presentation	15
BENV1341	Design Modelling and Visualisation	10
ARCH1398	Research Project 1	15
GSBE0002	<i>Social Responsibility & Professional Ethics</i>	7.5
	<i>General Education Elective</i>	7.5
<i>Session 2</i>		
ARCH1399	Research Project 2	22.5
BENV2404	CAD Management for Architects	7.5
BENV2407	Rebuilding Lost Cities	7.5
	<i>Electives</i>	15
	<i>General Education Elective</i>	7.5
	Total	115

Year 4 (optional honours year)

<i>Session 1</i>		
ARCH1498	Honours Project 1	60
<i>Session 2</i>		
ARCH1499	Honours Project 2	60
	Total	120

Interior Architecture Program

Head of Program

Harry Stephens

Interior architecture is the specialist area of architecture concerned with the interiors of buildings. From professional advice through design and the management of all the processes involved in the procurement of interiors, it is concerned with the internal arrangement, fitting out and finishing of buildings of all sizes and types.

This course is structured to meet the needs of the individual seeking the appropriate theoretical and practical education necessary to take a fully professional role in this field as an interior designer. (It should be noted that, unlike elsewhere in the world, use of the title "Interior Architect" in Australia is not permitted under current Australian legislation).

3255

Bachelor of Interior Architecture Course

Bachelor of Interior Architecture BIA

General Description of the Course

The Bachelor of Interior Architecture is a four-year full-time semester-based course. It maintains strong links with the Bachelor of Architecture course from which it evolved with students of both courses taking some subjects together, particularly in the earlier sessions.

The course consists of core and elective subjects with Design as the central concern. The Design Studio is the focus for the application of the theoretical material delivered in all other subjects as well as developing and presenting its own.

The subjects in the BIA course are ascribed a credit point value. This value is an indication of the level of commitment and workload students may expect. While there is often a relationship between credit points and class contact hours, this is not so in all cases.

General Education Requirement

All students are required to satisfy the University's General Education requirements by completing 30 credit points worth of General Education subjects taken outside the Faculty of the Built Environment. These subjects are part of the normal course load and are included in the subject schedule, although in some cases they are offered during the summer or winter recess periods.

It is UNSW policy that all students must complete up to 56 hours of study that fosters acceptance of professional and ethical action as well as social and environmental responsibility. This course satisfies that requirement within the subjects that are included in its core.

Honours

The Bachelor of Interior Architecture degree may be awarded with Honours based upon the quality of performance in the course and in accordance with current Faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

Professional Recognition

The course is recognised, through the Design Institute of Australia (DIA - the professional body representing Interior Architecture/Design in Australia), by the International Federation of Interior Architects (IFI). Students enrolled in the course are eligible to apply for student membership of the Design Institute of Australia and Licentiate membership upon graduation.

Course Structure

The course has both a horizontal and a vertical structure. It is structured horizontally as a sequence of session-long subjects grouped as co-requisite clusters most relating directly to the Design Studio and vertically in six streams headed Design Studio, Design Studies, History/Theory, Communications, Technology and Practice. The elective component of the course allows the opportunity for specialist interests to be followed through a variety of elective subjects within the Faculty and elsewhere in the University. These electives will be offered subject to demand. The Design Studios are arranged in sequence and must be taken in this order. The Head of Program may allow variation to this pattern of study in exceptional circumstances only.

Excursions, camps, field exercises and other programs away from the university campus will from time to time be arranged as formal requirements of the coursework. Some excursions may involve interstate travel.

Schedule of Subjects

Year 1

<i>Session 1</i>		CP
BENV1101	Design Fundamentals: Studio 1	20
INTA1121	History and Theory 1	10
BENV1141	Computers & Information Technology	10
BENV1171	Architectural Technologies 1	20

Session 2

INTA1102	Design Studio 2	20
INTA1122	History and Theory 2	10
INTA1142	Communications 1	10
BENV1172	Architectural Technologies 2	20
Total		120

Year 2

Session 1

INTA1201	Design Studio 3	15
INTA1211	Design Studies 1	10
INTA1221	History of Interior Architecture and Design	10
INTA1241	Communications 2	10
INTA1271	Interior Technics 1	10
	<i>General Education Elective</i>	7.5
Total		75

Session 2

INTA1202	Design Studio 4	15
INTA1212	Design Studies 2	10
BENV1242	Computer-Aided Design	10
INTA1272	Interior Technics 2	10
	<i>Elective(s)</i>	15
	<i>General Education Elective</i>	7.5
Total		130

Year 3

Session 1

INTA1301	Design Studio 5	15
INTA1311	Design Studies 3	10
BENV1341	Design Modelling and Visualisation	10
INTA1371	Interior Technics 3	10
	<i>Elective(s)</i>	15
	<i>General Education Elective</i>	7.5

Session 2

INTA1302	Design Studio 6	15
INTA1312	Design Studies 4	10
INTA1342	Communications 3	10
BENV1381	Professional Practice 1	10
	<i>Elective(s)</i>	15
Total		127.5

Year 4

Session 1

INTA1401	Design Studio 7	20
INTA1421	Project Research	10
INTA1481	Professional Practice 2	10
	<i>Elective(s)</i>	15
	<i>General Education Elective</i>	7.5

Session 2

INTA1402	Graduation Project	40
INTA1422	Dissertation	20
Total		122.5

Building Construction Management Program

Head of Program

Paul Kingsley Marsden

This course prepares students for professional and executive employment within one of Australia's largest industries, the construction industry. Careers in a wide variety of areas, in both private enterprise and in the public sector are available to building construction management graduates. More specifically, these include positions as project manager, master builder, construction consultant, building surveyor, building estimator, quantity surveyor, building economist, property manager and building scientist.

3331

Building Construction Management Degree Course

Bachelor of Building Construction Management BBCM

The Bachelor of Building Construction Management is a four year full-time course which allows students to specialise for careers in Construction and Project Management, Quantity Surveying, Property Development and Property Management.

Prerequisites for the Course

While there are no prerequisite subjects to enter the Bachelor of Building Construction Management course, it is strongly recommended that students have completed at least 2 unit Mathematics and 2 unit General English. It is advised that students who have not achieved a mark of 65% or better in 2 unit Mathematics should complete a bridging course in Mathematics prior to commencing the course.

General Description of the Course

The course is offered on a session basis. Students are required to complete a minimum of eight sessions. The course leads to the award of the degree of Bachelor of Building Construction Management (BBCM).

The eight sessions of the course are structured as follows:

- sessions 1 to 6 consist of a fixed program of compulsory subjects,
- sessions 7 and 8 consist of electives and a compulsory Thesis.

In a normal session program, this usually results in six to seven subjects requiring 18 class hours/week.

To qualify for a Bachelor of Building Construction Management degree a student must complete a total of 500 credit points as follows:

All compulsory subjects	390 credit points
Elective subjects	80 credit points
General Education subjects	30 credit points
Industry Program	26 weeks

General Education Requirements

All students are required to satisfy the University's General Education requirements by completing 30 credit points worth of General Education subjects taken outside the Faculty of the Built Environment. These subjects are part of the normal course load and are included in the subject schedule, although in some cases they are offered during the summer or winter recess periods.

It is UNSW policy that all students must complete up to 56 hours of study that fosters acceptance of professional and ethical action as well as social and environmental responsibility. This course satisfies half that requirement within the subjects that are included in its core. The remaining 28 hours is to be satisfied by taking GSBE0002 Social Responsibility and Professional Ethics in the third year of study.

Progress through the Course

Progression through the course is by subject, provided that:

- the necessary subject prerequisites are completed;
- failed subjects are repeated the next time they are offered.

In the event of failure in one or more subjects, the student may carry the failed subject(s) provided that:

- prerequisite subjects have been completed to the satisfaction of the Head of Program;
- the total number of subjects taken at any time does not exceed 8 including General Education; and
- the total contact hours do not exceed 20 per week.

Practical Experience

Prior to commencing their final year, students are required to have gained a minimum of 80 days practical experience by appropriate employment in the building industry.

The Australian Institute of Quantity Surveyors requires the full 6 months experience to be completed before the start of the final year of the course.

The proposal for employment must be submitted to the Head of the Building Program for approval prior to starting work. Students will be required to produce documented evidence of their work experience. In order to formally

complete the industry experience requirement, students must enrol in BLDG9999 Building Industry Program or in BLDG9998 Quantity Surveying Industry Program in Session 1 of final year.

Elective Subjects

The availability of elective subjects will depend on the student demand for individual subjects. Subjects listed in this handbook may not necessarily be available in the year or session indicated.

Award of the Degree at Honours Level

The award of honours is based on performance throughout the whole course, without requiring an additional honours program. Honours are determined on the basis of a score which is calculated by weighting more heavily the subjects taken in the later years of the course.

Professional Recognition

The award of the degree, Bachelor of Building Construction Management is recognised for admission to membership by:

(1) The Australian Institute of Building

(2) The Australian Institute of Quantity Surveyors, subject to completion of the following electives in addition to all compulsory subjects:

BLDG4016	Construction 6
BLDG4275	Dispute Avoidance and Resolution
BLDG4303	Quantity Surveying 3
BLDG4314	Building Economics 3
BLDG9998	Quantity Surveying Industry Program to be taken as 6 months employment with a Quantity Surveying firm, and to be completed before the start of the final year of the course.

(3) The Institution of Surveyors Malaysia, subject to completion of the following electives in addition to all compulsory subjects:

BLDG4016	Construction 6
BLDG4275	Dispute Avoidance and Resolution
BLDG4303	Quantity Surveying 3
BLDG4314	Building Economics 3
BLDG9998	Quantity Surveying Industry Program to be taken as 6 months employment with a Quantity Surveying firm, and to be completed before the start of the final year of the course.

(4) The Australian Institute of Valuers and Land Economists, subject to the completion of the following electives in addition to all compulsory subjects:

BLDG4267	Management 7
BLDG4273	Law for Builders 3
BLDG4314	Building Economics 3

BLDG4492	Property Development and Valuation
BLDG4391	Land Economics
BLDG4493	Property Management

and selection of a thesis topic on Land Economics.

Schedule of Subjects

Year 1 (All subjects compulsory)

Session 1		CP
BLDG1010	Communications and Resource Usage	5
BLDG1091	Built Environment 1	5
BLDG1111	Building Science 1 (Materials)	15
BLDG1201	Construction 1 (Domestic Construction)	15
BLDG1210	Construction Mathematics	5
BLDG1261	Management 1 (Management Principles)	10
	General Education Elective	7.5
Session 2		
BLDG1002	Construction 2 (Low Rise Residential)	15
BLDG1051	Structures 1	10
BLDG1271	Law for Builders 1	5
BLDG1411	Building Economics 1 (Micro Economics)	10
BLDG2281	Introduction to Computing	5
PHYS1938	Physics 1 (Building)	7.5
	General Education Elective	7.5
Total		122.5

Year 2 (All subjects compulsory)

Session 1		CP
ACCT9001	Introduction to Accounting A	7.5
BLDG1151	Building Services 1 (Hydraulics)	5
BLDG2003	Construction 3 (Framed Buildings)	15
BLDG2261	Management 2 (Planning and Control)	10
BLDG2400	Research Methods	5
BLDG2411	Building Economics 2 (Macro Economics)	10
GMAT0411	Surveying in Building and Construction	7.5
	General Education Elective	7.5
Session 2		
ACCT9002	Introduction to Accounting B	7.5
BLDG2112	Building Science 2 (Concrete and Metals)	15
BLDG2152	Building Services 2 (Mechanical)	5
BLDG2264	Management 3 (Contracts)	10
BLDG2301	Quantity Surveying 1	15
BLDG2500	Construction Management Project 1	5
	General Education Elective	7.5
Total		132.5

Year 3 (All subjects compulsory)

<i>Session 1</i>		CP
BLDG3004	Construction 4 (High-rise Buildings)	15
BLDG3052	Structures 2	10
BLDG3266	Management 4 (People Management)	10
BLDG3272	Law for Builders 2	5
BLDG3282	Computer Applications in Building	7.5
BLDG3303	Quantity Surveying 2	10
GSBE0002	<i>Social Responsibility & Professional Ethics</i>	7.5
<i>Session 2</i>		
BLDG3005	Construction 5 (Techniques)	15
BLDG3060	International Housing Practice	5
BLDG3070	Geotechnical Engineering for Building	10
BLDG3275	Management 5 (Construction and Quality Management)	10
BLDG3280	Occupational Psychology, Health and Safety	5
BLDG3321	Estimating 1	5
BLDG3500	Construction Management Project 2	10
Total		125

Year 4

(Students must take a total of 80 elective credit points. Up to 20 credit points of electives may be taken outside the Program with the approval of the Head of Program.)

<i>Session 1</i>		CP
<i>Compulsory Subject</i>		
BLDG4500	Thesis	40
(Students may enrol for Thesis twice, in Year 4, Session 1 and Session 2)		

CP

Compulsory Practical Experience Subjects
(Refer to information on practical experience above)

BLDG9999	Building Industry Program	
or		
BLDG9998	Quantity Surveying Industry Program	

Available Elective Subjects

BLDG4001	Project Management and Design Process	10
BLDG4002	Organizational Behaviour	10
BLDG4016	Construction 6 (Industrialisation and Technological Change)	10
BLDG4267	Management 7 (Marketing)	10
BLDG4273	Law for Builders 3	10
BLDG4314	Building Economics 3	10
BLDG4422	Estimating 2	10

*Session 2**Available Elective Subjects*

BLDG4017	Advanced Materials	10
BLDG4275	Dispute Avoidance and Resolution	10
BLDG4284	Building Information Systems	10
BLDG4303	Quantity Surveying 3	10
BLDG4366	Management 6 (Corporate Strategy and Small Business)	10
BLDG4391	Land Economics	10
BLDG4492	Property Development and Valuation	10
BLDG4493	Property Management	10
Total credit points in year 4		120

Industrial Design Program

Head of Program

Lance Green

Industrial design involves the research and design of the whole range of consumer and capital products used by people. Products as diverse as telephones and cranes, gas fires and exhibition systems, toothbrushes and motor cars. Ideally, the industrial designer works as part of a team involving engineering, production and marketing. The industrial designer initially concentrates on establishing the concept as a marketable, producible, usable and socially responsible product; and subsequently details the human factors (ergonomics), appearance (style) and mode of operation. Frequently the designer becomes involved in the corporate image of companies and their products as well as the graphics of the product's packaging and the associated retail support systems.

The course prepares students for professional and executive employment in areas involving the research, design and development of new manufactured products. Whilst it is anticipated that most graduates will be initially employed in an industrial design capacity either in manufacturing companies or consultancies, it is likely that some graduates may subsequently choose to specialise in aspects of marketing, engineering, product management or design management.

3385

Industrial Design Degree Course

Bachelor of Industrial Design BIndDes

The course is an innovative 4 year industry cooperative program comprising approximately 60 percent industrial design and related subjects, 15 percent Faculty of Commerce, School of Marketing subjects, 20 percent engineering design and science subjects and 5 percent general education subjects. This range of subjects offers graduates the capability to integrate their design work with industrial and commercial objectives, as well as offering a range of career paths.

The course is offered predominantly on a semester basis. Students are required to complete a minimum of eight semesters (sessions) including at least two months of industrial experience, taken either during the academic recesses or upon the completion of the academic part of the course, but in units of not less than one month.

Industrial design and ergonomics subjects make up more than half the subjects and are taken within the Program. The industrial design studio work emphasises the need to find a balance between the requirements of design, ergonomics, marketing, engineering and production. Social

and environmental issues as well as the professional and ethical responsibilities of the designer are also emphasised.

The industrial design subjects link their subject material to certain of the material covered in engineering and marketing subjects. In addition, a seminar is integrated into the studio subjects and links industrial design, engineering, production, and marketing disciplines in which product case studies are given and analysed.

Student progression may be subject to review by the Head of Program. If a student fails the industrial design studio subject of a particular stage, he/she would not normally be permitted to take any of the subjects in the next stage until that subject had been satisfactorily repeated.

The subjects in this course are ascribed a credit point value. This value is an indication of the level of commitment and workload students may expect. While there is often a relationship between credit points and class contact hours, this is not so in all cases.

Coop Education Mode

The course is operated in a coop mode. Selected industrial and commercial companies will have the opportunity to provide practical experience and recess employment to selected students or alternatively to offer scholarships, in which case students will work for the companies in certain of the recesses without additional remuneration. Companies will also be involved in providing briefings, consultations, and evaluations for studio project work.

Two months approved practical experience are a requirement of the course.

General Education Requirement

All students are required to satisfy the University's General Education requirements by completing 30 credit points worth of General Education subjects taken outside the Faculty of the Built Environment. These subjects are part of the normal course load and are included in the subject schedule, although in some cases they are offered during the summer or winter recess periods.

It is UNSW policy that all students must complete up to 56 hours of study that fosters acceptance of professional and ethical action as well as social and environmental responsibility. This course satisfies that requirement within the subjects that are included in its core.

Honours

The Bachelor of Industrial Design degree may be awarded with Honours based upon the quality of performance in the course. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

Schedule of Subjects

Students who have not taken physics or science at HSC level, are recommended to take the relevant Unisearch bridging courses, after consultation with the Head of Program.

It should be noted that there will be some variation of order of subjects, as some subjects may, from time to time, not be available in a particular session. The course averages 22 hours per week over the four years and when finalising timetables for any particular year every attempt will be made to keep close to the average number of hours per week, and to the program outlined in this schedule.

Prerequisite: HSC exam score range required: 2 unit Mathematics (60-100) or 2 and 3 unit Mathematics (1-150) or 3 and 4 unit Mathematics subject. **Note:** It does not refer to the subjects Mathematics in Society or Mathematics in Practice.

Year 1

Session 1		CP
BENV1101	Design Fundamentals: Studio 1	20
BENV1141	Computers & Information Technology	10
IDES1011	Workshop Technology	10
MATH1011	General Mathematics 1B	15
IDES1051	Geometrical & Mechanical Drawing	7.5
	Total	62.5

Session 2		
IDES1031	Industrial Design Studio 1	15
IDES1082	Engineering Design Mechanics	10
IDES1051	Geometrical & Mechanical Drawing	7.5
MATH1021	General Mathematics 1C	15
PHYS1937	Physics 1 (Industrial Design)	10
	Total	57.5

Year 2

Session 1		
ACCT9003	Introduction to Accounting	7.5
IDES1121	History of Industrial Design	7.5
IDES2201	Ergonomics	15
IDES2101	Perspective & Rendering Techniques	10
IDES2161	Industrial Design Studio 2	15
MATH2819	Statistics SA	5
	Total	60

Session 2		
IDES2091	Design Methodology	7.5
IDES2161	Industrial Design Studio 2	15
IDES2171	Computer Aided Design	15
IDES2182	Materials & Manufacturing Processes for Industrial Design A	7.5
MATH2819	Statistics SA	5
	<i>General Education Elective</i>	7.5
	Total	57.5

Year 3

Session 1		CP
IDES3202	Materials & Manufacturing Processes for Industrial Design B	7.5
IDES3221	Industrial Design Studio 3	15
IDES3231	Computer Graphic Applications	15
MARK2012	Marketing Fundamentals	15
	<i>General Education Elective</i>	7.5
	Total	60

Session 2		
IDES3221	Industrial Design Studio 3	15
ELEC0806	Electrical Engineering for Industrial Design	15
IDES3262	Production Design and Technology for Industrial Design	7.5
MARK2051	Consumer Behaviour	15
	<i>General Education Elective</i>	7.5
	Total	60

Year 4

Session 1		
IDES4291	Industrial Design Studio 4	15
IDES4301	Project Research	15
IDES4311	Graphic Design	10
MARK3091	New Product and New Service Development	15
	<i>General Education Elective</i>	7.5
	Total	62.5

Session 2		
IDES4351	Project	40
IDES4371	Design Management for Industrial Design	7.5
IDES4321	Environmental and Interior Design	7.5
	<i>Elective</i>	7.5

IDES4391	Industrial Experience	0
	Total	62.5

Electives

The following subjects are recommended as appropriate to fulfil the elective requirement in the final session of the program:

COFA3681	Multimedia Computing 1 to 3
BENV2706	Advanced Modelling for Manufacture
MECH4120	Design Technology
MECH 4131	Advanced CAD Modelling and Applications
MARK3072	Advanced Consumer Behaviour

It should be noted that, subject to the approval of the Faculty of the Built Environment, certain subjects from other Schools of the University may be substituted for those shown.

Landscape Architecture Program

Head of Program

Elizabeth Mossop

Landscape Architecture is a design discipline that is concerned with the environment as a whole; its design, development, planning and management. It aims to create and sustain habitats for people and other living things in ways which conserve and celebrate ecological relationships, cultural values and symbolic associations.

The principal focus of Landscape Architecture is the theory and practice of landscape design with a strong emphasis on landscape planning, cultural studies and conservation of the environment.

At the University of New South Wales students are strongly encouraged to consider the study of landscape architecture as both a powerful way of thinking and as education for a specific vocation. On graduating from the course, students should have developed a critical awareness of social and environmental issues, a creative approach to landscape design and landscape planning, and a sound foundation in the technical and professional requirements of Landscape Architecture practice. In addition, the course aims to impress an ethical commitment to care of the environment and a strongly responsible attitude to the wider community.

3380

Landscape Architecture Course

Bachelor of Landscape Architecture BLArch

General Description of the Course

The Bachelor of Landscape Architecture course is of four years duration and requires full-time attendance throughout. Students are introduced to the theory and practice of landscape architecture through an exploration of design principles, graphic techniques, ecological processes and studies of human modification of the environment. As students progress through the course, increasing emphasis is laid upon creative design with particular application to Australian conditions. Projects are related to the subject matter of concurrent lectures, and culminate in landscape studies of regional and national significance.

The majority of subjects are taught specifically within the Landscape Architecture Program. However, contact with the students and staff of other Schools is assured by the inclusion of subjects from the School of Geography, other programs in the Faculty of the Built Environment the University's General Studies program and the program of elective subjects. In the final two years of the program students are able to undertake a significant component of elective subjects from the landscape architecture program, other programs within the

faculty or from other faculties, which effectively allow them to develop a major specialization.

The course seeks the synthesis of knowledge and skills through project based learning in a sequence of eight Design Studios. Support subjects are grouped into the strands: environment; history and theory; communication; technology and practice.

The subjects in this course are ascribed a credit point value. This value is an indication of the level of commitment and workload students may expect. While there is often a relationship between credit points and class contact hours, this is not so in all cases.

General Education Requirement

All students are required to satisfy the University's General Education requirements by completing 30 credit points worth of General Education subjects taken outside the Faculty of the Built Environment. These subjects are part of the normal course load and are included in the subject schedule, although in some cases they are offered during the summer or winter recess periods.

It is UNSW policy that all students must complete up to 56 hours of study that fosters acceptance of professional and ethical action as well as social and environmental responsibility. This course satisfies that requirement within the subjects that are included in its core.

Practical Experience

Students of the undergraduate course must obtain a total of four months' practical experience prior to graduation, of which a minimum of two months must be in a design office and a minimum of two months must be in landscape industry work. This normally takes the form of employment during long vacations supervised by a landscape architect, landscape contractor or nurseryman. Each student entering upon practical experience must obtain prior approval of the Practical Experience Coordinator. Each student must obtain from the employer a statement of experience gained, maintain an accurate record in logbook form and submit a written report describing the work undertaken during the various practical experience components.

Honours

The Bachelor of Landscape Architecture degree may be awarded with Honours based upon the quality of performance in the course and in accordance with current Faculty regulations. Honours are Class 1 or Class 2 Division 1 or Class 2 Division 2.

Professional Recognition

The course is recognised by the Australian Institute of Landscape Architects and graduates holding the BLArch degree may qualify for corporate membership of the Institute.

Course Structure

The course structure shown below represents the normal pattern of progression which students entering course 3380 are expected to follow. In exceptional circumstances the Head of the Program may allow variation of the normal pattern, and in such cases progression in individual subjects will be governed by the prerequisites as indicated.

A student may not carry a repeat subject beyond the following year in the program, but this will not apply to students entering with advanced standing in their first year of attendance or to modifications of the course which are initiated by the Program.

Students are required to participate in field exercises and programs outside the metropolitan area.

Schedule of Subjects

Year 1

<i>Session 1</i>		CP
BENV1101	Design Fundamentals: Studio 1	20
BENV1141	Computers & Information Technology	10
LAND1121	Introduction to Landscape Architecture	7.5
LAND1151	Horticulture	10
GEOG1701	Environmental Systems & Analysis	15
Total		62.5
<i>Session 2</i>		
LAND1152	Landscape Analysis	15
LAND1142	Design Communication	10
LAND1102	Landscape Design 2: Design Process	10
LAND1171	Landscape Technology 1	10
LAND1122	History of Landscape Architecture	10
Total		55

Year 2

<i>Session 1</i>		
LAND1221	Environmental Sociology for Landscape Architects	7.5
LAND1281	Professional Practice 1	7.5
LAND1201	Landscape Design 3: Site Planning	20
LAND1251	Advanced Horticulture	10
LAND1271	Landscape Technology 2	10
<i>General Education Elective</i>		7.5
Total		62.5
<i>Session 2</i>		
LAND1202	Landscape Design 4: Landform and Planting Design	20
BENV1222	History and Theory Elective	7.5
LAND1272	Landscape Technology 3	10
LAND1351	Landscape Management	10
<i>General Education Electives</i>		15
Total		62.5

Year 3

<i>Session 1</i>		CP
LAND1301	Landscape Design 5: Design with a Complex Program	20
LAND1371	Landscape Engineering	10
BENV1242	Computer-Aided Design	10
LAND1381	Landscape Practice 1	0
<i>Electives</i>		20
<i>General Education Elective</i>		7.5
Total		67.5
<i>Session 2</i>		
LAND1302	Landscape Design 6: Design Resolution and Documentation	20
LAND1321	Research Methods	7.5
LAND1382	Professional Practice 2	7.5
<i>Electives</i>		30
Total		65

Year 4

<i>Session 1</i>		
LAND1421	Landscape Thesis	40
LAND1481	Landscape Practice 2	
<i>Electives</i>		20
Total		60
<i>Session 2</i>		
LAND1401	Landscape Design 7: Urban Landscape Design	30
LAND1402	Landscape Design 8: Graduating Studio	30
Total		60

Elective Subjects

Electives may be chosen from subjects offered within the Faculty of the Built Environment (whether electives or core in their respective programs), or from any faculty in the University with the approval of the Program Head. A suggested list of subjects from the School of Geography follows.

GEOG2621	Regions, Resources and Spatial Systems	15
GEOG2711	Australian Climate and Vegetation	15
GEOG2721	Soils and Landforms	15
GEOG3711	Biogeography	15
GEOG3721	Pedology	15
GEOG3901	Australian Natural Resources	15
GEOG3911	Environmental Impact Assessment	15
GEOG3921	Coastal Resource Management	15
GEOG3931	Recreation, Tourism and Resource Management	15
GEOG4310	River Management	15
GEOG4320	Soil Degradation and Conservation	15
GEOG4911	Vegetation Management	15

Planning and Urban Development Program

Head of Program

Stephen Harris

Town Planning has as its focus the management and development of urban and rural areas; ranging from small local precincts to metropolitan areas and regions. The town planner's task in this regard is to integrate and coordinate the aims and actions of a large number of government and private organizations and individuals to provide an equitable and efficient distribution of resources. This involves collecting and analysing information; identifying needs; making forecasts; preparing policies, plans and programs for consultation, decision and implementation; exercising development control; evaluating development proposals; and evaluating results.

The objectives of the course are to create an awareness of the context in which planning operates, impart knowledge of how planning can influence the community and the physical environment, equip students with the competence to apply this knowledge at different levels in a wide range of situations, create an understanding of the contribution other disciplines can make to planning and vice versa, and develop skills in policy formulation, land use allocation and control, design and communication.

ethical action as well as social and environmental responsibility. This course satisfies that requirement within the subjects that are included in its core.

Practical Experience

During the course, students must undertake twelve months approved employment related to the course: for example, in private development companies or with planning consultants, in government planning and housing authorities, in local councils preparing or implementing Local Environment Plans. This is normally undertaken in the twelve months following Session 2 of Year 3. The type of employment proposed must be submitted to the Head of the Program for approval.

Honours

Honours are awarded in the Bachelor of Town Planning degree course on the basis of quality of performance throughout the whole course and in accordance with current Faculty regulations. For the purpose of calculating Honours at graduation, the Honours value of each subject is indicated by the credit points associated with that subject. Credit points generally reflect the workload required of students in subjects in which grades are awarded.

3360

Town Planning Course

Bachelor of Town Planning BTP

General Description of the Course

The course is of four years' duration with an additional mandatory year of practical experience, normally taken after the first session in Year 3. The course leads to the award of the degree of Bachelor of Town Planning (BTP).

General Education Requirement

All students are required to satisfy the University's General Education requirements by completing 30 credit points worth of General Education subjects taken outside the Faculty of the Built Environment. These subjects are part of the normal course load and are included in the subject schedule, although in some cases they are offered during the summer or winter recess periods.

It is UNSW policy that all students must complete up to 56 hours of study that fosters acceptance of professional and

Professional Recognition

The course is recognised by the Royal Australian Planning Institute as the academic qualification for corporate membership. The Institute requires that for corporate membership graduates must also have at least one year of practical experience subsequent to graduation.

Schedule of Subjects

Year 1

<i>Session 1</i>		CP
PLAN1011	Urban Society and Sociology	10
PLAN1022	The Development Process	10
PLAN1041	The Language of Planning	10
PLAN1051	Graphic Communication	10
PLAN1061	Computer Literacy	10
Total		50

Session 2

PLAN1021	Environmental Studies	10
PLAN1012	Principles of Political Economy	10
PLAN1042	Planning Processes	10
PLAN1052	Quantitative Methods	10
PLAN1062	Communication Techniques	10
Total		50

Year 2*Session 1*

		CP
PLAN2011	Economy of Cities and Regions	10
PLAN2021	History of Urban Development	10
GEOG3671	Transport and Land Use	15
PLAN2032	Generic Planning Project 1 – Urban Design	20
PLAN2041	Critical Research Seminars	10
PLAN2061	Geographic Information Systems	10
	Total	75

Session 2

PLAN2012	Spatial Development Planning	10
PLAN2042	History of Urban Planning	10
PLAN2051	Environmental Economics and Resource Management	10
PLAN2052	Advanced Data Analysis	10
	Total	40

Year 3*Session 1*

PLAN3011	Critical Urban Studies	10
PLAN3021	Heritage and Conservation Planning	10
PLAN3031	Generic Planning Project 2 – Existing Areas	20
PLAN3041	Planning Law and Administration	10
PLAN3051	Development Control	10
	Total	60

After successfully completing Session 3.1 all students undertake a mandatory year of practical experience (PLAN0080 Practical Experience)

Session 2

		CP
PLAN3012	Cultural Studies	10
PLAN3032	Generic Planning Project 3 – Release Areas	20
PLAN3042	Environmental Law and Dispute Resolution	10
PLAN3052	Qualitative Methods	10
	<i>General Education Electives</i>	15
	Total	65

Year 4*Session 1*

PLAN4011	Politics, Power and Policy	10
PLAN4021	Metropolitan Policy	10
PLAN4031	Thesis Proposal	10
PLAN4071	Planning Elective*	10
	<i>Elective</i>	7.5
	<i>General Education Electives</i>	15
	Total	62.5

Session 2

PLAN4032	Thesis	40
PLAN4042	Professional Practice	10
PLAN4072	Planning Elective*	10
	Total	60

*Students are required to complete two Planning Electives. A selection of electives will be offered, depending on demand and staff availability, as Session 1, Session 2 or Full Year subjects.

Note: Due to course revisions, there is a transition period during which some subjects may be taught in different sessions than those indicated above, while other subjects may be phased in progressively. Details will be provided prior to enrolment.

Subject Descriptions

Faculty Common Core Subjects

This group of subject descriptions are for those subjects that are common to the core component of two or more degree courses within the Faculty. The classes in these subjects will always consist of a mix of disciplines, and will be taught with no specific discipline bias.

BENV1101

Design Fundamentals: Studio 1

Staff Contact: Harry Stephens

CP20 HPW7

Corequisites: BENV1141

Introduction to design as fundamental to coherent thought and action in your discipline. Exploration of the influences on design thinking and practice, including the philosophical, historical, social and environmental. Critical thinking and expression in different forms. Studio projects and assignments to develop skills and understanding of design elements and principles. Introduction to a basic vocabulary of representation techniques used by designers to facilitate the development and communication of design ideas including: colour, freehand drawing, sketching, painting, construction, mixed media, desktop publishing, photomontage techniques, technical drawing and drafting.

BENV1141

Computers and Information Technology

Staff Contact: Mr. J. Plume, Dr. O. Greste

CP10 HPW3

Corequisites: BENV1101

An introduction to the technology of computing and information technology as it pertains to the disciplines of the built environment. The computer is presented as a tool for storing and manipulating information by means of application programs which model the real world needs and activities of professionals in these disciplines. Topics include basic operation of a computer, information handling, networks and communications, computer graphics, CAD technology and computational processes. Students engage in weekly hands-on computer exercises to provide knowledge and experience in the use of applications commonly used in their own discipline. Assessment is based on participation in the hands-on work, some written assignments and a final examination.

BENV1242

Computer-Aided Design

Staff Contact: Mr. Jim Plume

CP10 HPW3

Prerequisites: BENV1141

An exploration of the variety of CAD and graphic tools available for modelling, understanding and presenting design proposals. This subject has dual objectives to build skills and confidence in the operation of CAD and related

graphic systems, while developing a deep understanding of the unique opportunities offered by computer-based modelling technologies. Applications explored include 2D and 3D CAD, simple visualisation, image editing and composition, and the crossovers possible between these various techniques. Conceptual modelling techniques and their relevance to the design disciplines will be discussed. Weekly one-hour lectures are supported by discipline-focussed laboratory classes where students gain hands-on experience in the use of a variety graphic applications. Assessment is based on satisfactory participation and the completion of staged CAD-based tasks.

BENV1341

Design Modelling and Visualisation

Staff Contact: Mr. Stephen Peter

CP10 HPW3

Prerequisites: BENV1242

An exploration of computer graphic techniques for visualising design proposals. The lectures cover the principles and techniques of 3D visualisation including lighting, reflection, transparency, surface shading, texture mapping and depth cues. Laboratory-based exercises explore these different techniques, along with a variety of presentation techniques such as rendered images, image editing, animation, Quicktime VR and VRML. Assessment is based on the earlier staged learning exercises and one major design presentation project.

BENV1171

Architectural Technologies 1

Staff Contact: Faculty Student Centre

CP20 HPW5

Corequisite: BENV1101

Environment: An introduction to concepts of social responsibility, environmental accountability and ecological sustainability. Implications for the urban/built and natural environments. Fundamentals of building physics, as they relate to the concepts of comfort and environmental control.

Structures: Introduction to principles of structures, and their relationships to construction, material and environmental aspects of design. Analysis of structural precedents in relation to human need and design practice. Structural elements of different scale, and their relationships within larger structural components and systems. Typological outline of structural elements and components: point, line, surface, solid; foundation, footings, floors, walls, ceilings, roof systems, stairs, windows and doors. Basic structural performance requirements - safety, strength, stability and stiffness. Relationships with associated constructional performance - protection from elements, construction process, security; environmental performance - human needs, sustainability, energy efficiency; legal issues -best practice, code compliance; and economic parameters - establishment and life-cycle cost.

Construction: Introduction to different ways of thinking about construction in relation to design practice. Investigation of the artifactual nature and materiality of buildings. Detailed studies of selected precedents. Outline of construction principles and their implications for the development of construction strategies in architectural design. Analysis of typologies and classification systems for building materials.

These issues will be explored through an emphasis on timber as a construction material, and small timber buildings as a construction type.

A series of workshop exercises, related to lecture material and/or design studio projects, will be jointly defined across the Environment, Structures and/or Construction discipline areas. These may include manual and/or computer laboratory exercises defined across the Communications discipline area.

BENV1172

Architectural Technologies 2

Staff Contact: Mr S. King

CP20 HPW5

Corequisite: ARCH1102

Environment: Thermal comfort and building climatology: perception and comfort; the body's responses; bioclimatic classification and traditional buildings. Solar geometry and control of sunlight. The building envelope: thermal performance; principles of heat transfer; solar radiation effects; absorptivity, reflectivity, conduction, thermal gradients; condensation and thermal insulation; degree day concept and prediction of heating requirements.

Structures: Introduction to basic structural behaviour and its relationship to construction, material and environmental aspects of design. Analysis of structural precedents in relation to human need and design practice. Outline of key structural behaviour concepts: loading - including load transfer, forces at supports and connections; resistance to loads - including stability, strength and stiffness; stress - including axial, shear, bending and deformation. Focus on basic linear structural elements and systems - including cable and arch, strut and column, beam, truss, frame. Concept and techniques of modelling, predicting and incorporating structural behaviour in design. Basic structural modelling techniques and problem solving tools - physical, graphical, numerical, computer-assisted. Introduction to basic statics, properties and strength of materials. Introduction to basic building physics. Implications for structural, constructional and environmental issues in design.

Construction: Introduction to building material science. Basic structure, properties, manufacturing processes, use and performance of materials in building and artifact design. Durability, movement and moisture control. Implications for design. Research and use of resource material. Introduction to construction documentation, drawing and specification practices.

These issues will be explored through an emphasis on masonry as a construction material, and small masonry buildings as a construction type.

A series of workshop exercises, related to lecture material and/or design studio projects, will be jointly defined across the Environment, Structures and/or Construction discipline areas. These may include manual and/or computer laboratory exercises defined across the Communications discipline area.

BENV1381

Professional Practice 1

Staff Contact: Faculty Student Centre

CP10 HPW2

An introduction to the legal system. Aspects of the law of contract, torts, agency, trade practices, property and agency. Contract documentation and specification writing techniques. Estimating, cost planning, bills of quantities and budgeting.

Bachelor of Architecture

The following subject descriptions are for those core subjects specific to the Bachelor of Architecture. For descriptions of the other subjects which make up the core in this program, refer to the earlier section describing the Faculty Common Core subjects.

ARCHITECTURAL DESIGN STUDIO STREAM

ARCH1102

Architectural Design Workshop 1

Staff Contact: Ms Desley Luscombe

CP20 HPW6

Corequisites: ARCH1122, BENV1172, ARCH1142

Exploration of the implications of precedents for design practice. Focus on the development of integrated design strategies and approaches responding to human needs, the natural environment and technical aspects of architecture. There will be an emphasis on the development of foundational knowledge and skills of research, critical analysis, conceptualisation, speculation and communication. Development and application of basic design principles. Critical reflections on students' own design approaches and strategies.

Detailed consideration of architectural elements, components, construction assemblies and environmental systems. Design of small-scale spaces and buildings, with simple programmatic requirements, to a basic level of integration. Predominantly individual work supported by peer-group activities.

A series of studio-based design projects and assignments will be defined within tight programmatic limits, and resourced across selected aspects of the History and Theory, Technology and Communication streams to maximise possibilities of integration. See ARCH1122, ARCH1142, BENV1172.

ARCH1201**Architectural Design Workshop 2***Staff Contact: Dr. M. Tawa*

CP20 HPW6

Prerequisites: BENV1101, ARCH1102*Corequisites:* ARCH1221, ARCH1271, ARCH1241

Exploration of theoretical, tectonic and technological factors influencing design thinking and practice. An emphasis on critical and strategic skills of research and speculation, directed to the development of useful implications for design practice.

Detailed design of small to medium-scale spaces and architectural elements, components and construction assemblies, to a moderate level of integration. Predominantly collaborative group-based work.

A series of studio-based design projects and assignments will be defined within tight programmatic limits, and resourced across selected aspects of the History and Theory, Technology and Communications streams to maximise possibilities of integration. See ARCH1221, ARCH1271, ARCH1241.

ARCH1202**Architectural Design Workshop 3***Staff Contact: P. Murray*

CP20 HPW6

Prerequisites: BENV1101, ARCH1102*Corequisites:* ARCH1222, ARCH1272, BENV1242

Critical research and elaboration of strategic architectural design approaches responding to behavioural, technological and environmental issues. A focus on the implications of design contexts and environmental sustainability for the development of ethical and sustainable design practices and outcomes.

Detailed design of medium-scale buildings, with simple programmatic requirements, to a moderate level of integration. Consideration and incorporation of construction assemblies and integrated environmental systems of medium complexity. A balance between individual and collaborative group-based work.

A series of studio-based design projects and assignments will be defined within tight thematic and technological limits, and resourced across selected aspects of the History and Theory, Technology and Communications streams to maximise possibilities of integration. See ARCH1222, ARCH1272, BENV1242.

ARCH1301**Architectural Design Studio 1***Staff Contact: Mr. S. King*

CP20 HPW6

Prerequisites: ARCH1201, ARCH1202*Corequisites:* ARCH1321, ARCH1371, BENV1341

Exploration of the implications of theoretical, historical, technological and environmental factors influencing design thinking, practices, outcomes and modes of representation. An emphasis on the integration of critical research, visualisation, modelling and the development of appropriate design strategies.

Detailed design of medium-scale buildings, and medium to large-scale architectural spaces, to an intermediate level of integration. Consideration and incorporation of selected components, construction assemblies and integrated environmental systems of increasing complexity. Predominantly collaborative group-based work.

ARCH1302**Architectural Design Studio 2***Staff Contact: TBA*

CP20 HPW6

Prerequisites: ARCH1201, ARCH1202

Exploration of architectural design strategies responding to socio-cultural, tectonic, technological and environmental issues. Incorporation of legal and procedural parameters and constraints such as statutory planning and building codes.

Detailed design of medium-scale buildings, with complex site and programmatic requirements, to an intermediate level of integration. Design of complex medium to large-scale architectural spaces, components, constructional assemblies and integrated environmental systems. Predominantly individual work articulated in relation to collaborative group-based objectives.

A selection of a series of studio-based design projects and assignments will be defined within tight theoretical, pragmatic and technological limits, and resourced across relevant stream areas to maximise possibilities of integration.

Students may apply to carry out exchange studies with universities which have an agreement with the University of New South Wales. Any application should be made to the university and is at the discretion of the Head of Program (Architecture) UNSW.

ARCH1401**Architectural Design Studio 3***Staff Contact: TBA*

CP20 HPW6

Prerequisites: ARCH1301, ARCH1302

The design of medium to large-scale buildings and/or developments, with complex site and programmatic requirements, to a high level of integration. Emphasis on advanced integration of social, pragmatic, technological, urban and environmental aspects. Elaboration and management of implied conflicting issues and needs - including site constraints, planning controls and building regulations, cultural, behavioural, functional and technical issues. Conservation and heritage values pertaining to adaptive re-use. Individual and group work, articulated in relation to collaborative group-based objectives.

A range of studio project options will be offered each session, each with a different focus. Projects will be further defined and resourced by each student through elective specializations selected from a range of advanced electives offered in the History and Theory, Communications and Technology Streams.

Students may apply to carry out exchange studies with universities which have an agreement with the University of New South Wales. Any application should be made to the university and is at the discretion of the Head of Program (Architecture) UNSW.

ARCH1402**Architectural Design Studio 4***Staff Contact: TBA*

CP20 HPW6

Prerequisites: ARCH1301, ARCH1302

The design of medium to large-scale buildings and/or developments, with complex site and programmatic requirements, to a high level of integration. Emphasis on theoretical, technological and environmental aspects of the project. Elaboration and management of implied conflicting issues - including theoretical, technological and representational aspects. Individual and group work, articulated in relation to collaborative group-based objectives.

A range of studio project options will be offered each session, each with a different focus. Projects will be further defined and resourced by each student through elective specializations selected from a range of advanced electives offered in the History and Theory, Communications and Technology Streams.

Students may apply to carry out exchange studies with universities which have an agreement with the University of New South Wales. Any application should be made to the university and is at the discretion of the Head of Program (Architecture) UNSW.

ARCH1501**Investigation Workshop***Staff Contact: TBA*

CP20 L2

Prerequisites: ARCH1401, ARCH1402 or equivalent

Critical research, exploration and speculation, leading to the detailed definition of a proposal for an individual design project. An emphasis on the ethical and political dimensions of architectural practice as a public act. A focus on the integration of theoretical, socio-cultural, programmatic, technological and professional issues. Individual submissions developed within a collaborative and supportive peer-group environment.

Proposals will be initiated, researched and elaborated by each student through elective specializations selected from a range of advanced electives offered in the History and Theory, Technology and Communications streams.

Preparation of an investigative study and detailed design brief, articulating the parameters, values, objectives, components and implications of the project. Communication of the proposal through various seminars and forum of peers, critics and practitioners.

ARCH1502**Graduation Project***Staff Contact: TBA*

CP20 HPW6

Prerequisites: ARCH1501

Design development of the project defined in Investigation Workshop. Further elaboration of the project framework, content, criteria and parameters through elective specialization. Detailed resolution and presentation of the design to an advanced level of integration across all dimensions of the project: theoretical, historical, ethical,

technological, environmental and professional. Individual submissions developed within a collaborative and supportive peer-group environment.

Presentation of the project to peers, eminent critics and practitioners through various seminars, forums, and a high profile end of session graduate exhibition.

ARCHITECTURAL COMMUNICATION STREAM**ARCH1142****Communications 1***Staff Contact: Ms Ann Quinlan*

CP10 HPW3

Corequisites: ARCH1102, ARCH1122, BENV1172

This foundation subject is concerned with developing capabilities in a broad range of communication skills. There are three main components, academic practices, social practices, and manual, discipline-specific graphic communication skills.

Students will develop practical skills in academic thinking, evaluation, writing, reading and investigation. They will be introduced to social practices necessary for academic and professional success, such as ethical practices, oral presentations, working collaboratively with others and personal management skills.

Skills and theories of communication specific to the discipline and profession of architecture are concerned with critical observation, visualisation and representation of design ideas and artifacts. Students will develop abilities in fundamental drawing and sketching skills, compositional skills, basic model-making, dry rendering techniques and the application of colour. Students will be introduced to professional drawing conventions such as orthographic, para-line projections and perspective techniques.

Capabilities in disciplinary specific communication skills will be developed in a series of tutorial exercises and project tasks, supported by a series of lectures. Assessable project tasks are designed to complement parallel subject areas so as to maximize relevance and integration of skill development. Integral to the assessment process is the requirement that students provide written evaluation and feedback about their own and their peers completed tasks.

The academic and social practice component of this subject is a Corequisite for all subjects undertaken by any student in the Bachelor of Architecture program.

ARCH1241**Communications 2***Staff Contact: Faculty Student Centre*

CP10 HPW3

Prerequisites: ARCH1142*Corequisites:* ARCH1201

Through the application of basic drawing, compositional, modelling and rendering practices developed in Communication One, students will extend their ability in techniques of architectural representation. Opportunities will be provided for students to develop skills in model making, using materials such as cardboard, plastics and

wood and in rendering techniques, using a selection of media. Students will be encouraged to explore different compositional, modeling and media techniques and critique the implications of their application. Students will develop basic capabilities in professional drawing production and will be required to demonstrate their understanding of architectural drawing conventions and their application in rendering and presentation techniques.

A series of well-defined group and individual projects will provide opportunities for students, in tutorial settings, to demonstrate their extended skill and technique development as well as their ability to critique different modes of architectural representation. Integral to the assessment process is the requirement that students provide written evaluation and feedback about their own and their peers completed tasks.

HISTORY AND THEORY OF ARCHITECTURE STREAM

ARCH1121

Architectural History and Theory 1

Staff Contact: Dr. M. Tawa and Dr. P-A. Johnson

CP10 HPW3

Corequisite: BENV1101

Module 1: Theory: Design and its parameters. This Module reviews the built environment design disciplines as discursive practices including: frames of reference for key values and attitudes invoked within the design disciplines; psychological and philosophical understandings of imagination and creativity and their impact on design thinking; implications of the preceding for modelling design and establishing design processes; some basic concepts, terminology and language used in design, aesthetics and form; typological and figural aspects of architecture and equivalents in allied design disciplines; some conceptual frames and performative tools for thinking and doing theory—eg. how to read design and architecture texts critically and strategically; how to spot lacunae and inconsistencies in terminology, thought, doctrine, etc; how to ask useful theoretical questions for design; how to delimit and then open a field of discourse; how to initiate and develop a theoretical argument; how to maintain rigour, discipline, responsibility, etc. as part of a discourse or discipline; how to front an 'audience' and take up a voice or position. Material to be presented as one- and/or two-hour lectures and occasional tutorials supplemented with readings and analyses of selected texts in architectural theory.

Module 2, Part 1: History: European architectural and design history. This Part of the Module begins with an examination of history and historiography at large and their implications for design and architectural history writing, then addresses issues attendant upon architectural and design history written as chronology, thematics, narrative, stylistics, heroes and great works. This is followed by a chronological outline of European architecture from the break-up of the Roman Empire to the Industrial Revolution in the eighteenth century. Lectures and supporting teaching

aids concentrate upon individual buildings, particularly religious buildings that are indicative of the dominance of religion in pre-modern culture. While stylistic issues are important, this Part will focus in particular on questions of use, symbolism, and technology. This Part is intended as an introduction, and no knowledge is assumed of antique, Medieval, or Renaissance architecture and design, its aim being to familiarise students with key pre-modern architectural techniques and images and to inspire further investigation.

ARCH1122

Architectural History and Theory 2

Staff Contact: Dr. C. de Lorenzo and Dr. P. Kohane

CP10 HPW3

Corequisite: ARCH1102

Module 1: History: Art and Visual Culture. This module will introduce a range of practices by visual artists of the late nineteenth and twentieth centuries generated at times of critical social and artistic change. The aim is to develop skills of visual analysis in relation to contested theories of intent, criticism and art history and in so doing to show that images and ways we view them are mediated. Strategies for visual analysis (formal, cultural, contextual, intentional) as well as conflicting theoretical interpretations (representation, functionality, identity, gender, place, ecology) will be used and critiqued. This module will make use of a variety of teaching strategies designed to empower and skill the participants and to enable them to pursue their future interests in the history of art. Teaching mode will be face to face as well as independent study by individuals and groups. Assessment will include individual and group work.

Module 2: History: The crisis of representation in architecture. This Module strengthens our understanding of the present by studying the past. Firstly, classes on the architecture of antiquity, the Middle Ages and the Renaissance will show how buildings were conceived as representations of religious beliefs and cultural values. Of particular importance are the sacred meanings of proportion, geometry and number. Secondly, we will study the questioning of this kind of symbolic representation and its replacement by more narrowly focused theories based on instrumental reason. Thirdly, we will consider several twentieth-century architects who have questioned the dictates of instrumental production, creating buildings that engage the emotions and imagination of their users. Material is presented as two-hour lectures supplemented with readings and analyses of selected texts in architectural history and architectural theory.

ARCH1221

Architectural History and Theory 3

Staff Contact: Dr. M. Tawa and J. Mueller

CP10 HPW3

Prerequisite: Year 1 Core Subjects

Corequisite: ARCH1201

Module 1: Theory as practice—design thematics. This Module introduces the notion of theory as a conceptual setting for thinking-through theoretical issues, and their

implications for a strategic design practice. The context which theory fabricates weighs on design practices and tactics at numerous levels: at the level of the design process itself; in terms of community, gender, culture and politics; in relation to spatial and temporal articulation, as well as issues such as tectonics and composition, technics and technology, pragmatics and function, aesthetics and psychology. Four main themes aimed at developing a design thematics: limits, fragment, materiality, and representation; plus specific readings related to design projects and seminar exercises. Material is presented as one- and/or two-hour lectures and occasional tutorials supplemented with studies and readings of selected texts in philosophy, cultural studies and fiction, as well as architectural theories and precedents.

Module 2, Part 2: History: Australian architectural and design history. Using a selection of guest speakers, each authoritative in their chosen area, this Part of the Module offers different approaches to comprehending Australian architectural and design history, demonstrates a diversity of evidential material and narratives attendant upon and determined by these approaches, and brings to the fore issues of interpretation and assimilation on the part of the recipient. Lectures consider matters of aboriginality, origins, nationalism, chronology, style, regionalism, vernacular, gender, architectural and design media, heritage, conservation, and the value systems and polemic adopted in pursuit of these. Material is presented in this Module as one- and/or two-hour lectures with occasional tutorials supplemented with readings and analyses of selected texts in architectural history and architectural theory.

ARCH1222

Architectural History and Theory 4

Staff Contact: Dr. P. Kohane

CP7.5 HPW2

Prerequisite: Year 1 Core Subjects

Corequisite: ARCH1202

History: Nineteenth-Century architecture and the present. By interpreting certain nineteenth- and early twentieth-century issues and debates, this Module makes it possible to clarify and question contemporary beliefs and achievements, such as technological progress, imperial expansion and the division of labour (which has prevented the exploration of more substantial relationships between the human body and architecture). Lectures will also look to history to reconsider issues which demand contemporary attention, including ornament, decorum, anthropomorphism, empathy and memory. Rather than presenting a survey of nineteenth-century architecture, each lecture will focus on a single issue and explore it through the works of particular architects and writers. The relevance to our current debates will be spelt out. Material is presented as one- and/or two-hour lectures supplemented with readings and analyses of selected texts in architectural history and architectural theory.

ARCH1321

Architectural History and Theory 5

Staff Contact: Dr. B. Judd, Prof. J. Lang

CP7.5 HPW2

Prerequisite: Year 2 Core Subjects

Corequisite: ARCH1301

Module 1: Theory: Design and human behaviour. This Module provides an understanding of behaviour-environment theory and its relevance to environmental design and raises questions concerning contemporary values and understandings in architecture. Lectures are presented on elementary behavioural theory, behaviour settings, personal space, territoriality, crowding, privacy, way-finding, place and place-making (genius loci), all of which are examined for their impact on architecture and planning. Aesthetic and functionalist ideas in architecture are cross-related with contemporary notions of meaning, community, identity and polity. Major architectural ideas and design approaches are subjected to scrutiny in light of behaviour-environment research techniques and findings. Material is presented as two-hour lectures supplemented with readings and analyses of selected texts in sociology, psychology, anthropology, environment-behaviour research and architectural theory.

Module 2: Theory: Urban theory and practice. This Module deals with architecture and the city, especially as it relates to the nature of the design task. The objective is to bring students' attention to our current understanding of urban design and the various roles architects have in shaping the city. Explicit in this analysis will be a redefinition of functionalism in architectural and urban design. Implicit in all designs, if not explicit, is some positive construct of the people imagined as users or participants in the work designed. Questions arise about the adequacy of our definitions and people-constructs, about the degree to which the facts can assist our projections for the future, and on whether our modelling and imaging of life is sufficiently real. Critically evaluating the models we use enhances our creativity because it opens up possibilities that generally fall beyond the scope of our thoughts. Material is presented as two-hour lectures and supplemented by readings in urban theory, town-planning, architectural theory, and people-environment research.

ARCHITECTURAL TECHNOLOGIES STREAM

Note that BENV1171 & BENV1172 (Architectural Technologies 1 & 2) are included in the earlier section titled Faculty Common Core Subjects

ARCH1271

Architectural Technologies 3

Staff Contact: P. Murray

CP15 HPW4

Prerequisites: BENV1171, BENV1172

Corequisite: ARCH1201

Environment: Natural and artificial lighting. Quantitative and qualitative aspects of lighting design. Electric light sources, light control and prediction methods.

Structures: Design and optimisation of basic structural elements. Structural design process and codes – including establishment of loads and load paths. Analyses and choice of structural elements and systems - including cross sectional properties and behaviour. Material issues. Compliance checks. Design of structural elements – such as struts, columns, beams, and slabs in timber, steel and concrete. Basic foundations and brickwork design – including lintels, arches, vaults and domes.

Construction: Analysis of the relationships between theoretical and constructional agendas. Design themes and their implications for selection of materials and constructional systems. Building materials and materiality in architecture. Quantitative and qualitative design constraints, limits and opportunities posed by building materials, structural and constructional systems. Detailed analysis of junctions and connections between materials, components, assemblies and finishes. Implications of junctions and connections for spatial and tectonic articulation and modulation. Dimensional constraints and co-ordination. Construction drawing, detailing, modelling and design development as parallel practices.

These issues will be explored through an emphasis on masonry and timber as construction materials, and small masonry and timber buildings as construction types.

A series of workshop exercises, related to lecture material and/or design studio projects, will be jointly defined across the Environment, Structures and/or Construction discipline areas. These may include manual and/or computer laboratory exercises defined across the Communications discipline area

ARCH1272

Architectural Technologies 4

Staff Contact: P.Murray

CP10 HPW3

Prerequisites: BENV1172

Corequisite: ARCH1202

Environment: Acoustics and noise control: design of rooms, basic shape and volume, acceptable ambient sound levels. Acoustic performance: properties and behaviour of sound, sound transmission loss, external noise levels, structure borne and impact sound, reverberation times, selection of building envelope elements, selection of interior building materials and elements.

Structures: Design, stability and optimisation of structural assemblies for medium-span buildings of timber and steel. Trusses, frames and arches, cable-stayed systems. Basic fire engineering.

Construction: Analysis of relationships between political, ethical and constructional agendas. Cultural, social and environmental contexts, and their implications for selection of materials and constructional systems. Environmental sustainability and impact, including evaluation of embodied energy of building materials, as well as energy, water and waste in construction processes. Evaluation of prefabricated materials and components. Introduction to quantification, tabulation and costing of construction systems. Implications for selection of building materials,

construction systems and assemblies. Case studies analysing the role of structural and constructional systems in lightweight and 'high-tech' buildings. Construction drawing, detailing, modelling and design development as parallel practices.

These issues will be explored through an emphasis on steel and concrete as construction materials, and steel and concrete buildings as construction types.

A series of workshop exercises, related to lecture material and/or design studio projects, will be jointly defined across the Environment, Structures and/or Construction discipline areas. These may include manual and/or computer laboratory exercises defined across the Communications discipline area

ARCH1371

Architectural Technologies 5

Staff Contact: P.Murray/S. King

CP10 HPW3

Prerequisites: ARCH1271, ARCH1272

Corequisite: ARCH1301

Environment: Integration of passive design strategies. Case studies. Introduction to thermal evaluation and design tools, correlation and simulation models.

Structures: Multistorey building structures of concrete and steel. Systems, design and optimisation. Wind- and earthquake engineering. Brief survey of advanced structures - including wide-span, high-rise and lightweight structures.

Construction: Integration and coordination of building materials, components and assemblies in the organization of building processes. Relationships between constructional assemblies, spatial and tectonic qualities. Functional and representational aspects of the architectural facade. Study of the building envelope and strategies for cladding. Dimensional coordination and allowances for different materials, components and assemblies in relation to structural and constructional issues. Implications for selection of appropriate constructional systems, design development and detailing. Construction documentation, drawings and specification.

A series of workshop exercises, related to lecture material and/or design studio projects, will be jointly defined across the Environment, Structures and/or Construction discipline areas.

RESEARCH AND PRACTICE STREAM

ARCH1282

Research Practice

Staff Contact: Dr Catherine De Lorenzo and Dr Rob Samuels

CP7.5 HPW2

A core subject which introduces students to the basic empirical and interpretive research methods, explains some research tools and referencing requirements, and presents a range of research fields currently undertaken within the program. Classes are normally by lecture and small group

teaching. Assignments are designed to lead students through the processes of research, and to encourage a self-critical evaluation of the appropriateness of methodologies used and the value of the conclusions to be drawn. Work must be written in concise and clear English, apply a consistent and acceptable referencing system, include an up-to-date bibliography, and be word processed in A4 format.

ARCH1382 Practicum

Staff Contact: Faculty Student Centre
CP10 HPW2

This subject is concerned with preparing students for a learning experience outside of UNSW. It has two components the first is concerned with student preparation of a professional portfolio and the development of capabilities necessary for professional practice employment and academic study overseas.

Topics in this component include writing letters of application, preparing resumes, interview and oral presentation techniques, working in teams, developing an understanding of your capabilities and strengths, practice ethics, working in cross cultural environments, negotiating, workplace issues and personal management skills. Students will receive instruction in documenting practice placement diaries and journals. A series of guest lectures and workshop activities will complement the assessable task, which is to complete a well-presented portfolio of student work.

The second component of the subject is concerned with an introduction to law and ethics relevant to architectural practice – including the architect-client agreement; agency and employment law; appointment of and liaison with consultants; professional codes of conduct; the Architects Act; land use controls; the Building Code of Australia; Local Government Act; Environmental Planning and Assessment Act and the Heritage Act.

ARCH1581 Politics, Community and Practice

Staff Contact: Faculty Student Centre
CP10 HPW2

The course will examine the production of architecture as a social event, it will analyse a series of explanations of the relationships between society and space and will look at both Asian and Western cultures as examples. The focus of this analysis will include issues such as: the role of economics and politics, urban administration, cultural difference, social theory etc, to architecture. This will be carried out by examining questions such as 'what is the relationship between architecture and urban politics?' 'What part does architecture play in the political economy of cities?' 'How does architecture as a commodity reflect commodity producing society as a whole?' 'What basic social theories inform what we might call 'a social theory of architectural production?' 'How do investors, developers, industrialists and others view architecture and building?' 'What is the administrative environment for the production

of architecture? (Government policy at national, regional and local levels, development planning, planning legislation, structure and local plans etc).' 'How does architecture relate to the reproduction of culture - what theories of cultural production exist, and how do they interface with urban politics?' 'What part does architecture play in the sustainability of cities and urban environments as a whole?'

ARCH1582

Professional Practice 2

Staff Contact: Faculty Student Centre
CP10 HPW2

Prerequisite: BENV1381

Legal implications of architectural practice. Liabilities of architects. The architect/client agreement. Types of building contract and methods of building procurement. Tendering and negotiating. Contract administration procedures. Professional defensive measures and crisis management. Introduction to management theory. The structure and organization of an architectural office. Aspects of company and partnership law and insurance. Business principles and management procedures relevant to an architectural practice.

ARCH1583

Practical Experience

Staff Contact: Ms Ann Quinlan
CP0

Prerequisite: BENV1101 ARCH1102

Each student is required to take 24 weeks of off-campus activity in the pursuit of architectural practice experience; the preferred activity being to work for a single period of 24 weeks under the supervision of a registered architect. This activity may be started after the successful completion of Year 1 studies and completed before enrolling in Graduation Project of the Bachelor of Architecture Course. The minimum single period of approved activity shall be eight weeks which must be taken outside of Semester such as during the summer breaks. Students undertaking this activity during session shall not be enrolled in any other subjects. In exceptional circumstances students may be able to carry a repeat subject during their professional experience session.

Students shall have the option of providing evidence of working under the supervision of a registered architect using the accepted form of log-book provided by the professional bodies or other suitable documentation of approved activities such as an annotated and illustrated diary in accordance with the guidelines issued by the Head of Program.

Where students wish to undertake other activities such as an architectural study tour or employment on construction projects or other related architectural activity, approval must be obtained from the subject authority. The Faculty reserves the right to disallow any activities as meeting the requirements for this subject, for which prior approval has not been sort and obtained in writing.

Bachelor of Science (Architecture)

ARCH1398

Research Project 1

Staff Contact: Faculty Student Centre Office
CP15

Prerequisite: Head of Program's approval

Introductory project on a topic area selected by the student in accordance with his or her field of specialization. This project provides the opportunity to practice research methods, planning, organising and conducting and documenting study in the chosen field. The topic must be approved by the Program Head and the research supervised by an appropriate member of staff.

ARCH1399

Research Project 2

Staff Contact: Faculty Student Centre Office
CP22.5

Prerequisite: ARCH1398 or equivalent

Advanced project on a topic area selected by the student in accordance with his or her field of specialization. This project represents the culmination and integration of knowledge and skill gained in the student's field of specialization, and should include social, environmental and ethical aspects. The research project report is to be presented in a thesis format and be supervised by an appropriate member of staff.

ARCH1498

Honours Project 1

Staff Contact: Faculty Student Centre Office
CP60

Prerequisite: ARCH1399 or equivalent

This project represents a major research-based investigation into a subject related to the student's area of specialization. It should represent an original contribution to work in that area which demonstrates a high level of scholarship and an understanding of good research methods. It can appropriately be seen as stage one of a two-part project linked to the second honours project, but must be complete in and of itself. The work is to be closely supervised by a member of the academic staff. On rare occasions, permission may be sought from the Program Head to have this project supervised by someone outside the University, but there must always be an internal co-supervisor in that event. The intended topic must be lodged as a fully-worked research proposal, and must be approved by the Program Head prior to its commencement. The submitted work must be properly bound and will be assessed internally by at least two readers.

ARCH1499

Honours Project 2

Staff Contact: Faculty Student Centre Office
CP60

Prerequisite: ARCH1498

This project represents a major research-based investigation into a subject related to the student's area of

specialization. It should represent an original contribution to work in that area which demonstrates a high level of scholarship and an understanding of good research methods. It can appropriately be seen as stage two of a two-part project linked to the first honours project, but must be complete in and of itself. The work is to be closely supervised by a member of the academic staff. On rare occasions, permission may be sought from the Program Head to have this project supervised by someone outside the University, but there must always be an internal co-supervisor in that event. The intended topic must be lodged as a fully-worked research proposal, and must be approved by the Program Head prior to its commencement. The submitted work must be properly bound and will be assessed internally by at least two readers.

GSBE0002

Social Responsibility and Professional Ethics

Staff Contact: Faculty Student Centre
CP7.5

The aim of this subject is to expose students in the Faculty to issues of social responsibility in their future professional activities. This is done by selecting for analysis case studies. The exchange of information and affirmation and contestation of values by students is considered as important a part of the learning process as the professional input through lectures. Instruction includes common lectures and small seminar groups made up from students from all schools in the Faculty. Assessment will include individual and collaborative submissions.

Bachelor of Interior Architecture

The following subject descriptions are for those core subjects specific to the Bachelor of Interior Architecture. For descriptions of the other subjects which make up the core in this program, refer to the earlier sections describing the Faculty Common Core subjects and the Architecture Core Subjects.

DESIGN STUDIO STREAM

Each Design Studio subject deals specifically with a range of *Core Considerations*. These will be included but will not generally be the full extent of the considerations in the design projects in that subject. The Design Studio subjects are arranged in a sequence commencing with simple design tasks of a general nature in the first semester of first year developing through ever-more complex applications of the principles of design to the design of large-scale interior projects at the end of the course. Irrespective of scale, each Design Studio project will: encourage a 'whole' view of the architectural endeavour; focus on the 'human life events' to be catered for and these will be examined in the widest, most inclusive inquiry; seek ways to approach design in an ordered, rational rather than a discursive, irrational or haphazard manner. The series

will seek to promote the development of a personal approach to design based on the individual's unique way of seeing the world.

INTA1102

Design Studio 2

Staff Contact: Harry Stephens

CP20 HPW 6

Corequisites: INTA1122; BENV1172; INTA1142

An introduction to the design of space for human habitation. Design projects culminating in the design of a small-scale habitat. *Core Considerations:* ergonomics and anthropometrics; domestic scale construction systems; principles of structural stability; environmental and energy issues.

INTA1201

Design Studio 3

Staff Contact: Harry Stephens

CP15 HPW 5

Prerequisites: INTA1102

Corequisites: INTA1241; INTA1271

Design projects centering on the design of small-scale interiors for relatively simple patterns of life. *Core Considerations:* exploration of the life-event as the origin of human aims in design; clarification of design aims; number, geometry and spatial ordering systems; inside/outside relationships; connections and transitions; the central idea - concept; formal presentation of the concept; ideas as ordering principles in design; translation of ideas into architectural space; the physics and poetics of natural and artificial lighting; construction detailing as a design activity.

INTA1202

Design Studio 4

Staff Contact: Harry Stephens

CP15 HPW 5

Prerequisites: INTA1102

Corequisites: INTA1272

Design projects related to residential patterns of life. *Core Considerations:* public/private realms; home as hearth; dwelling; sense of place; appropriate materials in the domestic context; sustainability as a general principle; responsible energy use; passive energy systems; construction detailing as a design activity.

INTA1301

Design Studio 5

Staff Contact: Bill MacMahon

CP15 HPW 5

Prerequisites: INTA1202

Design projects dealing with medium scale commercial, retail or public facilities having, amongst other things, a need for good acoustic design. *Core Considerations:* materials and meaning in architecture; furniture and fittings; connections, junctions, mediating elements and tolerances; acoustics; building services, regulations and codes; access and egress; air conditioning and ventilation systems.

INTA1302

Design Studio 6

Staff Contact: Bill MacMahon

CP15 HPW 5

Prerequisites: INTA1202

Design projects dealing with medium scale commercial, retail or public facilities. *Core Considerations:* preparing finishes selections; incorporation of textiles into the design; preparing sample boards; space analysis and feasibility of facility and the user requirements; designing through the contract documents; estimating, cost planning and budgeting.

INTA1401

Design Studio 7

Staff Contact: Sue Serle

CP20 HPW 6

Prerequisites: INTA1302

Design projects dealing with medium to large-scale commercial facilities. *Core Considerations:* the design concept as an expression of a developed personal theoretical position on design; needs analysis and preparation of client briefs; innovation with technical and pragmatic programs; professional verbal presentation skills; best professional practice and quality assurance measures; health and safety issues; space planning and facilities planning and management; skills for designing to a budget.

INTA1402

Graduation Project

Staff Contact: Harry Stephens

CP40 HPW 2

Prerequisites: INTA1401; INTA1421

An approved self-selected large-scale project carefully chosen and executed to demonstrate proficiency in every aspect of the course. The project, though hypothetical, must be based on a real situation with site, client and brief and be carried out under the guidance of an external professional mentor and an internal academic supervisor. It will be examined in a personal presentation made to a jury of professional designers and academics. The Graduation Project is to be done in parallel with a Dissertation that will examine an approved aspect of the project.

DESIGN STUDIES STREAM

A series of subjects investigating specific design issues centrally related to interior architecture which are not of necessity covered within the Design Studio stream. Delivered as lectures with associated practical assignments in a studio setting.

INTA1211

Design Studies 1

Staff Contact: Harry Stephens

CP10 HPW 3

Prerequisites: INTA1102

Corequisites: INTA1241

Furniture Design 1. Through a series of lectures, tutorials, demonstrations and practical design projects, this course

addresses issues of design philosophy, ecology, scale, context, spatial relationships, materials, technologies and resources appropriate to the design of furniture and fittings – the decorative arts for interiors.

INTA1212

Design Studies 2

Staff Contact: Harry Stephens

CP10 HPW 3

Prerequisites: INTA1102

Furniture Design 2. A guided research-based subject concerned with the design and manufacture of furniture and fittings for mainly commercial applications. A research project and practical design assignment will focus on specific case studies.

INTA1311

Design Studies 3

Staff Contact: Harry Stephens

CP10 HPW 3

Prerequisites: INTA1202

Interior Materials. The role of material as 'medium and message' in interiors. The symbolic language of materials. The relationship between material and idea in the works of significant designers and architects. Research project(s) investigating the sources, manufacture, properties, characteristics and uses of a wide variety of materials. Excursions.

INTA1312

Design Studies 4

Staff Contact: Harry Stephens

CP10 HPW 3

Prerequisites: INTA1202

Corequisites: INTA1342

Fabric Design. A study of textiles and fabrics and their applications in interiors and architecture. The course will examine in some detail origins, structures, properties and manufacturing processes dealing with fibres, yarns and materials: woven, non-woven and knitted materials. Patterning, including structural and non-structural ornamentation. Further treatments and applications of materials. Standards of use and durability. New directions, concepts and future implications.

HISTORY & THEORY STREAM

This stream enables the endeavours of the student to be placed within an historical context informed by critical theoretical issues and to provide a general education in both history and theory related to interior architecture, art and design. Culminating in the production of a dissertation, it also attempts to provide the most focussed opportunity for scholarly research and writing in the course.

INTA1121

History & Theory 1

Staff Contact: Harry Stephens

CP10 HPW 3

Corequisites: BENV1101

Two parallel series of lectures grouped together under the one subject. Each will be assessed separately and both must be passed to pass the subject.

History: History and the writing of history and how these affect our understanding of architecture and design. A chronological overview of European architecture from the break-up of the Roman Empire to the Industrial Revolution in the eighteenth century; introduction to the perennial themes of architecture and design by historical example. Australian architectural and design history - aboriginality, origins, nationalism, chronology, style, regionalism, vernacular, gender, architectural and design media, heritage, conservation, and the value systems and polemic adopted in pursuit of these.

Theory: A study of design in general and as it is practiced. Ways of seeing, understanding and speaking of design. Key values and attitudes. Design as designation for the purpose of fulfilling aims that spring directly from human life and experience.

INTA1122

History & Theory 2

Staff Contact: Catherine de Lorenzo & Harry Stephens

CP10 HPW 3

Corequisites: INTA1102

Two parallel series of lectures grouped together under the one subject. Each will be assessed separately and both must be passed to pass the subject.

History: Art and Visual Culture. An introduction to the works of a range of visual artists of the late nineteenth and twentieth centuries generated at times of critical social and artistic change.

Theory: An introductory study of the relationship between human life events and the spatial arrangements necessary to cater for them. The body (anthropometrics) and its fit with the physical world (ergonomics). Psychological implications of spatial arrangements. Spiritual aspirations as formative influences in design.

INTA1221

History of Interior Architecture and Design

Staff Contact: Harry Stephens

CP10 HPW 2

Prerequisites: INTA1122

A chronological survey of the design of interiors and decorative arts from ancient times to now. Correlation with contemporary themes and movements in art, architecture and the sciences. The changing role of craft in the decorative arts – in the making of materials, furnishings and fittings for interiors. Some 'heroes' of interior architecture. Noteworthy immediate past and present interior architecture. Interior architecture in Australia.

INTA1421

Project Research

Staff Contact: Harry Stephens & Sue Serle

CP10 HPW 3

Prerequisites: INTA1302

This subject is devoted to laying the foundations for the Graduation Project and its associated Dissertation. It

incorporates: the development of the design brief; a report on the context of the project and the impact of all regulations and standards; a literature search and compilation of a bibliography; an outline of the dissertation. The whole to be submitted in the form of a report.

INTA1422

Dissertation

Staff Contact: Harry Stephens & Sue Serle

CP20 HPW 2

Prerequisites: INTA1421

To be written in conjunction with the Graduation Project, the Dissertation is an 8000 word document on an approved topic which takes as its departure point the theoretical basis of the project either broadly or in detail. A formal scholarly piece of writing, it will endeavour to demonstrate the student's ability to thoroughly research the approved topic and present a well reasoned argument in support of a clearly stated hypothesis. Whilst it is to be intimately associated with the Graduation Project, it will not be merely a descriptive piece but will illustrate the student's philosophical stance in relation to the project. A precis of the Dissertation will be submitted as part of the final presentation of the Graduation Project to assist the examining jury in its deliberations.

COMMUNICATIONS STREAM

The ability to be innovative and effective in the communication of every aspect of the discipline of Interior Architecture is crucial both in its study and practice. This stream is concerned with developing in the student an expertise in a wide range of techniques and media employed in communicating both within the discipline – to oneself, one's peers and teachers - and from the discipline to the wider community – to clients, builders and civic authorities. The stream will deal with skills such as writing (in many modes), speaking, model making, graphic communication – observational drawing, technical drawing, lettering, calligraphy, colour theory and application – as well as a wide range of computing skills.

INTA1142

Communications 1

Staff Contact: Harry Stephens

CP10 HPW 3

Corequisites: INTA1102

An introduction to the communication skills in writing, speaking and drawing necessary in the study and practice of interior architecture. Scholarly research and writing; report and letter writing. Skills for working with and making oral presentations to large and small groups. Observational drawing and freehand sketching in a variety of techniques and media. Technical drawing – parallel (orthographic, isometric and axonometric) projections; conic projections – perspective; rendering techniques; plane and solid geometry. Introduction to colour theory and practice: the value scale; primary, secondary and tertiary colour wheel; colour contrasts.

INTA1241

Communications 2

Staff Contact: Harry Stephens

CP10 HPW 2

Prerequisites: INTA1142

Corequisites: INTA1201; INTA1211

Drawing as a design tool and as a means of communicating technical data. Construction and shop drawings. Freehand and technically constructed perspective. Rendering techniques. Collection and use of a wide range of source material and media for graphic communication. Colour theory and practice.

INTA1342

Communications 3

Staff Contact: Harry Stephens

CP10 HPW 3

Prerequisites: INTA1241

Colour and light. A series of lectures and projects examining the history, practice and theories of colour and light. Practical experience to enable students to: precisely identify and exactly recreate any hue; develop an understanding of the subjective nature of colour vision; develop an awareness of the difference between the additive and subtractive systems of light-projected and physical colour.

TECHNOLOGY STREAM

An understanding of technology is fundamental to design for it is concerned with the methods whereby that which is designed is made possible. The subject matter in this stream may be subdivided into the four main areas of construction, structures, environmental science and environmental technology that will be dealt with in varying degrees across the subjects. Wherever possible technology assignments will be based upon the work in the design studio.

INTA1271

Interior Technics 1

Staff Contact: Faculty Student Centre

CP10 HPW2

Prerequisites: BENV1172

Environment: Natural and artificial lighting. Quantitative and qualitative aspects of lighting design. Electric light sources, light control and prediction methods.

Construction: Analysis of the relationship between theoretical and constructional agendas. Design themes and their implications for selection of materials and constructional systems. Building materials and materiality in architecture. Quantitative and qualitative design constraints, limits and opportunities posed by building materials, structural and constructional systems. Detailed analysis of junctions and connections between materials, components, assemblies and finishes. Implications of junctions and connections for spatial and tectonic articulation and modulation. Dimensional constraints and coordination. Construction drawing, detailing, modelling and design development as parallel practices.

INTA1272**Interior Technics 2****Staff Contact:** Faculty Student Centre**CP10 HPW2****Prerequisites:** BENV1172

Environment: Integration of passive design strategies. Case studies. Introduction to thermal evaluation and design tools, correlation and simulation models.

Interior detailing: Sourcing, evaluating, selecting and specifying interior materials. Design resolution at a fine scale. The practice and technology of detailing interiors. Detailing from the beginning of the design process. Case studies of recent examples of good detailing. Building methods and technologies and their impact on detailing in a range of materials including stainless steel, tiles, stone, glass, timber joinery, timber veneer, composite materials and plastic laminates. Specifying finishes stains and coatings.

INTA1371**Interior Technics 3****Staff Contact:** Faculty Student Centre**CP10 HPW2****Prerequisites:** INTA1272

Environment: Acoustics and noise control: design of rooms, basic shape and volume, acceptable ambient sound levels. Acoustic performance: properties and behaviour of sound, sound transmission loss, external noise levels, structure-borne and impact sound, reverberation times, selection of building envelope elements, selection of interior building materials and elements.

Building services, regulations and standards: Air-conditioning, plumbing, telecommunications, electrical and mechanical services. Implications for the design of interior space. Relationship to best practice principles of passive energy design and energy conservation. Fire protection systems and regulations. Working within the parameters of the Building Code of Australia, Standards Association of Australia standards and the requirements of other statutory bodies pertaining to buildings in general and to interiors specifically.

PRACTICE STREAM

The ethics, legal responsibilities and constraints bearing on the professional practice of interior architecture together with management and administration principles and techniques appropriate to the discipline are dealt with in a series of three subjects. Notwithstanding that it will take many years of practice to become proficient at these skills, these subjects are positioned at the end of the course to better prepare the student for entry into practice after graduation.

INTA1481**Professional Practice 2****Staff Contact:** John Cooke**CP10 HPW2****Prerequisites:** BENV1381

Legal implications of professional practice. Liabilities of design professionals. The agreement with the client. Types

of building contract and methods of building procurement. Tendering and negotiating. Contract administration. Professional defensive measures and crisis management. Introduction to management theory. The structure and organization of the office. Aspects of company and partnership law and insurance. Business principles and management procedures.

Bachelor of Building Construction Management

YEAR 1**BLDG1010****Communications and Resource Usage****Staff Contact:** Dr J Kim**CP5 HPW2****Note/s:** Compulsory.

Using the library. Accessing information: reading, summarising and report writing. Organization of and participation in meetings, seminars and lectures. Graphic communication: photography, drafting and detailing.

BLDG1091**Built Environment 1****Staff Contact:** Faculty Student Centre Office**CP5 HPW2****Note/s:** Compulsory.

The intention is to develop an understanding of the relevance of man's 'culture' (that thing which his social, economic, political, religious and physical environment gives rise to) to the nature of buildings and settlements which he devises, and an appreciation of the architecture and building (in particular in terms of materials and construction) of those cultures which can be seen to be providing the line to modern 'western' building from as far back as 'the stone ages'.

BLDG1111**Building Science 1 (Materials)****Staff Contact:** A/Prof M Marosszeky**CP15 HPW4****Note/s:** Compulsory.

Properties of materials; plasticity, elasticity, density, porosity, hardness. Optical, electrical, thermal and acoustic properties. Deterioration. Properties and manufacture of building materials; wood, wood products, cements, limes, concrete, bricks, metals, fibre cement, ceramics, plastics, sealants and mastics, stones.

BLDG1201**Construction 1 (Domestic Construction)****Staff Contact:** Mr P Forsythe**CP15 HPW4****Note/s:** Compulsory.

Functional requirements and methods of building single family dwellings: brick, brick veneer and timber frame;

domestic joinery; staircase construction; finishes; plumbing, drainage and electrical services; methods of setting out and supervision, on site observation and report on house construction.

BLDG1210

Construction Mathematics

Staff Contact: Faculty Student Centre Office

CP5 HPW2

Note/s: Compulsory.

Calculus: differentiation and integration; practical applications. Probability: sample spaces and probabilities; probability trees; distribution of random variables; expected value and decision analysis. Statistics: mean, mode, median, standard deviation and variance; normal and binomial distributions; linear regression.

BLDG1261

Management 1 (Management Principles)

Staff Contact: Dr M Loosemore, A/Prof T Uher

CP10 HPW2

Note/s: Compulsory.

Basic management principles, scientific management, management objectives. Structure of building industry. Building Acts and Regulations, codes, local government authority powers.

BLDG1002

Construction 2 (Low Rise Residential)

Staff Contact: Mr P Forsythe

CP15 HPW4

Prerequisites: BLDG1201, BLDG1111

Note/s: Compulsory.

Small multistorey buildings from the functional and construction operation viewpoints. Quality control and supervision. Basement, ground floor and upper floor construction; methods of roofing, waterproofing; joinery; internal finishes; minor construction plant, formwork. Construction drafting, onsite observation and report on home unit building.

BLDG1051

Structures 1

Staff Contact: Dr O Greste

CP10 S2 HPW3

Note/s: Compulsory.

Loads on structures; external and internal forces; free body diagrams; conditions of force and moment equilibrium. Analysis of statically determinate structures; member forces in pin-jointed trusses. Beam section properties; bending moment, shear force and deflection diagrams for beams; beam stresses in bending and shear, qualitative structural behaviour of frame, arch, cable, membrane, plate and shell structures in supporting vertical and lateral loads.

BLDG1271

Law for Builders 1

Staff Contact: Faculty Student Centre Office

CP5 HPW2

Note/s: Compulsory.

Law, including brief outline of sources of law in New South Wales and the system of judicial precedent. General principles of law of contracts. Contractual rights and obligation. Court structures; sale of goods; a general introduction to the law of bankruptcy. General principles of law of agency. Law of partnership.

BLDG1411

Building Economics 1 (Micro Economics)

Staff Contact: Dr G Runeson

CP10 HPW2

Note/s: Compulsory

The theory of prices and allocation of goods and services; An introduction to welfare economics. The economic structure and function of the building and construction industry, illustrated with examples. An introduction to investment analysis.

BLDG2281

Introduction to Computing

Staff Contact: Dr O Greste

CP5 HPW2

Note/s: Compulsory

Practical use of word processor, spreadsheet, data base, presentation software in PC laboratory. Overview of computer hardware and generic applications software. Introduction to programming; introduction to computer networks and communications. Awareness of computer use in society and its societal impact.

PHYS1938

Physics 1 (Building)

Staff Contact: Dr P Spark, School of Physics

CP7.5 L2T1

Energy transfer: concepts of temperature and heat; calorimetry; gas laws; phase changes and humidity; heat transmission; refrigeration. Electrostatics and electromagnetism: electric and magnetic fields; DC circuits; electromagnetic induction. Properties of matter: atomic bond types and their relation to elasticity, plasticity and fracture; pressure in stationary and moving fluids.

YEAR 2

ACCT9001

Introduction to Accounting A

Staff Contact: Mr B Booth, School of Accounting

CP7.5 HPW2

Note/s: Compulsory.

Introduces non-commerce students to the nature, purpose and conceptual foundation of accounting; information systems including accounting applications, and analysis and use of accounting reports.

BLDG1151

Building Services 1 (Hydraulics)

Staff Contact: Faculty Student Centre Office

CP5 HPW2

Note/s: Compulsory.

Hydraulic services pertaining to small and medium size projects; hot and cold water reticulation; sewer and storm water drainage; sanitary plumbing, introduction to fire fighting equipment and services; regulatory authorities and requirements.

BLDG2003

Construction 3 (Framed Building)

Staff Contact: Faculty Student Centre Office

CP15 HPW4

Prerequisites: BLDG1002, BLDG1051

Note/s: Compulsory.

Study of structural steel and concrete frames; large span factory roofing, precast concrete walling, welding techniques, fire requirements, cladding methods, installation of cranes and machine footings, site works, dewatering, shoring, piling on site observation and report on factory building.

BLDG2261

Management 2 (Planning and Control)

Staff Contact: A/Prof T Uher

CP10 HPW2

Prerequisite: BLDG1261

Note/s: Compulsory.

Operation Research techniques and their relevance to building, concept of planning and control, CPM, PERT, Line of Balance, Multiactivity Chart, computer applications of CPM. Principles and application of Work Study. Risk analysis, decision making process.

BLDG2400

Research Methods

Staff Contact: Dr G Runeson

CP5 HPW2

Note/s: Compulsory.

An introduction to research methods, analytical techniques and presentation. Theories and philosophies of science and research. Research topics; collecting, generating and evaluating information. Structuring the study and presenting results.

BLDG2411

Building Economics 2 (Macro Economics)

Staff Contact: Dr G Runeson

CP10 HPW2

Prerequisites: BLDG1411

Note/s: Compulsory.

The function of the national economy and the role economic policies and their impact on the building and construction industry. The national finance system. The role of the Australian economy in the world. Investment analysis.

GMAT0411

Surveying in Building and Construction

Staff Contact: Mr A Stolz, School of Geomatic Engineering

CP7.5 HPW4

Note/s: Compulsory.

Overview of services provided by Geomatic Engineers. Linear and angular measurement. Setting out. Levelling;

laser levelling. Electronic tacheometry. Earthworks surveys. High-rise building surveys; quality assurance. Basic land law and cadastral systems. Subdivision surveys.

ACCT9002

Introduction to Accounting B

Staff Contact: Mr B Booth, School of Accounting

CP7.5 HPW2

Prerequisite: ACCT9001

Note/s: Compulsory.

An introduction for non commerce students to managerial accounting. Long range planning, budgeting and responsibility accounting: cost determination, cost control and relevant cost analyses.

BLDG2112

Building Science 2 (Concrete and Metals)

Staff Contact: Dr B Gleeson, School of Materials Science and Engineering

CP15 HPW4

Note/s: Compulsory.

Concrete technology: cement, aggregates, water and admixtures; properties of fresh concrete; strength considerations; durability, shrinkage and creep; special concretes; nondestructive testing; mix design. Metals in building: structural ferrous alloys; structural and architectural nonferrous alloys; corrosion and protection; welding; types of failure, brittle fracture, fatigue, creep; impact resistance; tensile properties; hardness; strain hardening. Fire: behaviour of building materials and structures.

BLDG2152

Building Services 2 (Mechanical)

Staff Contact: Faculty Student Centre Office

CP5 HPW2

Prerequisites: PHYS1938, BLDG1151

Note/s: Compulsory.

Ventilation theory; ventilation systems and equipment; refrigeration theory; air conditioning heat loads; air conditioning equipment; electrical equipment; telephones and security; lifts and escalators; detection and fire protection; garbage and incinerators.

BLDG2264

Management 3 (Contracts)

Staff Contact: A/Prof T Uher, Mr P Davenport

CP10 HPW2

Prerequisites: BLDG2261

Note/s: Compulsory.

Introduction to Contracts management. Project life cycle. Options for project delivery and contract price. Competitive tendering. Analysis of standard forms of contract. Contract disputes, litigation, arbitration and mediation. Contract Insurance.

BLDG2301

Quantity Surveying 1

Staff Contact: Mr P Marsden, Dr M Loosemore

CP15 HPW4

Note/s: Compulsory.

Quantity surveying; historical background; functions of the quantity surveyor; introduction to Australian Standard Method of Measurement of Building Works, its importance and application; methods of recording dimensions, checking and correlating plans and specifications; principles of measurement and billing; Bill of Quantities format; elementary billing and measurement of basic trades including finishes, brickwork, woodwork, roofing, concrete and groundwork.

BLDG2500

Construction Management Project 1

Staff Contact: Faculty Student Centre Office

CP5 HPW2

Prerequisites: All Stage 1 and Stage 2 Session 1 subjects

Note/s: Compulsory.

An integrated individual or team project that draws together material covered in all subjects of the first three semesters of the course. Simulation of construction conditions including technical, management, business and social aspects that have to be considered by the construction professional.

YEAR 3

BLDG3004

Construction 4 (High rise Buildings)

Staff Contact: A/Prof R Miller

CP15 HPW4

Prerequisites: BLDG2003, BLDG1051

Note/s: Compulsory.

Functional requirements and building techniques of highrise buildings and major building projects; structural systems, enclosure systems and environmental control systems and their interrelation from a construction standpoint; various methods and materials commonly used to solve functional demands; comparison of systems of construction, selection of plant and equipment cranes hoists concrete pumps etc.; principles of fire protection in highrise projects; cladding in concrete, metal and glass; ceiling and partition systems; integration and coordination of services. On site observation and report on high rise building.

BLDG3052

Structures 2

Staff Contact: Dr O Greste

Prerequisites: BLDG1051

CP10 HPW3

Note/s: Compulsory.

Principles of structural design for strength, stability and serviceability. Load carrying mechanisms in various structure types. Failure modes in beams and columns: bending, shear, local crushing, lateral buckling. Design of beams and columns in steel. Bolted joints in steel structures. Plastic design. Ultimate strength design for reinforced concrete. Design of concrete beams and one way slabs for bending, shear, deflection. Bond and anchorage; durability and concrete cover; column behaviour; two way slabs; footings and other elements; reinforcement detailing.

BLDG3266

Management 4 (People Management)

Staff Contact: Dr M Loosemore

CP10 HPW2

Prerequisites: BLDG2264

Note/s: Compulsory.

Definition of Personnel Management and Human Resources Management. Stages in the development of human resources management. The leadership/management dialectic. Inter-personnel skill development. Team building. Performance management and continuous improvement.

BLDG3272

Law for Builders 2

Staff Contact: Mr P Davenport

CP5 HPW2

Prerequisite: BLDG1271

Note/s: Compulsory.

Commercial law; Corporations; Trade practices; Consumer protection; Torts; Remedies; Succession; Local government; Real property; Administrative law.

BLDG3282

Computer Applications in Building

Staff Contact: Dr O Greste

CP7.5 HPW2

Prerequisites: BLDG2281

Note/s: Compulsory.

Practical use of spreadsheet programs for developing applications related to building construction and management. Practical use of CPM software for project planning and special purpose programs for estimating and cost management. Practical use of electronic mail and communication networks. Introduction to relational data base programs and computer aided drafting and design. Demonstrations of various software for quantity surveying, estimating and construction management.

BLDG3303

Quantity Surveying 2

Staff Contact: Mr P Marsden

CP10 HPW4

Prerequisites: BLDG2301

Note/s: Compulsory.

Advanced billing and measurement of substructure, structure and services and preliminaries in accordance with the Australian Standard Method of Measurement. Introduction to computerised measurement and billing. Introduction to elemental cost planning.

BLDG3005

Construction 5 (Techniques)

Staff Contact: A/Prof R Miller

CP15 HPW4

Prerequisite: BLDG3004

Note/s: Compulsory.

Specialised building techniques employed on major projects including the use of plant, equipment and various construction systems: excavation equipment, shoring,

ground anchorage, pile drivers, formwork, slip form, cranes, concrete handling. Construction methods with minimal impact on the environment. Integrated construction systems. Students undertake onsite studies. Emphasis on method of construction rather than the attributes of the finished product.

BLDG3060

International Housing Practice

Staff Contact: Mr P Forsythe

CP5 HPW2

Prerequisites: BLDG1002 GMAT0411

Note/s: Compulsory.

High, medium and low density housing development in terms of the entire procurement and production process. Factors directly involved in the process and other issues that impact on it including government housing policy, regulatory instruments, the commercial and social environment, land subdivision, property titling, urban planning, construction, financing and marketing. Current practices and future trends in various countries. International approaches to housing procurement. Quality in housing.

BLDG3070

Geotechnical Engineering for Building

Staff Contact: A/Prof B Shackel, School of Civil Engineering

CP10 HPW2

Note/s: Compulsory.

Knowledge for Construction Management graduates of geotechnical matters relating to investigations, design and construction of buildings enabling them to discuss and brief civil and geotechnical engineers to do the work; supervise personnel carrying out construction quality control; understand the advantages and limitations of types of foundations systems; design footings and simple retaining walls for temporary construction.

BLDG3275

Management 5 (Construction and Quality Management)

Staff Contact: A/Prof M Marosszeky, Dr J Kim

CP10 HPW2

Prerequisite: BLDG3266

Note/s: Compulsory.

Construction project management, concept and application. Role and functions of the project manager; management of all phases of construction projects. Construction strategy, planning and control.

Project quality management; quality management in design and construction including QC, QA and TQM. Application of ITP based tools. Benchmarking.

BLDG3280

Occupational Psychology, Health and Safety

Staff Contact: A/Prof R Miller

CP5 HPW2

Prerequisite: BLDG3266

Note/s: Compulsory.

History of Industrial Relations in Australia. Enterprise agreements. Restructuring Federal and New South Wales

Government policies. State and Federal awards. EEO and OH&S. Proactive site safety management. Statutory safety requirements.

BLDG3321

Estimating 1

Staff Contact: Mr P Marsden

CP5 HPW2

Prerequisite: BLDG2301

Note/s: Compulsory.

Introduction to techniques used by building estimators. Topics include the analysis of costs of material, plant and labour, and the estimation of unit rates; labour and plant scheduling, preliminary items, general and site overheads, the preliminary estimate.

BLDG3500

Construction Management Project 2

Staff Contact: Dr M Loosemore

CP10 HPW4

Prerequisite: All Stage 1 and 2 and Stage 3 Session 1 subjects.

Note/s: Compulsory.

An integrated individual or team project that draws together material covered in all subjects of the first five semesters of the course.

Simulation of construction conditions including technical, management, business and social aspects that have to be considered by the construction professional.

GSBE0002

Social Responsibility and Professional Ethics

Staff Contact: Faculty Student Centre

CP7.5

The aim of this subject is to expose students in the Faculty to issues of social responsibility in their future professional activities. This is done by selecting for analysis case studies. The exchange of information and affirmation and contestation of values by students is considered as important a part of the learning process as the professional input through lectures. Instruction includes common lectures and small seminar groups made up from students from all schools in the Faculty. Assessment will include individual and collaborative submissions.

YEAR 4

BLDG4001

Project Management and the Design Process

Staff Contact: Faculty Student Centre Office

CP10 HPW3

Prerequisite: BLDG3275

Note/s: Elective.

The nature of projects. Definition of project phases. The impact of procurement process on project outcomes. Project risk analysis and project organizational design. Client needs determination and managing the design process. Scope management.

BLDG4002**Organizational Behaviour***Staff Contact: Dr M Loosemore*

CP10 HPW3

Prerequisite: BLDG3266**Note/s:** Elective.

Organizational design. Types of organizations and fitting organizational structure to environment. Leadership. Reward processes. Expectancy Theory. Organizational change.

BLDG4016**Construction 6 (Industrialisation and Technological Change)***Staff Contact: A/Prof M Marosszeky*

CP10 HPW3

Prerequisite: BLDG3005**Note/s:** Elective.

Concept of industrialisation; historical trends. International experience. Effect of demand on construction technology. Tolerance in building; quality management, modular coordination. New technologies in manufacture and construction. Government policy. Internationalisation and future trends.

BLDG4267**Management 7 (Marketing)***Staff Contact: Faculty Student Centre Office*

CP10 HPW3

Prerequisite: BLDG3275**Note/s:** Elective.

Marketing for builders and developers in the Australian and Pacific environment with particular emphasis on the marketing mix, the relationship between a marketing system and its environment, development of marketing, tactics and strategy, market segmentation and the buyer decision process. Listing, selling and the auction process.

BLDG4273**Law for Builders 3***Staff Contact: Faculty Student Centre Office*

CP10 HPW3

Prerequisite: BLDG3272**Note/s:** Elective.

Recognition of the significance of different land titles, tenures and interests in land; understand the construction and content of contracts, leases and other forms of agreement required for property dealings and use; develop a familiarity with public and private controls and restrictions on land use and development; appreciate the relationship between planning policies at all levels and the valuation process; a knowledge of the valuation review and determination processes of the Land and Environment Court and similar tribunals; appreciate the requirements for presentation of evidence as an expert witness; acquire a familiarity with major court cases, relevant to a valuer, which establish valuation principles; understand the major objectives of principal New South Wales Acts dealing with real estate or interests therein.

BLDG4314**Building Economics 3***Staff Contact: Faculty Student Centre Office*

CP10 HPW3

Prerequisite: ACCT9002**Note/s:** Elective.

The business environment; business structures; taxation, depreciation; operating costs; economics of building plant and materials handling systems; financial control in the erection, management and demolition of buildings.

BLDG4422**Estimating 2***Staff Contact: Mr P Marsden*

CP10 HPW3

Prerequisite: BLDG3321**Note/s:** Elective.

Advanced estimating techniques, competitive tendering, contract cost adjustments; computer techniques applied to estimating.

BLDG4017**Advanced Materials***Staff Contact: A/Prof M Marosszeky*

CP10 HPW3

Prerequisite: BLDG3005**Note/s:** Elective.

Polymer materials in sealants, membranes, adhesives and paints. Composite materials including fibre reinforced concretes, fibre reinforced plastics, composite engineered timber products. High performance concrete, ceramics and glass building stones. The focus is on properties that effect performance from a mechanical, serviceability and durability point of view.

BLDG4275**Dispute Avoidance and Resolution***Staff Contact: Faculty Student Centre Office*

CP10 HPW3

Prerequisite: BLDG2264**Note/s:** Elective.

Nature of claims, remedies, alternative dispute resolution, mediation, expert appraisal, litigation, moot arbitration.

BLDG4284**Building Information Systems***Staff Contact: Dr O Greste, A/Prof R Miller*

CP10 HPW3

Prerequisite: BLDG3282**Note/s:** Elective.

The specification, development and use of computer based information systems in the management of building companies. Information system components, attributes and lifecycle. Data files structures and access modes; database systems. Information system response, distribution, size and controls; logical and physical design. Computer hardware; communications; local area networks. Case studies of computer systems in building construction and management companies. The subject involves extensive use of a microcomputer database package.

BLDG4303**Quantity Surveying 3***Staff Contact: Mr P Marsden*

CP10 HPW3

Prerequisite: BLDG3303**Note/s:** Elective.

Functions of the cost planner; liaison with consultants; cost planning techniques including practical exercises; cost control and design economics; professional practice.

BLDG4366**Management 6 (Corporate Strategy and Small Business)***Staff Contact: Faculty Student Centre Office*

CP10 HPW3

Prerequisite: BLDG4314**Note/s:** Elective.

Corporate strategy and the overall general management of an enterprise in the construction and development industry, derivation of policy by top management together with planning of policy implementation; tax planning. Small business management including uncertainty, entrepreneurship, risk and trading structures. Contrasting small business operations with the strategy, management and marketing etc. of large businesses in the Construction and Property industries.

BLDG4391**Land Economics***Staff Contact: Faculty Student Centre Office*

CP10 HPW3

Prerequisite: BLDG4314**Note/s:** Elective.

Ability to apply relevant valuation techniques to a broad range of common land use types; acquisition of knowledge of efficient property management techniques; identification of a range of unusual property types which require specialised valuation skills and knowledge and the means of developing such skills and knowledge; knowledge to develop novel valuation techniques for application to specific property types; ability to determine the highest and best use for nominated property types; the application of inspection techniques for broad property types; competency in the use of property valuation and inspection aids; familiarity with resource materials and information sources required to undertake specific types of valuation.

BLDG4492**Property Development and Valuation***Staff Contact: Dr Y Tu*

CP10 HPW3

Prerequisite: BLDG2411**Note/s:** Elective.

A total approach to the building process through the four stages of pre-design, design, construction and post-construction. Market research, establishing client's needs, site selection and analysis, feasibility studies and financing methods. General principles of valuation. Judicial valuation, legal precedent, land titles and rights. Depreciation assessment. Building maintenance cycles. Time value of

money and equivalence. Methods and philosophies of determining market valuations. Preparation of development applications cost value analysis, value management LCC and services integration.

BLDG4493**Property Management***Staff Contact: Dr J Kim*

CP10 HPW3

Note/s: Elective.

Maintenance and obsolescence; economics of refurbishment; marketing; tenancy management; building control and security systems; management of commercial, retail, industrial and large scale residential complexes; legal aspects of tenancy management; energy conservation; taxation law and implications.

OTHER SUBJECTS**BLDG4500****Thesis***Staff Contact: A/Prof R Miller*

CP40

Prerequisite: All Year 1 to 3 subjects**Note/s:** Compulsory.

Thesis: for Honours Degree. Results of research on selected Thesis topic, written up in technical report format. Thesis requires the student to survey the literature on the chosen topic, develop an hypothesis, collect information and data, effectively process and document the research results and draw reasoned conclusions from them.

Project: for Pass Degree. An in depth structured study or state of the art study of a technical topic. It should rely strongly on recent authoritative information and should synthesise the knowledge embodied in the technical literature in a well structured manner seeking to address a significant technical question with vigour.

BLDG9998**Quantity Surveying Industry Program***Staff Contact: A/Prof RMA Miller*

CP0

Note/s: Compulsory.

Students proposing to apply for membership in the Australian Institute of Quantity Surveyors after graduation should enrol in this subject rather than BLDG9999. It must be completed before the start of the final year of the course.

The Industry Program is to be taken as a six months continuous employment with a professional Quantity Surveying firm or with a firm or building company where quantity surveying activities are undertaken. Students should be under the direct supervision of a corporate member of the Australian Institute of Quantity Surveyors or, where this is not possible, under the guidance of a mentor appointed by the Institute. Submission requirements are a daily diary, report and a completed form from the employer.

BLDG9999**Building Industry Program***Staff Contact: A/Prof RMA Miller*

CP0

Note/s: Compulsory.

Eighty days of approved building industry experience at any time to the start of the final year of the course. Submission requirements are a weekly diary, report and a completed form from the employer.

Bachelor of Industrial Design

The following subject descriptions are for those core subjects specific to the Bachelor of Industrial Design or those taught outside the Faculty of the Built Environment. For descriptions of the other subjects which make up the core in this program, refer to the earlier section describing the Faculty Common Core subjects.

DESIGN STUDIOS

IDES1031**Industrial Design Studio 1***Staff Contact: Ms. Rina Bernabei*

CP15 HPW4

Prerequisites: BENV1101*Corequisites:* IDES1021, IDES1041

To introduce students to basic aspects of Industrial Design in order to develop an ability to solve problems of very low complexity involving theoretical and project work to introduce design methodologies and their application to three dimensional design problems. At the same time the subject assists in the final decision at the end of year 1 that industrial design is the appropriate professional career choice for each individual student.

IDES2161**Industrial Design Studio 2***Staff Contact: Ms. Rina Bernabei*

CP30 HPW5

Prerequisite: IDES1031

The subject is aimed at introducing students to design problems which require the application of the Design Process in order to arrive at creative and feasible solutions. This means that each project will require a search component to understand the problem and design parameters in detail. From this research it will be necessary to establish a set of design specifications which will form the basis of design development. The design stage will usually involve the development of a number of design concepts which satisfy the design specifications for the project. A major emphasis in this stage will be placed on developing the ability to be objectively critical in evaluating design concepts. Finally, in order to communicate or "sell" design solutions students will be encouraged to select the most suitable method of presenting their design ideas to the assessment panel.

IDES3221**Industrial Design Studio 3***Staff Contact: Mr. Michael Hort*

CP30 HPW5

Prerequisite: IDES2161

The subject Industrial Design Studio 3 is aimed at introducing students to more complex design problems in order to develop a thorough and responsible approach to the design of products. Projects are chosen that build up on the undertaken project work in Industrial Design Studio 2, and include projects of "real-life" complexity.

IDES4291**Industrial Design Studio 4***Staff Contact: Ms Ruth McDermott*

CP15 HPW4

Prerequisite: IDES3221

Studies during this unit will be directed to prepare students to work as Industrial Design professionals.

Each student is encouraged to direct his/her project program towards minimising any weaknesses that are evident in his/her knowledge and skills, or covering an area of design that they may not have worked in previously. Projects are orientated towards specific interests that each student has developed in Industrial Design. Each student will finalise their folio during the year, therefore, this requirement should be kept in mind throughout the year when selecting and undertaking projects. The folio should aim at being of professional quality and range.

IDES4301**Project Research***Staff Contact: Mr J Talbot*

CP15 HPW4

Prerequisite: IDES3221

Product research methodologies and their application to an individual project chosen in conjunction with the Program. This work provides the research basis for the Project.

IDES4311**Graphic Design***Staff Contact: Faculty Student Centre Office*

CP10 HPW3

Prerequisite: IDES1031

The major graphic production processes, and their application in graphic design. Type and typesetting systems. Graphic design projects.

IDES4321**Environmental and Interior Design***Staff Contact: Faculty Student Centre Office*

CP7.5 HPW2

Prerequisite: IDES2161

Understanding the nature of environmental space and spatial ambience, and the relationship of objects and products to the surrounding space. Environmental and interior design projects.

IDES4351**Project***Staff Contact: Mr J Talbot*

CP40 HPW12

*Prerequisite: IDES3221**Corequisites: IDES4301*

A project within the practice areas of industrial design, chosen by the student in consultation with the program at the commencement of Project Research. The project is based upon the research base established in Project Research.

DESIGN SKILLS**IDES1011****Workshop Technology***Staff Contact: Mr J Talbot*

CP10 HPW4

Introduction to workshop techniques involved in the production of models and prototypes. Development of safe working practices using a range of hand tools and basic machining processes.

IDES1051**Geometrical and Mechanical Drawing***Staff Contact: Mr L Green*

CP15 HPW2

Introduction to orthographic drawing with particular reference to the Australian Engineering Drawing Standard. Mechanical projections other than perspective. Descriptive geometry and the analysis and synthesis of form and spatial relationships.

IDES2101**Perspective and Rendering Techniques***Staff Contact: Faculty Student Centre Office*

CP10 HPW4

Prerequisites: BENV1101 and IDES1051

Review of the major mechanical perspective systems and rendering techniques with particular reference to their applications in product design. Project studies are undertaken within the range of systems and media.

IDES2171**Computer Aided Design***Staff Contact: Faculty Student Centre Office*

CP15 HPW4

Prerequisite: BENV1141

Computer aided design and drafting systems and their applications in product development. Mathematical optimisation techniques.

IDES3231**Computer Graphic Applications***Staff Contact: Faculty Student Centre Office*

CP15 HPW4

Prerequisite: IDES2171

Development of Computer Aided Drafting with particular reference to perspective and rendering techniques using

computing equipment, as well as the application of computing to other graphic problems.

DESIGN THEORY**IDES1121****History of Industrial Design***Staff contact: Ms. Ruth McDermott*

CP7.5 HPW2

This subject is a chronological study of the emergence and development of industrial design from 1800 to the present day. It includes products as an aspect of our culture/society/commerce/industry from 1750 to the present day and examines consumer products within the context of the changes taking place in industry and society.

IDES2091**Design Methodology***Staff Contact: Mr L Green*

CP7.5 HPW2

Prerequisite: IDES1031

Design methodology and its applications in the industrial situation, analysis of problems, strategy planning, the application of research methods. In addition the subject describes the methodologies of Value Analysis, Quality Function Deployment, Design for X (manufacture, assembly, environment etc.).

IDES4371**Design Management for Industrial Design***Staff Contact: Mr L Green*

CP7.5 HPW2

Prerequisite: IDES2091

The problem of integrating innovative product design and development within the overall managerial, production and financial structure of industry. Australian and overseas case studies are given. Particular emphasis is placed on the development of appropriate design management structures and methods for the Australian situation.

ERGONOMICS**IDES2201****Ergonomics***Staff Contact: Mr J Talbot*

CP15 HPW4

Applied anatomy and kinesiology, anthropometrics and application in product and environmental design. Physiological and psychological aspects of ergonomics, work, environment effects, human/machine interface. Principles of ergonomics research methods. Analysis of ergonomic requirements within the context of product development. Ergonomic methodology and experimental methods and their application in the product research and development process.

INDUSTRIAL EXPERIENCE

IDES4391

Industrial Experience

Staff Contact: Mr J Talbot

CP0

Prerequisite: IDES2161

Corequisite: IDES3221

Students obtain 3 months of approved practical experience in a design office. The subject may be taken from the end of the second year but at least half of the requirement must be taken from the end of the third year. The subject cannot be taken in units of less than 1 month. The experience is to be recorded in a logbook to be signed by the employer.

SCIENCE AND ENGINEERING SUBJECTS

IDES1082

Engineering Design Mechanics

Staff Contact: Mr L Green

CP10 HPW4

Prerequisites: MATH1021 and PHYS1937

Equilibrium, Friction Systems of multibody members, coplanar. Mass centre; centroid. Fluid statics. Plane particle kinematics; rectilinear motion. Plane particle kinetics; equations motion; work, power, energy; impulse, momentum, impact.

IDES2182

Materials and Manufacturing Processes for Industrial Design A

Staff Contact: Faculty Student Centre Office

CP7.5 HPW3

Engineering materials including polymers and timbers and their application in manufacturing processes. The range of processes.

IDES3202

Materials and Manufacturing Process for Industrial Design B

Staff Contact: Mr L Green

CP7.5 HPW2

Prerequisite: IDES2182

Plastic materials and manufacturing processes are discussed together with the economics of production processes, design constraints alternate design and manufacturing strategies and test procedures.

ELEC0806

Electrical Engineering for Industrial Design

Staff Contact: Faculty Student Centre Office

CP15 HPW4

Prerequisite: PHYS1937

Ohm's law, concepts of AC and DC voltage and current. The basics of transformers, motors and electromechanical product systems. Electromagnetic interference, shielding and earthing. Feedback systems. Thermo, active and passive control elements. Analogue and digital systems. Microprocessor systems and instrumentation.

IDES3262

Production Design and Technology for Industrial Design

Staff Contact: Mr L Green

CP7.5 HPW2

Basic metrology and tolerancing, introduction to plasticity theory and its application to theories for machining and forming, economics of production processes; interaction of machines and tools; principles of process selection; review of major processes, interaction of design, production quantity, materials and processes; value analysis, design constraints. Quality assurance.

MATH1011

General Mathematics 1B

Staff Contact: School of Mathematics First Year Office

CP15 HPW6

Prerequisites: HSC mark range required: 2 unit Mathematics (60-100) or 2 and 3 unit Mathematics (1-150) or 3 and 4 unit Mathematics (1-200). (2 unit Mathematics in this instance refers to the 2 unit Mathematics subject which is related to the 3 unit Mathematics subject. It does not refer to the subjects Mathematics in Society or Mathematics in Practice. These numbers may vary from year to year.)

Note/s: Excluded MATH1032, MATH1042, MATH1131, MATH1141, ECON2200, ECON2201, ECON2202, ECON1202, ECON2290, ECON2291.

Functions (and their inverses), limits, asymptotes, continuity; differentiation and applications; integration, the definite integral and applications; inverse trigonometric functions; the logarithmic and exponential functions and applications; sequences and series; mathematical induction; the binomial theorem and applications; introduction to probability theory; introduction to 3 dimensional geometry; introduction to linear algebra.

MATH1021

General Mathematics 1C

Staff Contact: School of Mathematics First Year Office

CP15 HPW6

Prerequisite: MATH1011

Note/s: Excluded MATH1032, MATH1042, MATH1231, MATH1241, ECON2200, ECON2201, ECON2202, ECON1202, ECON2290, ECON2291.

Techniques for integration, improper integrals; Taylor's theorem; first order differential equations and applications; introduction to multivariable calculus; conics; finite sets; probability; vectors, matrices and linear equations.

MATH2819

Statistics SA

Staff Contact: School of Mathematics Office

CP10 HPW2

Prerequisite: MATH1021 or MATH1231 or MATH1241

Probability, random variables, independence. Binomial, Poisson and normal distributions, transformations to normality, estimation of mean and variance, confidence intervals, tests of hypotheses, contingency tables, two sample tests of location, simple and multiple linear regression, analysis of variance for simple models.

PHYS1937**Physics 1 (Industrial Design)**

Staff Contact: First Year Director, School of Physics
CP10 HPW4

Energy transfer: concepts of temperature and heat; calorimetry; gas laws; phase changes and humidity; heat transmission; refrigeration. Electrostatics and electromagnetism: electric and magnetic fields; DC circuits; electromagnetic induction. Sound: wave properties; absorption of sound. Properties of matter: atomic bond types and their relation to elasticity, plasticity and fracture; pressure in stationary and moving fluids.

COMMERCE SUBJECTS**ACCT9003****Introduction to Accounting**

Staff Contact: School of Accounting Office
CP7.5 HPW2

With the emphasis on the decision-usefulness of information, and against a background of fundamental concepts and principles, rather than by reference to complex, detailed rules, the objectives of the course are to:

provide a broad understanding of the accounting principles and practices underlying published financial statements; leading to an appreciation of the uses and limitations of data contained in such statements; develop some of the skills required to analyse and interpret published financial data; and provide an introduction to some aspects of management accounting.

MARK2012**Marketing Fundamentals**

Staff Contact: School of Marketing Office
CP15 HPW4

Prerequisites: ACCT9003

This subject provides a conceptual framework for developing and understanding of marketing including the marketing process, marketing environment and marketing planning. It covers product, service, consumer, industrial, global and social aspects of marketing and introduces the marketing mix, market segmentation, positioning and product differentiation.

MARK2051**Consumer Behaviour**

Staff Contact: School of Marketing Office
CP15 HPW4

Prerequisites: ACCT9003

Corequisite: MARK2012

This subject studies in details the internal influences on behaviour as they apply to the consumption process. The course is designed to understand how consumers process information and the emotions and motivations that impact on that process. The focal topics include: the study of cognition, memory, learning, perception, motivation, and the communication process as these relate to marketplace behaviour.

MARK3091**New Product and New Service Development**

Staff Contact: School of Marketing Office
CP15 HPW4

Prerequisites: MARK2012, MARK2051

A marketing perspective on new product and new service development. innovation strategy, opportunity identification, the design process (including customer measurement, preferences, benefit segmentation), testing and improving new products (including forecasting), commercialisation and product introduction, profit management, implementing the process.

Bachelor of Landscape Architecture

The following subject descriptions are for those core subjects specific to the Bachelor of Landscape Architecture or those taught outside the Faculty of the Built Environment. For descriptions of the other subjects which make up the core in this program, refer to the earlier section describing the Faculty Common Core subjects.

LAND1102**Landscape Design 2: Design Process**

Staff Contact: Elizabeth Mossop
CP10 HPW3

Prerequisites: LAND1101

An introduction to site design and design process. A number of small-scale projects will allow exploration of design process through site planning, the use of historical precedent and design generation. Studio based projects will be supported by theoretical readings.

LAND1201**Landscape Design 3: Site Planning**

Staff Contact: Elizabeth Mossop
CP20 HPW6

Prerequisites: LAND1152, LAND1102, LAND1171

More advanced design exercises within the context of both natural and urban environments. Emphasis is on gaining further knowledge of site planning and understanding of ecological issues, with specific reference to sites within the Sydney Region. Projects are at larger scales and the emphasis is on working with communities.

LAND1202**Landscape Design 4: Landform and Planting Design**

Staff Contact: Elizabeth Mossop
CP20 HPW6

Prerequisites: LAND1201

Corequisites: LAND1251

In this studio students will undertake sophisticated site research and analysis techniques. A key issue will be the development of understanding about the relationship between natural systems and constructed environments and ecological sustainability. Focussing on planting and landform design students will explore techniques for the

development of design ideas and their resolution into sophisticated form and material.

LAND1301

Landscape Design 5: Design with a Complex Program

Staff Contact: Elizabeth Mossop

CP20 HPW6

Prerequisites: LAND1202

This studio will introduce students to projects with more complex programs and different approaches to dealing with them. It will focus on developing skills in the manipulation of architectonic space and form.

LAND1302

Landscape Design 6: Design Resolution and Documentation

Staff Contact: Elizabeth Mossop

CP20 HPW6

Prerequisites: LAND1301

This studio will focus on design resolution and documentation of one project. Students will develop skills in detailing, use of materials and CADD.

LAND1401

Landscape Design 7: Urban Landscape Design

Staff Contact: James Weirick

CP30 HPW8 (7weeks)

Prerequisites: LAND1302

An exploration of the relationships within the fabric of the urban environment including concepts of city functions and the analysis of disparate parts of the city with physical design being the primary focus. Context and place, history and theory are considered as well as analytical techniques. Design studios, lectures and seminars.

This subject generates the urban design context for the Graduating Project undertaken in LAND1402 Landscape Design 8.

LAND1402

Landscape Design 8: Graduating Studio

Staff Contact: Elizabeth Mossop

CP30 HPW8 (7weeks)

Prerequisites: LAND1401, LAND1491

Students are called upon to employ all the knowledge, skill and understanding they have gained in previous years and to explore issues and approaches in design which are of particular interest to them. The graduating design project follows from LAND1401 Landscape Design 7 and involves sketch design and detailed design development. Graduating project is related to the natural, urban or rural environment. The studio will critically assess aspects of theory through design speculation.

LAND1121

Introduction to Landscape Architecture

Staff Contact: James Weirick

CP10 HPW2

Introduction to the principles of design education. Overview of landscape architecture as a practice, as a profession

and as an academic discipline. Study of contemporary landscape architecture as a design field and as a creative component of the environmental movement. Introduction to the art and technique of reading the landscape.

LAND1122

History of Landscape Architecture

Staff Contact: James Weirick

CP7.5 HPW2

Critical analysis of cultural landscapes through the investigation of philosophical, aesthetic and social aspects of landscape architecture and garden art in Eastern and Western traditions.

LAND1221

Environmental Sociology for Landscape Architects

Staff Contact: Elizabeth Mossop

CP7.5 HPW2

Perception of human requirements through behavioural studies, including territoriality and personal space identity. The effect of environmental changes on people. Sociological techniques for understanding user requirements. Post design evaluation. Application of simple statistical methods.

LAND1321

Research Methods

Staff Contact: James Weirick

CP7.5 HPW2

Investigation of various research methods with application to study in landscape architecture. Development of the critical logical and stylistic skills involved in researching, writing and presenting essays, theses, articles, papers and reports. Each student researches and prepares an approved thesis proposal including a bibliography, chapter outline and first draft chapter.

LAND1421

Landscape Thesis

Staff Contact: James Weirick

CP40

Prerequisite: LAND1321 (the proposed topic area and title must be approved by the Program Head prior to completion of LAND1321)

A specialised individual study, enabling each student to gain or extend knowledge and understanding in some aspect of landscape architecture. The thesis is essentially evidence of this individual study, under staff supervision and culminating in a written document deposited in the Faculty library. The subject requires each student to carry out the required research, organization of material and writing in order to submit a complete draft of a written thesis in week 7. Each student then refines the draft and undertakes the preparation of illustrative material and completion of all necessary references and bibliography, before the submission of the final unbound manuscript for assessment in week 14. The unbound manuscript is assessed by at least two readers and returned with corrections noted (if necessary), so that a bound copy of the thesis can be lodged with the Faculty Student Centre.

This one session subject is graded in accordance with the normal University grading system.

LAND1142

Design Communication

Staff Contact: Elizabeth Mossop

CP10 HPW3

This subject encourages students to develop a personal vocabulary of representation techniques to facilitate the development and communication of design ideas. Students develop a range of techniques including: perspective, freehand drawing and sketching, colour rendering, advanced creative drawing, the use of different media and graphic thinking.

LAND1151

Horticulture

Staff Contact: Elizabeth Mossop

CP10 HPW3

This subject introduces students to a botanical understanding of plants, their structure and function, taxonomic classification. The relationship between plants and their environments, habitats, communities and life cycle. Introduction to horticultural practice and plant identification.

LAND1152

Landscape Analysis

Staff Contact: Elizabeth Mossop

CP15 HPW6

Corequisites: GEOG1701

Observation and interpretation of both physical, biological and cultural environments and their interrelationships. Landscape character through sensory inputs and historical understanding. Fundamental characteristics of a range of biological systems, with emphasis on relationships with the physical environment. Survey of Australian plant communities and associated fauna with particular emphasis on the Sydney Region. Recording and presentation techniques associated with landscape surveys, field excursions.

LAND1251

Advanced Horticulture

Staff Contact: Elizabeth Mossop

CP10 HPW2

Based on the knowledge gained in Horticulture, this subject will provide students with the horticultural theory and practice necessary for supporting landscape design and documentation.

LAND1351

Landscape Management

Staff Contact: Elizabeth Mossop

CP10 HPW2

Planning and management of both natural and cultural landscapes. Historical review of landscape planning and management in Australia and overseas. Overview of environmental policy and legislative framework. Examination of a range of landscape management methodologies and processes.

LAND1171

Landscape Technology 1

Staff Contact: Graham Fletcher

CP10 HPW3

Developing proficiency in site surveying and mapping techniques. Principles of grading and their application to a variety of site requirements and conditions. Land shaping, contour manipulation, drainage, earthworks.

LAND1271

Landscape Technology 2

Staff Contact: Graham Fletcher

CP10 HPW3

Description and selection of materials, their properties, origin and production. Understanding the relationship between materials and design. Use of Australian Standards. Construction principles and methods.

LAND1272

Landscape Technology 3

Staff Contact: Graham Fletcher

CP10 HPW3

Preparation of documentation for landscape works including: grading, drainage, earthworks, roads and pavements, planting and structures. Critical analysis of design development and documentation. Design a development of construction documentation and detailing for a wide range of materials, elements and structures.

LAND1371

Landscape Engineering

Staff Contact: Graham Fletcher

CP10 HPW3

Understanding structural design and construction techniques for a range of elements including: earthworks, drainage, retaining and freestanding walls, pavements and roads, masonry, steel and timber structures. Structural design and construction techniques applied to a range of difficult site problems.

LAND1281

Professional Practice 1

Staff Contact: Elizabeth Mossop

CP7.5 HPW2

An introduction to the practice of landscape architecture, its scope and potential. The framework of commercial and environmental law. Project stages and procedures. Contracts, consultancy and client relationships. Current issues in landscape practice.

LAND1382

Professional Practice 2

Staff Contact: Graham Fletcher

CP7.5 HPW2

Understanding of legal and professional responsibilities with specific reference to negligence and risk. Understanding of contract law and tender procedures. Application of specific statutes such as tree law, copyright, trademarks and patents.

LAND1381**Landscape Practice 1**

Staff Contact: Elizabeth Mossop
CP0

Students are required to obtain a specified period of practical experience during enrolment in the program. This requirement for practical experience is a prerequisite for entry into the fourth year subject LAND1402 Landscape Design 8. This experience can be gained at any time before completion of Session 1 in third year.

LAND1481**Landscape Practice 2**

Staff Contact: Elizabeth Mossop
CP0

Students are required to obtain a specified period of practical experience during enrolment in the program. This requirement for practical experience is a prerequisite for entry into the fourth year subject LAND1402 Landscape Design 8. This experience can be gained at any time before completion of Session 1 in fourth year.

GEOG1701**Environmental Systems and Analysis**

Staff Contact: Mr D Edwards, Dr S Mooney
CP15 HPW3
Exclusion: GEOG1031

An introduction to the role of environmental processes in shaping the patterns of the physical environment. The operation of global environmental systems. Emphasis on the interaction of humans with their environment at local, regional and global scales. Topics include water resources, circulation of the atmosphere and oceans, weather and climate, the formation of the Earth, alluvial and coastal landforms, land degradation, the biosphere and ecosystems, Australian biotic patterns, human impact on natural systems. Instruction is given on methods used to analyze climatic patterns and climate change, soils and landform relationships, vegetation patterns, land degradation, and human impacts on the environment.

Bachelor of Town Planning

CORE SUBJECTS**PLAN1011****Urban Society and Sociology**

Staff Contact: A/Prof R Zehner
CP10 HPW3

A series of lectures and seminars on the relationship between planning and the social structure of urban areas with reference to both social theorists and empirical studies. The origins and concerns of the discipline of sociology and of urban sociology. Urban effects on living patterns. The relationships between different groups, including town planners, in the urban context. Sociological views of the planner's role in contemporary urban society.

PLAN1021**Environmental Studies**

Staff Contact: Faculty Student Centre Office
CP10 HPW3

Elements of the biophysical environment which may have direct significance for people and their occupation of the earth. These elements are considered both as controls on peoples' activities and as targets for society's impacts, in ways relevant to the work of urban and regional planners. Physical processes directly related to planning problems; human occupation of areas subject to natural hazards; impact of urbanisation on the environment; environmental issues in general; skills in map interpretation.

PLAN1041**The Language of Planning**

Staff Contact: Mr S Harris
CP10 HPW2

This subject aims to introduce students, commencing their planning studies, to the forms and languages used by planning: the vocabulary used by professionals, its explicit and implicit meanings and implications. Specifically, the aims are to ensure students understand the generalities and some detail of the relationship between politics, government and society; the forms and structures of Australian politics and government; the relationships between planning, politics and government; planning systems in theory and practice; the operation of development control systems; land ownership and titling; land uses and activities, and their definitions; density definition and its planning implications; planning associations and organizations and their significance; the language of urban design; methods of describing society and its structures.

PLAN1051**Graphic Communication**

Staff Contact: Faculty Student Centre Office
CP10 HPW3

Graphics as an effective communication medium for town planners. Technical information and studio experience to teach the essential skills for creative graphics as a functional tool for communicating factual information to peers and clients. Exercises in basic drawing, drafting and lettering. Photography and visual presentation techniques for brochures and displays are also covered.

PLAN1061**Computer Literacy**

Staff Contact: Faculty Student Centre Office
CP10 HPW3

Computer use in the planning professions. Exercises using integrated software including data bases, spreadsheets, graphics and word processing. Planning information systems: applications, establishment, maintenance.

PLAN1012**Principles of Political Economy**

Staff Contact: Faculty Student Centre Office
CP10 HPW2

This subject is an introduction to political economy for non-economists. It establishes a foundation of concepts and viewpoints which are utilised in a number of subjects. Topics include: the forms of capital; modes of production; global economic change and the new international division of labour; relationship between economy and state; politics and ideology; class structure; elementary price theory; factors influencing economic growth; the distribution of welfare.

PLAN1022

The Development Process

Staff Contact: Faculty Student Centre Office
CP10 HPW2

An introduction to real property law, the statutory requirements of the NSW planning system, environmental laws and land taxation. Also covered are small building construction issues, the nature of the housing market, commercial and industrial property markets, the funding of infrastructure and the roles of government agencies involved in the property market. Assignments are prepared in the form of consultant reports.

PLAN1042

Planning Processes

Staff Contact: Dr S Thompson
CP10 HPW4

Prerequisites: PLAN1041, PLAN1061, PLAN1011

The course covers planning methodologies, with a focus on the strategic choice approach. A planning exercise is used as a case study to demonstrate the use of the method in practice. Applications are critically assessed. The emphasis is on cooperative work within the planning process framework.

PLAN1052

Quantitative Methods

Staff Contact: A/Prof R Zehner
CP10 HPW5

Lectures, discussions and assignments concerning the use of quantitative research in the planning process. Social science research methods: study design, survey sampling techniques, questionnaire design, data collection, data analysis using packaged computer programs.

PLAN1062

Communication Techniques

Staff Contact: Mr S Harris
CP10 HPW2

The range of non-graphic techniques of planners' information communication: reports and letters language, structure, style; audiovisual presentation, video and slide/tape; public speaking, telephone, one-to-one, small groups, large meetings, basic techniques and uses.

PLAN2011

The Economy of Cities and Regions

Staff Contact: A/Prof P Murphy
CP10 HPW3

Prerequisites: PLAN1012, PLAN1052

This subject introduces how economic processes influence (1) the structure and performance of the economies of regions and urban centres; and (2) the structure and patterns of changes in land uses within urban centres, with specific reference to large urbanised regions. Topics covered include: factors driving regional and urban economic performance; urban hierarchies and inter-urban competition; economics of urban size; land rent, land uses, land prices; regional population densities; employment and service location. The basic theory is taught using Australian case studies.

PLAN2021

History of Urban Development

Staff Contact: Dr R Freestone
CP10 HPW2

Introduction to patterns and processes of urbanisation and urban development at global, national, regional and local scales canvassing theoretical, conceptual and empirical issues. Surveys evolution of urban space in a societal context from the pre-modern to the post-modern eras with emphasis on understanding the form and evolution of the late twentieth century Australian city. The course involves lectures, presentations, fieldwork and applied research projects.

PLAN2041

Critical Research Seminars

Staff Contact: A/Prof R Zehner
CP10 HPW2

A series of student-led seminars on topics of importance to planning (e.g., measuring environmental quality, social mix, environmental ethics, community design and crime, participant observation) which are designed to draw on a variety of viewpoints and types of data.

PLAN2051

Environmental Economics and Resource Management

Staff Contact: A/Prof P Murphy
CP10 HPW3

This subject introduces basic concepts and methods from resource economics. The aim is both to extend economic literacy and to cast the management of land use within a conceptually sound economic framework. Topics covered include: market failure; types of resources; valuation of resources; economic tools for resource management; principles of cost benefit analysis and its relationship to environmental impact assessment; and the precautionary principle for resource management. Contemporary Australian case studies are used.

PLAN2061

Geographic Information Systems

Staff Contact: Mr D Crawford, Landscape Architecture
CP10 HPW2

This subject will present a broad overview of geographic information systems (GIS) used in urban and regional planning. It will emphasize the use of GIS as both the intellectual framework and the tool to manipulate planning

information in a spatial system. It will teach general concepts of GIS; sources of land data; techniques of data storage, analysis, modelling and display; and examine an existing operational GIS in local government. 'Hands on' GIS projects will involve simple environmental and sociological modelling.

PLAN2012

Spatial Development Planning

Staff Contact: A/Prof P Murphy

CP10 HPW3

Prerequisites: PLAN2011, PLAN1012

This subject aims to show how, at the levels of both theory and practice, the planning system interlocks with socio-political pressures, the effects of which are to influence the shape and direction of development. Bodies of theory on planning and development are introduced and the relationship between them analysed. Planning is presented as a socio-political process the form of which shifts over space and time. The myth of rational, value free planning is exposed. The role of the state and the local state in managing conflicts intrinsic to a capitalist space economy is emphasised.

PLAN2032

Generic Planning Project 1 – Urban Design

Staff Contact: Faculty Student Centre Office

CP20 HPW6

The built environment is constituted in specific, identifiable forms of buildings and spaces as well as their interrelationships. Furthermore, these typologies are not arbitrary. They reflect the historical progression of economy, society and culture. While the design and architectural merits of individual buildings remain important, the subject is concerned with commonality rather than difference. It is focussed on the social organization of urban space and its adopted physical envelopes. The design organization of the built environment is explored via lectures, seminars and a series of small scale practical projects.

PLAN2042

History of Urban Planning

Staff Contact: Dr R Freestone

CP10 HPW2

Emphasis on the evolution of metropolitan planning theories and practices in the late 19th and 20th century with special reference to the Australian experience. The material is covered through lectures, projects, seminars and fieldwork.

PLAN2052

Advanced Data Analysis

Staff Contact: A/Prof R Zehner

CP10 HPW3

Prerequisite: PLAN1052

The emphasis in this subject is the use of multivariate techniques to analyse recent survey-based data sets. The specific techniques covered in a given year depend in part on the data sets available for analysis, but include factor analysis, regression and multiple regression, as well as approaches to the analysis of non-linear relationships.

PLAN3011

Critical Urban Studies

Staff Contact: Faculty Student Centre Office

CP10 HPW3

The subject provides an opportunity to consider developments in social theory and sociology relating to Town Planning in relation to contemporary urban problems and developments. In general, the theoretical material in the subject is drawn from sociology and social philosophy, particularly as these disciplines relate to the urban and spatial aspects of social life.

The subject is structured along an epistemological progression culminating in the debate on postmodernity and a critical consideration of theoretical propositions underlying professions such as Town Planning which attempt to operationalise social theory in their practice.

PLAN3013

Planning in Developing Countries 1

Staff Contact: Faculty Student Centre Office

CP10

Issues in the planning of cities and regions in developing countries. Seminars, lectures and independent study.

PLAN3021

Heritage and Conservation Planning

Staff Contact: Mr S Harris

CP10 HPW2

Definitions and philosophy of heritage and conservation planning. Setting objectives and formulating policy, criteria for selecting and assessing heritage and conservation areas; planning considerations to protect and enhance the community fabric; legislation and mechanisms for heritage and conservation existing in New South Wales and elsewhere; potential; some effects of heritage and conservation (physical, social, economic); attitudes to heritage and conservation. Case studies of selecting and planning a heritage and/or conservation area.

PLAN3022

Planning in Developing Countries 2

Staff Contact: Faculty Student Centre Office

CP10

Supervised independent research on issues in the planning of cities and regions in developing countries.

PLAN3031

Generic Planning Project 2 – Existing Areas

Staff Contact: Dr R Freestone

CP20 HPW4

An applied focus on selected planning issues in an established urban area. Introduces the concept of the study brief and the role of the consultant planner. The course integrates group skills and knowledge to address multifaceted planning issues typical of central city, inner urban, suburban or regional centre environments. Examples would include environmental, town centre, open space, urban design, transportation, redevelopment, or heritage studies. The emphasis is on individual and team

research, analysis, technical report production, and presentations, with a significant fieldwork component.

PLAN3041

Planning Law and Administration

Staff Contact: Mr P Williams

CP10 HPW4

Corequisites: PLAN3051

The subject comprises three parts, Planning Law, Planning Administration and Land Valuation. Planning Law: historical, conceptual / theoretical nature of the law; relationship between the environmental context, the Crown, the parliament and the judiciary; ways in which the laws are made and promulgated, relationship between laws and regulations, the legal concept of property in land, definition of various legal concepts of interests in land, Australian Constitution and legal relationship between Commonwealth and States, particularly in regard to matters affecting land, the place of administrative law. Planning Administration: administrative context within which planning operates as a function of government, especially the role and function of statutory bodies in the planning and environment area, the administration of the planning function at the national, state and local levels, the art of management, administrative theory, personnel administration, the role and responsibility of the professional planner in the public and private sector. Land Valuation: principles and practices of land valuation in Australia. Definitions of value, methods of valuation, the role of the valuer, compensation and betterment.

PLAN3051

Development Control

Staff Contact: Mr P Williams

CP10 HPW4

Corequisites: PLAN3041

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.

PLAN3012

Cultural Studies

Staff Contact: Dr S Thompson

CP10 HPW3

Prerequisites: PLAN3011

This subject explores contemporary issues facing the professional planner working in an increasingly diverse and complex society. Various cultural, social and environmental issues that challenge ethnic communities, children, the aged, women, Aborigines and homeless people are examined. Students are encouraged to question their own prejudices and values as they develop better

understandings of the needs of these groups. The ability of the planning system to respond is explored, as are creative and inter-disciplinary approaches that can be facilitated by urban planners.

PLAN3032

Generic Planning Project 3 - Release Areas

Staff Contact: Mr S Harris

CP20 HPW4

Prerequisites: PLAN3041, PLAN2032, PLAN1022

To demonstrate the process of planning as applied to an area undergoing urban development and give students the experience of carrying out such planning; to ensure that students can work competently as planners in urbanising areas; to show the inter-relationships between the planner and other professionals in release area planning.

PLAN3042

Environmental Law and Dispute Resolution

Staff Contact: Mr P Williams

CP10 HPW3

Prerequisites: PLAN3041, PLAN 3051

This subject builds on the prerequisite subjects by examining in depth selected aspects of the NSW Planning System – namely, environmental and natural resources law. It also examines recent statutory and administrative changes to the planning system, in general, in NSW. Finally this subject seeks to provide guidance on the operation of the NSW Land and Environment Court, the significance of the court and the role of planners at court. Other means for the resolution and environmental dispute are also examined.

PLAN3052

Qualitative Methods

Staff Contact: Dr S Thompson

CP10 HPW3

Prerequisites: PLAN 3011

This subject will cover the nature of qualitative research, its philosophical bases and applications in planning contexts. Basic instruction will be given in research methods, analysis and reporting findings. Students will undertake their own qualitative research projects, reflecting on and sharing experiences of their process.

PLAN4011

Politics, Power and Policy

Staff Contact: Mr P Williams

CP10 HPW3

The aim of the subject is to create an understanding of the complex forces and processes (political, ideological, economic, etc.) which operate in the management of urban areas. Issues covered include relationships between urban government, politics, planning, the community and various interest groups. Urban theory. The relationship between public policy and planning. The social context of planning. The different social needs within Australian society. The formulation and implementation of policy.

PLAN4021**Metropolitan Policy***Staff Contact: A/Prof P Murphy*

CP10 HPW2

Prerequisites: PLAN2011, PLAN2012, PLAN2022, PLAN2051, PLAN3041

This subject examines preoccupations in the management of large urbanised regions and the range of public policy measures available to influence structure and process. It is assumed that metropolitan policy provides a framework within which local government decisions on land use, and the work of agencies which supply urban infrastructure, is framed. Topics include: population densities; commercial centres; industrial land uses; transportation; environmental quality; tools for management of metropolitan growth and change; political and administrative systems and issues. The focus will be on Australian cities – especially Sydney – but some cross-national material will be used.

PLAN4031**Thesis Proposal***Staff Contact: Prof A Cuthbert*

CP10 HPW2

Prerequisites: All subjects of years 1 to 3 inclusive

A written thesis is the culminating exercise in the Bachelor of Town Planning Degree. In order to adequately prepare students for this task, this course sets out an appropriate conceptual, methodological and technical base for the construction of the thesis. It guides the student in the formation of a summary statement which integrates these principles within a topic of the student's choice. Seminar / workshops are held which guide the student to a worked out thesis proposal and plan of study. In addition, the course provides insight into the world of advanced research and publication.

PLAN4071/4072**Planning Elective***Staff Contact: Faculty Student Centre Office*

CP10 HPW3

During each session, various planning electives are offered which allow students to pursue a topic of their interest in-depth. Electives are not standardised each year and are subject to the availability of individual staff members. In the past topics have included heritage and conservation, transport and environment, urban design, regional economic analysis, rural planning, cultural studies and post-modernist thought. A list of electives are proposed at the beginning of each session.

PLAN4032**Thesis***Staff Contact: Supervisor*

CP40 HPW1

Prerequisite: PLAN4031

A specialised individual study taken under staff supervision with the object of allowing students either to gain knowledge in some aspect of Town Planning which is not covered in the course or to increase their knowledge of some aspect

which has been covered. The study does not require original experimental research for the purpose of discovering new facts or the testing of an hypothesis; neither is it an essay permitting the student's unsupported opinion. A thesis proposal is developed in PLAN4031 for the approval of the Head of the Program. The completed thesis is submitted for examination towards the end of Session 2.

Students are expected to participate in regular discussions with supervisors during this session to present progress reports on their theses. The subject is not complete until a bound copy has been submitted.

PLAN4042**Professional Practice***Staff Contact: Faculty Student Centre Office*

CP10 HPW2

A final year subject addressing key aspects of environmental management in practice. The focus is upon basic topics such as professional ethics, negligence, preparing / responding to a consultant's brief, preparing for Court work and appearing as a professional witness. Such hands-on skills are discussed in the broader context of philosophical positions, 'professionalism' and the social, political and industrial environment.

Planning as a profession, professional standards, ethics, preparing studies and plans, preparing and giving evidence, briefing and consulting, management, corporate planning, continuing education.

SERVICING SUBJECTS**GEOGRAPHY****GEOG3671****Transport and Land Use***Staff Contact: Dr B Parolin*

CP15 HPW4

Prerequisite: GEOG2092 or GEOG2621 or GEOG2611 or PLAN1011**Note/s:** Excluded GEOG2071 and GEOG3181

Introduction to the complex interactions between transport, land use, and the environment in urban areas. Special focus on the long term environmental consequences of transport decisions. Introduction to the various methods used to analyse and predict the consequences of policy changes. Australian cities as case studies.

Faculty of the Built Environment Electives

The following subjects are offered as electives by the Faculty of the Built Environment. There are, during 1999, additional subjects offered by the Building Construction Management and the Planning and Urban Development programs which may also be taken as electives. In addition, with the approval of the relevant Program Head, students may take any subject offered by other Faculties within the University as an elective option for their studies in the Faculty of the Built Environment. Students may also select core subjects from other programs in the Faculty to be taken as an elective, provided that approval is granted by the Program Head.

Note that not all the following subjects are offered in any one year, and that any one subject will only normally be offered in one semester. The schedule of available electives in each semester will be notified in the Faculty Enrolment Handbook at the start of each year.

The first three sections of this list contain elective subjects which may be selected by BArch students to fulfil the *core extension* requirements in the senior years of their studies. These subjects may be selected by any student to fulfil the elective requirements of their program, provided they have not already undertaken it as *core extension*.

CORE EXTENSION: ARCHITECTURAL HISTORY

BENV1021

History: The Uses of the Past

Staff Contact: Dr. P. Kohane

CP15 HPW3

Prerequisite: ARCH1321

In this subject, history is studied to both illuminate current problems in architecture and also to offer resources for critical practice. The aim is to develop the capacity to thoughtfully and imaginatively engage with the past, learning from social transformations and also from important historical theories and buildings. The course analyses several interpretations of history, focusing on the ways they contribute to an understanding of current practice. Two lectures specifically draw on one significant method of historical research: problems in contemporary design are studied in terms of their sources and development over time. Architectural theories and projects, as well as social, religious and educational values are investigated. The historical perspective shifts after class 2. The dominant architectural and social processes that have come to define and limit architectural production are now challenged by bringing to light valuable, but often concealed, alternative traditions. Broad social issues are addressed first. Certain regional practices are deemed worthy of cultivation in opposition to our prevailing society, bureaucratically controlled and driven by the dictates of utilitarianism and capitalism. A class also considers the role of social rituals and institutions in the city and the possibilities of representing these in built form. The

investigation of buildings involves analyses of the site, structure, space and ornament. The final classes bring together issues of society and architectural form by examining three buildings in detail. Material is presented as lectures and seminars, supplemented with readings in architectural history and theory.

BENV1022

Designing as a Discursive Practice

Staff Contact: Dr. Paul Johnson

CP15 HPW3

Prerequisite: ARCH1321

Module 1: This part of the subject questions certain assumptions made by architects, namely: that technology is a generative force which has the power to shape an architecture appropriate to the spirit of the age (*Zeitgeist*); that accepting the *Zeitgeist* privileges the new over the old and throws doubt on building preservation and contextual fit as serious contemporary concerns; and that these and other issues, eg. The presence of anonymous or disenfranchised others in building procurement, or notions of difference so prominent in feminist understanding, mean the architect's design responsibility is primarily aesthetic and neutral rather than ethical and political. Material is presented as one- and/or two-hour lectures and occasional tutorials supplemented with selected readings in architectural theory, philosophy and ethics.

Module 2: This Module examines designing as a mediative and reflexive practice and explore the hermeneutical understanding of the world and its architectural equivalent wherein the designer is seen as embedded in the design process and not standing apart from it. The classes prompt ideas and provoke reactions that might not otherwise arise without thinking about designing in this way. This provocation raises matters of broad as well as finely tuned concern to designers and is intended to bring an 'edge' to concepts by marauding fertile rhetorical ideas and practices. The classes explore a series of themes related to both discourse and designing including language, meaning, figuration, catachresis, and the processes whereby these come into play as repertoire and suasion. Each theme has some bearing upon the way we think and design today and aims to assist students in consolidating an architectural position. Material is presented as lectures and seminars, supplemented by readings from architectural theory, literary theory, and philosophy.

BENV1023

Modernity and Modernisms in Architecture

Staff Contact: Desley Luscombe

CP15 HPW3

Prerequisite: ARCH1321

A detailed illustrated examination of the architecture and architects from 1885-1965. Issues of Modernity begin with the study of historiography and how history has been narrated. Themes addressed in the course were inherent in the notion of modernity evident during the early twentieth century. Utopian ideals were based on resolving disparities between issues of welfare, industry, and poverty in the city with Arcadian visions of the country. Utopian models

developed from the eighteenth century suggest the range of ideas being addressed in architectural circles. The idealisation of technology was seen to solve notions of evolutionary progress in an architectural sense. Many art and architectural images appear to reflect the concept of frozen representations of action - the enclosing of pure function similar to machine parts. The formalisation of space and architecture as social and cultural representation developed notions of political power and domination in the concrete environment. This theme begins to question the nature of modernist architectural forms in relation to concepts of "space". The fourth theme continues an exploration of space and architecture but examines it in relation to symbolic representation. The work of Frank Lloyd Wright, and Charles Rennie Mackintosh and Antonio Gaudi will be examined to question the symbolic nature of modern architecture. Material is presented as lectures and seminars.

BENV1024

Post-Modernity and Architecture since the Sixties

Staff Contact: Desley Luscombe

CP15 HPW3

Prerequisite: ARCH1321

The rise of the Post Modern as both a theoretical framework for viewing architecture and as a reaction to the ideological purity of the modern will be examined. It examines architecture as autonomous or enmeshed in other cultural and social dilemmas and questions the role of notions of function and the social scientification of architectural authority in the early twentieth century for later architecture. It addresses the major themes of the late twentieth century with the attachment of architecture and the values of popular culture; the post modern experiments with an anti-aesthetic and the development of a critical language as the basis of formalism. The architectural image as a critical tool. It investigates readings on Deconstruction and critical formalism and their impact on architecture; the re-aestheticization of the architectural images and the reconstruction of past values. It finally examines the particular reductionism of function/rationality formalism/power structure icon object/viewer in recent architecture. Material is presented as lectures and seminars.

CORE EXTENSION: ARCHITECTURAL COMMUNICATIONS

BENV1041

Manual Rendering Techniques

Staff Contact: Faculty Student Centre

CP15 HPW3

Prerequisites: ARCH1241

This subject provides opportunities for students to focus on the development of advanced techniques in architectural presentation and documentation. Students are required to demonstrate and evaluate their skill and technical capabilities in the accurate representation, visualisation and modelling of specific assemblies, processes and projects. It is concerned with critical abilities that will inform

the selection of strategic, physical and abstract representational techniques and the implications of that selection.

Emphasis is placed on evaluating the success of the connected actions of thinking, observing and making. A series of assessable projects are offered, in a tutorial setting, for student selection that requires both team and individual submissions. Assessment and student evaluation occurs through formal peer assessment, feedback and student journals..

BENV1042

World Wide Web in Presentation and Communication

Staff Contact: Stephen Peter

CP15 HPW 3

Prerequisite: BENV1341 and BENV1023

Web Page: <http://www.fbe.unsw.edu.au/Subjects/WWWDesPres/>

Introduction to the theory and practice of World Wide Web based multimedia and other computer technologies relating to the presentation of designs and/or other information. Assessment will be through the development of a series of Web pages.

BENV1043

Multimedia in Design Presentation

Staff Contact: Jim Plume

CP15 HPW 3

Prerequisites: BENV1341 or BENV1023

This subject 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.

CORE EXTENSION: ARCHITECTURAL TECHNOLOGY

BENV1071

Building Services 1

Staff Contact: Steve King

CP15 HPW 4

Prerequisite: ARCH1371

The aims of this subject are to familiarise students with the design implications of the major building services, to acquaint them with the hardware, and to establish a routine for an appropriate communication between architect and consulting services engineers during the design of buildings.

The objective of the course is to be able to make reliable preliminary design decisions about the layout, sizing and integration of the building services components of a moderately complex building.

Subject content includes: sources and distribution of water, wastes and energy supplies, air conditioning, heating and ventilating of buildings, design of systems, selection of equipment and allocation of space, application of electric power, hydraulics, vertical transport, fire protection in buildings, security, telecommunications, equipment selection and space allocation. Material is presented as lectures and seminars, supplemented with readings in architectural history and theory.

Assignments include tutorial projects and field investigations. Assessment is by these assignments, and an open book examination at the completion of the subject.

BENV1072

Design for Energy Efficiency

Staff Contact: Deo Prasad

CP15 HPW 3

Prerequisite: ARCH1371

This subject develops an understanding of solar efficient architecture and builds on this to develop skills in energy performance simulation. House energy performance rating is fast becoming an essential requirement for building applications and this requires specific skills. It targets core areas of efficiency in space heating and cooling and lighting design. Material is presented as lectures and seminars, supplemented with readings in architectural history and theory.

BENV1073

Sustainable Design and Practice

Staff Contact: Deo Prasad

CP15 HPW 3

Prerequisite: ARCH1371

This subject develops a greater focus on holistic and sustainable approaches to design. Issues such as demand and supply of energy and water, and the generation of waste, will be covered. Principles of 'Reduce, Reuse and Recycle' will be reiterated. Predominant emphasis will be on practical strategies directly applicable in design. Material is presented as lectures and seminars, supplemented with readings in architectural history and theory.

BENV1074

Conceptual Structural Design

Staff Contact: Vincenz Sedlak

CP15 HPW 3

Prerequisite: ARCH1371

Conceptual structural design of wide-span single storey structures. Conceptual design process selectively applied to bridges, halls for assembly, industry, exhibition and sports. Emphasis on complex lightweight systems – including surface, spatial and hybrid structures with cables, membranes, grid shells and transparent enclosures. Integration of constructional and structural issues related to design, manufacture and building processes. Material is presented as lectures and seminars, supplemented with readings in architectural history and theory.

BENV1075

Structural Systems: Advanced

Staff Contact: Faculty Student Centre

CP15 HPW3

Prerequisite: ARCH1371

This course builds on *prerequisite* courses by considering in more detail the conception, analysis, design, and construction of more sophisticated structural systems, like shells and grid shells, space frames, cables, membranes, tall buildings and towers, prestressed structures, as well as more refined aspects of conventional material, systems and loading environments. It also considers the wider question of the role of structural engineering in architecture and its integration with other engineering disciplines, mainly through case studies. Material is presented as lectures and seminars, supplemented with readings in architectural history and theory.

Faculty Electives

DESIGN AND SUSTAINABILITY

BENV2101

Adaptive Re-use

Staff Contact: Faculty Student Centre

CP7.5 HPW2

An examination of the trend to find new uses for existing buildings rather than demolish and rebuild. Issues of conservation, preservation and heritage value of buildings; the role of other interested parties (media, community groups) in determining options for re-use. The subject will address such issues as: surveying and assessing buildings for their suitability for adaptive re-use; measuring adaptive re-use in terms of environmentally sustainable design (ESD); assessing building forms and finding suitable compatible new functions; working within the Burra Charter; building conservation techniques; writing a "Heritage Conservation Report". Case studies selected from recent local examples of adaptive re-use. A design exercise involving adaptive re-use.

BENV2102

Environmental Psychology and Post-Occupancy Evaluation

Staff Contact: Faculty Student Centre

CP7.5 HPW2

Applied environmental psychology is intended to provide students with some understanding of the complex sets of interactions of individuals and their socio-physical environments. The focus is on the users or potential users of places: their expectations, experiences and evaluations and design consequences. Multi-methodological post-occupancy evaluations of buildings are proposed as an appropriate strategy for designer-user interaction. A POE field project gives students an opportunity to experience the strengths and weaknesses of the various methods firsthand.

BENV2103**Environmental Planning**

Staff Contact: Elizabeth Mossop
CP10 HPW 2

Students will be introduced to the broad concepts and issues involved in environmental planning and will gain experience in basic methods and techniques of resource data collection, analysis and valuation. This will be applied using the methods and techniques of Geographic Information Systems in the development of simple environmental planning models.

BENV2104**Heritage and Conservation 1**

Staff Contact: TBA, otherwise Desley Luscombe
CP15 HPW3

There is a growing need in our community for specialist consultants in the field of heritage architecture. This subject provides an introduction to building conservation. The Burra Charter and other reference documents are reviewed and sources of documentary evidence are demonstrated. An overview of the organisations which protect heritage items at a national, state and local level is also presented.

The subject looks at how a building can be interpreted through the physical evidence found in the building fabric and setting. The subject is designed to have a high practical component and will include site visits to selected buildings to collect information and to view methods of conserving traditional materials such as stone and timber.

BENV2105**Heritage and Conservation 2**

Staff Contact: TBA, otherwise Desley Luscombe
CP15 HPW3
Prerequisite: BENV2104

This subject continues to build on the skills required by architects in building conservation. The subject will look at the processes involved in conservation projects that have been completed for a range of buildings around Sydney. Aspects of documenting a building and methods of assessing the significance of its physical elements and fabric will be covered. The subject also covers issues involved in the design of infill buildings and additions to heritage structures.

Students will learn the procedures involved in preparing a conservation management plan for a heritage structure. In addition students will learn the processes involved in preparing a facilities management plan in order to ensure that the building fabric and services are maintained. Site visits to selected buildings form an integral part of the subject which is designed to have a high practical component.

BENV2106**Landscape Design 9: Integrated Studio**

Staff Contact: Elizabeth Mossop
CP10 HPW 6 (7weeks)

Mixed studio groups are formed from different years. The studio concentrates on significant current issues with an emphasis on design competitions.

BENV2107**Landscape Design 10: Elective Studio**

Staff Contact: Elizabeth Mossop
CP20 HPW6

Prerequisites: LAND1302 or ARCH1202 or IDES2161

Investigation of the relationship between design and contemporary landscape theory through a series of critical design projects at site planning scale.

HISTORY AND THEORY**BENV2201****Twentieth Century Australian Architecture**

Staff Contact: Faculty Student Centre
CP7.5 HPW2

Detailed study of the theories and work of selected Australian architects. Issues of nationality and nationalism will be addressed as well as those of criticism in the architectural presses. Readings will be selected related to various twentieth century architects. They will include works of criticism as well as explanatory texts. One architect will be studied each week and readings will address one particular issue relevant to the architect's theoretical position. Material is presented as lectures or seminars.

BENV2202**Architects and Their Practices**

Staff Contact: Faculty Student Centre
CP7.5 HPW2

Detailed study of the theories and work of selected architects throughout history. Normally four architects will be studied, two from the twentieth century and two prior to the twentieth century. Material is presented as lectures with occasional seminars.

BENV2203**Japanese Architecture**

Staff Contact: Faculty Student Centre
CP15 HPW3

This subject is an applied interdisciplinary history of Japanese architecture and landscapes. It explores the traditions of Japanese architecture and landscapes with an eye to their contemporary resonances, both within and outside Japan. The traditions of religious architecture, domestic architecture, urban form, and the Japanese garden are examined with the aid of readings from aesthetics, sociology, semiotics and other perspectives. Particular attention is given to the cultural dilemmas and opportunities arising from Japan's rapid modernisation, and how recent Japanese architects have handled these. The implications of the Japanese experience for other Asian countries recently experiencing rapid economic growth are explored, in particular the question of the relationship between modernisation and "westernisation." Material is presented as lectures with occasional seminars.

BENV2204**Architecture in the 1990s**

Staff Contact: Faculty Student Centre
CP15 HPW3

This subject will look at current debates about the condition of architecture at the end of the twentieth century. The subject will explore recent trends within architecture in relation to the global spread of corporate power, electronic information systems and the commodification of culture. Architecture(s) of the spectacle, 'counter-memory' and commemoration will be discussed. Subject reading will be taken from current literature within the fields of architectural history and theory, urban studies and cultural studies. Material is presented as a mix of lectures and seminars. Students will be asked to study a selection of recent buildings through a seminar presentation and major essay.

BENV2205**Classical Architecture**

Staff Contact: Faculty Student Centre
CP7.5 HPW2

Exploring the origins, vocabulary and grammar of the Classical Orders and their application in Greek and Roman architecture, in the Renaissance and the Baroque periods, through Academism and Neo-Classicism to the resurgence of Classical ideals in the twentieth century. Material is presented in both lecture and seminar format.

BENV2206**Theory of Form**

Staff Contact: L. Peter Kollar, T. Newlands
CP7.5 HPW2

The ontological basis and the antinomical qualities of form in the causal sense, reflected in nature, art and architecture. Practical investigation of the antinomical qualities of form with special emphasis on the brief and on the built fabric of contemporary architecture, and practical attempts to identify shortcomings and develop corrective measures. Material is presented as two-hour lectures.

BENV2207**Imagination**

Staff Contact: L. Peter Kollar, T. Newlands
CP7.5 HPW2

Architecture built in the image of the cosmic order and of the ideas directing that order. The nature of imagination, analogy and proportion. The meaning of number, of the elements of space and time and of the geometrical order, and this image in architecture. Material is presented mainly as two-hour lectures and occasional tutorials comprising practical projects focusing on selected case studies.

BENV2208**Spirit in Architecture**

Staff Contact: L. Peter Kollar, T. Newlands
CP7.5 HPW2

Spatial symbolism and intellectual intuition, principles, and methods of sacred architecture. Spiritual doctrine reflected in the layout of Judaeo-Christian architecture with reference to the architecture of sacred traditions. Material is presented

mainly as two-hour lectures with occasional tutorials comprising practical projects focusing on selected case studies.

BENV2209**Theorising Architectural Practices**

Staff Contact: Michael Tawa
CP15 HPW3

The notion of theory as a conceptual setting for strategic design practices. Reading theory and architectural design as parallel and critical practices are examined for theorising practice and practicing theory. The implications and efficacy of theoretical contexts and thematics for various aspects of architectural design practice - including design processes and tactics; community, gender, culture and ethics; spatial and temporal articulation; technology, materiality, and assemblage. Studies and readings of selected texts in philosophy, cultural studies and fiction - as well as architectural theories and precedents. Material is presented as lectures and seminars.

BENV2210**Architecture and Music: Parallels and Practices**

Staff Contact: Michael Tawa
CP15 HPW3

This subject examines musical composition as metaphor for architectural design. It studies musical characteristics and motifs such as tonality, rhythm, harmonics, dynamics, sonority and timbre, order, harmony and articulation in musical composition. Themes of whole and part, fragment, limits, interval, alterity and representation will be explored. Architectural implications for geometry, space and spatial dynamics, tectonics, assemblage and materiality will be developed and explored. Material will be presented as lectures and developed in occasional seminars and design workshops. Projects may include one or more of the following activities: readings of selected texts in philosophy, architecture and music theory; listening to and analysing various kinds of music; preparing analytical drawings, process models, visual essays and audio-visual presentations.

BENV2211**Criticism and Evaluation**

Staff Contact: Catherine de Lorenzo
CP7.5 HPW2

Architectural criticism is as much about a discourse of ideas as it is about the attempt to clarify for the writer and reader the successes and failures of a particular building/built environment. The purpose of this subject is to encourage students to think critically about the nature of criticism, particularly as it is affected by broader cultural criteria. Can criticisms give us useful information about a building's functional and symbolic achievements and its capacity to enhance the environment? What might a built environment and critique of it tell us about our society, about the values endorsed by the critic, and about our own criteria for excellence? How have visual artists engaged in critiques about the built environment? It seems that no two critics agree on the criteria for evaluating the built environment

and it is anticipated that in the classroom evaluative criteria will be equally contested. For an informed discussion to take place it is necessary to know the current literature and debates. A bibliography has been prepared from which approximately two items have been selected as recommended reading for each class. All students are expected to have read something for each class and to substantiate their claims by keeping a 'critical diary' of all items read. Material is presented as two-hour seminars in which all students are expected to participate actively. Assessment will include individual and group work.

BENV2212

Architecture and Culture

Staff Contact: Peter Kohane
CP15 HPW3

Many architects and architectural theorists today are engaged in a critical questioning of widely held yet inadequate beliefs and processes, including unrestrained progress, instrumental reason and social control. These driving social forces have brought about a devaluing of human work and nature that courts ecological disaster and a degrading of our physical environment. Architects may formulate a resistance through careful reflection on: the role of the human faculties of imagination and memory in design and construction; the significance of decorum, of public and private realms and of boundaries in our buildings and cities; and the limits of the architectural profession's intrusion into all dimensions of life. The subject will focus on several 'cultural' critics, both writers and architects, assessing the value and limitation of their contributions. Investigation will be guided by a vigorous tradition of thought (extending through the nineteenth century to the present) which has defined the word 'culture' as an idea of a whole way of life (and conflict) for individuals in a community. This is formulated as a challenge to the dominant values of 'society'. Material is presented as two-hour lectures.

BENV2213

Critical Perspectives on Twentieth Century Art and Design

Staff Contact: Catherine de Lorenzo
CP7.5 HPW2

This subject introduces some of the key interpretive strategies used in art history and cultural studies over the last hundred years, with an emphasis on current lively debates. The classes will explore and question some of the layers of interpretation of artists' works from the time they were made to the present. European, North American and Australian art and design will be examined through various filters such as modernism, post modernism, internationalism, nationalism, regionalism, gender and identity. In visual and cultural studies there is no single correct interpretation of a particular artwork or movement. This subject has been designed to enable you to become aware of the plurality of interpretations and to appreciate if not always to endorse or adopt the arguments for contesting interpretations of objects and events. Material is presented as two-hour lectures. Assessment will include individual and group work.

BENV2214

History, Theory and Interpretation: Art and Architecture

Staff Contact: Catherine de Lorenzo
CP7.5 HPW2

This subject aims to deepen an understanding of basic theoretical concepts in the history of art and design; to gain familiarity with some key writings by artists, art historians and art critics; to develop strategies for evaluating theoretical arguments against appropriate visual works; and to develop competence and confidence in evaluating works of art/design and interpretive strategies developed for our understanding of them. Key concepts to be investigated are: style, connoisseurship, formalism, iconography, sociological perspectives, semiotics, gender, sexuality, cultural studies, modernity and post modernity. The subject has been developed around a seminar structure which will encourage students to learn through looking, reading, thinking, and informed arguing. All students will be required to purchase a reader. Material is presented as a mix of lectures and occasional tutorials.

BENV2215

Of Other Spaces: Architecture and Post-Colonialism/Nationalism/Feminism

Staff Contact: Dijana Alic
CP15 HPW3

Informed by post-structuralist debates and recent developments in disciplines such as literary theory, cultural studies and philosophy, critical historians of architecture have begun to highlight the role of the built fabric as a form of authority in establishing particular structures of power. By exploring questions of representation, difference, and identity as reflected within the built fabric, the scholars in this field have moved away from the traditional reading of architecture as an autonomous object to one where the built fabric becomes the signifier of certain hierarchies and power relations. It is this field of study that this elective will address. The lectures and seminars will focus on the reading of 20th century buildings and spaces, with specific references to three themes: Post colonialism, Nationalism and Feminism. While the argument common to the three approaches is the way in which differences and otherness inhabit architecture, each lecture will address the question from a specific angle and in relation to a particular architectural, cultural and historical context.

BENV2216

Interior Theory

Staff Contact: Faculty Student Centre
CP15 HPW 3

A detailed exploration of the way we experience space. A study of how and to what extent this experience may be modified manipulated and determined by the application of various spatial, surface and lighting devices. The psychological implications of a range of different ways of designing interior space. Language of line; balance, visual weight, placement of objects; focal points; scale, shape and proportion. A series of lectures and studies/projects using drawings and simple models.

BENV2217**Contemporary Interior Design**

Staff Contact: Faculty Student Centre
CP15 HPW 3

A review of the history of interior design concentrating upon the period since the second world war. The subject will draw upon significant practitioners to highlight trends in design. Students will be asked to select case studies to research the theoretical basis for design. Aspects to be discussed include the evolving nature of the relationship between interior designers and other design fields. Relationship between interior architecture and the media.

BENV2218**The Vernacular Landscape**

Staff Contact: James Weirick
CP10 HPW2

This subject critically examines everyday landscapes of the modern world, with an emphasis on the Australian vernacular landscape. Contemporary theories of 'place' and 'landscape as text' are reviewed. Students are introduced to the theory and practice of cultural landscape assessment and their skills in landscape documentation, critical analysis and essay writing are extended.

BENV2219**History of Australian Landscape Architecture**

Staff Contact: James Weirick
CP10 HPW2

The history of landscape architecture and garden art in Australia since European settlement is reviewed. Students develop a knowledge of planting design traditions in Australia. The history of plant introductions is analysed and the design qualities of Australian plants as the fundamental elements of landscape architectural expression in Australia. The inter-relationships between Australian landscape architecture, Australian architecture and the urban design of Australian cities are studied. Students are introduced to the theory and practice of heritage conservation for gardens, public parks and public spaces. Skills in historical, visual documentation, essay writing and report writing are extended.

BENV2220**The Culture of Nature**

Staff Contact: James Weirick
CP10 HPW 2

Students are introduced to the philosophy of nature as a continuous thread in the history of ideas. Concepts of 'culture' and 'nature' are critically reviewed against the production of designed landscapes. Skills in philosophical analysis, essay writing and the formal presentation of seminar papers are extended.

BENV2221**State of the Art: Contemporary Landscape Design**

Staff Contact: James Weirick
CP10 HPW2

To develop knowledge in depth of contemporary landscape design through a detailed review of current projects, built works and writings. Students will investigate and test

current theories of design in landscape architecture, through the critical analysis of recent work. Current concerns in landscape design will be reviewed against the trajectory of twentieth century modernism. Skills in project review, critical thinking and critical writing are extended.

BENV2222**Architectural Studies 1**

Staff Contact: Faculty Student Centre
CP5

An elective designed for students wishing to pursue an independent course of study in a field of architecture not falling within the domain of any existing elective. It requires the gathering of data, analysis of that material and reaching a conclusion. Descriptive summaries of published material are not an acceptable alternative to a well argued critical essay. Students are required to present a detailed program of study for approval by the Head of Program by the Friday of the first week of the session in which it is intended to enrol in this elective. For special conditions consult the Head of Program. The work must be written in concise and clear English, apply a consistent and acceptable referencing system, include an up-to-date bibliography, include only relevant and properly referenced illustrations, and be word processed in A4 format. Submissions will normally be about 2,000 words and be submitted by Friday of Week 13.

BENV2223**Architectural Studies 2**

Staff Contact: Faculty Student Centre
CP7.5

The intellectual and procedural requirements for this subject are as described in BENV2222. The work must be written in concise and clear English, apply a consistent and acceptable referencing system, include an up-to-date bibliography, include only relevant and properly referenced illustrations, and be word processed in A4 format. Submissions will normally be about 3,500.

BENV2224**Architectural Studies 3**

Staff Contact: Faculty Student Centre
CP15

The intellectual and procedural requirements for this subject are as described in BENV2222. The work must be written in concise and clear English, apply a consistent and acceptable referencing system, include an up-to-date bibliography, include only relevant and properly referenced illustrations, and be word-processed in A4 format. Submissions will normally be about 7,500.

COMMUNICATION**BENV2301****Architectural Spatialisation**

Staff Contact: Faculty Student Centre
CP15 HPW3

Investigation of the basic aesthetic, technical and conceptual aspects of drawing. The subject is studio-based

incorporating lectures and modified lectures with an emphasis on direct experience with the various media of drawing. Subject matter will include portrait, still life, landscape and the human figure. Media instruction will include pencil, conte, charcoal, ink, pen, wash, etc. Gallery visits and field trips will be incorporated.

BENV2302

Architectural Rendering Techniques – Wet Media

Staff Contact: Faculty Student Centre

CP10 HPW3

Prerequisite: ARCH1201

Investigation into colour theory, the history of painterly rendering techniques and media as well as the various disciplines of still life, landscape, and figure painting. The subject is studio-based with lectures, discussions and demonstrations. Gallery visits and field trips will be incorporated.

BENV2303

Drawing: Architectural Thematics

Staff Contact: Faculty Student Centre

CP15 HPW3

Investigation of the basic aesthetic, technical and conceptual aspects of drawing. The subject is studio-based incorporating lectures and modified lectures with an emphasis on direct experience with the various media of drawing. Subject matter will include landscape, the built environment, and the human figure. Media instruction will include pencil, conte, charcoal and ink.

BENV2304

Colour Theory in Architecture

Staff Contact: Faculty Student Centre

CP7.5 HPW2

Investigation into colour theory in the histories of architecture and furniture design. Exploration of emotional response to colour mixing through practical exercises.

BENV2305

Graphic Design for Architects, Interior Architects and Industrial Designers

Staff Contact: Faculty Student Centre

CP15 HPW3

The seamless integration of the products of graphic design into commercial and urban spaces, at both the intimate and public scales, is expected of architects and designers.

This subject aims to give students the skills to attempt a basic level of graphic design and to become familiar with the wide range of graphic techniques and materials available. At the end of the course the student should understand techniques for integrating graphic materials into buildings and be able to brief a graphic designer for the most complex of tasks. Material covered in the course would include the basics of typography, layout design and illustration. Techniques for printing, including those for incorporating images into a range of building materials would be introduced. In addition topics such as: digital reproduction technologies, digital and analogue colour

systems, paper engineering and three-dimensional graphic representation will be included.

Concepts of corporate imaging and marketing within the context of the retail/hospitality/corporate environment will be dealt with. Discussion in class will include topics such as Venturi's "Building as Duck". Students will be expected to undertake a range of activities including exercises in preparing graphic material and the presentation of case studies of successful graphic 'packaging'.

COMPUTING

BENV2401

Digital Design Techniques

Staff Contact: Stephen Peter

CP15 HPW3

Prerequisites: BENV1141 or Equivalent

Excluded: BENV1242, BENV1431

Web Page: <http://www.fbe.unsw.edu.au/Subjects/DigDesTech/>

This subject is intended for students who wish to do any of the computing electives but have not done BENV1242 and BENV1341. The subject is an exploration of the techniques that can be used to present designs digitally, including 2D and 3D CAD, modelling, animation and image editing. Assessment is based on a small number of simple exercises and one larger project (presenting a design).

BENV2402

Design Modelling - Time base Visualisation

Staff Contact: James McGrath

CP15 HPW3

Prerequisites: BENV1341 or BENV2401

This elective will align design techniques with time based 3D digital environments. It will extend digital visualisation skills by introducing sequencing and storyboards into 3D digital environments. Computer Lab based exercises will cover 3D composition, time based form generation and narrative in digital 3D. Development of presentation techniques such as video editing, QuickTime VR, and VRML will be included in the final presentation. Assessment will be based on earlier staged learning exercises and one major design presentation project.

BENV2403

Information Technology in Design and Construction

Staff Contact: Jim Plume

CP7.5 HPW2

Prerequisites: BENV1141 or Equivalent

This subject introduces the issues, problems and solutions relating to the creation and distribution of information within the building industry. It includes topics such as: database systems; interaction with CAD system graphics databases; transmission of data; networking and communication technologies; shared technical databases; establishment of product information standards; conceptual modelling techniques; and design information systems. Assessment is by means of projects and student seminars.

BENV2404**CAD Management for Architects***Staff Contact: Stephen Peter*

CP7.5 HPW2

Prerequisites: BENV1141 or Equivalent

This subject raises the issues relating to the implementation and management of CAD systems in architectural practices. Topics will include: CAD system selection and installation; cost issues (purchase, maintenance, upgrades); political implications within practices; software customisation; resource management; office standards; and training. Assessment is by means of projects and student seminars.

BENV2405**Computer Graphics Programming***Staff Contact: Stephen Peter*

CP15 HPW3

Prerequisites: BENV1141 or Equivalent

Web Page: <http://www.fbe.unsw.edu.au/Subjects/CompGraphProg/>

Introduction to the fundamentals of interactive computer graphics programming. Advanced techniques including mouse-based input, menu-based interfaces and colour manipulation. Assessment is by through a series of short exercise and one larger programming project.

BENV2406**Design and Computation***Staff Contact: Jim Plume*

CP7.5 HPW2

Prerequisites: BENV1141 or Equivalent

This subject is based on extensive reading and group discussion, exploring a range of theoretical approaches to the use of computation techniques in support of the act and processes of architectural design. Topics include: traditional approaches to architectural computing including space planning, facilities management, building performance analysis, information systems and operations research; knowledge-based systems and knowledge representation techniques; shape grammars; expert systems; and design information systems. Assessment is based on participation in discussion, the preparation of regular reports on readings and one major essay task.

BENV2407**Virtual Cities***Staff Contact: Stephen Peter*

CP7.5 HPW2

Prerequisites: BENV1341 or BENV2401

Web Page: <http://www.fbe.unsw.edu.au/Subjects/LostCities/>

This subject will allow students who are already competent at building 3D computer models to use those skills to help build a computer model of a "lost" city precinct. The subject will initially focus on EUR - the precinct of Rome where the 1942 World Trade Fair was to be held. Despite the fact that the Fair was cancelled because of World War II, much of the design had been completed. After the War, parts of EUR were built as designed, but much was either changed or

abandoned. In seeing EUR as it is today, the question to be asked is "what would it have been like if it had been built as it has been imagined?" Assessment will be through the creation of a computer model of part of the "lost city" precinct.

ENVIRONMENT*No electives***STRUCTURES****BENV2601****Design of High Rise Structures***Staff Contact: Vincenz Sedlak*

CP15 HPW3

Conceptual design of towers and skyscrapers, with special consideration of economical constraints, construction and material technologies, and engineering for wind, earthquake, fire, environmental and facade engineering. Integration of constructional and structural issues related to design, manufacture and building processes.

BENV2602**Advanced Structural Design***Staff Contact: Faculty Student Centre*

CP7.5 HPW2

The behaviour and analysis of indeterminate structures. Computational techniques for indeterminate and other complex structural systems. Structural CAD applications. Architectural/Structural design issues: envelope, structure interaction, structural detailing and structural expression; dynamic loads; new materials and systems; assembly and erection techniques etc.

BENV2603**Lightweight Structural Design***Staff Contact: Faculty Student Centre*

CP7.5 HPW2

Integrated architectural/ structural/ constructional/ environmental design of cable, cable-net, membrane, tensegrity, shell and folded surface structures in lightweight materials (concrete, timber, metals and composites). Current issues related to on-going research and development. Structural ideologies. Seminar and project(s). Model and computer laboratory work and occasional construction workshop.

CONSTRUCTION AND MANUFACTURING**BENV2701****Advanced Building Materials (Ceramics)***Staff Contact: Bill Lawson*

CP15 HPW3

Ceramic materials; the nature of cements, concrete and glass. Building products and techniques using these materials and their implications including construction, maintenance and deterioration. Examination of the environmental impacts and life cycle analyses of these materials. Industrial and site visits.

BENV2702**Advanced Building Materials (Organics)***Staff Contact: Bill Lawson*

CP15 HPW3

Organic materials; the nature of wood and synthetic polymers. Building products and techniques using these materials and their implications including construction, maintenance and deterioration. Examination of the environmental impacts and life cycle analyses of these materials. Industrial and site visits.

BENV2703**Advanced Building Materials (Metals)***Staff Contact: Bill Lawson*

CP15 HPW3

Metals, ferrous and non-ferrous, their nature and use. Building products and techniques using these materials and their implications including construction, maintenance and deterioration. Examination of the environmental impacts and life cycle analyses of these materials. Industrial and site visits.

BENV2704**Advanced Construction Systems***Staff Contact: Faculty Student Centre*

CP7.5 HPW2

A review of recent developments, current trends and possible future directions in building design, construction systems, detailing and documentation. Case studies, projects, seminars.

BENV2705**Spatial Construction Studies***Staff Contact: Faculty Student Centre*

CP15 HPW3

This subject is a rigorous and disciplined examination of skilfully (ie. artfully) designed works of architecture. The subject will require students to investigate the physical (spatial and constructional) orders of two buildings with the aim of interpreting/understanding what these orders are and why they are the way they are. The investigations will be based on drawings and models of the chosen buildings (to be made by the students), on appropriate texts and on lectures given during the session. The selection of buildings will be partly based on the availability of good documentation and critical writings. These are necessary in order to achieve the desired level of rigour. Students will be divided into two groups, each group focusing on one of the buildings. A comparison of the two buildings is an important means of initiating discussion and will be one of the aims of the investigation. Material is presented as a mix of lectures and tutorials.

BENV2706**Advanced Modelling for Manufacturing***Staff Contact: L. Green*

CP10 HPW3

Development of three-dimensional models using ProEngineer Software. Applications to plastic flow, analysis, manufacture of rapid prototypes and other engineering based applications.

BENV2707**Advanced Landscape Engineering***Staff Contact: Graham Fletcher*

CP10 HPW2

More complex landscape engineering problems particularly 'soft' engineering solutions. Design and documentation of irrigation systems, external lighting, roads and car parks.

BENV2708**Interior Detailing***Staff Contact: Faculty Student Centre*

CP15 HPW3

Design resolution at a fine scale highlighting issues of quality and the central role of detailing in achieving buildings and interiors which are original and coherent examples of good design. The practice and technology of detailing interiors seeking to enhance the designer's critical capacity when assessing options and extending their design vocabulary. The discipline of extending design concepts from the overall to the specific and planning strategies for detailing while at an early stage of the design process. Tutorials based upon recent examples of detailing will be supplemented by lectures dealing with techniques of documentation, structuring building contracts to support successful outcomes in building procurement. Lectures will cover material related to building methods and technologies: included will be detailing stainless steel, timber veneer, plastic laminates, timber joinery, specifying finishes such as polyurethane, epoxy, stains and coatings. The program will be centred about guest lecturers presenting examples of their work as case studies of successful detailing.

LAW, PRACTICE AND MANAGEMENT**BENV2801****Project Management***Staff Contact: Faculty Student Centre*

CP7.5 HPW2

1. Principles of scientific management and organization, individual group behaviour, management functions, planning, organising, staffing, directing, coordinating, monitoring, appraisals and evaluation. 2. Operations research techniques; network analysis, multi-activity charting. 3. Decision theory and procedures. 4. Contract and contract documents. 5. Industrial relations, employment. 6. Industrial organization. 7. Seminars.

BENV2802**The Architect and the Law***Staff Contact: Faculty Student Centre*

CP7.5 HPW2

1. Arbitration and litigation. 2. Appeals to the Land and Environment Court. 3. Environment law. 4. Industrial Law. 5. Case studies.

BENV2803**Facility Planning***Staff Contact: Faculty Student Centre*

CP15 HPW3

Facility planning is the practice of coordinating the physical workplace with its business objectives. It strategically integrates the principles of business administration, interior architecture and the behavioural and engineering sciences. This course covers material associated with facility, strategic and tactical planning with regard to: accommodation, occupational health and safety and security; environmentally sustainable design in the context of the workplace; space planning systems; integration of services and telecommunications within the office. Contemporary strategies for the design of the modern office.

BENV2804**Construction Planning and Management***Staff Contact: V. Berk*

CP7.5 HPW2

The role of the architect in construction planning and management. Preplanning and building technology design for improved performance and management of the building process. Recent developments in constructional and structural engineering. Erection methods and equipment. Construction management and co-ordination of the building process. Building economics and cost planning, case studies, reports, seminars.

URBAN PLANNING AND DESIGN**BENV2901****Planning Perspectives***Staff Contact: Susan Thompson*

CP10 HPW2

Introduction to the purpose, scope, and application of planning. What is Town Planning and how does it impinge on the related professions of building, surveying and landscape architecture? The course will cover basic planning law and administration, urban processes, housing policy, social planning, environmental protection and heritage preservation. The future of cities, housing and transportation will also be canvassed.

BENV2902**The City: Sydney***Staff Contact: Faculty Student Centre*

CP7.5 HPW2

The city is the habitat of modern society. While architects make substantial contributions to the form of the city, they have relatively little influence over the success or failure of cities. There are much stronger forces at work than architecture. Buildings make the best contribution to the human habitat when they support the patterns and systems of life in the city. By providing an introduction to those patterns and systems, this subject gives students a basis for making buildings that work with the city rather than against; Sydney is used as an example. Material is presented as two-hour lectures by an authority on the topic.

BENV2903**Urban Design***Staff Contact: Jon Lang*

CP15 HPW3

Design studies in the integration of buildings and groups of buildings in their urban context, and of spaces between buildings, accommodation of pedestrian and vehicular movement, micro-climate. Material is presented as lectures and occasional tutorials.

BENV2904**Public Art***Staff Contact: Catherine de Lorenzo*

CP15 HPW3

This subject examines recent Australian and overseas art that addresses ideas of place and context and that is situated in the public domain. Public art can be an individualistic exercise but more often it results from professional collaboration between artists, designers of the built environment, and the community. Art in public places provides opportunities for design professionals to grapple with historical, social, cultural, environmental and other issues in the creative process. Increasingly state and local governments are developing policies to encourage public art: in some overseas countries a fixed percentage of the costs of a public building must be spent on providing site/place-specific art. This elective has two objectives: one is to examine aspects of the current theoretical discourse on public art, and to debate these ideas in student-led seminars; the other objective is to enable students to conduct research into local recent public art and to write a critical appraisal of a particular work. It is hoped that the research will be incorporated (and acknowledged) in a wider Department-based project on public art, architecture and urban design in Sydney. Material is presented as a mix of lectures and seminars.

Faculty of the Built Environment Graduate Enrolment Procedures

All students enrolling in graduate courses should obtain a copy of the free booklet Enrolment Procedures 1999 available from Faculty Student Centre and the University Admissions Office. This booklet provides detailed information on enrolment procedures and fees, enrolment timetables by faculty and course, enrolment in miscellaneous subjects, locations and hours of cashiers and late enrolment.

Higher Degrees – Research

Following the award of a first degree in Architecture, Building, Industrial Design, Landscape Architecture or Town Planning 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 Building
4. Master of the Built Environment
5. Master of Landscape Architecture
6. Master of Town Planning
7. Master of Science

For details concerning these degrees see Conditions for the Award of Higher 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 courses are offered as follows:

1. Master of Architecture
2. Master of the Built Environment (Sustainable Development)
3. Master of Construction Management
4. Master of Industrial Design
5. Master of Landscape Planning*
6. Master of Real Estate
7. Master of Science (Industrial Design)
8. Master of Urban Development and Design
9. Graduate Diploma in Built Environment (Sustainable Development)
10. Graduate Diploma in Housing and Neighbourhood Planning*.
11. Graduate Diploma in Valuation*
12. Graduate Certificate in Built Environment (Sustainable Development)

Duration

Most courses are programmed over one year full-time or two years part-time study, are located on the Kensington campus of the University, and may require evening and/or daytime attendance (refer to course descriptions for details). The Master of Landscape Planning is programmed over one and a half years full time or three years part time. The Master of Urban Development and Design is programmed over one calendar year including a summer term.

** These courses are under review, and no new enrolments are currently being accepted.*

Research Degrees

The School of the Built Environment offers facilities for research and welcomes enquiries from students who wish to pursue programs for research as detailed below. Prospective students should consult the Associate Dean - Research to discuss their research interests prior to making a formal application.

Associate Dean - Research
Professor Jon Lang

1120 Doctor of Philosophy

Doctor of Philosophy PhD

This is a research degree requiring an original and significant contribution to knowledge in an approved subject.

2200 Master of Architecture

Master of Architecture MArch

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.

2206 Master of Science

Master of Science MSc

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.

2210 Master of Building

Master of Building MBuild

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.

2220 Master of Landscape Architecture

Master of Landscape Architecture MLArch

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.

2230 Master of Town Planning

Master of Town Planning MTP

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.

2240 Master of the Built Environment

Master of the Built Environment MBEnv

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.

Coursework Degrees

The School of the Built Environment welcomes enquiries from students who wish to pursue graduate coursework programs as detailed below. Prospective students should consult the Associate Dean – Postgraduate Studies to discuss their interests prior to making a formal application.

Associate Dean – Postgraduate Studies
Professor Alexander Cuthbert

8125 Master of Construction Management

Master of Construction Management MConstMgt

Course Director: A/Professor Thomas E Uher

Construction Management comprises all the modern management methodologies directed at the control of time, cost and quality across different phases of the project development cycle.

This one year full-time or part-time full-fee course has been designed to provide opportunities for advanced study in construction, project management and building economics. The course aims at improving proficiency of qualified practitioners in the construction industry to meet present and future challenges.

Admission Requirements and Fees

1. Applicants must hold degrees acceptable to the University of New South Wales in either building, civil engineering, architecture, quantity surveying or equivalent and must have appropriate industrial experience.
2. Applicants may proceed directly into the course, or be required to complete prerequisite or corequisite programs of reading or study, with assessed assignments.
3. Applicants from non-English speaking countries must supply a certified statement of results in the IELTS Test or another equivalent recognised test.
4. This is a full fee paying course. Contact the office of the Associate Dean – Postgraduate Studies for details.

Course Structure

The Master of Construction Management course is a formal one year full-time or part-time full-fee degree course comprising two sessions of academic study. Entry into the course is possible in either session. To qualify for a degree, candidates are required to complete six (6) compulsory and four (4) elective subjects to accumulate a total of 100 credit points.

Course Program

Compulsory Subjects

BLDG6158	Principles and Practice of Management
BLDG5212	Human Resources Management
BLDG6155	Computers in Construction Management
BLDG6253	Construction Planning and Control
BLDG6255	Contracts Management and Law
BLDG6259	Project Management

Elective Subjects

BLDG6154	Economics in Construction
BLDG6257	Quantitative Methods in Management
BLDG6157	Property Management
BLDG6251	International Construction Practice
BLDG6256	Cost Planning and Analysis
BLDG6258	Construction Management Applications
BLDG5211	Project Finance
BLDG5314	Project Quality Management
PLAN1543	Planning Law and Administration
PLAN2522	Urban Infrastructure
CIVL9710	Engineering Risk Management
CIVL9714	Special Topic in Engineering Management
CIVL9724	Construction Engineering and Technology
CIVL9717	Marketing in Technology and Engineering

Note: Not all elective subjects are available in any one year.

8128 Master of Real Estate

Master of Real Estate MRE

Course Director: Dr Jinu Kim

The Master of Real Estate course is offered in a multi-disciplinary Faculty of the Built Environment, which embodies architecture, building construction management, planning and urban development, landscaping architecture, and industrial design disciplines.

Course philosophy

The aim of the Master of Real Estate course is to enhance analytical skills with respect to real estate investment and development. The course particularly aims at improving proficiency of qualified practitioners in the real estate industry to meet present and future challenges.

Admission Requirements

1. Admission to the course is available to a wide range of graduate from both construction and non-construction based disciplines. All applicants must hold undergraduate degrees acceptable to the University of New South Wales in building/construction management, quantity surveying,

land economics, architecture, urban planning, engineering, or another appropriate discipline.

2. University graduates from non-construction disciplines who have appropriate experience in property may be admitted to the course depending on the individual case.

3. Eligible applicants may be required to complete a program of preparatory or concurrent study laid down by the Associate Dean – Postgraduate studies whose decision will be based on the education and experience of each applicant.

4. Graduate experience and involvement in the property industry is considered an advantage in the selection of candidates.

English language requirements

International applicants whose first language is not English, or who have not undertaken a previous degree where English was the primary language of instruction, are required to provide proof of their competence in English by presenting acceptable results in the IELTS Test or another equivalent test.

Fees

This is a full fee paying course for both local and international students. Contact the office of the Associate Dean – Postgraduate Studies for details.

Course Structure

To qualify for a degree, students will be required to complete six compulsory and four elective subjects to accumulate a total of 110 credit points. Full-time students will be required to complete the course over two, and part-time students over four academic semesters. Entry into the part-time program is now possible in either semester. Full-time students will be required to complete five subjects in each semester, which represents approximately 15 contact hours per week with an expectation that additional 30 hours per week is devoted to private study and project work.

Course Program

Subjects are offered on a four-session cycle. Subjects are normally timetabled on four evenings per week. Except in exceptional circumstances, a student is required to be concurrently enrolled in all subjects in a given session to allow for syllabus integration between subjects.

Compulsory subjects

BLDG7406	Real Estate Investment Analysis
BLDG7011	Information Technology and Data Analysis in Real Estate
ECON5103	Business Economics (Faculty of Commerce and Economics)
BLDG7103	Real Estate Market Forecasting
BLDG7021	Real Estate Finance

FINS5513 Security Valuation and Portfolio Selection
(Faculty of Commerce and Economics)

Elective subjects

BLDG7511	Real Estate Valuation*
BLDG7512	Real Estate Development*
BLDG7521	Facility Management
BLDG7522	Corporate Real Estate
BLDG6158	Principles & Practice of Management
BLDG6259	Project Management
PLAN7204	Land and Environment Law*
PLAN7205	Planning and Land Policy
PLAN2511	The Economy of Cities and Regions
PLAN1514	Principles of Political Economy
GSBE2001	History of Urban Development
GSBE2005	Critical Urban Theory

*: Subjects should be completed together with an introductory subject in Building to satisfy the academic requirements for the Australian Institute of Valuers and Land Economists (AIVLE) Associate membership of the Land Economy category.

8131

Master of Urban Development and Design Course

Master of Urban Development and Design MUDD

Program Head: Professor A Cuthbert

A one year full-time or two year 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 program involves two academic sessions of study plus a summer term and includes a compulsory field project based in a major South East Asian city. Graduates of the program from a planning-related background are eligible for membership of the Royal Australian Planning Institute (RAPI). Students from a non-planning-related background may elect to take an additional 60 credit points of approved planning subjects to become eligible for RAPI membership.

Admission Requirements

Admission to the course 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 fields 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. Applicants who do not meet these requirements may be permitted to gain admission via a qualifying program.

Fees

This is a full-fee paying course for both local and international students. The S E Asian Field Project costs are in addition to fees. Contact the office of the Associate Dean – Postgraduate Studies for Details.

Course Structure

The content of the course 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 year. Students will be allocated to one of two streams in (a) Design or (b) Development depending upon their background discipline and interest. The nature of contribution to studio-based design projects will be determined accordingly.

The course comprises nine core and two elective subjects. The compulsory core includes five lecture/seminar based subjects, three project based studio subjects, and a case study subject. The typical pattern for core and elective subjects will be a two hour lecture/seminar format over 12 weeks, ie a total of 24 hours per session. The remaining two weeks per session will normally be reserved for visiting lectures and other special activities.

Students are encouraged to select electives from those recommended hereunder which have been specifically developed for the program or selected from those offered by other schools in the faculty. However students may be permitted, with the approval of the Associate Dean – Postgraduate Studies, to select electives from other subjects offered within the faculty or other faculties of the University.

The final Summer Term will include case studies of major urban projects, the South East Asian field project, and the preparation of an exhibition and publication of the years work.

Students from a non-planning-related background may elect to take an additional 60 credit points of approved planning subjects to become eligible for RAPI membership.

Program of Study for Full-Time Candidates

Core Subjects		CP
<i>Session 1</i>		
GSBE2001	History of Urban Development	10
GSBE2002	Urban and Environmental Law	10
GSBE2003	Real Estate Development	10
GSBE2004	Urban Design Studio 1	20
Elective Subject		10
Total		60

<i>Session 2</i>		CP
GSBE2005	Critical Urban Theory	10
GSBE2006	Urban Landscape	10
GSBE2007	Urban Design Studio 2	30
Elective Subject		10
Total		60

<i>Summer Term</i>		
GSBE2008	Case Studies in Urban Development and Design	20
GSBE2009	Urban Design Studio 3 (including S.E. Asian field project)	40
Total		60

Recommended Program of Study for Part-Time Candidates

Core Subjects

<i>Year 1, Session 1</i>		
GSBE2001	History of Urban Development	10
GSBE2002	Urban and Environmental Law	10
GSBE2003	Real Estate Development	10
Total		30

<i>Year 1, Session 2</i>		
GSBE2005	Critical Urban Theory	10
GSBE2006	Urban Landscape	10
Elective Subject		10
Total		30

<i>Year 2, Session 1</i>		
GSBE2004	Urban Design Studio 1	20
Elective Subject		10
Total		30

<i>Year 2, Session 2</i>		
GSBE2007	Urban Design Studio 2	30
Total		30

<i>Year 2, Summer Term</i>		
GSBE2008	Case Studies in Urban Development and Design	20
GSBE2009	Urban Design Studio 3 (including S.E. Asian field project)	40
Total		60

Total Credit Points for Course 180

Recommended Elective Subjects

ARCH7220	Computer-aided Architectural Drafting	10
ARCH7221	Computer Modelling and Rendering	10
ARCH7301	Architecture and the City	10
BENV7190	People and Urban Space	10
BLDG5212	Human Resources Management	10
BLDG5314	Project Quality Management	10
BLDG6158	Principles and Practice of Management	10
BLDG6259	Project Management	10
GSBE3001	Sustainable Development and the Urban Environment	10
GSBE3002	Resources, Materials and Sustainability	10
GSBE3003	Energy and the Built Environment	10
GSBE3004	Human Factors, Sustainability and Habitability	10

LAND9010	Environmental Heritage Studies	10
PLAN2051	Environmental Economics and Resource Management	10
PLAN2511	The Economy of Cities and Regions	10
PLAN2522	Urban Infrastructure	10

Note: Most subjects are offered in only one session per year. Some subjects may not be offered every year. Students are advised to contact the Course Coordinator prior to enrolment for information about the availability of subjects in a particular session.

8132

Master of the Built Environment (Sustainable Development)

Master of the Built Environment (Sustainable Development)

MBEnv(Sust.Dev)

5132

Graduate Diploma in Built Environment (Sustainable Development)

Graduate Diploma in Built Environment (Sustainable Development)

GradDipBEnv

7332

Graduate Certificate in Built Environment (Sustainable Development)

Graduate Certificate in Built Environment (Sustainable Development)

GradCertBEnv

Course Director: Associate Professor Deo Prasad

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 courses are advanced interdisciplinary coursework programs which provide opportunities for graduates from a wide range of backgrounds (eg: 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 programs are available to suitably qualified local and international students and provide opportunities for full-time or a part-time study. Full-time masters or students must commence the program in Session 1. Grad Dip, Grad Cert and Part-time masters students may commence either Session 1 or 2.

Admission Requirements

MBEnv(SustDev): 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, subject to satisfactory performance.

GradDipBEnv and GradCertBEnv: A bachelor degree or equivalent in an appropriate discipline.

In exceptional circumstances other academic or professional qualifications may also be considered.

Fees

These are full-fee paying programs for both local and international students.

Course Structure

The Masters program is comprised of seven core subjects, two electives and a graduate project for a minimum of 120 credit points required to complete the program. The Graduate Diploma is comprised of five core subjects and three electives for a minimum of 90 credit points. The Graduate Certificate is comprised of four core subjects for a total of 40 credit points.

Pattern of Study for Completion Over Two Sessions				
Subjects	Credit Points	MBEnv	Grad Dip	Grad Cert
Session 1				
SCTS5315 Society, Environmental Policy and Sustainability	20	•	•	
GSBE3001 Sustainable Development and the Urban Environment	10	•	•	•
GSBE3002 Resources, Materials and Sustainability	10	•	•	•
GSBE0503 Postgraduate Research Design and Methodology	10	•		
Elective Subject (see list below)	10*	•	•	
Elective Subject (see list below)	10*		•	
Session 2				
GSBE3003 Energy and the Built Environment	10	•	•	•
GSBE3004 Human Factors, Sustainability and Habitability	10	•	•	•
GSBE3005 Graduate Project	30	•		
Elective Subject (see list below)	10*	•	•	
Total credit points (minimum)		120*	90*	40

* Minimum credit points – subject to variation depending on selection of elective subjects.

Recommended Pattern of Study for Completion over Four Sessions				
Subjects	Credit Points	MBEnv	Grad Dip	Grad Cert
Session 1, Year 1				
SCTS5315 Society, Environmental Policy and Sustainability	20	•	•	
GSBE3001 Sustainable Development and the Urban Environment	10	•	•	•
Session 2, Year 1				
GSBE3003 Energy and the Built Environment	10	•	•	•
GSBE3004 Human Factors, Sustainability and Habitability	10	•	•	
Elective Subject (see list below)	10*	•		
Session 1, Year 2				
GSBE3002 Resources, Materials and Sustainability	10	•	•	•
GSBE0503 Postgraduate Research Design and Methodology	10	•		
Elective Subject (see list below)	10*	•	•	
Session 2, Year 2				
GSBE3004 Human Factors and Sustainability	10		•	
GSBE3005 Graduate Project	30	•		
Elective Subject (see list below)	10*		•	
Elective Subject (see list below)	10*		•	
Total credit points (minimum)		120*	90*	40

* minimum credit points – subject to variation depending on selection of elective subjects.

Recommended Electives

AGSM304	Resource Markets and Management	10
ARCH7203	Information Technology in Architecture	10
ARCH7322	People and Urban Space	10
BLDG5212	Human Resources Management	10
BLDG5314	Project Quality Management	10
BLDG6158	Principles and Practice of Management	10
BLDG6259	Project Management	10
GSBE2001	History of Urban Development	10
GSBE2002	Urban and Environmental Law	10
GSBE2005	Critical Urban Theory	10
LAND9213	Land Systems and Management	10
SCTS5312	Technology and Power in the Asia-Pacific	20*
SCTS5316	Environmental and Technological Risk Controversies	20*
GEOG9042	Environmental Impact Assessment	12
GEOG9240	Principles of Geographic Information Systems	12
GEOG1031	Environmental Processes	12
GEOG9230	Population, Health and the Environment	12
CIVL9402	Transport, Environment, Community	24*
CIVL9405	Urban Transport Planning Practice	12
CIVL9855	Water and Wastewater Analysis and Quality Requirements	12
CIVL9881	Hazardous Waste Management	12
CIVL9889	Environmental Economics and Law	12

* Electives of 20 or more credit points are regarded as equivalent to two 10 credit point subjects.

Note: 1. Some electives may not be offered every year.

Additional fees will apply for subjects with more than the minimum required credit points.

Advanced Standing

Where applicants have undertaken external subjects equivalent to core subjects, advanced standing may be permitted up to the following:

GradCert:	10 credit points
GradDip:	20 credit points
MBEnv:	30 credit points

Upgrading and Articulation

Upgrading from GradCertBEnv to GradDipBEnv or MBEnv(SustDev), or from GradDipBEnv to MBEnv(SustDev) may be permitted where a program is completed but the Degree has not been awarded. Students upgrading to the MBEnv(SustDev) will be required to complete a minimum of 20 additional credit points of coursework. When upgrading, additional credit for advanced standing will not be permitted.

Where a GradDipBEnv or GradCertBEnv has been awarded, the maximum credit permitted toward a degree at a higher level will be as follows:

GradCert: 20 credit points towards GradDip or MBEnv.

GradDip: 30 credit points towards MBEnv.

For core or elective subjects previously completed in a GradDipBEnv or GradCertBEnv, additional electives of at least equivalent credit point value are required to be completed.

8142

Master of Architecture (by coursework)

with programs of study in:

Architectural Design (code 8142/1001)

Architectural Computing (code 8142/2001)

History and Theory of Architecture (code 8142/3001)
(Course Director: Dr P-A Johnson)

Master of Architecture MArch

This Course provides for graduate study and research in one of several specialised aspects of the discipline of architecture. At the present time, three programs of study are offered to prospective candidates: Architectural Design; the History and Theory of Architecture; and Architectural Computing. The School may, from time to time, adjust the specialist programs that are available, subject to both demand and available staff resources.

The Programs are primarily designed for graduates in architecture and other relevant disciplines who wish to advance their knowledge in these specialised areas as either practitioners, consultants or academics. They are also suitable for specialist members of multi-disciplinary teams in industry or architectural practice.

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 conditions governing registration as a candidate for the degree of Master of Architecture are described later in this handbook, but the attention of applicants is drawn to the following admission requirements.

Registration is offered to candidates who have been awarded an appropriate degree of Bachelor of minimum 4 years duration 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 the Built Environment (hereinafter referred to as the Committee). Candidates may, where considered appropriate (including

insufficient background in the proposed area of specialisation) be required to undertake a qualifying programme as determined by the Committee.

Applicants to the MArch (Architectural Design) program are required to have a Bachelor of Architecture or equivalent degree in architecture at Honours level, or to have achieved a grade average across all subjects equal to UNSW Honours level. Performance in design studio and design-related undergraduate subjects is expected to match or to surpass this Honours or overall grade average level. Prior to their final acceptance into the Program, applicants must submit a design portfolio demonstrating the range and quality of their design experience as well as a declaration as to their role in the work they present. Applicants are also to have a minimum of one year of professional architectural practice experience after graduation. Certain of these requirements may be varied at the discretion of the Committee.

Notwithstanding any other provisions of these conditions, the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations, as the committee may determine..

Course Structure

Students undertaking the Course are required to select their program before commencement. They must then complete a set of prescribed core subjects in that area of specialisation, supplemented by elective subjects to bring their total credit points to 120 for the degree. As part of the core component, the MArch (Architectural Computing) and the MArch (History and Theory of Architecture) each require the completion of a directed and supervised Graduate Research Project to the value of 30 credit points. The MArch (Architectural Design) Program requires the completion of two studio-based Architectural Design Projects totalling 60 credit points. Note that, except for these higher value Project subjects and the Report Colloquium, all other core subjects are of 15 credit points and elective subjects are either of 10 or 15 credit points.

The degree may be commenced in either Session of the academic year subject to the availability of places in the Programs as well as appropriate subjects 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 subjects as possible before undertaking their elective options.

Candidates wishing to undertake the Architectural Design Program on a part-time basis must note that the studio design subjects (Architectural Design Project 1 & 2) are each single session subjects and must be completed in the session in which they are enrolled.

For each area of specialisation, candidates are required to take each of the prescribed core subjects as listed in the programs given below. These generally make up the bulk of the requirements for the degree. The remaining credit points are then earned by taking electives, generally selected from the recommended list provided for each

Program. Notwithstanding, candidates may, with the approval of the Associate Dean - Postgraduate, undertake electives chosen from among other graduate subjects offered by the Faculty or University. Subject to the same conditions, students may also enrol in undergraduate subjects offered in the University, but only to a maximum contributing a total of 20 credit points calculated at an agreed credit point value as graduate subjects.

Notwithstanding any of the above, the coursework subjects offered in any one academic session will depend on student numbers and interests. Students must therefore plan their programs in consultation with Course Co-ordinators. As a guide, the following table shows the number of credit points that would normally be taken in each Session for a full-time or part-time program, depending on the selected Program.

Fees

This is a fee paying program for both local and international students. Contact School for details.

Typical Patterns of Study

Architectural Design Program

Full-time	CP	
	S1	S2
Architectural Design Project 1	30	
Architectural Design Project 2		30
Elective Subjects	30	30
Total	60	60
Part-time		
<i>Year 1</i>		
Architectural Design Project 1	30	
Elective Subjects		30
<i>Year 2</i>		
Architectural Design Project 2		30
Elective Subjects	30	
Total	60	60

Architectural Computing and History and Theory of Architecture Programs

Full-time	CP	
	S1	S2
Graduate Research Project		30
Graduate Project (Report Colloquium)	5	
Research Design and Methodology	10	
Core subjects	45	
Elective subject		30
Total	60	60

Part-timeCP
S1 S2*Year 1*

Graduate Project (Report Colloquium)	5	
Research Design and Methodology	10	
Core subjects	15	30
Total	30	30

Year 2

Graduate Research Project	30	
Core subject		
Elective subjects		30
Total	30	30

The following sections detail the required academic program for each of the specialisation strands available at the present time.

Master of Architecture Architectural Design Program

Required Academic Program		CP
ARCH7103	Architectural Design Project 1	30
ARCH7104	Architectural Design Project 2	30
	Elective subjects	60
Total		120

Recommended Electives

ARCH7304	Architecture and the City	15
ARCH7305	Theories in History	15
ARCH7306	Theory and Architectural Practice	15
BENV7140	Multimedia on the Web	15
BENV7141	Multimedia in Design Presentation	15
BENV7142	CAD and Visualisation	15
BENV7143	Advanced Visualisation	15
BENV7190	People and Urban Space	15
GSBE2001	History of Urban Development	10
GSBE2005	Critical Urban Theory	10
GSBE2006	Urban Landscape	10
GSBE3001	Sustainable Development and the Urban Environment	10
GSBE3002	Resources, Materials and Sustainability	10
GSBE3003	Energy and the Built Environment	10
GSBE3004	Human Factors, Sustainability and Habitability	10

Note: Most subjects are offered in only one session each year. Some subjects may not be offered every year. Students are advised to contact the Course Director prior to enrolment for information about the availability of subjects in a particular session.

Master of Architecture Architectural Computing Program

Required Academic Program		CP
ARCH7003	Graduate Research Project	30
GSBE0014	Graduate Project (Report Colloquium)	5
GSBE0503	Postgraduate Research Design and Methodology	10
ARCH7204	Design Computing Theory	15
ARCH7205	Computer Graphics Programming	15
ARCH7206	CAD Management and Information Technology	15
	Elective subjects	30
Total		120

Recommended Electives

BENV7140	Multimedia on the Web	15
BENV7141	Multimedia in Design	15
BENV7143	Advanced Visualisation	15
BENV7144	Building Virtual Precincts	15
BLDG6155	Computers in Construction Management	10
GEOG9210	Computer Mapping and Data Display	15
GSBE3003	Energy and the Built Environment	10
GSBE3004	Human Factors, Sustainability and Habitability	10

Master of Architecture History and Theory of Architecture Program

Required Academic Program		CP
ARCH7003	Graduate Research Project	30
GSBE0014	Graduate Project (Report Colloquium)	5
GSBE0503	Postgraduate Research Design and Methodology	10
ARCH7304	Architecture and the City	15
ARCH7305	Theories in History	15
ARCH7306	Theory and Architectural Practice	15
	Elective subjects	30
Total		120

Recommended Electives

ARCH7204	Design Computing Theory	15
BENV7190	People and Urban Space	15
LAND9010	Environmental Heritage Studies	15
COFA8591	Postgraduate Seminars	15
GSBE2001	History of Urban Development	10
GSBE2005	Critical Urban Theory	10
GSBE2006	Urban Landscape	10
GSBE3001	Sustainable Development and the Urban Environment	10
GSBE3004	Human Factors, Sustainability and Habitability	10

Note: Most subjects are offered in only one session each year. Some subjects may not be offered every year. Students are advised to contact the Course Director prior to enrolment for information about the availability of subjects in a particular session.

8135

Master of Landscape Planning

This course is currently under review and no new admissions will be made in 1999

8145

Master of Industrial Design Course**Master of Industrial Design****MID**

8146

Master of Science (Industrial Design) Course**Master of Science (Industrial Design)****MSc(IndDes)**

These courses of graduate study have a common core of subjects in the major areas of industrial design. They are designed for graduates in industrial and environmental design, architecture, engineering, and marketing and business studies who wish to make careers in industrial design or to be involved in industrial design as a part of their career activity, eg, mechanical engineering with industrial design.

The MID degree course is intended for holders of four year industrial design degrees who wish to specialise and develop expertise in particular areas of industrial design. In addition to the common core of subjects, MID degree students are also required to submit a major graduate project, a design theory report and have a greater choice of electives related to their field of specialisation.

The MSc(IndDes) degree course is intended for graduates from design fields related to industrial design, such as architecture or engineering, or for graduates from nondesign areas, such as marketing, who have satisfactorily completed preparatory studies. The course is designed to adapt and apply the students' existing design knowledge and experience to the methodology and practice of industrial design. The project work is less specialised and covers a broad range of industrial design problems. The students are required to submit a minor graduate project. There are additional compulsory subjects in this course, with a more restricted range of electives, closely related to industrial design.

Admission Requirements

The conditions governing registration as a candidate for the MSc(IndDes) degree course are given later in this handbook: see below under Conditions for the Award of Higher Degrees. In summary, admission is open to applicants who have been admitted to an appropriate degree of at least four years' full-time duration, or its equivalent. For the MID degree course, admission is restricted to applicants who have been admitted to a degree with a major in industrial design of at least four years' full-time duration, or its equivalent. Candidates who have completed part or all of the requirements for the award of the degree of the MSc(IndDes) course may elect to apply for admission to the MID degree course, subject to the recommendation of the Associate Dean – Postgraduate Studies and the approval of the Higher Degree Committee of the Faculty of the Built Environment.

In certain cases, particularly for applicants from nondesign undergraduate courses, it is necessary to complete a qualifying program of preparatory units in industrial design, as prescribed by the Higher Degree Committee of the Faculty. These units are selected from appropriate undergraduate courses. The Committee's decision is influenced by the academic and professional experience of each applicant.

Course Structure

The minimum duration of both courses is two sessions of full-time study or four sessions of part-time study. The availability of the full-time and part-time programs of study depends upon student demand and the University's resources at that time.

The MID degree course comprises 140 credit points. The MSc(IndDes) degree course comprises 120 credit points. Full-time study normally requires an attendance of approximately 18 hours per week, while part-time study normally requires approximately 9 hours per week for the duration of the course. The project work for both degree courses, part and full-time, is run simultaneously and is staffed according to the requirements of each project.

Most of the work is undertaken within the School, but industrial visits and experience forms an important component of the course.

The program is so arranged that eminent visitors as well as guest lecturers and designers may participate.

To avoid duplication of classes for full-time and part-time students, subjects are timetabled wherever possible on afternoons and evenings. In addition to timetabled commitments, the studios and laboratories are available during normal University hours for industrial design project work. Occasionally students are required to attend professional and industrial visits and lectures at other institutions.

The requirements for the course include an equivalent period of at least four weeks of approved professional or industrial experience. Part-time students with approved employment are exempt from this requirement.

Course Subjects

Common Core

IDES5131	Industrial Design
SESC9411	Principles of Ergonomics
MARK5902	Elements of Marketing
IDES1121	History of Industrial Design
IDES3271	Form Theory
SESC9421	Applied Ergonomics
IDES5152	Manufacturing Technology
IDES5051	Plastics, materials and processes
IDES4371	Design Management
IDES5111	Visual Thinking

MID only

IDES6081	Graduate Project (MID)
GSBE0503	Research Methods
SESC9441	Ergonomics and New Technology

Approved Electives*

MSc(IndDes) only

IDES5091	Perspective and Rendering
IDES6181	Graduate Project (MSc(IndDes))

Approved electives*

**Approved electives may be taken from subjects offered in other academic units of the University of New South Wales, subject to the approval of the Associate Dean – Postgraduate Studies.*

MID electives may be chosen to increase specialist knowledge relevant to the student's theory studies, project report or planned career activities.

MSc(IndDes) electives are taken in approved subjects directly related to the development of the student's industrial design knowledge and skill.

Depending upon course requirements, the availability of University staff and Faculty resources, it may be possible to substitute some existing graduate or undergraduate courses in other faculties for certain subjects of the course. This development would be subject to the approval of the Higher Degree Committee of the Faculty of the Built Environment and the Associate Dean – Postgraduate Studies. Where the credit points of subjects is increased by substitution of subjects from other academic units, the requirement for the stated number of credits in elective subjects is correspondingly reduced.

5200

Housing and Neighbourhood Planning Graduate Diploma Course

Graduate Diploma GradDip

This course is currently under review and no new admissions will be made in 1999.

5205

Town Planning Graduate Diploma

Graduate Diploma GradDip

This course is designed as a qualifying program in order to provide training for graduates who wish to pursue a higher research degree (PhD or Masters by research). The content of the Graduate Diploma is tailored to meet the objectives of individual students. It is normally taken as a one year full-time program (or two years part-time) and includes a core of postgraduate coursework, together with an additional study program to meet the needs of particular students.

Performance in the course is considered when applications for entry into higher degree programs are reviewed.

Admission

An applicant for the Graduate Diploma shall have a degree of a minimum length of three years full-time from an approved institution or have such other qualifications as may be approved by the Higher Degree Committee of the Faculty of the Built Environment

Course Structure

The course includes three compulsory core subjects. The remaining content is designed to provide a foundation for postgraduate research in the field, and may include additional coursework and/or programs of independent study,

Core subjects

GSBE0503	Postgraduate Research Design and Methodology
GSBE0504	Quantitative Methods for Built Environment Research
PLAN1531/ PLAN1532	Research Seminar

Individual programs are defined in consultation with the academic staff of the School and are subject to approval by the Associate Dean – Postgraduate Studies. Application for exemption from GSBE0504 may be considered by the Head of School for students with appropriate prior experience with statistical techniques and data analysis.

Subject Descriptions

Faculty of the Built Environment Subjects

ARCH7003

Graduate Research Project

Staff Contact: Dr P-A Johnson

CP30 S1/2 HPW 0.25 of supervision

Pre-requisites: GSBE0503

Excluded: ARCH7001, ARCH7202

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 Course 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 and presentation of a graduate seminar. Assessment by written report and seminar.

ARCH7103

Architectural Design Project 1

Staff Contact: Dr P-A Johnson

CP30 S1HPW 8

Excluded: ARCH7101

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

Architectural Design Project 2

Staff Contact: Dr P-A Johnson

CP30 S2 HPW 8

Excluded: ARCH7102

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.

ARCH7204

Design Computing Theory

Staff Contact: Mr J Plume

CP15 S1 HPW 3

Excluded: ARCH7201

This subject 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

Staff Contact: Mr S Peter

CP15 S1 HPW 3

Excluded: ARCH7202

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

Staff Contact: Mr J Plume, Mr S Peter

CP15 S2 HPW 4

Excluded: ARCH7202, ARCH7222

This subject 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.

ARCH7220**Computer-aided Architectural Drafting***Staff Contact: Mr J Plume*

CP10 S1 & S2

Excluded: ARCH6214, ARCH5202 or equivalents, BENV7142

Introduction to the concepts and techniques of computer-aided drafting with particular reference to architectural communication. The subject deals with both two-dimensional drawing and three-dimensional modelling. The lectures provide a conceptual understanding of computer-aided systems, including both hardware and software aspects. The laboratory segments provide hands-on instruction on how to use a specific example of a drafting system. A set project task reinforces the learning and is used as the vehicle of assessment.

ARCH7221**Computer Modelling and Rendering***Staff Contact: Mr S Peter*

CP10 S2

Excluded: ARCH5207 or equivalent, BENV7142

Introduction to the concepts and techniques of three-dimensional computer modelling and rendering and their application to the practice of architecture. Topics include: three-dimensional representation of objects and buildings; constructive solid geometry; visualisation techniques; ray tracing and radiosity techniques; use of multiple light sources; shading; reflections; transparency; texture mapping and colour manipulation. This subject involves extensive hands-on use of computers, computer laboratory exercises and project work.

ARCH7301**Architecture and the City***Staff Contact: Dr P Kohane*

CP15 S2 HPW 2

This subject investigates the historical formation of selected international cities, with attention focussed on past and present theories. Australian developments are studied along with the contributions of Sulman and Boyd. Classes also explore contemporary debates through the projects or writings of the Kriers, Rowe, Rossi et al. Assessment is by two essays.

ARCH7305**Theories in History***Staff Contact: Dr P Kohane*

CP15 S1 HPW 2

Excluded: ARCH7302

This subject investigates the writings of architectural theorists from Vitruvius to the present. Authors to be studied include Alberti, Quatremère de Quincy, 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.

ARCH7303**Theory and Contemporary Architectural Practice***Staff Contact: Dr P-A Johnson*

CP10 S1

Presents theoretical issues which have arisen in late 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.

ARCH7306**Theory and Architectural Practice***Staff Contact: Dr P-A Johnson*

CP15 S1 HPW 2

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 by two essays.

BENV7140**Multimedia on the Web***Staff Contact: Mr S Peter*

CP15 S2 HPW 3

Excluded: ARCH9711

This subject will discuss the potential and limitations of the World Wide Web as a tool for the presentation of design information. The subject 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***Staff Contact: Mr J Plume*

CP15 S2 HPW 3

Excluded: ARCH9714

This subject 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.

BENV7142**CAD and Visualisation***Staff Contact: Mr S Peter*

CP15 S1 HPW 3

Excluded: ARCH7220, ARCH7221, students majoring in Architectural Computing.

Introduction to the concepts and techniques relating to the use CAD systems in architectural design. The subjects 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.

BENV7143**Advanced Visualisation***Staff Contact: Mr James McGrath*

CP15 S2 HPW 3

Pre-requisites: BENV7142

This subject 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.

BENV7144**Building Virtual Precincts***Staff Contact: Mr S Peter*

CP15 S2 HPW 3

Prerequisites: BENV7142

This subject will allow students who are already competent at building 3D computer models to use those skills to help build a computer model of a "lost" city precinct. The subject will initially focus on EUR - the precinct of Rome where the 1942 World Trade Fair was to be held. Despite the fact that the Fair was cancelled because of World War II, much of the design had been completed. After the War, parts of Eur were built as designed, but much was either changed or abandoned. Assessment will be based on one major project involving the creation of a computer model of part of the "lost city" precinct.

BENV7190**People and Urban Space***Staff Contact: Prof J Lang*

CP15 S2 HPW 2

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.

BLDG5211**Project Finance***Staff Contact: Dr G Runeson*

S2 L3

Techniques of investment analysis, mainly using the discounted cash flow method. Quantitative methods applying statistical and regression analysis techniques for the purpose of forecasting time series and investigating other data series.

BLDG5212**Human Resources Management***Staff Contact: Dr M Loosemore*

S2 L2 T1

Job design, specialisation and decentralisation, basis of grouping, span of control and liaison devices. Self-directing work groups and flexible manufacture. Reward policies, motivation and commitment. Personal development and group skills. Parties to industrial relations in Australia. History of industrial relations in the building industry. Statutory responsibilities of employers. Restructuring and reform in Australian industrial relations. Development and management of conflict.

BLDG5314**Project Quality Management***Staff Contact: A/Prof M Marosszeky, Dr J Kim*

S1 L2 T1

T.Q.M. theories and application, alternative approaches to quality management, quality management plans, quantifying quality management and control.

BLDG6154**Economics in Construction***Staff Contact: Dr G Runeson*

S1 L2 T1

Economics of the construction industry; its interrelationship with national and transnational economics.

BLDG6155**Computers in Construction Management***Staff Contact: Dr O Greste*

S1 L2 T1

Overview of computer hardware and software; operating systems; spreadsheet, data base and word processing programs and application areas; design of data base structures for relational data bases; data communication and networks; programs for cost estimating, network based project scheduling, cost monitoring, and project management; CAD systems; computer system specification, selection, installation and operation. The subject involves practical use of leading spreadsheet, data base and word processing packages.

BLDG6157**Property Management***Staff Contact: Dr J Kim, Dr Y Tu*

S2 L2 T1

Property development process: Evaluation, feasibility study; Preparation, life cycle cost in building; Disposal, marketing; Property investment analysis.

Building management: Tenancy management; Building maintenance; Obsolescence; Economics of refurbishment; Commercial property management; Strata title management; Taxation in property management.

BLDG6158

Principles and Practice of Management

Staff Contact: Dr J Kim

S1 L2 T1

Introduces the general principles of management: Basic management functions; planning process, organising; control of time, cost and quality. Organisation structure; concepts of management communication; motivation; delegation; team building.

BLDG6251

International Construction Practice

Staff Contact: Dr Y Tu

S2 L2 T1

A comparison of construction practices in various nations. The impact of local economic, labour and technical parameters on construction management; Staffing for international projects.

BLDG6253

Construction Planning and Control

Staff Contact: A/Prof T Uher

S1 L2 T1

The concept of construction planning and control; planning and control techniques bar chart, CPM, PERT, line of balance, multiple activity chart; computer based planning and control; applications of work study risk management.

BLDG6255

Contracts Management and Law

Staff Contact: A/Prof T Uher, Mr P Davenport

S2 L2 T1

Principles of administration of construction contracts; formation of construction contracts and subcontracts; contract administration of different phases of construction projects; options for project delivery; subcontracting; analysis of selected contracts; contract disputes, arbitration, mediation, litigation; contract claims; risk allocation in construction contracts; international contracting.

BLDG6256

Cost Planning and Analysis

Staff Contact: Mr P Marsden

S2 L2 T1

Construction estimating, elemental cost planning, design variables, cost control procedures; feasibility studies.

BLDG6257

Quantitative Methods in Management

Staff Contact: Dr G Runeson

S1 L2 T1

Statistical analysis and modelling methods in construction management.

BLDG6258

Construction Management Applications

Staff Contact: Dr M Loosemore

S2 L2 T1

The objective of the subject is to expose students to the realities of involvement with a large construction project. Detailed analysis of each stage of the project case study: Feasibility, Design and Documentation, PreConstruction, Construction and Commissioning.

BLDG6259

Project Management

Staff Contact: Dr J Kim, Dr M Loosemore

S2 L2 T1

Introduction to the concept of project management; Project delivery strategies; Organisation of projects from design to commissioning; Project planning strategies; Quality management; Management of information.

BLDG7406

Real Estate Investment Analysis

Staff Contact: Dr J Kim

S1 L3 CP10

This subject focuses on the economic aspects of real estate investment market. The subject incorporates relevant applications of statistical tools and the use of electronic information search. Topics include analysis of urban growth and change, and analysis of market segmentation. The subject also emphasises a systematic approach to the real estate investment process, investment environment, financial analysis, and investment criteria and application.

BLDG7011

Information Technology and Data Analysis in Real Estate

Staff Contact: Dr O Greste and Dr Y Tu

S1 L3 CP10

This subject provides students with a working knowledge of various commonly used information technology and statistical techniques in real estate economics. More specifically, the subject focuses on nature and scope of information technology for real estate industry, and on practical aspects of statistical model building. The emphasis is on data communication and network, data measurement and presentation, descriptive statistics, probability theory and probability distributions, samples and populations, hypothesis testing, multiple regression, introduction to time series analysis, forecasting, and index numbers.

BLDG7103

Real Estate Market Forecasting

Staff Contact: Dr Y Tu

S2 L3 CP10

This subject provides students with current issues of economic forecasting in real estate market. The subject focuses on analysing demand and supply forces of the real estate market and on underlying fundamentals of economic forecasting.

BLDG7021

Real Estate Finance

Staff Contact: School Office
S2 L3 CP10

This subject provides a graduate level introduction to real estate finance and investment. The subject focuses on the essential aspects of financial decision-making in real estate investment. Topics include real estate financing, the mechanics of the mortgage market, and application of modern financing theory to real estate investment.

BLDG7511

Real Estate Valuation

Staff Contact: School Office
S1 L3 CP10

This subject provides a graduate level introduction to valuation theory and practice. Topics include the concept and statutory definition of value, land ownership and tenure, basic principles and methods of valuation, valuation process, valuation mathematics and tables, rental valuation and determination, cash-flow analysis and advanced quantitative methods, and application of computer programs to the valuation process.

BLDG7512

Real Estate Development

Staff Contact: School Office
S1 L3 CP10

This subject provides a graduate level introduction to urban land economics with emphasis on property development. The subject focuses on a total approach to the development process; evaluation, preparation, implementation, and disposal. The subject also emphasises projects and cases to give students skills in organising and solving feasibility analysis problems.

BLDG7521

Facility Management

Staff Contact: Dr J Kim
S2 L3 CP10

This subject introduces the key issues in facility management. Topics include facility planning, financial forecasting, real estate considerations, property management, maintenance and operation, and general administrative services.

BLDG7522

Corporate Real Estate

Staff Contact: School Office
S2 L3 CP10

This subject provides an overview of two important issues relevant to the needs of real estate 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.

GSBE0001

Conservation Policy and Practice

Staff Contact: Faculty Student Centre Office
CP5 S1

The contextual system of the heritage and conservation movement. The history of the conservation movement worldwide with special reference to Australia. The place of building conservation, urban conservation and conservation management in the existing cultural milieu. The importance of conserving physical aspects of the past.

GSBE0002

Heritage Legislation

Staff Contact: Faculty Student Centre Office
CP5 S1

The role of the various professional and voluntary bodies in the conservation movement in Australia, the Heritage Council of NSW, the Heritage Commission of Australia and other bodies, the responsibilities of government authorities pursuant to the Heritage Act of 1977. An examination of legislation at local, state and Federal Government levels aimed at protecting items of cultural heritage. Problems associated with enforcing legislation at all levels.

GSBE0004

Cultural Significance

Staff Contact: Faculty Student Centre Office
CP5 S1

The concept of cultural significance in Australia and other nations. The variation in the concept of cultural significance between nations and within the same nation. Established methodologies for assessing cultural significance. The Venice Charter and the Burra Charter. Principles and processes in the Burra Charter. The development and impact of the State Heritage Inventory Project.

GSBE0005

Historical Processes I / The Built Environment

Staff Contact: Faculty Student Centre Office
CP10 S2

The major architectural movements in Australia and the principal architects associated with them. The work of the Government Architects from colonisation to the present and their building legacy. The great Australian architects and their impact on the styles of Australian architecture. The underlying social, economic, historic and technological forces which shaped Australian architecture.

GSBE0006**Historical Processes II / Technology**

Staff Contact: Faculty Student Centre Office
CP10 S2

The development of the early technologies for forming wood, stone, earth, brick and metal in Australia. An overview of the properties of the early building, materials, methods of working and their effect on architectural form and designs. Effect of the development of steam and electric power on materials-processing technology. The emergence of the age of gas and its impact on lighting, heating and ventilation. The effects of the introduction of hydraulic power, electricity and transport technology and the growth of the city.

GSBE0007**Traditional Building Materials and Technologies**

Staff Contact: Faculty Student Centre Office
CP10 S2

A detailed study of the properties of building materials and their use from colonisation to the second world war. Methods of field and laboratory examination of a wide range of materials. The construction associated with rude timber work, carpentry, joinery and cabinet making. The properties and uses of the ferrous and non-ferrous metals including wrought iron, cast iron, galvanised sheet steel, copper, brass, bronze and aluminium. The techniques of masonry construction and the shaping of stone using manual and power tools. The development of paints and painting technology from the early oil and water based paints to the early plastic paints. Glazing, lead lighting and stained glass manufacture.

GSBE0008**Conservation Technology**

Staff Contact: Faculty Student Centre Office
CP10 S1

The analysis of the causes of the deterioration of a wide range of building materials. Damage caused to masonry, plaster and render by weathering, rising damp and falling damp, and techniques of control. The principal causes of deterioration in timber including insect and fungal attack, methods of inspection and techniques of control. Metal corrosion, its causes and methods of reduction. Techniques used in the repair of damaged metal elements.

GSBE0009**Conservation Research**

Staff Contact: Faculty Student Centre Office
CP10 S1

The archaeology of buildings, structures and precincts. The analysis of extant fabric. The systematic field recording of extant fabric by notes, sketches and photography. The use of photogrammetry in recording buildings and structures, and in monitoring decay. Principles of architectural drafting. Presentation of drawings. The use of photographs, working drawings and sketches in Conservation Plans.

GSBE0011**Conservation Processes**

Staff Contact: Faculty Student Centre Office
CP5 S1

Methodologies appropriate to the preparation of conservation policies and conservation plans. The principle of preservation, restoration, reconstruction and adaption. The concepts of retaining significance and regaining significance. The structure of conservation policies and conservation plans. The appreciation of conflict in the conservation process; conflict resolution and the place of compromise.

GSBE0012**Adaption, Recycling and Conservation Management**

Staff Contact: Faculty Student Centre Office
CP10 S2

The economics of recycling buildings, structures, precincts and complexes. Building codes which effect recycling. The ethics and politics of the conservation process in recycling. The problems associated with services in traditional buildings and the replacement of significant fabric in meeting building codes and local council requirements. The implementation of conservation policies. Environmental psychology and the role of individuals and interest groups in the conservation process. Social, economic and environmental considerations in the conservation of precincts, buildings, structures and relics. Cultural tourism and its ramifications.

GSBE0014**Graduate Project (Report Colloquium)**

Staff Contact: Faculty Student Centre Office
CP5

The problems involved in selection of an appropriate topic for research. The presentation of a seminar paper outlining the research design and data collection and analysis sections of the graduate project.

GSBE0021**Graduate Project**

Staff Contact: Faculty Student Centre Office
CP20

An appropriate conservation topic from an associated field including such areas as historical archaeology, documentation, legalisation, economics, technology or a specific building restoration project. The topic of the graduate project is to be chosen in conjunction with the course convenor. Conditions governing the submission of the Graduate Project appear in the Calendar.

GSBE0503**Postgraduate Research Design and Methodology**

Staff Contact: Dr G Runeson
CP10 S1

An introduction to the nature and purpose of research and its role in problem solving and theory in the built environment disciplines. Discussions of various approaches to research. Reliability, validity and other principles of research. A review of the principle research

methods and examples of their use. Topic definition, research design, research planning and time management, literature review, data collection and analysis, thesis structure, writing, presentation of research seminars and research papers.

GSBE0504

Quantitative Methods in Built Environment Research

Staff Contact: Faculty Student Centre Office

CP10 S1

Deals extensively with the methodology of survey research and applications of basic and multi-variate statistical techniques in the analysis of data. Instruction in the uses of the Statistical Package for Social Sciences (SPSS), which aids students in the analysis of data, is also included.

GSBE2001

History of Urban Development

Staff Contact: Prof AR Cuthbert

CP10 S1

The History of Urban Development is designed to give the student an overview of the entire process of urbanisation from prehistory until today, in both Western and Asian contexts. It adopts the position that while a history of urban development and design is ideological – ie., there is no coherent development of urban development products in relation to each other – there is a coherent history of development in terms of economy and society. Urban design originates primarily in these conditions, although there is an arbitrary aesthetic continuity to some of the chosen details. The course therefore theorises the economic forces and social conditions driving development as a method of explaining how urban form comes about. It seeks to explain some of the fundamental differences between the forces – economic, physical, socio-cultural and environmental – that influence urban societies of Asian and European origin.

GSBE2002

Urban and Environmental Law

Staff Contact: Mr PJ Williams

CP10 S1

The subject comprises three parts: Planning Law, Planning Administration and Land Valuation. It deals with the theory and practice of techniques and administrative procedures needed to transform policies and details of urban development and design proposals into documents which have legal effect. While the concentration is upon the implementation of projects, these are set within a concern for the conceptual and theoretical nature of the law, and its relation to justice, equity and environmental concerns within the social formation.

GSBE2003

Real Estate Development

Staff Contact: Faculty Student Centre Office

CP10 S1

A major keystone of Western Civilisation is the private ownership of property. Within this context, the commodification

of social space in the form of building is critical to the economic development of all nations. Central to this process is what is termed the real estate industry, professional intervention focussing primarily on the exchange process in contradiction to urban planning whose prime purpose is organisation and control of land development. Within this context the capital investment strategies which shape urban development are of primary importance. This course will explore the operation of the real estate industry in terms of its political, economic and organisational functions and environmental effects within society.

GSBE2004

Urban Design Studio 1: Urban Space

Staff Contact: Prof J Lang

CP20 S1

In the first session, the lecture quota is higher in relation to studio projects. The object of this studio is to 'kick start' the program by establishing a knowledge base upon which skills can be developed. Therefore studio projects will be limited to a series of smaller projects which investigate the concept of typologies – of streets, arcades, squares, religious precincts, parks and other elements in the urban landscape. On this basis a vocabulary will be generated, a language of urban space, upon which the larger projects in session 2 and the summer term can be built.

GSBE2005

Critical Urban Theory

Staff Contact: Faculty Student Centre Office

CP10 S2

Critical urban theory has undergone a revolution in the last twenty years, where one dominant characteristic has been the abandonment of certainty implied in structuralist modes of thought congruent with the analysis of capital. Fundamental to this change has been the acceptance of space and its creation. As Isard has noted, social processes do not occur "in a wonderland of no dimension". Post structuralist theory, in deconstructing modernist concepts of place now look to the fragmented discourses of gender, culture, ethnicity, community, language, and other phenomena. These interpretations take place within an increasing consciousness of the environment and environmental management, which must be considered in order to derive satisfactory explanations of the organisation of space in contemporary urban society.

GSBE2006

Urban Landscape

Staff Contact: Prof J Weirick

CP10 S2

This course attempts to integrate the concept of landscape within the built environment. While it distinguishes between nature and artifice (something created from human labour) it recognises that the earth is now both commodified and urbanised, and that concepts of landscape must accept this fact. Therefore a fundamental knowledge of the relationship between development impacts and environmental sustainability is critical to an understanding

of contemporary urbanisation. The course therefore explores the urban landscape in terms of historical, modernist and post modernist ideas, showing how theoretical constructs within the discipline have changed with the changing landscapes of production and consumption which now characterise the modern city.

GSBE2007

Urban Design Studio 2: The Residential Environment

Staff Contact: Prof P Reid

CP30 S2

Here we adopt the philosophy that to isolate housing from other aspects of life is to undermine the actual organisation of the life process and to degrade the quality of life in cities. While the project focuses on housing, it begins with a study of the historically changing relationship between the trilogy of work, home life and recreation. This will form the brief for a major housing project in one of Sydney's major development areas. It will involve the integration of a variety of housing types at medium to high density, along with their integration into the urban fabric by means of other urban functions – commercial and community facilities, open space, transport, etc. The emphasis will be on creating a socially responsible, environmentally sustainable and commercially feasible residential environment with reference to current urban design priorities such as urban consolidation and ecologically sound principles.

GSBE2008

Case Studies in Urban Development and Design

Staff Contact: Dr B Judd

CP20 S3

Generic examples of urban development and design assembled from both Australia and the S.E. 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 object is to demonstrate through practical examples how major developments (eg Singapore's Bugis street, Hong Kong's international airport, Sydney's Circular Quay, the Ultimo-Pyrmont Peninsula and the Homebush Bay Olympic Site) are conceived, financed, designed and built. Those projects now operational will also be assessed as to their relative success or failure as urban projects on social, economic and environmental grounds.

GSBE2009

Urban Design Studio 3: The Central Business District

Staff Contact: Prof AR Cuthbert

Studio 3 will be devoted to the study of the central urban area. It will contrast a project in a major South East Asia city with a similar project in a major city in Australia. This may include developments for financial and commercial centres, tourism and recreation development, inner area housing and their implications for transport, services, communications, and environmental management. Because of the complexity of the inner city, projects will invariably contain aspects of all of these functions. The South East Asian field trip will be incorporated into this studio.

GSBE3001

Sustainable Development and the Urban Environment

Staff Contact: Prof J Weirick

CP10 S1

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 subject will be based on lectures, seminars and case studies.

GSBE3002

Resources, Materials and Sustainability

Staff Contact: Dr W Lawson

CP10 S1

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.

GSBE3003

Energy and the Built Environment

Staff Contact: A/Prof D Prasad

CP 10 S2

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.

GSBE3004

Human Factors, Sustainability and Habitability

Staff Contact: Dr R Samuels

CP10 S2

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.

GSBE3005

Graduate Project

Staff Contact: A/Prof D Prasad
CP30 S2

A supervised research or design project from a selected field of interest will be identified in consultation with the Course Coordinator. A research topic may extend to areas of interest in related disciplines if suitable arrangements can be made with the course co-ordinator. Where a research project is undertaken, the project report should normally not exceed 20,000 words.

IDES1021

Basic Design

Staff Contact: Faculty Student Centre Office
CP10 S1 L1 T3

The basic elements of two and three dimensional design, and the development of the analytical and communication skills necessary for their understanding. Development of the creative processes concerned with the exploration and manipulation of the elements. Studies are undertaken within the context of art and design.

IDES3271

Form Theory

Staff Contact: Faculty Student Centre Office
CP2.5 S2 L1
Prerequisite: IDES1021

Study of form in nature, art and design. Theories of form. Form organisation, typology, and description.

IDES1121

History of Industrial Design

Staff Contact: Faculty Student Centre Office
CP7.5 S1 L2

This subject is a chronological study of the emergency and development of industrial design from 1850 to the present day.

IDES4371

Design Management for Industrial Design

Staff Contact: Mr L Green
C7.5 S2 L2
Prerequisite: IDES2091

The problem of integrating innovative product design and development within the overall managerial and financial structure of industry. Australian and overseas case studies are given. Particular emphasis is placed on the development of appropriate design management structures and methods for the Australian situation.

IDES5051

Plastics, Materials and Processes

Staff Contact: Mr L Green
CP7.5 S1 L3

Describes plastics materials and their specification in design. Plastics manufacturing processes such as injection moulding, blow moulding, extrusion and rotational moulding are covered. Also describes costing techniques for plastic assemblies and components.

IDES5071

Industrial Design Studies

Staff Contact: Faculty Student Centre Office
CP5 F HPW2

The objectives and methods of graduate study in industrial design: contemporary industrial design trends, the relationship between academic and practice objectives, the relationship of industrial design methodology and research techniques to those of other disciplines at the University. A diverse range of current professional and theoretical interests, design and design related activities in Australia and overseas, current ideologies and historical assessments. Seminars are given by students, theorists, and practitioners in design and design related areas.

IDES5091

Perspective and Rendering

Staff Contact: Faculty Student Centre Office
CP5 S1 HPW2

The major two and three dimensional media and computer techniques are analysed and demonstrated within the context of industrial design problem solving: orthographic techniques, the Australian Engineering Drawing Standard, graphic art processes, photography, current rendering and illustration techniques, modelling in automotive clay, plastic sheet and rigid foams, timbers and metals. The current state of computer aided design as well as its potential in design and the restructuring of engineering decisionmaking and drafting. Particular emphasis given to each method's role in problem analysis and communication at the concept, detail and final design stages. The social and physiological aspects of communicating design in industry are also examined.

IDES5111

Visual Thinking

Staff Contact: Faculty Student Centre Office
CP5 S1 HPW2

Note/s: Graduates of visually oriented courses, eg architecture, are normally exempt.

Visual language, media, problems and problem solving methods. The relationship between visual thinking and creative processes. Studies are undertaken in two and three dimensions and are developed within the context of art and design.

IDES5131

Industrial Design

Staff Contact: Faculty Student Centre Office
CP10 S2 HPW4
Corequisites: IDES5071 or equivalent.

Industrial design project work intended to integrate the student's previous experience and the course units in

preparatory work for the Graduate Project. A part of the course may be undertaken on a group basis.

IDES5141

Industrial Design A

Staff Contact: Faculty Student Centre Office
CP15 S1 HPW4

Corequisites: IDES5071 or equivalent

Project work designed to introduce industrial design research and studio methodologies. Studies undertaken within a broad range of product areas and related to the concurrent course work.

IDES5152

Manufacturing Technology

Staff Contact: Faculty Student Centre Office
CP5 S1 HPW2

Industrial processes and materials, production costing and changing production economics. Objectives and structures of the engineering professions and their integration with industrial design in the product development process. Students assist in the development of a data bank.

IDES6081

Graduate Project (MID)

Staff Contact: Faculty Student Centre Office
CP35 F

Corequisite: IDES5131

A project within the practice areas of industrial design, selected by the student subject to the approval of the School; conducted within an approved methodology. Documentation of the methodology, research strategy and techniques, monitoring of the design process, resultant design, and evaluation of the methodology, research and final design. Students should give consideration to the School's specialist areas.

IDES6101

Design Theory

Staff Contact: Faculty Student Centre Office
CP10 F

Prerequisite: IDES5071 or equivalent

Research into a theory aspect of industrial design, selected by the student subject to the approval of the School, in the general area of design and design related studies. Students should give consideration to the School's specialist areas. The study may be taken in product design but should not be directly linked to studio project work being undertaken by the student.

IDES6161

Industrial Design B

Staff Contact: Faculty Student Centre Office
CP15 F S2 HPW4

Corequisites: IDES5141

Advanced project work combining the research and practice methodologies of industrial design in product research, development and design, preparatory to undertaking the Graduate Project.

IDES6171

Industrial Experience

Staff Contact: Faculty Student Centre Office
CP5

Prerequisite: Enrolment in one of the degrees

A four week period of approved industrial experience undertaken by full-time students in the midyear recess and by part-time students in either the midyear or summer recess. The period is intended to give students first hand interaction with industrial and commercial operations. Normally students are expected to be involved in design activities, however involvement in production, engineering, management and marketing is also considered. Part-time students in approved employment are exempt.

IDES6181

Graduate Project (MSc(IndDes))

Staff Contact: Faculty Student Centre Office
CP20 S2 HPW8

A project within the practice areas of industrial design, proposed by the student in consultation with the School and conducted within an approved methodology; documentation of the methodology, research strategy and techniques, monitoring of the design process, resultant design, and evaluation of the methodology, research and design.

LAND9001

Landscape Project

Staff Contact: Faculty Student Centre Office
CP30

A project relating to the practice of landscape architecture selected by the student and approved by the academic staff of the Department. The project should represent a synthesis of the knowledge and skills that have been acquired during the course of study and will be supervised by a member of the academic staff. Appropriate methodologies and techniques will be used for assessment, analysis, and evaluation of project parameters.

LAND9002

Landscape Research Project

Staff Contact: Faculty Student Centre Office
CP60

A research project directed at furthering the body of knowledge relating to the art and science of landscape architecture selected by the student and approved by the academic staff of the Department. The research project should be a synthesis of the knowledge and skills acquired during the course of study, and should further the student's knowledge or expertise in a specialised field of study. Emphasis will be placed on continued development of research skills in the areas of data collection, analysis, interpretation and presentation. The research project will be supervised by members of the academic staff of the University.

LAND9010**Environmental Heritage Studies**

Staff Contact: Faculty Student Centre Office
CP15

An investigation of the concepts of environmental heritage concerning aspects of landscape architecture and conservation issues. The application of environmental heritage in the fields of planning and design. Investigation of case studies of the natural and cultural environment. Projects to investigate problems of planning and managing heritage environments. Methods of conservation analysis with an emphasis on Australian environments and their history.

LAND9111**Landscape Planning**

Staff Contact: Faculty Student Centre Office
CP15

Introduction to the discipline of landscape planning. Explores a range of basic methods and techniques for the collection, analysis, and valuation of landscape resource data. Application of this knowledge in the development of simple landscape planning models. Participation in a planning exercise applying these skills and knowledge using simple computing techniques.

LAND9212**Landscape Planning Methods**

Staff Contact: Faculty Student Centre Office
CP15

Examination and comparison of a range of landscape planning methods using examples from Australia and overseas. Students conduct research relating to the physical parameters of models for land use evaluation and environmental impact assessment. Participation in planning exercises involving the application of these models using advanced computing techniques.

LAND9213**Land Systems and Management**

Staff Contact: Faculty Student Centre Office
CP15

An investigation of resources and their management in relation to a range of land use types with an emphasis on an ecological approach. Subject material includes consideration of management of cultural as well as natural landscapes. Studies of specific examples relating to the effects of human impacts are included. Methods of conservation and rehabilitation are considered. Field excursions are included.

LAND9214**Visual Landscape Assessment**

Staff Contact: Faculty Student Centre Office
CP15

Examination of visual analysis, assessment and evaluation techniques and their incorporation into landscape planning models. Research and study of recent Australian and overseas examples of visual resource management

programs. Students will undertake visual planning exercises using relevant computer software.

LAND9215**GIS in Landscape Architecture**

Staff Contact: Faculty Student Centre Office
CP15

Principles of geographic information systems, techniques of data collection, storage analysis, modelling and display. Applications and procedures specific to Landscape Architecture and Landscape Planning. Laboratory exercises using the IDRISI GIS.

LAND9301**Landscape Planning Exercise**

Staff Contact: Faculty Student Centre Office
CP30 S1 T6
Prerequisite: Core subjects of course.

Application of Landscape Planning to a major land resource allocation and management project undertaken as a group exercise.

PLAN0811**Planning (Special Subject)**

Staff Contact: Office of Associate Dean Postgraduate Studies
CP10 SS

Students have the opportunity to pursue a subject of special interest related to planning, depending on staffing resources.

PLAN0812**Planning (Special Subject)**

Staff Contact: Office of Associate Dean Postgraduate Studies
CP10 SS

Students have the opportunity to pursue a subject of special interest related to planning, depending on staffing resources.

PLAN1511**Urban Society and Sociology**

Staff Contact: A/Prof R Zehner
CP10 S1

A series of lectures and seminars on the relationship between planning and the social structure of urban areas with reference to both social theorists and empirical studies. The origins and concerns of the discipline of sociology and of urban sociology. Urban effects on living patterns. The relationships between different groups, including town planners, in the urban context. Sociological views of the planner's role in contemporary urban society.

PLAN1513**Cultural Studies***Staff Contact: Dr S Thompson*

CP10 S2

This subject explores contemporary issues facing the professional planner working in an increasingly diverse and complex society. Various cultural, social and environmental issues that challenge ethnic communities, children, the aged, women, Aborigines and homeless people are examined. Students are encouraged to question their own prejudices and values as they develop better understandings of the needs of these groups. The ability of the planning system to respond is explored, as are creative and inter-disciplinary approaches that can be facilitated by urban planners.

PLAN1514**Principles of Political Economy***Staff Contact: Office of Associate Dean Postgraduate Studies*

CP10 S2

This subject is an introduction to political economy for non-economists. It establishes a foundation of concepts and viewpoints which are utilised in a number of subjects. 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.

PLAN1531**Research Seminar 1**

F or SS

PLAN1532**Research Seminar 2**

F or SS

Note/s: Students enrolled in the PhD (Course 1150), MTP (Course 2230), MSc(Town Planning) (Course 2235) and GradDip (Course 5205) are expected to enrol in this subject each year, starting with Research Seminar 1 in their first year, Research Seminar 2 in their second year, and so forth. Those taking the subject as part of a qualifying program must obtain a grade of Credit or higher to be considered for progression to candidacy for a research degree. The seminar presentations of research degree candidates are graded only on a satisfactory/unsatisfactory basis, and contribute to the annual reviews of those students' progress.

A program of supervised, independent study in an area of planning in which the student is undertaking, or expects to undertake, research. Students present a seminar on their current or proposed research, take part in discussions at other student seminars, and may be asked to attend comparable postgraduate seminars within the University and at other institutions.

PLAN1533**Thesis Proposal***Staff Contact: Prof A Cuthbert*

CP10 S1

Prerequisites: All subjects of previous years*Corequisites:* PLAN4110, PLAN4150, PLAN4170, ARCH0002

A written thesis is the culminating exercise in the Bachelor of Town Planning Degree. In order to adequately prepare students for this task, this course sets out an appropriate conceptual, methodological and technical base for the construction of the thesis. It guides the student in the formation of a summary statement which integrates these principles within a topic of the student's choice. Seminar / workshops are held which guide the student to a worked out thesis proposal and plan of study. In addition, the course provides insight into the world of advanced research and publication.

PLAN1541**The Language of Planning***Staff Contact: Mr S Harris*

CP10 S1

This subject aims to introduce students, commencing their planning studies, with the forms and languages used by planning: the jargon of the profession and its explicit and implicit meanings and implications. Specifically, the aims are to ensure students understand the generalities and some detail of the relationship between politics, government and society; the forms and structures of Australian politics and government; the relationships between planning, politics and government; planning systems in theory and practice; the operation of development control systems; land ownership and titling; land uses and activities, and their definitions; density definition and its planning implications; planning associations and organisations and their significance; the language of urban design; methods of describing society and its structures.

PLAN1542**Planning Processes***Staff Contact: Dr S Thompson*

CP10 S2

The subject covers planning methodologies, with a focus on the strategic choice approach. A planning exercise is used as a case study to demonstrate the use of the method in practice. Applications are critically assessed. The emphasis is on cooperative work within the planning process framework.

PLAN1543**Planning Law and Administration***Staff Contact: Mr P Williams*

CP10 S1

The subject 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.

PLAN1544

Planning Perspectives

Staff Contact: Dr S Thompson

CP10 S1

Introduction to the purpose, scope, and application of planning. What is Town Planning and how does it impinge on the related professions of building, surveying and landscape architecture? The course will cover basic planning law and administration, urban processes, housing policy, social planning, environmental protection and heritage preservation. The future of cities, housing and transportation will also be canvassed.

PLAN1551

Graphic Communication

Staff Contact: Office of Associate Dean Postgraduate Studies

CP10 S1

Graphics as an effective communication medium for town planners. Technical information and studio experience in essential skills for creative graphics as a functional tool for communicating factual information to peers and clients. Exercises in basic drawing, drafting and lettering. Photography and visual presentation techniques for brochures and displays are also covered.

PLAN1552

Development Control

Staff Contact: Mr P Williams

CP10 S1

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.

PLAN2511

The Economy of Cities and Regions

Staff Contact: A/Prof P Murphy

CP10 S1

This subject introduces how economic processes influence (1) the structure and performance of the economies of regions and urban centres; and (2) the structure and patterns of changes in land uses within urban centres, with specific reference to large urbanised regions. Topics covered include: factors driving regional and urban economic performance; urban hierarchies and inter-urban competition; economics of urban size; land rent, land uses, land prices; regional population densities; employment and service location. The basic theory will be taught using Australian case studies.

PLAN2512

Cultural Studies

Staff Contact: Dr S Thompson

CP10 S2

This subject explores temporary issues facing the professional planner working in an increasingly diverse and complex society. Various cultural, social and environmental issues that challenge ethnic communities, children, the aged, women, Aborigines and homeless people are examined. Students are encouraged to question their own prejudices and values as they develop better understandings of the needs of these groups. The ability of the planning system to respond is explored, as are creative and inter-disciplinary approaches that can be facilitated by urban planners.

PLAN2513

Politics, Power and Policy

Staff Contact: Mr P Williams

CP10 S1

The aim of the subject is to create an understanding of the complex forces and processes (political, ideological, economic, etc.) which operate in the management of urban areas. Issues covered will include relationships between urban government, politics, planning, the community and various interest groups. Urban theory. The relationship between public policy and planning. The social context of planning. The different social needs within Australian society. The formulation and implementation of policy.

PLAN2521

Metropolitan Policy

Staff Contact: A/Prof P Murphy

CP10 S1

This subject examines preoccupations in the management of large urbanised regions and the range of public policy measures available to influence structure and process. It is assumed that metropolitan policy provides a framework within which local government decisions on land use, and the work of agencies which supply urban infrastructure, is framed. Topics include: population densities; commercial centres; industrial land uses; transportation; environmental quality; tools for management of metropolitan growth and change; political and administrative systems and issues.

The focus will be on Australian cities – especially Sydney – but some cross-national material will be used.

PLAN2522

Urban Infrastructure

Staff Contact: Office of Associate Dean Postgraduate Studies
CP10 S2

An understanding of the role of urban infrastructure in the functioning of our towns and cities is essential for town planners.

This course provides students with an introduction to the physical components of urban infrastructure. The following areas are covered: hydraulic services – water, sewerage and drainage, energy provision – electricity and gas, telecommunications, and transport. The transport component of the course will emphasise the need for the integration of land use and transport planning, from the strategic level of local implementation. The pivotal role of transport in shaping our cities is explored.

PLAN2542

Environmental Law and Dispute Resolution

Staff Contact: Mr P Williams
CP10 S2

This subject examines in depth selected aspects of the NSW Planning System – namely, environmental and natural resources law. It also examines recent statutory and administrative changes to the planning system, in general, in NSW. Finally this subject seeks to provide guidance on the operation of the NSW Land and Environment Court, the significance of the court and the role of planners at court. Other means for the resolution and environmental dispute are also examined.

PLAN7204

Land and Environment Law

Staff Contact: Mr P Williams
S1 L2

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.

PLAN7205

Planning and Land Policy

Staff Contact: Mr P Williams, Department of Planning and Urban Design
S2 L2

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.

Core Subjects Offered by Other Faculties

CIVL9710

Engineering Risk Management

Staff Contact: Mr G Nawar, School of Civil Engineering
SS

Note/s: This subject is not offered every year.

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.

CIVL9714

Special Topic in Engineering Management

Staff Contact: Prof D G Carmichael, School of Civil Engineering
SS

Note/s: This subject is not offered every year.

A series of lectures from industry experts or visiting specialists in current and advanced engineering management. This subject is only given when an appropriate specialist is available, and is not offered every year.

CIVL9724

Construction Engineering and Technology

Staff Contact: Mr J B O'Brien, School of Civil Engineering
SS

Note/s: This subject is not offered every year.

Structure of the construction industry; construction engineering theory, construction processes: methods engineering, automation and mechanization concepts; modelling, design and analysis; problem solving; task analysis; adaptive systems and control concepts; experimental studies of construction processes. Construction technologies; construction robotics, applications of expert and knowledge based systems. Case studies.

CIVL9717**Marketing in Technology and Engineering**

Staff Contact: School of Civil Engineering Office
S1

The interface of technology and engineering with marketing. Marketing of professional consultant services; promotion; 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.

COFA8591**Postgraduate Seminars**

S1 or S2 HPW2 CP15

Students are required to undertake two Seminars in their course selected from subjects such as the options listed below. Supplementary subjects may be offered.

Seminars encourage students to see their art in the context of contemporary developments and to examine various aesthetic propositions in depth.

GEOG9210**Computer Mapping and Data Display**

Staff Contact: Prof B Garner
CP15 S1 L2 T2

Introduction to automated cartography and thematic mapping; theoretical and practical problems in displaying and mapping data by computer; review and application of selected computer mapping packages. MapInfo is used for cartographic manipulation and output.

ECON5103**Business Economics**

Staff Contact: A/Prof G Kingston
S1 or S2 L3 CP20

An introduction to economic analysis and policy. Using a case study approach, students will examine government and business reports, magazine and newspaper articles, and monographs/journals dealing with contemporary economic issues. Reports or articles will be analysed using simple micro and macroeconomic tools and reasoning. The aim of the subject is to improve the economic literacy of students.

FINS5513**Security Valuation and Portfolio Selection**

Staff Contact: School Office
S1 or S2 L3 CP20
Prerequisites: ECON5103

The aim of this subject is twofold: (i) to introduce students to theoretical building blocks in the theory of finance; and (ii) to illustrate these by means of a combination of tutorial problems and case studies. Topics include: investment decisions under certainty; investment decisions under uncertainty (the portfolio selection problem); capital asset pricing model and arbitrage pricing theory; rudiments of theory and evidence; fundamentals of bond valuation; introduction to duration and the term structure of interest

rates; valuation of equity shares; market efficiency: fads, bubbles, martingales.

MARK5901**Issues in Consumer Analysis**

Staff Contact: School of Marketing Office
CP20 S2 L3

Prerequisites: MARK5902 and MARK5911

More detailed treatment of material covered in MARK5911. Greater stresses laid on the environment of decision making. This covers historical antecedents to consumer behaviour and their impact on the culture of consumption concepts of environmental and their influence on individual decision making, the social psychology of consumption, the ecology of learning and perception, the role of emotion in choice and the ways in which these considerations impact on marketing strategy, eg. Product formulations, mass communication.

MARK5902**Elements of Marketing**

Staff Contact: School of Marketing Office
CP20 S1 L3

The course is a blend of theory and practical application. The central theme running throughout the teaching program is that marketing is not a fragmented assortment of actions and functions taking place among disconnected institutions operating in isolation. Rather it is a total system of business action. The task of managing a marketing operation involves strategic and tactical decision making. It also demands an understanding of the structure of the marketing system, the various institutions that make up that system, and the role of each institutions that make up that system, and the role of each institution within the system.

MARK5911**Consumer Analysis**

Staff Contact: School of Marketing Office
CP20 S1 L3
Prerequisites: One core unit

Major concepts and theories from the social and behavioural sciences provide a background to the study of why people buy. Behavioural topics include perception, attitude and decision-making processes, and the psychology of purchases. Social science topics include values and life-styles, mass communication and advertising, and buyer-seller relationships.

MARK5913**Marketing Management**

Staff Contact: School of Marketing Office
CP20
Prerequisites: MARK5902 and MARK5911

SESC9411**Principles of Ergonomics**

Staff Contact: Department of Safety Science Office
CP12 S1 HPW2

The subject will give an introduction to ergonomics, emphasising the principles of designing user-centred,

human-machine-environment systems. Topics include: definition of and justification for ergonomics, design and human error, human capabilities and limitations, controls and displays, design of human-machine-environment systems, job design and work organisation, introduction to anthropometry, design of workplaces, introduction to manual handling and the physical environment, and, introduction to product design and human-computer interaction.

SESC9421

Applied Ergonomics

Staff Contact: Department of Safety Science Office

CP12 S2 HPW2

Prerequisite: SAFE9224 or equivalent

Decision making, vigilance, effects of workload and stress, applications to screen-based equipment. Human error in relation to human/system interaction. Work systems: the systems approach, practical evaluation and redesign of work systems. Experimental methodology, experimental design in ergonomics, critical evaluation of the literature.

SESC9441

Ergonomics and New Technology

Staff Contact: Department of Safety Science Office

CP12 S1 HPW2

Assumed knowledge: Principles of ergonomics

The focus of this subject is on ergonomic issues related to the design and implementation of new technology. Cognitive

aspects of human-computer interaction, human error and software design, usability and its assessment, user interface design, evaluation techniques, guidelines and standards, and the introduction of new systems into organisations.

SCTS5315

Society, Environmental Policy and Sustainability

Staff Contact: A/Prof G McDonnell (School of Science and Technology Studies)

CP20 S1

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.

Conditions for the Award of Degrees

First Degrees

Rules, regulations and conditions for the award of first degrees are set out in the appropriate **Faculty Handbooks**.

For the list of undergraduate courses and degrees offered see Table of Courses by Faculty (Undergraduate Study) in the *Calendar*.

The following is the list of *higher degrees*, *graduate diplomas* and *graduate certificates* of the University, together with the publication in which the conditions for the award appear.

Higher Degrees

For the list of graduate degrees by research and course work, arranged in faculty order, see *UNSW Courses (by faculty)* in the *Calendar*.

Title	Abbreviation	Calendar/Handbook
Higher Degrees		
Doctor of Science	DSc	Calendar
Doctor of Letters	DLitt	Calendar
Doctor of Laws	LLD	Calendar
Doctor of Education	EdD	Arts and Social Sciences
Doctor of Juridical Science	SJD	Law
Doctor of Medicine	MD	Medicine
Doctor of Philosophy	PhD	Calendar
Master of Architecture	MArch	and all handbooks
Master of Archives Administration	MArchivAdmin	Built Environment
Master of Art	MArt	Commerce and Economics
Master of Art Administration	MArtAdmin	College of Fine Arts
Master of Art and Design Education	MArtDesEd	College of Fine Arts
Master of Art Education(Honours)	MArtEd(Hons)	College of Fine Arts
Master of Arts	MA	Arts and Social Sciences
		University College

Title	Abbreviation	Calendar/Handbook
Master of Arts (English)	MA(English)	University College
Master of Arts (Honours)	MA(Hons)	Arts and Social Sciences
Master of Art Theory	MArtTh	College of Fine Arts
Master of Biomedical Engineering	MBiomedE	Engineering
Master of Building	MBuild	Built Environment
Master of the Built Environment (Sustainable Development)	MBEnv	Built Environment
Master of the Built Environment (Building Conservation)	MBEnv	Built Environment
Master of Business Administration	MBA	AGSM
Master of Business Administration (Executive)	MBA(Exec)	AGSM
Master of Business and Technology	MBT	Engineering
Master of Clinical Education	MClinEd	Medicine
Master of Commerce (Honours)	MCom(Hons)	Commerce and Economics
Master of Commerce	MCom	Commerce and Economics
Master of Community Health	MCH	Medicine
Master of Community Paediatrics	MCommPaed	Medicine
Master of Computer Science	MCompSc	Engineering
Master of Construction Management	MConstMgt	Built Environment
Master of Couple and Family Therapy	MCFT	Arts and Social Sciences
Master of Defence Studies	MDefStud	University College
Master of Design(Honours)	MDes(Hons)	College of Fine Arts
Master of Drug Development	MDD	Medicine
Master of Education	MEd	Arts and Social Sciences
Master of Educational Administration	MEdAdmin	Arts and Social Sciences
Master of Engineering	ME	Science* Engineering University College
Master of Engineering <i>without supervision</i>	ME	Science* Engineering
Master of Engineering Science	MEngSc	Engineering University College
Master of Environmental Engineering Science	MEnvEngSc	Engineering
Master of Environmental Studies	MEnvStudies	Science and Technology
Master of Equity & Social Administration	MEqSocAdmin	Arts and Social Sciences
Master of Fine Arts	MFA	College of Fine Arts
Master of Health Administration	MHA	Medicine
Master of Health Professions Education	MHPed	Medicine
Master of Health Planning	MHP	Medicine
Master of Higher Education	MHEd	Arts and Social Sciences
Master of Housing Studies	MHS	Arts and Social Sciences
Master of Industrial Design	MID	Built Environment
Master of Information Management	MIM	Commerce and Economics
Master of Information Science	MInfSc	Engineering
Master of International Social Development	MIntSocDev	Arts and Social Sciences
Master of Medicine	MMed	Medicine
Master of Landscape Architecture	MLArch	Built Environment
Master of Landscape Planning	MLP	Built Environment
Master of Laws	LLM	Law
Master of Management Studies	MMgtStud	University College
Master of Medicine	MMed	Medicine
Master of Mining Management	MMinMgmt	Engineering
Master of Music	MMus	Arts and Social Sciences
Master of Music (Honours)	MMus(Hons)	Arts and Social Sciences
Master of Music Education (Honours)	MMusEd(Hons)	Arts and Social Sciences

Title	Abbreviation	Calendar/Handbook
Master of Optometry	MOptom	Science*
Master of Policy Studies	MPS	Arts and Social Sciences
Master of Professional Ethics	MProfEthics	Arts and Social Sciences
Master of Psychological Medicine	MPM	Medicine
Master of Psychology (Clinical)	MPsychol(Clin)	Science†
Master of Psychology (Forensic)	MPsychol (For)	Science†
Master of Psychology (Organisation)	MPsychol(Org)	Science†
Master of Public Health	MPH	Medicine
Master of Real Estate	MRE	Built Environment
Master of Real Property	MRProp	Built Environment
Master of Safety Science	MSafetySc	Science
Master of Science	MSc	Built Environment Engineering Medicine Science*† University College
Master of Science <i>without supervision</i>	MSc	Science* Built Environment Engineering
Master of Science (Industrial Design)	MSc(IndDes)	Built Environment
Master of Science and Society (Honours)	MScSoc(Hons)	Arts and Social Sciences
Master of Science and Technology	MScTech	Science*
Master of Science in Information Technology	MScInfTech	University College
Master of Science in Operations Research and Statistics	MScOpRes&Stats	University College
Master of Social Work	MSW	Arts and Social Sciences
Master of Sports Medicine	MSpMed	Medicine
Master of Statistics	MStats	Science*
Master of Surgery	MS	Medicine
Master of Taxation	MTax	ATAX
Master of Technology Management	MTM	Science* Commerce and Economics Engineering
Master of Town Planning	MTP	Built Environment
Master of Urban Development and Design	MUDD	Built Environment

Graduate Diplomas

Graduate Diploma	GradDip	AGSM Built Environment Arts and Social Sciences Commerce and Economics Engineering Law Medicine Science*†
Advanced Taxation	GradDipAdvTax	ATAX
Arts	GradDipArts	Arts and Social Sciences
Arts(English)	GradDipArts(English)	University College
Built Environment (Sustainable Development)	GradDipBEnv	Built Environment
Couple and Family Therapy	GradDipC/F Therapy	Arts and Social Sciences
Clinical Education	GradDipClinEd	Medicine
Community Paediatrics	GradDipCommPaed	Medicine
Defence Studies	GradDipDefStud	University College

Title	Abbreviation	Calendar/Handbook
Design	GradDipDes	College of Fine Arts
Drug Development	GradDipDD	Medicine
Education	DipEd	Arts and Social Sciences
Engineering Science	GradDipEngSc	University College
Environmental Studies	GradDipEnvironStud	Science
Equity and Social Administration	GradDipEq&SocAdmin	Arts and Social Sciences
Geriatric Medicine	GradDipGerMed	Medicine
Higher Education	GradDipHEd	Arts and Social Sciences
Health Professions Education	GradDipHPEd	Medicine
Housing Studies	GradDipHS	Art and Social Sciences
Industrial Management	GradDipIndMgt	Engineering
International Social Development	GradDipIntSocDev	Arts and Social Sciences
Land Administration	GradDipLandAdmin	Engineering
Management Studies	GradDipMgtStud	University College
Music	GradDipMus	Arts and Social Sciences
Paediatrics	GradDipPaed	Medicine
Policy Studies	GradDipPolicy	Arts and Social Sciences
Professional Ethics	GradDipProfEthics	Arts and Social Sciences
Public Health	GradDipPH	Medicine
Sports Medicine	GradDipSpMed	Medicine
Statistics	GradDipStats	Science*
Taxation Studies	GradDipTaxStud	ATAX

Graduate Certificates

Arts	GradCertArts	Arts and Social Sciences
Arts(English)	GradCertArts(English)	University College
Commerce	GradCertCom	Commerce and Economics
Design	GradCertDes	College of Fine Arts
Drug Development	GradCertDD	Medicine
Engineering Science	GradCertEngSc	University College
Geriatric Medicine	GradCertGerMed	Medicine
Health Administration	GradCertHSM	Medicine
Health Professions Education	GradCertHPEd	Medicine
Higher Education	GradCertHEd	Arts and Social Sciences
Information Technology	GradCertInfTech	University College
Management Studies	GradCertMgtStud	University College
Music	GradCertMus	Arts and Social Sciences
Operations Research and Statistics	GradCertOpRes&Stats	University College
Policy Studies	GradCertPolicy	Arts and Social Sciences
Public Health	GradCertPH	Medicine
Safety Science	GradCertSafetySc	Science*
Science and Technology	GradCert	Science*
Sports Medicine	GradCertSpMed	Medicine

*Faculty of Science and Technology

†Faculty of Life Sciences

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.

**"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.*

- (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.

Master of Architecture by Research (MArch), Master of Building (MBuilding), Master of the Built Environment (MBEnv), Master of Landscape Architecture (MLArch), Master of Town Planning (MTP)

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 Real Property or Master of Town Planning by research may be awarded by the Council on the recommendation of the Higher Degree 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 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.
- (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 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 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.

**Or department where a department is not within a school or schools or departments where the research is being undertaken in more than one school or department.*

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 thesis.
- (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 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.

Master of Architecture (MArch) by Coursework

1. The degree of Master of Architecture by course work may be awarded by the Council to a candidate who has satisfactorily completed a program of advance 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 Higher Degree Committee of the Faculty of the Built Environment (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 subjects 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 candidature shall be four academic sessions from the date of enrolment for a full-time candidate and six academic sessions for a part-time candidate. In special cases a variation to 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.

Master of Project Management (MPM)

1. The degree of Master of Project Management by formal course work may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study. The degree shall be awarded at Pass or Honours level.

Qualifications

2. (1) A candidate for the degrees 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 Higher Degree Committee of the Faculty of the Built Environment (hereinafter referred to as the Committee).

(2) In exceptional cases of 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 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) A candidate for the degree shall be required to undertake such formal subjects 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 at Pass level until the lapse of four academic sessions from the date of enrolment for a candidate undertaking the program at Pass level and eight sessions for a candidate undertaking the program at Honours level. In special cases an extension of these times may be granted by the Committee.

Project Report

4. (1) A candidate who obtains a grade average of Credit or better in the formal subjects in 3. (2) may undertake a 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

5. (1) There shall be not fewer than two examiners of the project report, appointed by the Committee.

(2) Arrangements shall be made for oral presentation and defence of the project report as part of the examination.

(3) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the project report 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.

(4) The Committee shall, after considering the examiners' reports and the candidate's results of assessment in the prescribed formal subjects, recommend that the candidate be awarded the degree at Pass or Honours level. 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.

Master of Construction Management (MConstMgt)

1. The degree of Master of Construction Management by formal course work 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 degrees 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 Higher Degree Committee of the Faculty of the Built Environment (hereinafter referred to as the Committee).

(2) In exceptional cases of 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 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) An approved candidate shall be enrolled in full-time attendance at the University.

(3) A candidate for the degree shall be required to undertake formal subjects, industry training, prepare a report to be assessed by two internal examiners 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 or take such other action as it considers appropriate.

(5) No candidate shall be awarded the degree at Pass level until the lapse of two academic sessions from the date of enrolment.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Master of the Built Environment (Building Conservation)(MBEnv), Master of Industrial Design (MID), and Master of Science (Industrial Design) (MSc(IndDes))

1. The degree of Master of the Built Environment (Building Conservation) or Master of Industrial Design or Master of Science (Acoustics) or Master of Science (Building) or Master of Science (Industrial Design) may be awarded by the Council to a candidate who has 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 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 the Built Environment (hereinafter referred to as 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) 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 subjects 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 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.

Project Report

4. (1) A candidate shall also be required to undertake a 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

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 report 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 subjects, 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.

Master of the Built Environment (Sustainable Development) (MBEnv(SustDev))

1. The degree of Master of the Built Environment (Sustainable Development) may be awarded by the Council to a candidate who has completed an approved program of advanced study.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor of minimum four 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 the Built Environment (hereinafter referred to as 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) 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 subjects 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 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. Master of Engineering (ME) and Master of Science (MSc)

Master of Engineering or Master of Science by research

1. The degree of Master of Engineering or 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 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 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.

*Note: *Or department where a department is not within a school or schools or departments where the research is being undertaken in more than one school or department.*

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.
- * Or a department where a department is not within a school or schools or departments where the research is being undertaken in more than one school or department.*

Master of Engineering (ME), Master of Science (MSc) and Master of Surveying (MSurv) *without supervision*

1. The degree of Master of Engineering or Master of Science or Master of Surveying 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.

Qualifications

2. A candidate for the degree shall have been awarded an appropriate degree of Bachelor from 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 a candidate for the degree without supervision shall be made on 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 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) 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 examiners 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.
- (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 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.
- (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 candidates shall pay such fees as may be determined from time to time by the Council.

Master of Landscape Planning (MLP)

- 1. The degree of Master of Landscape Planning by formal course work 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 degrees 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 Higher Degree Committee of the Faculty of the Built Environment (hereinafter referred to as the Committee).
- (2) In exceptional cases of 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 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) A candidate for the degree shall be required to undertake such formal subjects 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.

Project Report

- 4. (1) All candidates must complete 36 credit points, including either an 18 credit landscape research project or a 9 credit landscape project.
- (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 landscape research project report.
- (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. A Graduate Diploma may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study.

Examination

- 5. (1) There shall be not fewer than two examiners of the landscape project report, appointed by the Committee, at least one of whom shall be external to the University.
- (2) Arrangements shall be made for oral presentation and defence of the project report as part of the examination.
- (3) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the project report 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.
- (4) The Committee shall, after considering the examiners' reports and the candidate's results of assessment in the prescribed formal subjects, recommend that the candidate be awarded the degree at Pass or Honours level. 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.

Master of Real Estate (MRE)

- 1. The degree of Master of Real Estate by formal course work may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced study. The degree shall be awarded at Pass or Honours level.

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 Higher Degree Committee of the Faculty of The Built Environment (hereinafter referred to as the Committee). Candidates will be required to show that they have had adequate training in building construction and computers to cope with the course.
- (2) In exceptional cases of 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 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) A candidate for the degree shall be required to undertake such formal subjects 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 who undertakes the course parttime shall be awarded the degree at Pass level until the lapse of four academic sessions from the date of enrolment for a candidate undertaking the program at Pass level and six sessions for a candidate undertaking the program at Honours level. Those students who undertake the course full-time may complete at the Pass level in two sessions and at the Honours level in three sessions.

MRE (Hons)

4. (1) A candidate who obtains a grade average of Credit or better in the formal subjects in 3(2) may undertake a thesis on a approved topic, to be considered for the award of the MRE with Honours.

(2) The work shall be carried out under the direction of a supervisor appointed from the fulltime academic members of the University staff. The supervision will be vigorous. Candidates will be required to conduct at least one seminar on their work and have at least one paper published prior to the submission of their thesis. Candidates will be expected to participate in the academic life of the Faculty of The Built Environment.

(3) The candidate shall give in writing to the Registrar two months notice of intention to submit the 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 project reports 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 project report in whole or in part, in microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee.

(2) Arrangements shall be made for oral presentation and defence of the thesis as part of the examination.

(3) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the project report and shall recommend to the Committee that:

(a) the thesis be noted as satisfactory, or

(b) the thesis be noted as satisfactory subject to minor corrections being made to the satisfaction of the head of the school, or

(c) the thesis 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 thesis be noted as unsatisfactory and that the candidate be not permitted to resubmit it.

(4) The Committee shall, after considering the examiners' reports and the candidate's results of assessment in the prescribed formal subjects, recommend that the candidate be awarded the degree at Pass or Honours level. If it is decided that the thesis 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.

Master of Urban Development and Design (MUDD)

1. The degree of Master of Urban Development and Design may be awarded by the Council to a candidate who has 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 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 the Built Environment (hereinafter referred to as 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) 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 the enrolment is to begin.

(2) A candidate for the degree shall be required to undertake such formal subjects and pass such assessments as prescribed.

(3) The progress of a candidate shall be reviewed at the end of each academic session/term of the program and 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 and one summer term from the date of enrolment. The maximum period of enrolment shall be five academic sessions and two summer terms) 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.

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 Higher Degree 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 subjects 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.

Graduate Diploma in Built Environment (Sustainable Development) (GradDipBEnv)

1. The Graduate Diploma in Built Environment (Sustainable Development) may be awarded by the council on the recommendation of the Higher Degree Committee of the Faculty of Built Environment (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed a 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 Higher Degree Committee of the Faculty of the Built Environment (hereinafter referred to as 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) 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 subjects 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 eight sessions for a part-time candidate. In special cases an extension of these times may be granted by the Committee.

Fees

5. A candidate shall pay such fees as may be determined from time to time by the Council. Graduate Diploma of Real Estate (GradDipRE)

1. The Graduate Diploma of Real Estate by formal course work 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 Higher Degree Committee of the Faculty of the Built Environment (hereinafter referred to as the Committee). Candidates will be required to show that they have had adequate training in building construction and computers to cope with the course.

(2) In exceptional cases of 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 it 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) An approved candidate shall be enrolled in part or fulltime attendance at the University.

(3) A candidate for the degree shall be required to undertake such formal subjects 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 or take such other action as it considers appropriate.

(5) No candidate shall be awarded the diploma until the lapse of two academic sessions, from the date of enrolment, for full-time students and four sessions for part-time students

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Graduate Diploma of Valuation (GradDipVal)

1. The Graduate Diploma of Valuation by formal course work 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 Higher Degree Committee of the Faculty of the Built Environment (hereinafter referred to as the Committee). Candidates will be required to show that they have had adequate training in building construction and computers to cope with the course.

(2) In exceptional cases of 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 it 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) An approved candidate shall be enrolled in part or fulltime attendance at the University.

(3) A candidate for the degree shall be required to undertake such formal subjects 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 or take such other action as it considers appropriate.

(5) No candidate shall be awarded the diploma until the lapse of two academic sessions from the date of enrolment, for full-time students and four sessions for part-time students.

Fees

4. A candidate shall pay such fees as may be determined from time to time by the Council.

Graduate Certificate in Sustainable Development (GradCertBEnv)

1. The Graduate Certificate in Sustainable Development may be awarded by the council on the recommendation of the Higher Degree Committee of the Faculty of Built Environment (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed a program of study.

Qualifications

2. (1) A candidate for the Certificate shall have been awarded a degree of Bachelor from the University of New South Wales or a qualification considered equivalent from another university or tertiary institution
- (2) In exceptional cases an applicant who submits evidence of other such 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 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 Certificate shall be made on the prescribed form which shall be lodged with the Registrar at least two calendar months before commencement of the session in which enrolment is to begin.
- (2) A candidate for the Certificate shall be required to undertake such formal subjects 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 Certificate until the lapse of two academic sessions from the date of enrolment. The maximum period of candidature shall be six academic sessions from the date of enrolment. In special cases an extension of 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.

Scholarships

The scholarships listed below are available to students whose courses are listed in this book. Each Faculty Handbook contains in its scholarships section the scholarships available for study in that Faculty. Travel scholarships are shown separately. Applicants should note that the scholarships and their conditions are subject to review and the closing dates for awards may vary from year to year.

Scholarship information is regularly included in the University publication 'Uniken/Focus' and updated on the UNSW Web site <http://www.infonet.unsw.edu.au/academic/schopriz/httoc.htm>.

Students investigating study opportunities overseas should also consult Study Abroad which is published by UNESCO. The British Council (02 9326 2365) may be of assistance for information about study in Britain. The Australian-American Education Foundation (02 6247 9331) or the U.S. Consulate General Educational Advising Centre (02 9373 9230) can provide information about study in America. Information may also be obtained from the embassy or consulate of the country in which the study is proposed and from the proposed overseas institution. Details of overseas awards and exchanges administered by the Department of Employment, Education, Training and Youth Affairs (DEETYA) can be obtained from the Awards and Exchanges Section, DEETYA, PO Box 826, Woden, ACT 2606.

KEY

- L** Students with Australian Citizenship or Permanent Resident status can apply.
- I** International students can apply.

Postgraduate scholarships for research or coursework are identified with the following codes:

- R** Available for study by research (normally Masters by Research or PhD).
- C** Available for study by coursework (normally Masters by Coursework or Graduate Diploma).

The scholarship information is normally provided in the following format:

- Amount
- Duration
- Conditions

Unless otherwise stated, application forms are available from the Scholarships and Student Loans Unit, c/- the Student Centre (Lower Ground Floor, Chancellery). Applications normally become available four to six weeks before the closing date.

Undergraduate Scholarships

Following are details of scholarships available to undergraduate students at UNSW. The scholarships are listed according to the year of study for which the scholarship is available (i.e. scholarships for first year students; scholarships for second or later year students; scholarships for Honours year students) or whether they are available to undertake travel, and then also by Faculty and course (e.g. scholarships in Science and Technology or Engineering). If students from more than one Faculty are able to apply the scholarship is listed in the General Scholarships section.

For further information contact:

**The Scholarships and Student Loans Unit
The University of New South Wales
Sydney 2052 Australia**

Tel (02) 9385 3100/3101/1462

Fax (02) 9385 3732

Email: scholarships@unsw.edu.au

Website: <http://www.infonet.unsw.edu.au/academic/schopriz/htoc.htm>

Scholarships for students entering the first year of an undergraduate course

General First Year

The Alumni Association Scholarships (I,L)

- Up to \$1,500 pa
- 1 year renewable subject to satisfactory progress

The scholarships are available to students enrolled in any year of a full-time undergraduate course. Candidates must be the children or grandchildren of alumni of UNSW. Applications close early January.

The AUSIMM Education Endowment Fund (L)

- \$2,500-\$5,000 pa
- 1 year may be renewable subject to satisfactory progress

The scholarships are open to full-time undergraduate students enrolled in a course leading to the award of a Geoscience, Mining Engineering or Minerals Engineering (Minerals Processing or Extractive Metallurgy) degree related to the interests of the mineral industry. Further information is available from The Australian Institute of Mining and Metallurgy (AUSIMM), PO Box 660, Carlton South VIC 3053, Tel (03) 9662 3166.

The Australian Development Scholarships (ADS) (I)

- Tuition fees, medical cover, airfare and a stipend
- Duration of the course

This award is for international students from selected countries only. Information and applications can only be obtained from Australian Diplomatic Posts or Australian Education Centres in the home country. Applications normally close at least 12 months before the year of study.

The Australian Vietnam Veterans Trust Education Assistance Scheme (L)

- \$3,500 pa
- Duration of the course subject to satisfactory progress

The scholarship is available to the children of Vietnam veterans who are aged under 25 at the time of application. The award is subject to the same income test as AUSTUDY. Applicants can be undertaking any year of a Bachelors course. Applications and further information are available from the Australian Vietnam War Veterans Trust National Office, PO Box K978, Haymarket NSW 1240, Tel (02) 9281 7077, Email: vvt@accsoft.com.au. Applications close 31 October.

The Ben Lexcen Sports Scholarships (I,L)

- \$2,000 pa
- 1 year with possibility of renewal

The scholarships are available to students who are accepted into a course of at least two years duration. Prospective applicants should have an outstanding ability in a particular sport and are expected to be active members of a UNSW Sports Club. Applications close late January.

The Captain Reg Saunders Scholarship (L)

- \$3,000
- Up to 4 years

Applicants must be Aboriginals or Torres Strait Islanders eligible to commence a university degree in the area of psychology, nursing, applied science, social work or education. Further information and applications are available from the Aboriginal Education Program, UNSW, Tel (02) 9385 3805.

The UNSW Co-Op Program (L)

- \$11,150 pa, and between 9 and 20 months industry training
- Duration of the course subject to satisfactory progress

The scholarships are offered by industry sponsors through the University for some of the disciplines in the Faculties of Science and Technology, Commerce and Economics, and Engineering. Scholars are selected by interview with emphasis placed on achievements in community and extra-curricular activities as well as communication and leadership skills. A minimum UAI of 93.8 is expected. The UNSW Co-Op Program application form is available from school Careers Advisers or the Co-op Program Office on (02) 9385 5116. Applications close September 30 with interviews held at the end of November and beginning of December.

The Girls Realm Guild Scholarships (L)

- Up to \$1,500 pa
- 1 year with the prospect of renewal subject to satisfactory progress and continued demonstration of need

The scholarships are available to female students under 35 years of age who are enrolling in any year of a full-time undergraduate course. Selection is based on academic merit and financial need. Applications close 25 March.

The Ian Somerville Scholarships (I,L)

- Up to \$3,000
- 1 year

The scholarships are available to immediate family members (ie. children, parents, brothers, sisters, spouses, de facto partners) of UNSW staff members. Applicants must be full-time students enrolling in any year of an undergraduate course leading to the degree of Bachelor at UNSW. Selection will be based on academic merit, aptitude and commitment to the proposed course. Consideration may be given in cases of hardship or disadvantage. Applications close 31 January.

The John Niland Scholarships (L)

- \$5,000
- 1 year

The scholarship assists rural students to undertake study at UNSW. Applicants will be students who complete the HSC (or its counterpart matriculation requirement) in the top five percent of their state-wide cohort, having been enrolled at a country high school in Australia. Selection will be based on academic merit, potential to contribute to the wider life of the University and consideration of social and/or economic circumstances which might otherwise hinder successful transition to UNSW. Applications close 30 October.

The Kensington Colleges Scholarships

Further information concerning the awards below is available from The Kensington Colleges, Tel (02) 9315 0000, Fax (02) 9315 0011, Email: kenso-colleges@unsw.edu.au, Web: <http://www.kensocoll.unsw.edu.au>.

The Mathews Scholarship

The scholarship provides \$1,500 credit towards accommodation costs and is awarded to a resident at the commencement of the second year of an undergraduate degree. Candidates will be assessed on their academic performance in the first year of their course.

The Access Scholarship

The scholarship provides up to half the accommodation fee for a limited number of first year ACCESS scheme students experiencing long term financial hardship. Nominations are forwarded by the UNSW ACCESS office.

The Malcolm Chaikin Scholarship (L)

- \$15,000 pa
- Renewable for the duration of the course subject to satisfactory progress

The scholarship is available to students entering the first year of a Bachelor of Science or Engineering in the Faculties of Life Sciences, Science and Technology, or Engineering. Selection will take into account academic merit and interview performance. Applications close 31 October.

The National Health and Medical Research Council (NHMRC) Training Scholarship for Aboriginal Health Research (L,R)

- \$15,888 - \$23,630 pa (depending on qualifications)
- Up to 3 years

Applicants must be undertaking an undergraduate or postgraduate degree which includes, or leads to, research relevant to Aboriginal health. Applications will be assessed in terms of previous qualifications and experience. Consideration will be given to prior knowledge and experience of Aboriginal culture and health. Applications close early August.

The New College Access Scholarship

The scholarship provides up to half of the accommodation fee for a first year ACCESS scheme student selected by the College. Nominations are forwarded by the UNSW ACCESS office. For further information contact New College, Tel (02) 9381 1999, Fax (02) 9381 1919, Email: admissions@newcollege.unsw.edu.au.

The New South Scholarships (L)

- \$6,000
- 1 year

The scholarships are available to students commencing the first year of undergraduate study at UNSW in any discipline. Scholarships will be available only to those students who achieved a perfect score in the NSW HSC in the year prior to commencing study. No application form is required.

The Ngunnagan Club Scholarship (L)

- Up to \$2,000
- 1 year

The scholarship is available to students enrolled at an Australian country high school who complete the HSC (or its counterpart matriculation requirement) in the top five per cent of their state cohort. Applicants should complete an official application form by 31 October in the year prior to their intended enrolment at UNSW. Final performance in the HSC (or its counterpart matriculation) examination should be reported to the Scholarships and Student Loans Unit once known.

Robert Riley Scholarships (L)

- \$5,000

The Scholarships are awarded to promote the pursuit of justice and human rights for Aboriginal Australians through education. Applicants must be Aboriginals or Torres Strait Islanders up to the age of 25 and proposing to pursue studies in the fields of law, human rights or juvenile justice. Further information and applications are available from the Aboriginal Education Program, UNSW, Tel (02) 9385 3805. Applications close 1 November.

The Smith Family Tertiary Scholarship Scheme (I,L)

- Up to \$2,000 for University fees, books, laboratory/field or practical fees
- 1 year

The scheme offers scholarships to first year undergraduate students from disadvantaged families who demonstrate high academic ability and the personal commitment to succeed in tertiary studies. Applicants must be economically disadvantaged, as assessed by The Smith Family, and have demonstrated consistently high academic results. Applications are available from The Education Support Co-ordinator, The Smith Family, Locked Bag 1000, Camperdown NSW 2050, Tel (02) 9550 4422, fax (02) 9516 4063. Applications close late July.

The Vice-Chancellor's Equity Scholarships (L)

- \$1,500
- 1 year

In 1998, over 40 scholarships were awarded for financially disadvantaged students commencing full-time undergraduate study. Consideration is normally given to

academic merit and financial need. The conditions may change each year.

The W.S. and L.B. Robinson Scholarship (L)

- Up to \$6,500 pa
- 1 year renewable for the duration of the course subject to satisfactory progress

Applicants must have completed their schooling in Broken Hill or have parents who reside in Broken Hill. Applicants should be undertaking a course related to the mining industry, for example courses in mining engineering, geology, electrical and mechanical engineering, metallurgical process engineering, chemical engineering or science. A letter of application should be sent to Pasminco Mining, PO Box 460, Broken Hill, NSW 2880. Applications close 30 September.

Faculty First Year

Faculty of the Built Environment

The John Shaw Memorial Scholarship in Town Planning (L)

- \$2,000
- 1 year

The scholarship is available to full-time students entering the first year of the Planning and Urban Development Program. Applicants will be assessed on the basis of academic merit, a statement outlining the reasons for undertaking the proposed course of study, and aptitude for the field. Consideration will also be given to financial need, demonstrated ability and leadership qualities. Applications close 31 January.

The Paul White/Concrete Constructions Scholarship (L)

- At least \$1,000
- 1 year

The scholarship is available to students who will complete the HSC (or its equivalent) at an Australian high school and who are seeking to enrol in the Faculty of the Built Environment. Selection will be based on academic merit, potential to contribute to the wider life of the university and consideration of financial circumstances. Applications close 31 October.

Scholarships for students in their second or later year of study

General Second Year or Later

The AITD-MMI Insurance- Mark Pompei Scholarship (L)

- \$1,000

The Australian Institute of Training and Development and MMI Insurance offer an annual scholarship to a part-time student currently working in the field of Training and Development. Applicants should be completing their first accredited qualification to assist their development in this field. Applications are available from AITD NSW Division Administrator, PO Box 5452, West Chatswood NSW 2057, Tel (02) 9419 4966, Fax (02) 9419 4142, Email nswdivn@aitd.com.au. Applications close in May.

The Alumni Association Scholarships (I,L)

- Up to \$1,500 pa
- 1 year renewable subject to satisfactory progress

The scholarships are available to students enrolled in any year of a full-time undergraduate course. Candidates must be the children or grandchildren of alumni of UNSW. Applications close early January.

The Australian Vietnam Veterans Trust Education Assistance Scheme (L)

- \$3,500 pa
- Duration of the course subject to satisfactory progress

The scholarship is available to the children of Vietnam veterans who are aged under 25 at the time of application. The award is subject to the same income test as AUSTUDY. Applicants can be undertaking any year of a Bachelors course. Applications and further information are available from the Australian Vietnam War Veterans Trust National Office, PO Box K978, Haymarket NSW 1240, Tel (02) 9281 7077, Email: vvt@accsoft.com.au. Applications close 31 October.

The Ben Lexcen Sports Scholarships (I,L)

- \$2,000 pa
- 1 year with possibility of renewal

The scholarships are available to students who are accepted into a course of at least two years duration. Prospective applicants should have an outstanding ability in a particular sport and are expected to be active members of a UNSW Sports Club. Applications close late January.

The Girls Realm Guild Scholarship (L)

- Up to \$1,500 pa
- 1 year with the prospect of renewal subject to satisfactory progress and continued demonstration of need

The scholarships are available only to female students under 35 years of age who are enrolling in any year of a full-time undergraduate course. Selection is based on academic merit and financial need. Applications close 25 March.

The Dried Fruits Research and Development Council (DFRDC) Studentships and Student Awards (I,L)

- Up to \$3,000 for Studentships, up to \$1,000 for Student Awards

The Studentships assist students to undertake research projects in the final year of a Bachelors degree (applications close April 15), or to undertake a research project during the summer vacation (applications close October 15). The Student Awards are provided for excellence in student research projects related to the dried fruit industry. Further information and applications are available from the Executive Officer, Dried Fruits Research and Development Council, Box 1142, Mildura VIC 3502, Tel (050) 221515, Fax (050) 233321.

The Esso Australia Ltd Geosciences Scholarship (I,L)

- Up to \$3,000
- 1 year

The scholarship is for a full-time student seeking to undertake study in the final year (Year 4) of a Bachelor of Science (AppGeol) or an equivalent Honours year, majoring in geology or geophysics. The successful applicant is expected to have an interest in petroleum related studies ie sedimentology, biostratigraphy, seismic/magnetic/gravity geophysical studies, basin studies, palynology or palaeontology. Selection is based on academic merit, the benefit the student will gain by being awarded the scholarship and can include consideration of financial need. Applications close 30 November.

The Ian Somerville Scholarships (I,L)

- Up to \$3,000
- 1 year

The scholarships are available to immediate family members (ie. children, parents, brothers, sisters, spouses, de facto partners) of UNSW staff members. Applicants must be full-time students enrolling in any year of an undergraduate course leading to the degree of Bachelor at UNSW. Selection will be based on academic merit, aptitude and commitment to the proposed course.

Consideration may be given in cases of hardship or disadvantage. Applications close 31 January.

The Julian Small Foundation Annual Research Grant (I,L)

- Up to \$5,000

Applications are open to postgraduate and undergraduate students undertaking research and involved in the study of law, or industrial relations. Selection will be based on a research proposal which outlines how the research will advance thinking and practice in the area of employment law and industrial relations in Australia. Applications close mid-August.

The Kensington Colleges Scholarships

Further information concerning the awards below is available from The Kensington Colleges, Tel (02) 9315 0000, Fax (02) 9315 0011, Email kenso-colleges@unsw.edu.au, Web: <http://www.kensocoll.unsw.edu.au>.

The Fell Scholarship

The scholarship provides \$650 credit for accommodation costs and is awarded to a returning resident in each College. Applicants will be assessed on their academic performance in the second or later year of their course.

Resident Assistant Scheme

The program provides subsidised accommodation, valued at up to \$1,000, for 22 academically promising residents, and an apprenticeship in the collegiate Residential Academic Staff role. All residents who have successfully completed at least one year of university study are eligible to apply.

The National Health and Medical Research Council (NHMRC) Training Scholarship for Aboriginal Health Research (L,R)

- \$15,888 - \$23,630 pa (depending on qualifications)
- Up to 3 years

Applicants must be undertaking an undergraduate or postgraduate degree which includes, or leads to, research relevant to Aboriginal health. Applications will be assessed in terms of previous qualifications and experience. Consideration will be given to prior knowledge and experience of Aboriginal culture and health. Applications close late July.

The Nicholas Catchlove Scholarship in Flying (L)

- \$10,000
- 1 year

The scholarship will be awarded to provide a final year student with the opportunity to undertake further flying training to prepare for a career in the aviation industry. Applicants must be proposing to undertake the final year

of an appropriate course and hold a Commercial Pilot's Licence. Selection will be based on academic merit, reasons for undertaking the course, financial need, commitment to flying and to the course, demonstrated ability, leadership qualities and interview performance. Applications close in late March.

The NSW Ministry for the Arts Scholarships (L,R C)

- \$5,000 - \$25,000 (depending on the award)

The NSW Government offers a number of scholarships and awards to writers, artists and scholars living in NSW. Further information is available from the New South Wales Ministry for the Arts, GPO Box 5341, Sydney NSW 2000, Tel (02) 9228 3533, Fax (02) 9228 4722.

The RGC Scholarship in Economic Geology (L)

- \$5,000
- 1 year

The scholarship is available to a student entering Year 4 of the Applied Geology course or an Honours year in geology in the Science course and who is proposing to undertake a field project relevant to economic geology. Letters of application and requests for information should be directed to RGC, Gold Fields House, 1 Alfred St, Sydney NSW 2000. Applications close 31 January.

The Rural Allied Health Placement Grants (L)

- Up to \$500

Grants are available to students undertaking rural placements, who are in the final two years of an undergraduate course in dietetics, diagnostic radiography, occupational therapy, pharmacy, physiotherapy, podiatry, social work, speech pathology, psychology (honours) or any year of a postgraduate course in dietetics or psychology (Masters). Applications are available from the NSW Health Rural Health Support Unit. Tel (02) 6640 2302, Fax (02) 6640 2499, Email: rhsu@nor.com.au, web: www.nor.com.au/community/rhsu. Session One applications close 15 May. Session Two applications close in August.

The Rural Allied Health Scholarships (L)

- \$5,750

Scholarships are available to students who are in the final two years of a four year undergraduate course in Aboriginal health, dietetics, diagnostic radiography, occupational therapy, pharmacy, physiotherapy, podiatry, social work, speech pathology, or the final year of psychology (honours) degree or any year of a Masters qualification in dietetics or psychology. Applications are available from the NSW Health Rural Health Support Unit. Tel (02) 6640 2302, Fax (02) 6640 2499, Email: rhsu@nor.com.au, web: www.nor.com.au/community/rhsu. Applications close late September.

The Sam Cracknell Memorial Scholarships (I,L)

- Up to \$1,500
- 1 year

Applicants should have already completed at least 2 years of a degree or diploma course and be enrolled in a full-time course during the year of application. Selection is based on academic merit, participation in sport both directly and administratively and financial need. Applications close 31 March.

The Spruson and Ferguson (Patent Attorneys) Scholarship for Innovation (L)

- At least \$1,000
- 1 year

The scholarship is available to a student who is undertaking the final year of an undergraduate course in any school of the Faculty of Science and Technology or the Faculty of Engineering. Selection will be based on academic merit and the innovative nature of the proposed final year project. Applicants are required to submit an application and a 200 word outline of their proposed research topic. Applications close 7 March.

The Telstra Education Fellowships (L)

- \$7,500
- 1 year

Applicants must be entering the final year of study in the disciplines of computer, electrical or electronic engineering, computer science or human factors. Students may also have the opportunity to undertake up to 12 weeks non-compulsory vacation employment. Further information is available from the Fellowship Applications Officer, Telstra Research Laboratories, PO Box 249, Rosebank MDC, Clayton Victoria 3169. Email c.zaman@trl.telstra.com.au. Applications normally close at the end of July.

Telstra Network Technology Group and Multimedia (NTG&M) EEO Scholarships (L)

- \$10,000, plus summer vacation work and guaranteed employment
- 1 year

The scholarships are open to undergraduate students enrolled in the second last year in electrical/electronic engineering, computers systems engineering, communications or other degree related to telecommunications. Applicants must belong to one of the following EEO groups: women, people from a non-English-speaking background, Aborigines or Islanders, people with a disability. The successful candidates are expected to work for Telstra NTG&M in the summer break and for at least two years after the completion of study. Enquiries to Karen Stewart on (03) 9634 3448, Email kstewart@vcomfin.telstra.com.au. Applications close late June.

The W.S. and L.B. Scholarship (L)

- Up to \$6,500 pa
- 1 year renewable for the duration of the course subject to satisfactory progress

Applicants must have completed their schooling in Broken Hill or have parents who reside in Broken Hill. Applicants should be undertaking a course related to the mining industry, for example courses in mining engineering, geology, electrical and mechanical engineering, metallurgical process engineering, chemical engineering or science. A letter of application should be sent to Pasminco Mining, PO Box 460, Broken Hill, NSW 2880. Applications close 30 September.

Faculty Second Year or Later

Faculty of the Built Environment

The AIVLE- Albury -Wodonga Group Scholarship Scheme (L)

- \$750

The Albury-Wodonga group of the Australian Institute of Valuers and Land Economists scholarship is open to a student from the Albury-Wodonga Region undertaking the Bachelor of Building (Land Economist) degree at UNSW. Applicants must have completed the first year of the degree. Applications close mid-May.

The John Haskell Scholarship (L)

- Up to \$1,000
- 1 year

The scholarship is available to a student proposing to undertake Year 4 of the Bachelor of Architecture degree. Selection is based on academic merit. Applications close 31 October.

The Woods Bagot Scholarship (I,L)

- \$1,000 pa
- 2 years

The scholarship may be awarded to a student undertaking full-time study in Year 4 of the Bachelor of Architecture program. Selection is based on a number of factors including academic performance. Applications close early April.

Honours Year Scholarships

General Honours Year

The Alumni Association Scholarships (I,L)

- Up to \$1,500 pa
- 1 year renewable subject to satisfactory progress

The scholarships are available to students enrolled in any year of a full-time undergraduate course. Candidates must be the children or grandchildren of alumni of UNSW. Applications close early January.

The Apex Foundation for Research into Intellectual Disability Studentships (I,L)

- \$1,000

The studentships are available to students preparing a thesis related to intellectual disability. Applications should be in the form of a letter which includes a curriculum-vitae and thesis plan and must be supported by a letter from the Head of School/Department. Applications should be sent to the Honorary Secretary, Apex Foundation Studentships, PO Box 311, Mt Evelyn Vic 3796. Applications close 31 May.

The Australian and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART) Student Award (I,L)

- \$1,000 for attendance at the annual conference

Applicants can be Honours students from any discipline. The award provides assistance for a student to attend the annual conference. Applications are available from ANZCCART, PO Box 19 Glen Osmond, SA, 5064, Tel (08) 303 7325. Applications close in July.

The Australian Vietnam Veterans Trust Education Assistance Scheme (L)

- \$3,500 pa
- Duration of the course

The scholarship is available to the children of Vietnam veterans who are aged under 25 at the time of application. The award is subject to the same income test as AUSTUDY. Applicants can be undertaking any year of a Bachelors course. Applications and further information are available from the Australian Vietnam War Veterans Trust National Office, PO Box K978, Haymarket NSW 1240, Tel (02) 9281 7077, Email vvt@accsoft.com.au. Applications close 31 October.

The Ben Lexcen Sports Scholarships (I,L)

- \$2,000 pa
- 1 year with the possibility of renewal

The scholarships are available to students who are accepted into a course of at least two years duration. Prospective applicants should have an outstanding ability in a particular sport and are expected to be active members of a UNSW Sports Club. Applications close late January.

The Esso Australia Ltd Geosciences Scholarship (I, L)

- Up to \$3,000
- 1 year

The scholarship is for a full-time student seeking to undertake study in the final year (Stage 4) of a Bachelor of Science degree in Applied Geology or an equivalent Honours year, majoring in geology or geophysics. The successful applicant is expected to have an interest in petroleum related studies ie sedimentology, biostratigraphy, seismic/magnetic/gravity geophysical studies, basin studies, palynology or palaeontology. Selection is based on academic merit, the benefit the student will gain by being awarded the scholarship and can include consideration of financial need. Applications close 30 November.

The Girls Realm Guild Scholarships (L)

- Up to \$1,500 pa
- 1 year with the prospect of renewal subject to satisfactory progress and continued demonstration of need

The scholarships are available only to female students under 35 years of age who are enrolling in any year of a full-time undergraduate course. Selection is based on academic merit and financial need. Applications close 25 March.

The Grains Research and Development Corporation (GRDC) Undergraduate Honours Scholarship (I,L)

- \$6,000 (ie \$5,000 to the student and \$1,000 to the host School/Department).
- 1 year

Applicants must be undertaking a full-time Honours program. Study in an area of significance to the grains industry will be viewed favourably. A letter of application, including a curriculum-vitae, academic record, letter of support from the Head of School/Department and two referees' supporting statements, should be sent to GRDC

Undergraduate Honours Scholarship, PO Box E6, Queen Victoria Terrace, Canberra ACT 2600, Tel (02) 62725528. Applications close early November.

The Great Barrier Reef Marine Park Authority Research Support (I,L)

- \$1,500

Applicants must be undertaking a full-time Honours year or PhD research project that could contribute to the planning and managing work undertaken by the Great Barrier Reef Marine Park Authority. Applications and further information may be obtained from the Executive Officer, Great Barrier Reef Marine Park Authority, PO Box 1379, Townsville QLD 4810, Tel (077) 818811. Applications close mid-December.

The Ian Somerville Scholarships (I,L)

- Up to \$3,000
- 1 year

The scholarships are available to immediate family members (ie. children, parents, brothers or sisters) of UNSW staff members or their married or de facto partners. Applicants must be full-time students enrolling in any year of an undergraduate course leading to the degree of Bachelor at UNSW. Selection will be based on academic merit, aptitude and commitment to the proposed course. Consideration may be given in cases of hardship or disadvantage. Applications close 31 January.

The National Health and Medical Research Council (NHMRC) Training Scholarship for Aboriginal Health Research (L,R)

- \$15,888 - \$23,630 pa (depending on qualifications)
- Up to 3 years

Applicants must be undertaking an undergraduate or postgraduate degree which includes, or leads to, research relevant to Aboriginal health. Applications will be assessed in terms of previous qualifications and experience. Consideration will be given to prior knowledge and experience of Aboriginal culture and health. Applications close late July.

The NSW Ministry for the Arts Scholarships (L,R,C)

- \$5,000 - \$25,000 (depending on the award)

The NSW Government offers a number of scholarships and awards to writers, artists and scholars living in NSW. Further information is available from the New South Wales Ministry for the Arts, GPO Box 5341, Sydney NSW 2000, Tel (02) 9228 3533, Fax (02) 9228 4722.

The RGC Scholarship in Economic Geology (L)

- \$5,000
- 1 year

The scholarship is available to a student entering Stage 4 of the Applied Geology course or an Honours year in geology in the Science course and who is proposing to undertake a field project relevant to economic geology. Letters of application and requests for information should be directed to RGC, Gold Fields House, 1 Alfred St, Sydney NSW 2000. Applications close 31 January.

The River Basin Management Society Ernest Jackson Memorial Research Grants (I,L)

- Up to \$2,000

The scholarship assists PhD and Masters students undertaking research in the field of river basin management. Fourth year Honours students are encouraged to apply. Further information is available from RBMS, PO Box 113, Forest Hill Vic 3131, Tel (03) 9816 6896. Applications close in April.

The RSPCA Alan White Scholarship (I,L)

- \$2,500

Applicants should be undertaking original research to improve the understanding and welfare of animals. A letter of application should be sent to the Executive Officer, RSPCA Australia, PO Box E369, Queen Victoria Terrace, Canberra ACT 2600, Tel (02) 62311437. Applications close 31 March.

The Rural Allied Health Placement Grants (L)

- Up to \$500

Grants are available to students undertaking rural placements, who are in the final two years of an undergraduate course in dietetics, diagnostic radiography, occupational therapy, pharmacy, physiotherapy, podiatry, social work, speech pathology, psychology (honours) or any year of a postgraduate course in dietetics or psychology (Masters). Applications are available from the NSW Health Rural Health Support Unit. Tel (02) 6640 2302, Fax (02) 6640 2499, Email: rhu@nor.com.au, web: www.nor.com.au/community/rhu. Session One applications close 15 May. Session Two applications close in August.

The Rural Allied Health Scholarships (L)

- \$5,750

Scholarships are available to students who are in the final two years of a four year undergraduate course in Aboriginal Health, dietetics, diagnostic radiography, occupational therapy, pharmacy, physiotherapy, podiatry, social work, speech pathology, or the final year of psychology (honours) degree or any year of a Masters qualification in dietetics or

psychology. Applications are available from the NSW Health Rural Health Support Unit. Tel (02) 6640 2302, Fax (02) 6640 2499, Email: rhsu@nor.com.au, web: www.nor.com.au/community/rhsu. Applications close late September.

The Sam Cracknell Memorial Scholarship (I,L)

- Up to \$1,500
- 1 year

Applicants should be full-time students who have already completed at least 2 years of a degree or diploma course. Selection is based on academic merit, participation in sport both directly and administratively, and financial need. Applications close 31 March.

The University Honours Year Scholarships (I,L)

- \$1,000
- 1 year

A number of scholarships will be awarded on the basis of academic merit for students entering an 'add-on' honours year, ie the honours year in a degree course which is normally a pass degree but which has the option of a further year of study at Honours level. Applications close 30 November.

The W.S. and L.B. Robinson Scholarship (L)

- Up to \$6,500 pa
- 1 year renewable for the duration of the course subject to satisfactory progress

Applicants must have completed their schooling in Broken Hill or have parents who reside in Broken Hill. Applicants should be undertaking a course related to the mining industry, for example courses in mining engineering, geology, electrical and mechanical engineering, metallurgical process engineering, chemical engineering or science. A letter of application should be sent to Pasminco Mining, PO Box 460, Broken Hill, NSW 2880. Applications close 30 September.

Travel Scholarships

General Travel

The Arthur Anderson Study Abroad Scholarship (L)

- Up to \$2,500

The scholarship provides financial assistance to undergraduate students to undertake a period of study/research in the Arthur Anderson offices in Singapore. Applicants must be full-time students undertaking study in law, commerce, or economics. Applicants must normally be intending to undertake the final year of study and to complete the travel prior to completion of the final year. Applications are also open to students undertaking an official exchange program with a university in Asia. Applications normally close 31 July in the year prior to the final year of study.

The Association of International Education Japan (AIEJ) Short-Term Student Exchange Promotion Program (Inbound) Peace and Friendship Scholarships (I,L)

- 50,000 yen (settling-in allowance), 100,000 yen per month, plus airfare
- Ten months to one year

Applicants must be accepted by a Japanese University under a student exchange program agreement with UNSW. Students must initially apply directly to a Japanese University through the International Student Centre at UNSW. The Japanese host university will recommend candidates to AIEJ and students must apply as directed by the host university. Applications close in February, May and September each year.

The Association of International Education Japan (AIEJ) Short-Term Student Exchange Promotion Program (Inbound) Scholarships (I,L)

- 50,000 yen (settling-in allowance), 80,000 yen per month, plus airfare
- Six months to one year

Applicants must be accepted by a Japanese University under a student exchange program agreement with UNSW. Students must initially apply directly to a Japanese University through the International Student Centre at UNSW. The Japanese host university will recommend candidates to AIEJ and students must apply as directed by the host university. Applications close in February, May and September each year.

The AT&T Leadership Award (I,L,R,C)

- US\$5,000

The award is open to students who will be commencing full-time undergraduate or postgraduate study in the United States between January and September in the year of application. The scholarship is open to students from the following Asia/Pacific countries: Australia, China, Hong Kong, India, Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand. Information and applications are available from the U.S. Consulate General, USIS, Level 59 MLC Centre, 19-20 Martin Place, Sydney NSW 2000, Tel (02) 9662 3016. Applications close 15 September.

The Australia-Korea Foundation/National Korean Studies Centre Exchange Scholarships (L)

- Up to \$2,500

The scholarships provide financial assistance to undergraduate students who have been accepted as exchange students by a Korean University. Information and applications are available from the Programs Co-ordinator, National Korean Studies Centre, PO Box 218, Hawthorn Vic 3122, Email nksc@swin.edu.au. Applications close early January.

The Australia-Korea Foundation Undergraduate Bursaries (L)

- \$1,000
- 1 year

Bursaries are available for students commencing the first year of an undergraduate course intending to study the Korean language. Information and applications are available from the Programs Co-ordinator, National Korean Studies Centre, PO Box 218, Hawthorn Vic 3122, Email nksc@swin.edu.au. Applications close in December.

Churchill Fellowships (L)

- Tuition, travel and living allowances

Churchill Fellowships provide financial support for Australian Citizens to undertake study, training or projects overseas. Fellowships will not normally be awarded for higher academic or formal qualifications. Applicants must be over 18 years of age. Further information and applications are available from the Chief Executive Officer, The Winston Churchill Memorial Trust, 218 Northbourne Ave, Braddon ACT 2612, Tel (02) 6247 8333. Applications close late February.

DAAD - The German Academic Exchange Service Scholarships (L)

Application forms for the following scholarships are available from the Consulate General of the Federal Republic of Germany, PO Box 204, Woollahra NSW 2025.

One-Semester German Studies Scholarships

- DM1,000 a month living allowance, travel assistance of DM2,500 and the health insurance contribution
- One semester

Applicants must be in their third year of German Studies. Applications close 1 July.

Deutschlandkundlicher Winterkurs

- DM3,500 to assist with travel and living expenses and course fees

Undergraduate and postgraduate students from all fields with at least two years University level German (with a better than B average) may apply for this scholarship. The students should be aged from 19 to 32 and proposing to undertake the 8 week German studies course (in German) at the University of Freiburg. The course provides language instruction and concentrates on historical and cultural aspects of contemporary Germany for students with some knowledge of German and a background in German Studies. Applications close 1 August.

Greek Government Scholarships (L)

- Tuition fees, monthly subsidy plus other allowances

Scholarships are available for undergraduate and postgraduate study in Greece. Applicants must be Australian citizens. Further information is available from the Embassy of Greece, 9 Turrana St, Yarralumla ACT 2600, Tel (02) 6273 3011. Applications normally close late March.

The Harvard Travel Scholarships (L)

- \$15,000 contribution towards fees, travel and living expenses
- One-off payment

The scholarship will be awarded by the Vice-Chancellor on the basis of recommendations from the Deans of the Faculties. Candidates must have completed at least 2 years full-time (or the part-time equivalent) of an undergraduate course at the UNSW and have an impressive academic record. Award of the scholarship is subject to the recipient gaining entry to the Harvard-Radcliffe Visiting Undergraduate Program. Applications close mid-November for travel in the following year.

The International Exchange Travel Scholarships (L)

- Up to \$1,500
- 1 year

The scholarships were established to encourage UNSW students to participate in the University's formal

international exchange programs. Students must be undergraduates embarking on a period of study overseas which will count toward their UNSW degree. Awards will be granted on the basis of academic merit. Further information is available from the International Student Centre, Tel (02) 9385 5333.

Italian Government Scholarships (L)

- 1 million Italian lira per month
- 2-24 months

Scholarships are open to Australian citizens to undertake research and language studies in Italy. Applicants must be aged under 35 years. Further information is available from the Italian Embassy, 12 Grey St, Deakin ACT 2600, Tel (02) 6273 3333, Fax (02) 6273 4223. Applications close early March.

Japan Airlines Scholarships (L)

- Air travel, insurance, tuition, accommodation, textbooks and a daily allowance

The Scholarships are available for undergraduate students to participate in a summer session of Japanese language and cross-cultural studies, home stays in Tokyo and participation at a symposium featuring regional experts. A knowledge of Japanese is not necessary. Further information and applications are available from Level 14, 201 Sussex Street, Sydney NSW 2000, Tel (02) 9272 1151. Applications normally close mid-April.

The Japanese Government (Monbusho) Scholarships (L)

Scholarships are available to Australian Citizens for study in Japan for postgraduate research or five years of undergraduate study. Applicants must be willing to study the Japanese language and receive instruction in Japanese. Further information and applications are available from Monbusho Scholarships, Embassy of Japan, 112 Empire Circuit, Yarralumla ACT 2600, Tel (02) 6272 7268, Fax (02) 6273 1848. Applications close early July.

Learn Arabic in Cairo Scholarship (I,L)

- Course fees, AUD\$70 per month living allowance
- 8 months

Scholarships are available to undertake the Arabic as a Foreign Language course in Cairo. Applications are available from the Embassy of the Republic of Egypt, 1 Darwin Avenue, Yarralumla ACT 2600, Tel (02) 6273 4437, Fax (02) 6273 4279. Applications close 1 July.

The Malcolm Chaikin Overseas Exchange Scholarship (L)

- \$4,000
- 1 year

A scholarship is available for a third or later year student in a Science or Engineering degree program in the Faculty of Life Sciences, Science and Technology or Engineering. Applicants must have applied for the Malcolm Chaikin Scholarship for 1998 or later, and be undertaking an official overseas exchange program. It is expected that the first scholarship will be awarded for travel in 2000. Applications close 30 September.

The Mitsui Education Foundation Scholarship (L)

A three week scholarship to Japan is available to a young Australian national to help promote goodwill between the two countries. Candidates should be full-time undergraduate students in their first degree course who have not previously been to Japan. The successful student will travel to Japan during November and December. Application forms close mid-July.

The NSW Travelling Art Scholarship (L)

- \$25,000

The scholarship is available to an emerging visual artist to undertake a course of study or training overseas for one or two years. Guidelines and applications are available from the NSW Ministry for the Arts, GPO Box 5341, Sydney 2001, Tel (02) 9228 5533. Applications normally close in July.

Queen's Trust Grants (L)

- Up to \$15,000

The Queen's Trust provides grants to Australian Citizens aged 18-28 years, for the pursuit of excellence in their chosen fields. Projects are supported for the advancement of Australian youth, development of community leadership and/ or other skills which will be of benefit to Australia. Information and applications may be obtained from the Queen's Trust, Tel 1800 033 625. Applications close late April.

The R.C. Sutton/ Jardine Matheson Scholarship (L)

- Up to \$1,000

The scholarship is to provide financial assistance to undergraduate students to undertake a period of study/ research in the R.C. Sutton/ Jardine Matheson offices in Asia. Applicants must be full-time students undertaking study in law, commerce, or economics. Applicants must normally be intending to undertake their final year of study and to complete the travel prior to completion of the final year. Applications are also open to students undertaking an official exchange program with a university in Asia. Applications normally close 31 July in the year prior to the final year of study.

The Rotary Foundation Ambassadorial Scholarships (I,L)

The Rotary Foundation offers scholarships to study or train in another country where Rotary clubs are located. Applicants must have completed at least two years of a university or college course, or have completed high school and have been employed for at least two years. Applicants must also be Citizens of a country in which there is a Rotary club. Information regarding scholarship availability, closing dates and applications should be obtained from the applicant's local Rotary club.

The Russian Scholarships (L)

- Payment of an allowance and medical cover

Scholarships are available to Australian citizens to undertake undergraduate or postgraduate study in journalism, law, economics, international relations or medicine in Russia. Applications normally close in May.

The Ship for World Youth Program (L)

- Economy airfare, accommodation, local trips and meals
- Awarded every second year

The objective of this program is to promote understanding and mutual friendship between the youth of Japan and other parts of the world and to foster the spirit of international cooperation. The successful applicants will visit Japan to participate in the program for the period January to March. Students should be aged from 20 to 29, able to participate in the whole program, be in good physical and mental condition, able to speak English and Japanese, have an interest in and an understanding of Japan, and be engaged in youth activities. The next round of scholarships will be available in 2001. Applications close early July 2000.

The Sir Charles Mackerras / Australia-Britain Society Music Scholarship (L)

- £8,000 sterling

The scholarship is open to outstanding young conductors, composers and répétiteurs, aged between 21 and 30 who are likely to be influential leaders in the field of music, to undertake study in the United Kingdom or the Czech republic for at least six months. Applicants must be Australian Citizens or Permanent Residents. Application forms are available from the British Council, PO Box 88, Edgecliff NSW 2027, Tel (02) 9326 2022, Fax (02) 9327 4868, Email bcsydney@sprint.com. Applications close early November.

The STA Travel Grant (I,L)

- Up to \$3,000

Applicants must be undertaking study leading to a degree or diploma of the University and be members of the University Union. The grant is awarded on the basis of

significant contribution to the community life of the University involving a leadership role in student affairs and the University Union and the relevance and merit of the proposed travel to the student's academic program or University Union activities. Applications close mid-April.

The Swedish Institute Guest Scholarships (I, L)

- SEK 7,100 per month living allowance
- 9 months (1 academic year)

The scholarships are open to students and researchers who wish to travel to Sweden for study or research which cannot equally well be pursued in countries other than Sweden. Applicants must establish contact with a Swedish University willing to accept the applicant for the proposed studies. Initial requests for application forms must be made in writing, and should include the applicant's name and address, nationality, educational background, work experience, knowledge of any languages, statement of the purpose of the study or research in Sweden, and a copy of a letter of invitation from a Swedish University Department. Applications are available from the Swedish Institute, Department for Exchanges in Education and Research, PO Box 7434, SE-103 91, Stockholm, Sweden. Email grantinfo@si.se. Homepage: <http://www.si.se>. Requests for application forms must reach the Swedish Institute before 1 December.

Swiss Government Scholarships (L)

- Tuition fees, living allowance, medical insurance and assistance with airfares
- 1 academic year

One scholarship is available for art/music and two for other disciplines, to undertake postgraduate study or attend an art school/conservatory in Switzerland. Applicants will be required to pass a language test in German or French. Applicants must be aged under 35. Applications close early October.

The Turkish Government Language & Culture and Higher Education Scholarships (I,L)

Scholarships are available to high school graduates to undertake study at a Turkish University. Students may be required to undertake a one year Turkish language course before commencement of the degree. The scholarships pay a monthly allowance for the duration of the course. Scholarships are also available to university graduates who would like to attend Turkish Language and Culture Summer Courses conducted by the Turkish Studies Centre. Further information is available from the Embassy of the Republic of Turkey, 60 Mugga Way, Red Hill ACT 2603. Applications close 30 May for Language and Culture Scholarships, and 15 July for Higher Education Scholarships.

Yokoyama Scholarship Awards (L)

Assistance may be available for undergraduate and postgraduate study at a Japanese University.

Information is available from Mr Masao Iwashita, Secretary-General, Yokoyama Scholarship Foundation, 6F Shiozaki Building, 2-7-1 Hirakawacho, Chiyoda-Ku, Tokyo 102 Japan, Tel (813) 3238 2913, Fax (813) 5275 1677.

Faculty Travel

Faculty of the Built Environment

The Ronald Lu Travelling Scholarship in Architecture (I,L)

- At least \$3,000 for travel to Asia

Applicants must be undertaking Year 3 or 4 of the Bachelor of Architecture degree. Applicants will be assessed on the basis of academic merit coupled with a statement outlining the reasons for their proposed travel and study in Asia. The scholarship will normally close June 1 each year, for travel during the long vacation period.

Vacation Scholarships

Some Schools may offer scholarships for the long vacation period from December to February each year. Students should contact the relevant School office for information.

General Vacation

The Australian Kidney Foundation Summer Vacation Scholarships (I,L)

- Up to \$900
- 6 to 8 weeks

The scholarships are open to undergraduate students who have completed at least one year of full-time study in Medicine or a course related to Biological Science. The proposed research project must be related to the kidney and the urinary tract, and carried out at a university department during the summer vacation period. Applications are available from the Medical Director's Office, Australian Kidney Foundation, GPO Box 9993, Adelaide SA 5001, Tel (08) 8267 4555, Fax (08) 8267 4450, Email: ttaylor@terra.net.au. Applications close 15 September.

ANU Summer Research Scholarships (I,L)

- \$130 per week, plus full board and travel
- 8-12 weeks

Scholarships are offered to undergraduate students for short research projects in Physics, Chemistry, Astronomy, Biological Sciences, Computer Sciences, Engineering, Medical Sciences, Earth Sciences, Pacific and Asian Studies, Social Sciences and Environmental Sciences, at the Institute of Advanced Studies, ANU. Further information and applications are available from Anna Weidemann, Summer Research Scholarship Program, The Australian National University, Canberra ACT 0200, Tel (02) 6249 4138, Fax (02) 6249 4891, Email: School.office.rsbs@anu.edu.au. Applications close late August.

Cooperative Research Centre for Food Industry Innovation Vacation Scholarships (I,L)

- Up to \$2000
- 8 to 12 weeks between November and March

The scholarships are open to final year undergraduate students enrolled in courses in one or more of the following disciplines: biochemistry, biotechnology, bioprocess engineering, chemistry, food science, food technology, immunology, microbiology, or molecular biology. Research projects must be related to one of the research programs

of the CRC. Application Kits are available from September, and further information is available from Ms M Romeo, Education Officer, CRC for Food Industry Innovation, c/- Department of Biotechnology, UNSW, Sydney NSW 2052, Tel (02) 9385 1298, Fax (02) 9385 1015, Email m.romeo@unsw.edu.au. Applications close early October.

The CSIRO Division of Marine Research Vacation Scholarships (I,L)

- Up to \$450 per week plus travel expenses
- 8 weeks between December and February

Applicants must be full-time undergraduate students who have completed not less than three years of their course. Research projects will be undertaken with the CSIRO Division of Marine Research at either Hobart, Cleveland or Marmion. Applications close early September.

The CSIRO Vacation Scholarships (I,L)

- \$420 per week
- 8 to 12 weeks between December and February

The scholarships are open to postgraduate and undergraduate students who have completed no less than three years of a full-time course in Physics, Mathematics, Computer Science, Electrical Engineering, or a closely allied subject. Research projects are carried out under the individual supervision of a research engineer or scientist. Applications are available on the web at http://www.atnf.csiro.au/educate/summer_vacation.html. Applications close early August.

The Dried Fruits Research and Development Council (DFRDC) Studentships (I,L)

- Up to \$3,000 for Studentships, up to \$1,000 for Student Awards

The Studentships assist students to undertake research projects during the summer vacation period. Further information and applications are available from the Executive Officer, Dried Fruits Research and Development Council, Box 1142, Mildura Vic 3502, Tel (050) 221515, Fax (050) 233321. Applications close 15 October.

The Heart Foundation Vacation Scholarships

Scholarships are available during the long vacation period for research projects related to cardiovascular function and disease. Applicants should normally have completed at least two years of an appropriate degree course in the biological sciences. Preference will be given to applicants who have had little or no laboratory experience. Applications close early September.

Medical School Vacation Scholarship Scheme - John Flynn Scholarships

- \$2,500 pa to cover travel, accommodation, mentor's honorarium, host practice costs, student stipend
- Two weeks per year for up to four years

Scholarships are available to undergraduate medical students to take up vacation placements in rural and remote communities, country towns or regional centres. Placements may be with a general practitioner, rural hospital, rural/remote Aboriginal Medical Service, or a combination of these. Further information may be obtained by telephoning 1800 801 454.

The National Multiple Sclerosis Society of Australia Summer Vacation Scholarships (L)

- \$200 per week
- 6 to 8 weeks between November and March

The scholarships are open to undergraduate students completing three or four years of a full-time course leading

to an honours degree in medicine, science, or the biological or health sciences. Research projects must be relevant to multiple sclerosis and carried out at a university department during the summer vacation period. Applications close mid-August.

The Novo Nordisk Student Research Scholarship (I,L)

- \$1,000 to \$1,500
- 6 to 9 weeks over the vacation period

The scholarship is available for diabetes-related research at the Department of Endocrinology, Prince of Wales Hospital and is open to students enrolled at any tertiary institution in Australia. Preference will, however, be given to students enrolled in an undergraduate degree in Science or Medicine at UNSW. Selection will be based on interest in research in diabetes mellitus and academic performance. Further information is available from Associate Professor Bernie Tuch, Prince of Wales Hospital, Tel (02) 9382 4814. Applications close 31 October.

Postgraduate Scholarships

Following are details of scholarships available to postgraduate students at UNSW. The scholarships are listed by Faculty and course (e.g. scholarships in Science and Technology or Engineering) or whether they are available to undertake travel. If students from more than one Faculty are able to apply the scholarship is listed in the General Scholarships section.

For further information contact:

The Scholarships and Student Loans Unit
The University of New South Wales
Sydney 2052 Australia

Tel (02) 9385 3100/3101/1462

Fax (02) 9385 3732

Email: scholarships@unsw.edu.au

Website: <http://www.infonet.unsw.edu.au/academic/schopriz/httoc.htm>

General

Main programs of assistance for postgraduate study

The Australian Postgraduate Awards (APA) (L,R)

- \$15,888 pa (1998 rate). Other allowances may also be paid.
- Up to 2 years for a Masters by Research, 3 years for a PhD degree. PhD students may apply for up to 6 months extension in certain circumstances

Applicants must have graduated, or be proposing to graduate in the current academic year, with Honours 1 or equivalent. Students with Permanent Resident status should normally have lived in Australia continuously for 12 months. Applications close 31 October.

The Australian Development Scholarships (ADS) (I)

- Tuition fees, medical cover, airfare and a stipend.
- Duration of the course

This award is for international students from selected countries only. Information and applications can only be obtained from Australian Diplomatic Posts or Australian Education Centres in the home country. Applications normally close at least 12 months before the year of study.

The Overseas Postgraduate Research Scholarships (OPRS) (I,R)

- Tuition fees and medical cover only
- 2 years for a Masters by Research, 3 years for a PhD degree

Eligibility is confined to postgraduate research students who are citizens of countries other than Australia or New Zealand. Applications close 30 September.

Other General

Aboriginal and Torres Strait Islander Researchers Development Program (L,R)

- At least \$3,000
- Up to 3 years

The Scholarships are awarded to support research projects by Aboriginal and Torres Strait Islander researchers in the biological, mathematical, physical, chemical, engineering, earth and applied sciences and the humanities and social sciences, which are likely to lead to a significant conceptual advance in understanding of a subject or lead to the solution of an important practical problem. Further information and applications are available from the Research Office, UNSW, Tel (02) 9385 1074 or the Research Office website: <http://www.ro.unsw.edu.au>. Applications close mid-June.

The Anthony Rothe Scholarship (I,L,R)

- \$28,000 pa plus allowances
- Up to 3 years

Applications are open to postgraduate students proposing to undertake a PhD in a field related to the causes, prevention, treatment or cure of leukaemia and allied blood disorders. Information and applications are available from The Secretary, Anthony Rothe Memorial Trust, c/- Brigden & Partners, GPO Box 2564, Sydney NSW 2001. Applications close late August.

The Apex Foundation for Research into Intellectual Disability Research Grants (I,L,R)

Grants may be awarded for new or existing research projects in any discipline concerned with the causes, diagnosis, prevention or treatment of intellectual disability and allied conditions. Applications can be obtained from the Hon. Secretary, Apex Foundation for Research into Intellectual Disability Limited, PO Box 311, Mount Evelyn VIC 3796. Applications close late July.

The Arthritis Foundation of Australia Research & Professional Education Awards (L,R)

- \$5,000 - \$32,000 pa
- 1 to 3 years

Scholarships, fellowships and grants are available to support research projects into arthritis, osteoporosis and other musculoskeletal disorders. Applicants must be enrolled in studies leading to a Masters by Research or PhD. Further information and applications are available from The Arthritis Foundation of Australia, GPO Box 121, Sydney NSW 2001, Tel (02) 9552 6085, Fax (02) 9552 6078. Applications close early June.

The Asthma Foundation of New South Wales Research Scholarships (I,L,R)

- To be determined
- 1 to 3 years

The scholarships are available for research into asthma including the basic medical services or clinical and psychological investigations. Further information is available from The Asthma Foundation of NSW, Unit 1 "Garden Mews", 82-86 Pacific Highway, St Leonards NSW 2065. Applications close in early August.

The Australian Brewers Foundation Alcohol Related Medical Research Postgraduate Scholarships (I,L,R)

- Similar to the NHMRC (see NHMRC entry)
- 1 year

Similar to the NHMRC. The scholarships are available to support research into the medical, social and public health aspects of moderate, hazardous or harmful alcohol consumption. Information and applications are available from ABF-Medical Research Advisory Committee, Tel (02) 9552 6688, Fax (02) 9552 1369. Applications close mid-September.

The Australian Coral Reef Society (ACRS) Inc Student Grants (I,L,R,C)

- \$1,000 (plus \$1,500 Walker prize for the best proposal)

The grant is open to students who are enrolled at an Australian University in a PhD or MSc involving research on coral reefs. Recipients must be a member of, or willing to join the ACRS. Applications normally close late November.

Australian Food Industry Science Centre (AFISC) Scholarships (I,L,R)

- \$25,000 pa plus allowances
- Up to 2 years for a Masters by Research, 3 years for a PhD

It is expected that applicants will be of Honours 1 or high 2A standard or equivalent. Graduates from non-food technology disciplines, such as engineering, mathematics and physics, are also encouraged to apply. Further information and applications are available from AFISC,

Private Bag 16, Sneydes Road, Werribee VIC 3030, Tel(03) 9742 0111. Applications close early November.

The Australian Federation of University Women (I,L,R,C)

Each year the Federation offers to its members a number of awards for study in Australia and overseas. Details of awards are included in a booklet available from the Australian Federation of University Women Inc, 215 Clarence Street, Sydney NSW 2000, Tel (02) 9299 9888.

The Australian Institute of Nuclear Science and Engineering (AINSE) Postgraduate Research Awards (I,L,R)

- \$7,500 supplement to an APA or equivalent scholarship and \$5,500 pa for facility costs plus allowances
- Up to 3 years

The Institute offers awards for postgraduate students whose research projects are associated with nuclear science or its applications. Applicants must be eligible for an APA or equivalent scholarship after having completed a Bachelor of Engineering or Bachelor of Science with Honours. At least one month per year must be spent at the Institute at Lucas Heights, NSW. Applications close early December.

The Australian Kidney Foundation Grants and Scholarships (I,L,R)

The AKF supports research into the causes, prevention and treatment of disorders of the kidneys and urinary tract. Programs include Medical Research Seeding Grants, Medical Research Equipment Grants, Biomedical Research Scholarships and Summer Vacation Scholarships. Applications are available from the Medical Director's Office, Australian Kidney Foundation, GPO Box 9993, Adelaide SA 5001, Tel (08) 8267 4555, Fax (08) 8267 4450, Email: ttaylor@terra.net.au. Applications close 30 June.

The Australian and New Zealand Council for the Care of Animals in Research and Teaching (ANZCCART) Student Award (I,L,R,C)

- \$1,000 for attendance at the annual conference

Applicants can be postgraduate students from any discipline. The award provides assistance for a student to attend the annual conference. Applications are available from ANZCCART, PO Box 19, Glen Osmond, SA, 5064, Tel (08) 303 7325. Applications close in July.

The Australian Pain Relief Association and Australian Pain Society PhD Scholarship (L,R)

- \$16,750 pa plus allowances
- Up to 3 years subject to satisfactory progress

Applicants must hold an Honours 1 degree and be proposing to undertake a PhD in the mechanism, diagnosis,

treatment or epidemiological features of acute or chronic (including cancer) pain. Further information and applications are available from the Australian Pain Society Secretariat, PO Box 629, Willoughby NSW 2068, Tel (02) 9439 6744. The award is offered bi-annually. Applications close early November.

The Australian Society for Microbiology (L,R,C)

- \$100 - \$10,000

The Australian Society for Microbiology (ASM) provides prizes and awards, for study, research and projects related to Microbiology. More information can be obtained from the ASM National Office, Unit 23/20 Commercial Rd, Melbourne VIC 3004, Tel (03) 9867 8699, Fax (03) 9867 8699.

The Australian Spinal Research Foundation Postgraduate Research Awards (I,L,R)

- Equivalent to Australian Postgraduate Award (see APA entry under General)
- Up to 2 years for a Masters by Research or 3 years for a PhD degree

Applicants must be undertaking a Masters by Research or PhD in an area designed to contribute to an understanding of the anatomical and physiological mechanisms underlying chiropractic care or the clinical efficiency of chiropractic care and management procedures. Information and applications are available from the Australian Spinal Research Foundation, PO Box 1047, Springwood Qld 4127, Tel (07) 3808 4098, Fax (07) 3808 8109, Email: t.flack@qut.edu.au. Applications close mid-October.

The Captain Reg Saunders Scholarship (L,R,C)

- \$3,000
- Up to 4 years

Applicants must be Aboriginals or Torres Strait Islanders eligible to commence a university degree in the area of psychology, nursing, applied science, social work or education. Further information and applications are available from the Aboriginal Education Program, UNSW, Tel (02) 9385 3805.

The Community Health and Anti-Tuberculosis Association - The Harry Windsor Biomedical and Medical Research Scholarship (L,R)

- \$23,630 pa (Medical postgraduates), \$15,888 (Biomedical Science graduates) plus allowances
- Up to 3 years

Applicants must be proposing to undertake full-time postgraduate medical research in the areas of tuberculosis, respiratory disease (particularly community aspects) or the health of disadvantaged people. Only original application forms will be accepted and are available from The Executive Officer, Community Health and Anti-Tuberculosis Association, PO Box 200, Rose Bay, NSW 2029, Fax (02) 9371 9768. Applications close 1 August.

The Cooperative Research Centre for Eye Research and Technology (CRCERT) Postgraduate Research Scholarship (I,L,R)

- \$15,321 - \$19,827 pa (depending on the type of research)
- 3 years

The scholarship is available for full-time PhD studies in subjects such as optometry, microbiology, biochemistry, optics, materials science, polymer chemistry and immunology. For information about application procedures applicants should initially contact Dr Mark Wilcox, CRCERT, University of New South Wales, Sydney 2052, Tel (02) 9385 0222.

The Clean Air Society of Australia and New Zealand Inc Postgraduate Research Award (I,L,R,C)

- \$5,000 pa
- 1 year, with a possible 1 year extension

The scholarship is open to students enrolled in a Masters degree program with a significant research component connected with air quality. Applications close early February.

The CSIRO Division of Fisheries Supplementary PhD Awards (L,R)

- \$10,000 pa
- Up to 3 years

This scholarship is a supplement to any primary scholarship (eg APA) for PhD study in marine studies, environmental studies, zoology, botany, broadly-based life sciences, economics and mathematics. Applications close early March.

The Dairy Research and Development Corporation (DRDC) Postgraduate Education Program (L,R)

Awards to undertake full-time postgraduate research degrees are available in a wide range of disciplines including dairy manufacturing, farm research, economics and marketing, and agricultural extension. New and experienced applicants are welcome to apply. Guidelines and applications are available from the Scholarships and Student Loans Unit or DRDC, Level 3, 84 William Street, Melbourne VIC 3000, Tel (03) 9602 5300. Applications close 31 October.

The Forest and Wood Products Research and Development Corporation (FWPRDC) Scholarships (L,R)

- Up to \$25,000 pa
- Up to 3 years

The scholarships are open to students undertaking a postgraduate research degree at an Australian University.

Selection is based on academic merit and the relevance of the project to FPWRDC Programs. Further information and applications are available from the Executive Director, FWPRDC, PO Box 157, Bond University Qld 4229, Fax (07) 5578 7911. Applications close early October.

The Garnett Passe and Rodney Williams Memorial Foundation Research Scholarships in Otolaryngology (I,L,R)

- \$15,364 pa for science graduates, \$22,850 pa for medical graduates, plus allowances
- 3 years

The scholarships are available to medical or science graduates for research in Otolaryngology or in related fields of biomedical science. Applicants must be enrolled in a postgraduate degree in Australia or New Zealand. Information and applications are available from the Garnett Passe and Rodney Williams Memorial Foundation, Pelham House, 165 Bouverie St, Carlton VIC 3053, Tel (03) 9349 2622, Fax (03) 9349 2615. Applications normally close in August.

The Gerontology Foundation Grant-In-Aid (I,L,R,C)

- Up to \$5,000 for a specific research project

Grants-In-Aid are awarded to students who have not had their work published in a refereed journal and who have not won any research grants in open competition. The grant supports a proposed scientific investigation topic specified by the Foundation. Information and applications are available from The Executive Officer, Gerontology Foundation of Australia Inc, PO Box 199, Annandale NSW 2038. Applications normally close late July.

The Gowrie Scholarship Trust Fund (L,R)

- \$4,000 pa
- 2 years

Applicants must be members of the Forces or children (or grandchildren or lineal descendants) of members of the Forces who were on active service during the 1939-45 War. Tenable at tertiary institutions in Australia and overseas. Applications close early October.

The Grains Research and Development Corporation (GRDC) Junior Research Fellowship (L,R)

- \$21,000 pa plus up to \$3,000 to the supporting institution, some conference/workshop attendance allowances
- Up to 3 years

Applicants must be undertaking full-time PhD studies in fields of high priority to the grains industry. Applications close mid-October.

The Great Barrier Reef Marine Park Authority Research Support (I,L,R)

- \$1,500

Applicants must be undertaking a full-time PhD research project that could contribute to the planning and managing work undertaken by the Great Barrier Reef Marine Park Authority. Applications and further information may be obtained from the Executive Officer, Great Barrier Reef Marine Park Authority, PO Box 1379, Townsville QLD 4810, Tel (077) 818811. Applications close mid-December.

The Harold G. Conde Memorial Fellowship (L,R,C)

- \$5,000 pa subject to the availability of funds
- Up to 3 years

Applicants should be honours graduates. The Fellowship is a supplementary award to be held in conjunction with another scholarship and is for postgraduate study or research in a field related to the electricity industry. Applications close early April.

The Julian Small Foundation Annual Research Grant (I,L,R)

- Up to \$5,000

Applications are open to postgraduate and undergraduate students undertaking research and involved in the study of law, or industrial relations. Selection will be based on a research proposal which outlines how the research will advance thinking and practice in the area of employment law and industrial relations in Australia. Applications close mid-August.

The June Opie Fellowship (I,L,R,C)

- NZD\$12,000
- 1 year

The award is administered by the University of Auckland and is available to Citizens and Permanent Residents of Australia, Canada and New Zealand, and is designed as an incentive for students of high academic achievement who have a severe disability. It is primarily intended for those who plan to undertake postgraduate study with a view to preparing themselves for a role in the professions, in politics or more particularly in university teaching and research and who have disability issues as a continuing interest. Applications close with the University of Auckland in late October.

Land and Water Resources Research and Development Corporation (LWRRDC) Postgraduate Research Scholarships (I,L,R)

- \$20,000 pa plus \$5,000 for operating expenses
- 2 years for Masters, 3 years for a PhD degree

General Research Scholarships are available for research that will lead to better management, sustainable use and conservation of land, water and vegetation resources in Australia. Irrigation Research Scholarships are specifically for research that will lead to better management, sustainable use and conservation of natural resources in Australia. Applications are available from the Scholarships and Student Loans Unit or LWRRDC, GPO Box 2182, Canberra ACT 2601, Tel (02) 62573379. Applications close early October.

The Lionel Murphy Postgraduate Scholarship (L,R,C)

- \$15,000 pa for study in Australia, up to \$30,000 for study overseas
- 1 year

Applicants must be intending to undertake a postgraduate degree in Law, Science, Legal Studies or other appropriate discipline. Preference will be given to applicants who propose to study the law and legal system in a social context, science/law or international law. Information and application forms are available from the Lionel Murphy Foundation, GPO Box 4545, Sydney NSW 2001, Tel (02) 9223 5151, Fax (02) 9223 5267. Applications close mid-September.

The MBF Health Research Awards-Postgraduate Research Scholarships

- Similar to NHMRC guidelines

The scholarships are open to students undertaking an MD or PhD in the areas of preventative health care, disease/drug management, evaluation of health care delivery outcomes, health policy evaluation and public health promotion/communication. Applications are available from The Executive Assistant, Research Team, Medical Benefits Fund of Australia Ltd, 97-99 Bathurst St, Sydney NSW 2000. Tel (02) 9323 9158. Fax (02) 9323 9168. Applications close late February.

The Meat and Livestock Australia (MLA) Studentships and Junior Research Fellowships (L,R,C)

- \$15,888 pa for study in a Masters or Diploma, \$20,000 for a PhD in Australia or US\$17,500 for study overseas, plus airfares, insurance and allowances
- 2 years for Studentships (Masters or Diploma), 3 years for Junior Research Fellowships (PhD)

Applicants should be proposing to undertake research in disciplines relevant to the meat and livestock industry. Applications normally close late September.

The Menzies Research Scholarship in Allied Health Sciences (L,R)

- Up to \$24,000 pa
- 2 years

The scholarship is awarded to stimulate research in the non-medical allied health disciplines. Applicants should be full-time students, who have completed the first stage of a PhD program. Applications are available from The Menzies Foundation, 210 Clarendon St, East Melbourne VIC 3002, Fax (03) 9417 7049. Applications close late June.

The Minerals Council of Australia Student Research Award (I,L,R)

- \$500 plus travel and accommodation for the Environmental Workshop

The award is open to scholars who have completed or are undertaking postgraduate studies, and is aimed at encouraging excellence in student research and communication in the field of environmental management in mining. The award will be judged on a paper written for and presented at the Minerals Council of Australia's Environmental Workshop. Nominations close early May.

The National Health and Medical Research Council (NHMRC) Training Scholarship for Aboriginal Health Research (L,R)

- \$15,888 - \$23,630 pa (depending on qualifications)
- Up to 3 years

Applicants must be undertaking an undergraduate or postgraduate degree which includes, or leads to, research relevant to Aboriginal health. Applications will be assessed in terms of previous qualifications and experience. Consideration will be given to prior knowledge and experience of Aboriginal culture and health. Applications close early August.

The National Health and Medical Research Council (NHMRC) Dora Lush Biomedical Postgraduate Scholarships (L,R)

- \$15,888 pa, \$20,503 for HIV/AIDS research, \$17,888 for special initiative scholars, plus allowances
- Up to 3 years

Applicants must have completed a Science degree with Honours, or equivalent, at the time of submission of the application. Current APA holders or students enrolled in the final year of an Honours degree at the time of application are not eligible. Applications close early August.

The National Health and Medical Research Council (NHMRC) Medical and Dental Postgraduate Scholarships (L,R)

- \$23,630 pa plus allowances
- Up to 3 years

The scholarships are open to medical and dental graduates to undertake full-time research. Applications are particularly encouraged for research in the following special initiative areas: Aboriginal health and disease, prostate cancer, alcohol and substance abuse, nursing and allied health

services, dementia, schizophrenia, injury and HIV/AIDS. Applications close early August.

The National Health and Medical Research Council (NHMRC) Public Health Postgraduate Scholarships (L,R)

- \$23,630 pa (medical/dental graduates), \$15,888 pa (other graduates), \$20,503 pa for HIV/AIDS research, \$17,888 pa for special incentive scholars, plus allowances
- Up to 3 years

The scholarships are open to medical/dental or health related graduates to obtain training in public health research. Applications are particularly encouraged for research in the following special initiative areas: Aboriginal health and disease, prostate cancer, alcohol and substance abuse, nursing and allied health services, dementia, schizophrenia, injury and HIV/AIDS. Applications close early August.

The National Heart Foundation of Australia Postgraduate Medical and Science Research Scholarships (L,R)

- \$17,637 pa (science), \$23,257 pa (medical) plus \$1,200 departmental allowance
- Up to 3 years subject to satisfactory progress

Scholarships are available to science or medical graduates for research in cardiovascular function, disease or related problems. Applicants must usually reside in Australia. Further information and applications are available from the Medical Director, National Heart Foundation, PO Box 2, Woden ACT 2606. Medical applications close in May and Science applications close in October.

The National Tertiary Education Union (NTEU) Scholarship for the Study of Industrial Relations and Unionism in Australian Tertiary Education (I,L,R)

- \$5,000 pa
- Up to 3 years

Applicants must have made or intend to make an application for candidacy for a Masters by Research or PhD in a topic which covers some aspect of industrial relations, policy issues and/or unionism related to Australian tertiary education. Further information is available from NTEU, PO Box 1323, South Melbourne VIC 3205, Tel (03) 9254 1910. Applications close early November.

The National Multiple Sclerosis Society of Australia Postgraduate Research Scholarships (L,R)

- Same as NHMRC scholarship stipends for medical and biomedical graduates
- Up to 2 years

Scholarships are available to medical graduates (or to appropriately qualified science graduates or health professionals) enrolled in a postgraduate research degree. Applications close mid-July.

The NSW Ministry for the Arts Scholarships (L)

- \$5,000 - \$25,000 (depending on the award)

The NSW Government offers a number of scholarships and awards to writers, artists and scholars living in NSW. Further information is available from the New South Wales Ministry for the Arts, GPO Box 5341, Sydney NSW 2000. Tel (02) 9228 3533, Fax (02) 9228 4722.

The Pig Research and Development Corporation (PRDC) Postgraduate Top-Up Scholarships (L,R)

- Up to a maximum of \$21,000 as a supplement to other scholarships, plus allowances

Applicants must be eligible for another scholarship and be undertaking research relevant to increasing the competitiveness of the Australian pig industry. Applications close mid-December.

The Postgraduate Equity Scholarships (L,C)

- Substitution of HECS for tuition fees
- Duration of the course if eligibility criteria continue to be satisfied

These scholarships allow postgraduate students enrolled in full-fee courses to pay HECS for their course rather than course fees. Students granted the scholarship must still pay Student Activity Fees. Students who have previously completed a postgraduate course in Australia at the same or higher level are not eligible. Applications for Session One close 30 January. Applications for Session Two close 15 July.

Financial Need HECS Substitution Scholarships

Applicants must be in receipt of a full allowance from the Department of Social Security (DSS), Department of Veteran Affairs, or AUSTUDY.

HECS Substitution for Scholarships for Women

A limited number of scholarships are provided to women enrolling in postgraduate courses after a period of absence from study and/or employment who are seeking to extend their professional experience in order to re-enter the workforce. Preference will be given to women enrolling in courses which have a low female enrolment. Selection will take into account the applicant's academic merit, her personal statement, including details of a well-planned future career path, and referee's support. The scholarship is tenable for the duration of the course.

The Re-Entry Scholarship for Women (I,L,R,C)

- \$15,888 pa (equivalent to the Australian Postgraduate Award)
- 1 year

Applicants must be women who have been out of full-time paid professional employment for a period of time and who wish to take up or resume a full-time research or coursework program of postgraduate study. Priority will be given to applicants wishing to update their research skills or to those who wish to gain further experience in order to return to employment in industry, business or education. Applicants must be able to demonstrate a well-planned career path. A letter of application and curriculum vitae should be forwarded to the Scholarships and Student Loans Unit, UNSW. Applications close 31 October.

The River Basin Management Society Ernest Jackson Memorial Research Grants (I,L,R)

- Up to \$2,000

The scholarship assists PhD and Masters students undertaking research in the field of river basin management. PhD, Masters and 4th year Honours students are encouraged to apply. Further information is available from RBMS, PO Box 113, Forest Hill Vic 3131, Tel (03) 9816 6896. Applications close in April.

The Ronald Henderson Postgraduate Scholarships (L,R)

- \$5,000 pa as a supplement to an APA
- Up to 2 years for Masters by Research, 3 years for a PhD

The scholarships are open to graduates who intend to commence Masters or PhD studies in social economics, and who obtain an APA or equivalent university postgraduate award. Applicants may be proposing study in qualifications in economics, commerce or arts. Information and applications are available from the Ronald Henderson Research Foundation, 5th Floor, 165 Flinders Lane, Melbourne VIC 3000, Tel (03) 9654 8299, Fax (03) 9650 7501, Email: lance@creativeaccess.com.au. Applications close in late October.

The RSPCA Alan White Scholarship (I,L,R)

- \$2,500

Applicants should be undertaking original research to improve the understanding and welfare of animals. Applicants must have a sound academic record and demonstrate a major commitment animal welfare issues. A letter of application including two referees and academic transcripts, should be sent to the Executive Officer, RSPCA Australia, PO Box E369, Queen Victoria Terrace, Canberra ACT 2600, Tel (02) 62311437. Applications close mid-March.

The Rural Allied Health Placement Grants (L,R)

- Up to \$500

Grants are available to students undertaking a postgraduate course in dietetics or psychology (Masters). Applications are available from the NSW Health Rural Health Support Unit, Tel (02) 6640 2302, Fax (02) 6640 2499, Email rhsu@nor.com.au, web: www.nor.com.au/community/rhsu. Session One applications close 15 May. Session Two closing dates are available in August.

The Rural Allied Health Scholarships (L)

- \$5,750

Scholarships are available to students in any year of a postgraduate course in dietetics or psychology (Masters). Applications are available from the NSW Health Rural Health Support Unit, Tel (02) 6640 2302, Fax (02) 6640 2499, Email rhsu@nor.com.au, web: www.nor.com.au/community/rhsu. Applications close late September.

The Rural Industries Research and Development Corporation (RIRDC) Postgraduate Scholarships (L,R)

- \$21,500 pa plus \$3,500 to the host institution
- Up to 3 years

The scholarships are available for postgraduate study in rural research and development in areas of interest to the Corporation. Applicants must hold an Honours 1 or 2/1 degree in an appropriate discipline. Applications from mature age students with rural industry experience are particularly encouraged. Applications close in early November.

The Social Policy Research Centre (SPRC) Postgraduate Research Scholarship (L,R)

- \$15,888 pa (equivalent to the APA), plus allowances
- 3 years for a PhD

Applicants should hold a Bachelors Degree with at least Honours 2/1 in any of the fields of study relevant to social policy. The successful candidate will be enrolled in a relevant School of the University but will undertake research at the Centre. Prospective applicants must contact the School in which they wish to enrol. Application packages are available from the Administrator, Social Policy Research Centre, UNSW, Tel (02) 9385 3833. Applications close late November.

The State Librarian's Metcalfe Scholarship at UNSW (L,R,C)

- At least \$2,000

The scholarship is open to suitably qualified applicants to undertake a Masters or PhD in the areas of librarianship, marketing or technology. Selection will be based on academic merit, the outline for the proposed area of study

and demonstrated interest in librarianship. Applications normally close 30 November.

The Sugar Research and Development Corporation (SRDC) Postgraduate Scholarships (L,R)

- \$22,000 pa plus \$3,000 to the host institution
- Up to 3 years

The scholarships are available to foster research in disciplines compatible with the SRDC's research priorities. Applicants should hold an Honours degree or equivalent and have a strong motivation to make a professional career in the sugar industry. Further information and applications are available from the Executive Director, Sugar Research and Development Corporation, PO Box 12050, Brisbane Elizabeth St Qld 4002, Tel (07) 3210 0495, Fax (07) 3210 0506. Applications close mid-September.

The Sydney Gay and Lesbian Business Association Scholarship (L, R, C)

- \$1,500
- 1 year

The scholarship is provided to encourage the participation of gay men and lesbians in business and management careers. Scholarships are available to full-time students in Commerce or the AGSM. Applicants must be gay or lesbian. Applications normally close 15 April.

The Telstra Research Laboratories Postgraduate Research Fellowship (L,R)

University departments may apply for the Fellowships for one or more of their PhD students who are undertaking research relevant to the telecommunications industry in the fields of electrical engineering, computer science, science, psychology, social science or economics or other appropriate course. Further information is available from the Fellowship Applications Officer, Telstra Research Laboratories, Box 249, Rosebank MDC, Clayton Victoria 3169. Email: c.zaman@trl.telstra.com.au. Applications close late September.

United Uranium Trust Fund Scholarship

This Scholarship is available for the study of nuclear science and technology at the Australian Nuclear Science and Technology Organisation (ANSTO) or other designated institution. Applicants must be under 40 years of age. Further information and applications are available from ANSTO on telephone (02) 9543 3111.

VSDC Deafness Projects (L)

Tertiary Education Scholarships may be awarded to deaf students undertaking tertiary courses related to deafness, deaf education, or fields which will advance the interests

of deaf people. Applicants must be Permanent Residents of Australia. Further information is available from the VSDC-SerVices for Deaf Children, PO Box 6466, St Kilda Rd Central, Melbourne Vic 3004. Applications close mid-May.

The Wenkart Foundation Grants (L,R)

- Up to \$22,000 pa
- 2 years with the possibility of renewal

Applicants must be undertaking full-time research in clinical, biomedical or health related clinical sciences. The grants will not be available again until the 1999 academic year. Applications close mid-May.

The Zonta International Amelia Earhart Awards (I,L,R)

- US\$6,000
- 1 year

Applicants must be women who have completed one year graduate study in an aero-space related science or engineering degree. Further information and applications are available from Zonta International, 557 West Randolph St, Chicago, Illinois 60661-2206, USA, Tel +1 312 930 5848, Fax +1 312 930 0951. Applications close early November.

Faculty of the Built Environment

The Lindsay Robertson Memorial Travel Award (I,L,R,C)

- A maximum of \$1,500
- 1 year

Candidates should be UNSW Landscape Architecture graduates. The award is to undertake full-time postgraduate study or research in Landscape Architecture at an approved institution overseas or in Australia. Applications close mid-May.

The Wightman Postgraduate Scholarship in Architecture (I,L,R,C)

- Up to \$4,000
- 1 year with the possibility of renewal subject to satisfactory progress

The scholarship is open to graduates in architecture, or other related studies, for full-time postgraduate study in architecture at UNSW. Applications close late January.

Travel Scholarships

Students in receipt of postgraduate scholarships not listed below may, if the scholarships conditions allow, spend a period of time overseas undertaking research relevant to their Australian qualification.

General Travel

AAUW Educational Foundation Awards (I,L,R,C)

The American Association of University Women (AAUW) offers a range of scholarships and fellowships for full-time study in the United States. Additional information may be obtained from the Association's website: <http://www.aauw.org>

AAUW Educational Foundation International Fellowships (I,L,R,C)

- US\$16,000
- 1 year

The American Association of University Women (AAUW) offers Fellowships for full-time postgraduate study or research in the United States for one academic year. Applicants must be females who have earned the equivalent of a United States Bachelor's degree and who are not US Citizens or Permanent Residents. Applicants can be preparing to undertake study in a broad range of disciplines including arts and humanities, physical and biological sciences, social sciences, law, economics, political sciences, or studies important to changing the lives of women and girls. International fellows can also qualify for a supplemental grant (US\$5,000-\$7,000) to support a community action project designed to improve the lives of women and girls for study in the fellow's home country in the year immediately following the fellowship year. Application packs are available from the AAUW Educational Foundation, Customer Centre, Dept 141, N. Dodge St, Iowa City, IA 52243-4030 USA. Applications close mid-January for the Fellowship year commencing in July.

The ACSANZ Postgraduate Awards for Canadian Studies (I,L,R)

- Up to \$2,800 towards a research trip to Canada

The Association for Canadian Studies in Australia and New Zealand will offer grants to postgraduate students wishing to undertake a short research trip to Canada. Applicants must be enrolled in a Masters or Doctoral degree at an Australian or New Zealand university. Grants will be for research into all areas of academic enquiry that have a

distinctly Canadian orientation, for example in the humanities, social and political sciences and some branches of the health and environmental sciences. Information and applications are available from the Academic Relations Officer, Canadian High Commission, Commonwealth Avenue, Canberra, ACT 2600, Tel (02) 6273 3844, Fax (02) 6270 4083, Email co.cnbra@cnbra01.x400.gc.ca. Applications close late September.

The Asian Studies Library Awards (ASLA) (L,R)

- \$250 to \$800 in a lump sum

Applicants must be undertaking a Masters by Research or PhD. The award provides a contribution towards the travel costs to centres with Asian collections to undertake library research. Further information and application forms are available from the Project Co-ordinator, Asian Studies Library Awards, Collection Management Division, Library ANU, Canberra ACT 2600. Applications close mid-June.

The Association of International Education Japan (AIEJ) Short-Term Student Exchange Promotion Program (Inbound) Scholarships (I,L,R,C)

- 50,000 yen (settling-in allowance), 80,000 yen per month, plus airfare
- Six months to one year

Applicants must be accepted by a Japanese University under a student exchange program agreement with UNSW. Students must initially apply directly to a Japanese University through the International Student Centre at UNSW. The Japanese host university will recommend candidates to AIEJ and students must apply as directed by the host university. Applications close in February, May and September each year.

The Association of International Education Japan (AIEJ) Short-Term Student Exchange Promotion Program (Inbound) Peace and Friendship Scholarships (I,L,R,C)

- 50,000 yen (settling-in allowance), 100,000 yen per month, plus airfare
- Ten months to one year

Applicants must be accepted by a Japanese University under a student exchange program agreement with UNSW. Students must initially apply directly to a Japanese University through the International Student Centre at UNSW. The Japanese host university will recommend candidates to AIEJ and students must apply as directed by the host university. Applications close in February, May and September each year.

Association of University Women Educational Foundation-Charles & June Ross International Fellowship (L,R,C)

- US\$15,400
- 1 year

The fellowship is available to Australian women who have graduated from an Australian University and who are proposing to undertake one year of full-time postgraduate study or research in the United States. Applicants must be members of the Australian Federation of University Women or AAUW and intend to return to Australia to pursue their professional career. Information and applications are available only from AAUW Educational Foundation, PO Box 4030, Iowa City, Iowa 52243-4030, USA, Tel +1 319 337 1716, Fax +1 319 337 2201. Applications close late November.

The AT&T Leadership Award (I,L,R,C)

- US\$5,000

The award is open to students who will be commencing full-time undergraduate or postgraduate study in the United States between January and September in the year of application. The scholarship is open to students from the following Asia/Pacific countries: Australia, China, Hong Kong, India, Indonesia, Japan, Republic of Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand. Information and applications are available from the U.S. Consulate General, USIS, Level 59 MLC Centre, 19-20 Martin Place, Sydney NSW 2000, Tel (02) 9662 3016. Applications close 15 September.

The Australian Academy of Science International Exchange Programs (L,R)

The Academy administers exchange programs which support collaborative research between professional Australian scientists and technologists with countries such as the UK, France, Germany, Taiwan, China, Korea and Japan. The programs provide funds for living and travelling costs. Applicants must be Australian citizens who hold a PhD degree or equivalent. Information is available from International Programs, The Australian Academy of Science, fax (02) 6257 4620, Email: is@science.org.au, web site: <http://www.science.org.au/internat/exchange/contscix.htm>.

The Australia-Korea Foundation Awards (L,R,C)

The AKF provides assistance to Korean language graduates who will be undertaking teacher training in the Korean language, or for work-experience programs. Information and applications are available from the Programs Co-ordinator, National Korean Studies Centre, PO Box 218, Hawthorn Vic 3122. Email: nksc@swin.edu.au.

The Australian Bicentennial Scholarships and Fellowships Scheme (L,R,C)

- £4,000 sterling
- At least 3 months

Awards are available for study or research in the United Kingdom in any discipline, where it can be demonstrated that there is an advantage to be gained from a period of study in the U.K. Applicants must be enrolled as postgraduate students at an Australian higher education institution and who are usually resident in Australia. Applications are available from the Secretary, Sir Robert Menzies Centre for Australian Studies, University of London, 28 Russell Square, London, WC1B 5DS, UK, Tel +44 171 580 5876, Fax +44 171 580 9627, Email mcintyre@sas.ac.uk. Applications close early November.

The Australian Federation of University Women (AFUW) (I,L,R,C)

Each year the Federation offers to its members a number of awards for study in Australia and overseas. Details of awards are included in a booklet available from the Australian Federation of University Women Inc, 215 Clarence St, Sydney NSW 2000, Tel (02) 9299 9888.

The British Aerospace Australia Chevening Scholarship (L,R,C)

- Tuition fees, maintenance allowance, airfare
- 1 year

The scholarship is available for study in an approved, one-year MSc course in aerospace engineering at a British university. Applicants must hold, or expect to complete before October, an Honours 1 or 2/1 degree. Application forms are available from the British Council, PO Box 88, Edgecliff NSW 2027, Tel (02) 9326 2022, Fax (02) 9327 4868. Applications close late October.

The British Chevening Scholarships (L,R,C)

- Tuition fees, maintenance allowance and return airfare
- 3 months to 1 year

The awards are intended for outstanding graduates and young professionals with the potential to rise to senior positions in the private or public sectors and will contribute to Australian-British relations and understanding. The awards are tenable for postgraduate study at British universities. Application forms are available from the British Council, PO Box 88, Edgecliff NSW 2027, Tel (02) 9326 2022, Fax (02) 9327 4868. Applications close in October.

British Council Postgraduate Bursaries (L,R)

- Return economy airfare plus monthly stipend of £450
- 3 months

The scholarships are available for students enrolled in a full-time PhD who are proposing to spend three months at

a British University or similar institution to take advantage of British expertise, equipment or data. Applications should be received by the British Council a minimum of 6 months prior to departure. Further information and applications are available from the British Council, PO Box 88, Edgecliff NSW 2027, Tel 9326 2022, Fax 9327 4868.

The Cambridge Commonwealth Trust Scholarships (L,R,C)

The Cambridge Commonwealth Trust administers several scholarships for Australian Citizens to undertake postgraduate study at the University of Cambridge. Scholarship application forms should be requested from the University of Cambridge when applying for admission. Admission forms and copies of the Graduate Studies Prospectus are available from The Board of Graduate Studies, 4 Mill Lane, Cambridge CB2 1RZ, United Kingdom. By submitting one Scholarship Application Form, applicants will be considered for all the Trust's scholarships for which they are eligible. Information on how to apply is available from the Honorary Secretary, Australian Committee of the Cambridge Australia Trust, GPO Box 93, Canberra ACT 2601, Tel (02) 6248 7744, Fax (02) 6248 6287. Applications for admission to Cambridge close 31 January and scholarship applications close 30 April in the following year.

The Cancer Research Fellowship Programme (I,L,R)

- Travel expenses and living allowances
- 1 year

Applicants should be engaged in research in medicine or the allied sciences and intending to pursue a career in cancer research. The awards are tenable at the International Agency for Research on Cancer in France, or any other suitable institution abroad. Areas of research include epidemiology, biostatistics, environmental and viral carcinogenesis and mechanisms of carcinogenesis. Applications are available from the International Agency for Research on Cancer, 150 cours Albert-Thomas, 69372 Lyon Cedex 08, France, tel 72 73 84 85, Fax 72 73 85 75. Applications normally close in December.

Churchill Fellowships (L)

- Tuition, travel and living allowances

Churchill Fellowships provide financial support for Australian Citizens to undertake study, training or projects overseas. Fellowships will not normally be awarded for higher academic or formal qualifications however. Applicants must be over 18 years of age. Further information and applications are available from the Chief Executive Officer, The Winston Churchill Memorial Trust, 218 Northbourne Ave, Braddon ACT 2612, Tel (02) 6247 8333. Applications close late February.

The Commonwealth Scholarship and Fellowship Plan (CSFP) (L,R,C)

- Varies for each country. Generally covers travel, living expenses, tuition fees, books and equipment, approved medical expenses
- Usually 2-3 years depending on the country

CSFP provides opportunities for Commonwealth students to undertake advanced academic study in other Commonwealth countries. Candidates should be Commonwealth Citizens who hold an undergraduate degree. Applications close at different times depending on the country in which the study is proposed.

The Coral Sea Scholarship (L,R,C)

- \$3,000 per month, plus \$2,500 travel entitlement
- Up to 3 months

The award is for applicants holding a tertiary qualification who are proposing study in the United States, to investigate a problem or opportunity relevant to Australian business or industry. Applicants must be Australian Citizens (Permanent Residents are not eligible). Further information and applications are available from the Fulbright Home Page, <http://sunsite.anu.edu.au/education/fulbright>, or by contacting the Program Officer, Australian-American Educational Foundation, GPO Box 1559, Canberra ACT 2601, Tel (02) 6247 9331, Email amanda@aaef.anu.edu.au. Applications close 30 September.

DAAD- The German Academic Exchange Service Scholarships (I,L,R,C)

Application forms and information (including closing dates) for the following scholarships are available from the Embassy of the Federal Republic of Germany, 119 Empire Circuit, Yarralumla, Canberra ACT 2600.

One-Year Scholarships

- Monthly allowance between DM1,000 and DM1,700, airfares, health and accident insurance, and tuition fees
- 1 year

Scholarships are available for graduate studies in Germany. Applicants must be aged 32 or under and hold a Bachelors degree (or equivalent). A working knowledge of German is required of those who study arts, others may receive additional language training prior to the commencement of the scholarship. Applications normally close in September.

Research Grants

- Monthly stipend of DM1,700, health insurance contribution and travel assistance of DM2,500
- 2 to 6 months

PhD students can apply for assistance to undertake a short period of research in Germany. Applicants must be aged 32 or under.

Information Visits by Groups of Professors and Students

Groups (minimum of 10 persons, maximum of 20 persons) of professors and students can apply for assistance to visit Germany with the intention of increasing the knowledge of specific German topics. The program offers support in making travel and study arrangements and may include some financial assistance (based on the length of the stay and the number of persons undertaking the study tour). The period of stay must be between 7 and 21 days. No tours will be organised for July or August.

Deutschlandkundlicher Winterkurs

- Course fees, DM3,500 to assist with travel and living expenses, health insurance
- 8 weeks (3 January - 21 February)

Undergraduate and postgraduate students from all fields with at least two years university-level German may apply for this scholarship. Applicants must be Australian or New Zealand Citizens, aged from 19 to 32 and proposing to undertake a German Studies course (in German) at the Albert-Ludwigs University of Freiburg. The course provides language instruction and concentrates on historical and cultural aspects of contemporary Germany for students with a background in German Studies. Applications usually close in early August.

East West Center Graduate Degree Fellowship (I,L,R,C)

- Accommodation, monthly stipend of US\$600, tuition fees, health insurance plus allowances
- 12 months with a possible one year extension

The Fellowships are available for postgraduate study at the University of Hawaii, preferably at Masters level. Citizens of the United States and Asian or Pacific countries are eligible to apply. Potential applicants must request an application package direct from the East West Centre, Awards Services Officer, Burns Hall 2066, 1601 East-West Road, Honolulu Hawaii 96848-1601, USA, Tel +1 808 944 7735, Fax +1 808 944 7730. Applications close early October.

The English-Speaking Union (NSW Branch) Scholarship (L,R,C)

- Up to \$8,000

The scholarship assists graduates who, at the outset of their careers, are seeking to further their education overseas. The scholarship is open to Australian citizens living in NSW or the ACT, whose intention it is to return to Australia after undertaking study overseas. Further information is available from The English-Speaking Union (NSW Branch), PO Box A2156, Sydney South NSW 1235, Tel (02) 9231 0667. Applications close early June.

Frank Knox Memorial Fellowships (L,R,C)

- US\$15,000 pa plus tuition fees and health insurance
- 1 year with the possibility of renewal for a further year

Applicants must be undertaking, or near completion of, a postgraduate qualification at an Australian University. The scholarships are tenable at one of Harvard University's graduate schools. Applications close early October.

The Fulbright Postgraduate Student Awards (L,R)

- Up to \$28,506, depending on the type of award, with the possibility of other allowances (eg return airfares and tuition fees)
- 1 year

Students planning to undertake an American higher degree or engage in research towards an Australian higher degree in any field can apply for the Fulbright Student Awards. Four other privately sponsored awards are available - The Engineering Award, The Aboriginal and Torres Strait Islander People Award, The Visual and Performing Arts Award, and The Tim Matthews Memorial Award in Statistics and Related Disciplines. Applicants must be Australian Citizens who have completed an Honours degree (or equivalent). Further information and applications are available from the Fulbright Home Page, <http://sunsite.anu.edu.au/education/fulbright>, or contact the Honorary Secretary, Fulbright NSW State Selection Committee, Research and Scholarships Office, University of Sydney NSW 2006, Tel (02) 9351 3877, Email: gab@reschols.usyd.edu.au. Applications close late September.

The Golda Meir Scholarship (I,L,R,C)

- Tuition (some allowances may be paid)
- 1 year

The Golda Meir scholarships are available to graduates who are wishing to pursue a course in Jewish studies, religious studies, Israel studies or Middle East studies, who meet the relevant requirements for the Graduate Year Program at the Hebrew University's Rothberg School for Overseas Students. Application forms are available from the Australian Friends of the Hebrew University, 36 Hawthorn Road, South Caulfield VIC 3162, Tel (03) 9272 5511.

The Gowrie Scholarship Trust Fund (L,R)

- \$4,000 pa
- 2 years

Applicants must be members of the Forces or children (or grandchildren or lineal descendants) of members of the Forces who were on active service during the 1939-45 War. Special consideration may be given to cases of financial hardship. Applications close October.

Greek Government Scholarships (L,R,C)

- Tuition fees, monthly subsidy plus other allowances

Scholarships are available for undergraduate and postgraduate study in Greece. Applicants must be Australian citizens. Further information is available from the Embassy

of Greece, 9 Turrana St, Yarralumla ACT 2600, Tel (02) 6273 3011. Applications normally close late March.

The Harkness Academic Fellowships (L,R,C)

- Some allowances and tuition fees for study in the USA
- 12-21 months

The Academic Fellowships cover academic study and research. Applicants should be active in the public, business or voluntary sectors with an outstanding record of achievement. Special consideration may be given to studies in health care and related community issues. Applications are available on written request from the Harkness Fellowship, PO Box 836, Belconnen ACT 2606. Applications close early September.

The Harkness Mid-Career Fellowships (L,R,C)

- Professional travel allowance
- 7-12 months

The Mid-career Fellowships are provided to support study and practical experience. Applicants should be active in the public, business or voluntary sectors with an outstanding record of achievement. Special consideration may be given to studies in health care and related community issues. Applications are available on written request from the Harkness Fellowship, PO Box 836, Belconnen ACT 2606. Applications close early September.

The Italian Government Scholarships (L)

- 1 million Italian lira per month
- 2 to 24 months

Scholarships are open to Australian citizens to undertake research and language studies in Italy. Applicants must be aged under 35 years. Further information is available from the Italian Embassy, 12 Grey St, Deakin ACT 2600, Tel (02) 6273 3333, Fax (02) 6273 4223. Applications close early March.

The Japanese Government (Monbusho) Scholarships (L)

Scholarships are available to Australian Citizens for study in Japan for postgraduate research or five years of undergraduate study. Applicants must be willing to study the Japanese language and receive instruction in Japanese. Further information and applications are available from Monbusho Scholarships, Embassy of Japan, 112 Empire Circuit, Yarralumla ACT 2600, Tel (02) 6272 7268, Fax (02) 6273 1848. Applications close early July.

The Kobe Steel Postgraduate Scholarship (L,R,C)

- Maintenance allowance of at least £7,000 sterling plus tuition fees and travelling expenses
- Up to 2 years with the possibility of extension

The scholarship is tenable at St Catherine's College, Oxford University. The scholarship will be awarded to outstanding

individuals who display qualities of leadership, excellence in sport as well as academic ability. Students should have a past or future interest in Japan. Applications close mid-October.

The Korean Government Scholarships (L)

- Tuition fees, living allowance, travel and other allowances
- Duration of course

Scholarships are available to Australian citizens for Masters or PhD study in Korea. Preference will be given to applicants with a knowledge of the Korean language. Information and applications are available from the Embassy of the Republic of Korea, 113 Empire Circuit, Yarralumla ACT 2600, Tel (02) 6273 3044, Fax (02) 6283 4839. Applications close early May.

The Lady Davis Fellowship Trust (I,L,R,C)

The Lady Davis Trust provides awards for study, research, or teaching at graduate, post-doctoral or professorial levels at the Hebrew University or the Technion (Israel Institute of Technology). Information is available from the Australian Friends of the Hebrew University, 36 Hawthorn Road, South Caulfield VIC 3162, Tel (03) 9272 5511. Applications normally close in November.

The Laporte Centenary Scholarship (L,R)

- Airfare, living allowance, tuition fees
- 3 to 6 months

The scholarship is tenable for postgraduate research in the United Kingdom. Candidates should be undertaking a postgraduate qualification in a science-based discipline, preferably in the practical application of special chemicals. Applications are available from the Secretary, Sir Robert Menzies Centre for Australian Studies, University of London, 28 Russell Square, London, WC1B 5DS, UK, Tel +44 171 580 5876, Fax +44 171 580 9627, Email: mcintyre@sas.ac.uk. Applications close early November.

Learn Arabic in Cairo Scholarship (I,L,R,C)

- Course fees, AU\$70 per month living allowance
- 8 months

Scholarships are available to undertake the Arabic as a Foreign Language course in Cairo. Applications are available from the Embassy of the Republic of Egypt, 1 Darwin Avenue, Yarralumla ACT 2600, Tel (02) 6273 4437, Fax (02) 6273 4279. Applications close 1 July.

The Lionel Murphy Postgraduate Scholarship (L,R,C)

- \$15,000 pa for study in Australia, up to \$30,000 for study overseas
- 1 year

Applicants must be intending to undertake a postgraduate degree in Law, Science, Legal Studies or other appropriate discipline. Preference will be given to applicants who are proposing study of the law and legal system in a social context, science/law or international law. Information and application forms are available from the Lionel Murphy Foundation, GPO Box 4545, Sydney NSW 2001, Tel (02) 9223 5151, Fax (02) 9223 5267. Applications close mid-September.

The Lloyd's Register of Shipping Chevening Scholarship (L,R,C)

- Tuition fees, maintenance allowance, airfare
- 1 year

Two scholarships are available to graduates with proven academic merit and leadership potential, to pursue a postgraduate course at a British University. One scholarship is for a one-year MSc course in Marine Engineering/Naval Architecture, and the other is for a one-year MSc course in Environmental Sciences. Applicants must hold, or expect to complete before October, an Honours 1 or 2/1 degree. Application forms are available from the British Council, PO Box 88, Edgecliff NSW 2027, Tel (02) 9326 2022, Fax (02) 9327 4868. Applications close late October.

The Meat and Livestock Australia (MLA) Studentships and Junior Research Fellowships (L,R,C)

- \$15,888 pa for study in a Masters or Diploma, \$20,000 for a PhD in Australia or US\$17,500 for study overseas, plus airfares, insurance and allowances
- 2 years for Studentships (Masters or Diploma), 3 years for Junior Research Fellowships (PhD)

Applicants should be proposing to undertake research in disciplines relevant to the Australian meat and livestock industry. Applications normally close in September.

The Menzies Scholarships (L,R,C)

The Menzies Scholarships are intended to provide funds for Australian Citizens (aged 21 to 45) who wish to travel to Britain to undertake a course of research and to write a paper on a subject of concern and importance to the relationship between the Australian and British communities. Tertiary qualifications are preferred but the awards are not restricted to graduates or students. Information and applications are available from the Australia-Britain Society, GPO Box 551, Sydney NSW 2000, Tel (02) 223 5244. Applications normally close October.

Nanyang Technological University Singapore Research Scholarships (I,L,R)

- Tuition fees plus S\$1,400-S\$1,500 per month allowance
- 2 years for a Masters, 3 years for a PhD degree

Research scholarships are available to graduates with good Honours degrees to undertake postgraduate study. Information and application forms are available from The Registrar, Nanyang Technological University. Email: gleong@ntu.edu.sg, Fax: +65 7911604.

The NSW Ministry for the Arts Scholarships (L)

- \$5,000 - \$25,000 (depending on the award)

The NSW Government offers a number of scholarships and awards to writers, artists and scholars living in NSW. Further information is available from The New South Wales Ministry for the Arts, GPO Box 5341, Sydney NSW 2000. Tel (02) 9228 3533, Fax (02) 9228 4722.

The Oxford Nuffield Medical Fellowship (L,R)

- Between 27,525 and 31,945 pounds sterling pa (subject to tax), plus travel expenses
- 2 years with a possible one year extension

The awards are available for research in a clinical medicine or medical science department of the University of Oxford. The appointee is required to return to Australia for at least 3 years to perform work similar to that carried out in the United Kingdom during the tenure of the Nuffield fellowship. Further information is available from Australian Academy of Science, GPO Box 783, Canberra City ACT 2601, Tel (02) 6247 5777, Fax (02) 6257 4620. Applications close mid-March.

Overseas Research Students Awards Scheme (United Kingdom) (I,L,R)

- Difference in tuition fees for a 'home' and an 'overseas' student

The ORS Scheme provides partial remission of tuition fees to overseas students of outstanding merit and research potential. The awards are open to graduates who will be commencing full-time research studies at a participating institution in the United Kingdom, and who will be liable to pay tuition fees at the overseas student rate. Information and applications must be obtained directly from the Registrar or Secretary of the institution students are applying to in the United Kingdom. Applications normally close in April in the year of tenure.

Queen's Trust Grants (L)

- Up to \$15,000

The Queen's Trust provides grants to Australian Citizens aged 18-28 years, for the pursuit of excellence in their chosen fields. Support is provided for projects studying the advancement of Australian youth, development of community leadership and/or other skills which will be of benefit to Australia. Information and applications may be obtained from the Queen's Trust, Tel 1800 033 625. Applications close in late April.

The Rhodes Scholarship (L,R,C)

- Tuition fees, assistance with travel expenses, up to \$17,500 allowance
- 2 years, with a possible one year extension

The scholarship is tenable for postgraduate study at Oxford University. Applicants must be aged between 19 and 25 and have an honours degree or equivalent. Selection for the scholarship will be based on academic and personal achievements and community spirit. Further information is available on the Rhodes home page <http://www/usyd.edu.au/su/rhodes>. Applications close late August.

The Robert Gordon Menzies Scholarship to Harvard (L,R,C)

- Up to \$25,000 towards tuition fees, living expenses or travel costs (students who enrol in the Harvard Business School may be eligible for an additional \$12,000)
- 1 year

The scholarships are tenable at one of the Harvard University graduate schools. Applicants must be postgraduates of an Australian tertiary institution who intend to return to Australia after studies at Harvard or to represent Australia overseas. The scholarships are awarded on the basis of academic excellence and personal qualities such as leadership and public duty. The successful applicant will be expected, when circumstances permit, to repay the scholarship in later years. Applications and additional information may be obtained from the Chair, Board of Faculties, ANU, Canberra ACT 0200. Fax (02) 6248 5561, Email: lynne.colley@anu.edu.au. Applications close at the end of December.

Rotary Foundation Ambassadorial Scholarships (I,L)

The Rotary Foundation offers scholarships to study or train in another country where Rotary clubs are located. Applicants must have completed at least two years of a university or college course, or have completed high school and have been employed for at least two years. Applicants must also be Citizens of a country in which there is a Rotary club. Information regarding scholarship availability, closing dates and applications should be obtained from the applicant's local Rotary club.

The Russian Scholarships (L,R,C)

- Payment an allowance and medical cover

Scholarships are available to Australian citizens to undertake undergraduate or postgraduate study in journalism, law, economics, international relations or medicine in Russia. Applications normally close in May.

The Sir Charles Mackerras / Australia-Britain Society Music Scholarship (L)

- £8,000 sterling

The scholarship is open to an outstanding young conductor, composer or répétiteur, aged between 21 and 30 who is likely to be an influential leader in the field of music, to undertake study in the United Kingdom or the Czech republic for at least six months. Application forms are available from the British Council, PO Box 88, Edgecliff NSW 2027, Tel (02) 9326 2022, Fax (02) 9327 4868, Email: bcsydney@sprint.com. Applications close early November.

The STA Travel Grant (I,L,R,C)

- Up to \$3,000

Applicants must be undertaking study leading to a degree or diploma of the University and a member of the University Union. The grant is awarded on the basis of significant contribution to the community life of the University involving a leadership role in student affairs and the University Union and the relevance and merit of the proposed travel to the student's academic program or University Union activities. Applications close mid-April.

The Swedish Institute Guest Scholarships (I,L)

- SEK 7,100 per month living allowance
- 9 months (1 academic year)

The scholarships are open to students/researchers who wish to travel to Sweden for studies/research which cannot equally well be pursued in countries other than Sweden. Applicants must establish contact with a Swedish University willing to accept the applicant for the proposed studies. Initial requests for application forms must be made in writing, including the applicant's name and address, nationality, educational background and work experience, knowledge of any languages, statement of the purpose of study/research in Sweden, and a copy of a letter of invitation from a Swedish University Department. Requests for applications should be sent to the Swedish Institute, Department for Exchanges in Education and Research, PO Box 7434, SE-103 91, Stockholm, Sweden. Email: grantinfo@si.se. Homepage: <http://www.si.se>. Requests for application forms must reach the Swedish Institute before 1 December.

Swiss Government Scholarships (L,R,C)

- Tuition fees, living allowance, medical insurance and assistance with airfares
- 1 academic year

One scholarship is available for art/music and two for other disciplines, to undertake postgraduate study or attend an art school/conservatory in Switzerland. Applicants will be required to pass a language test in German or French. Applicants must be aged under 35. Applications close early October.

The Tokyo Metropolitan Government Foreign Student Scholarship Program (L,R,C)

- 200,000 yen per month, tuition and travel expenses, plus allowances
- Up to 2.5 years

Scholarships are available for a Masters degree or postgraduate research at Tokyo Metropolitan University, or Tokyo Metropolitan Institute of Technology. Applicants must be aged under 35 years, be Australian Citizens from New South Wales, and be graduates of a university in NSW. Applications close early April.

The Turkish Government Language & Culture and Higher Education Scholarships (I,L)

Scholarships are available to high school graduates to undertake study at a Turkish University. Students may be required to undertake a one year Turkish language course before commencement of the degree. The scholarships pay a monthly allowance for the duration of the course. Scholarships are also available to university graduates who would like to attend Turkish Language and Culture Summer Courses conducted by Turkish Studies Centre. Further information is available from the Embassy of the Republic of Turkey, 60 Mugga Way, Red Hill ACT 2603. Applications close 30 May for Language and Culture Scholarships, and 15 July for Higher Education Scholarships.

University College London Scholarships

The University College London offers various scholarships to students from overseas, who hold an offer of admission to a full-time programme of study at UCL. Applicants must be self-financing and liable to pay tuition fees at the rate for overseas students. Information and applications are available from the International Office, University College London, Gower St, London WC1E 6BT, UK, Tel +44 171 380 7708, Fax +44 171 380 7380, Email: international@ucl.ac.uk.

Yokoyama Scholarship Awards (L,R,C)

Assistance may be available for undergraduate and postgraduate study at a Japanese University.

Information is available from Mr Masao Iwashita, Secretary-General, Yokoyama Scholarship Foundation, 6F Shiozaki Building, 2-7-1 Hirakawacho, Chiyoda-Ku, Tokyo 102 Japan, Tel (813) 3238 2913, Fax (813) 5275 1677.

Faculty Scholarships

Faculty of the Built Environment

The Lindsay Robertson Memorial Travel Award (I,L,R,C)

- A maximum of \$1,500
- 1 year

Candidates should be UNSW Landscape Architecture graduates. The award is to undertake full-time postgraduate study or research in Landscape Architecture at an approved institution overseas or in Australia. Applications close in mid-May.

The Planning Workshop Australia Scholarship (I,L,C)

- Up to \$2,000 to cover travel expenses

A scholarship is available to cover the costs of an international field trip for a student undertaking the Master of Urban Development and Design (MUDD) program at UNSW. Selection is based on academic merit and professional excellence. A written application, including a curriculum vitae and the names of two referees, should be sent to the Head of School, Graduate School of the Built Environment, UNSW 2052. Applications close 31 August.

The following information summarises prizes awarded by the University. Prizes are grouped by level as follows: Undergraduate, common Undergraduate/Postgraduate, Postgraduate. Within these groups prizes are listed under the faculty, school or department in which they are awarded. Prizes which are not specific to any school are listed under General. Law prizes are awarded only for students enrolled in the LLB or Jurisprudence courses.

Information regarding the establishment of new prizes may be obtained from the Student Information and Systems Office.

Prize information is normally provided in the following format:

- Prize value
- Conditions

Undergraduate Prizes

The University Of New South Wales (General Category for Prizes)

The Heinz Harant Challenge Prize

- \$1000 (bi-annual prize)

For an original piece of assessable work submitted in the course of completing a General Education subject

The Sydney Technical College Union Award

- \$400 and a bronze medal

For leadership in student affairs combined with marked academic proficiency by a graduand

The UNSW Human Rights Essay Prize

- \$400

For the best research essay on a Human Rights topic by a student enrolled at the University of New South Wales proceeding to a Bachelor degree

Faculty of the Built Environment

The Belt Collins Australia Design Prize

- \$500

For the best performance in Design Project (Landscape Design 6)

The Mary Broinowski Prize for Interior Architecture

- \$500

For the best performance in all aspects of the Graduation Project by a graduating student

Architecture Program

The Board of Architects of NSW Prize

- \$350

For the outstanding graduand in the Architecture Program

The Connell Wagner Award for Excellence in Architectural Structures

- \$600 and a silver medal

For the best study on a structural topic in Architectural Research 1, 2 or 3 by a student who is enrolled in, has completed, or has been given exemption from, at least one of: ARCH5620 Conceptual Structure Design, ARCH5621 Advanced Structural Design or ARCH5622 Lightweight Structural Design

The Eric Daniels Prize in Residential Design

- \$500

For the best performance in design for residential accommodation in the Bachelor of Architecture degree course

The Frank Fox Memorial Prize

- \$150

For the best performance in historical research in the Bachelor of Architecture degree course

The Frank W Peplow Prize

- \$100

For the best performance in church architecture or design in the Bachelor of Architecture degree course

The Morton Herman Memorial Prize

- \$100

For the best performance in studies of historic structures in the Bachelor of Architecture degree course

The Royal Australian Institute of Architects Prize

- \$250

For outstanding performance in architectural design and related studies in the final two years of the Bachelor of Architecture degree course

Building Construction Management Program

The Australian Institute of Building Chapter Medal

- \$200 and a medal

For the highest marks achieved by a student completing the Bachelor of Building Construction Management degree course

The Institute of Wood Science (Australian Branch) Timber in Building Prize

- Membership of the Institute and a Journal

For the best performance in BLDG4114 Building Science 4 (Timber) in the the Bachelor of Building Construction Management degree course

The Multiplex Constructions Prize

- \$1500

For the best performance in the major Building Construction subjects Construction 1 to 5 in the the Bachelor of Building Construction Management degree course

The Reed Constructions Prize

- \$1000

For the most outstanding performance in the the Bachelor of Building Construction Management degree course

Industrial Design Program

The Fay Adams Ergonomics in Design Prize

- \$500

For the final project in IDES4301 Project Research or IDES4351 Project which most clearly reflects the effective application of ergonomic principles in its design and use

Landscape Architecture Program

The Lindsay Robertson Memorial Prize

- \$300

For the best performance in LAND2270 Landscape Design 2 in the Bachelor of Landscape Architecture degree course

Planning and Urban Development Program

The Hans Westerman Prize

- \$500

For the best performance in Year 1 of the Bachelor of Town Planning degree course

The Head of School's Prize

- \$500

For the best performance in Year 2 of the Bachelor of Town Planning degree course

The John Shaw Memorial Prize

- \$400

For the best thesis in the Bachelor of Town Planning course

The New South Wales Department of Planning Prize

- \$500

For the best performance in Year 5 of the Bachelor of Town Planning course

The Royal Australian Planning Institute (NSW Division) Prize

- \$250

For the best performance in Year 3 of the Bachelor of Town Planning degree course

The Royal Australian Planning Institute (NSW Division) Prize for Excellence in Local Planning

- \$250

For the best performance in the major subjects focusing on local planning in the Bachelor of Town Planning degree course

Undergraduate and Postgraduate Prizes

Faculty of the Built Environment

The J M Freeland Prize

- Annual interest from investment account

For a significant research achievement by a student or students in the field of History and/or Conservation of the Built Environment in Australia (The work for which the prize is awarded must have been submitted as partial or complete fulfilment of the requirements for a degree offered in the Faculty of the Built Environment. Significant research achievements eligible for the award include a thesis, project report or dissertation, a substantial measured study or a conservation plan)

The Hansen Yuncken Prize

- \$1000

For the best performance in the Master of Construction Management degree course

Postgraduate Prizes

Building Construction Management Program

The Alex Rigby Prize

- \$250

For the best overall performance in the Master of Project Management degree course

Notes

The University of New South Wales • Kensington Campus

Theatres

Applied Science Theatre F11
 Athol Lykke Theatre C27
 Biomedical Theatres E27
 Central Lecture Block E19
 Chemistry Theatres
 (*Dwyer, Mellor, Murphy, Nyholm, Smith*) E12
 Clancy Auditorium C24
 Classroom Block (*Western Grounds*) H3
 Fig Tree Theatre B14
 Heffron Theatres E13
 Io Myers Studio D9
 Keith Burrows Theatre J14
 MacAuley Theatre E15
 Mathews Theatres D23
 Parade Theatre E3
 Physics Theatre K14
 Quadrangle Theatre E15
 Rex Vowels Theatre F17
 Science Theatre F13
 Webster Theatres G15

Buildings

AGSM G27
 Applied Science F10
 Arcade D24
 Architecture H14
 Barker Apartments N13
 Barker Street Gatehouse, Gate 14 N14
 Basser College (*Kensington*) C18
 Baxter College D14
 Biosciences D26
 Central Store B13
 Chancellery C22
 Dalton (*Chemistry*) F12
 Goldstein College (*Kensington*) D16
 Golf House A27
 Gymnasium B5
 High Street Gatehouse, Gate 9 B24
 Heffron, Robert (*Chemistry*) E12
 International House C6
 John Goodsell (*Commerce and Economics*)
 F20
 Kensington Colleges (*Office*) C17
 Library (*University*) E21
 Link B6
 Main K15
 Maintenance Workshop and Central Store B13
 Mathews F23
 Menzies Library E21
 Morven Brown (*Arts*) C20
 New College L6

Newton J12
 NIDA D2
 Parking Station H25
 Parking Station N18
 Pavilions E24
 Philip Baxter College (*Kensington*) D14
 Quadrangle E15
 Red Centre H13
 Sam Cracknell Pavilion H8
 Samuels Building F25
 Shalom College N9
 Webster, Sir Robert G14
 Unisearch House L5
 University Regiment J2
 University Union (*Roundhouse*) E6
 University Union (*Blockhouse*) G6
 University Union (*Squarehouse*) E4
 Wallace Wurth School of Medicine C27
 Warrane College M7

General

Aboriginal Resource and Research Centre E20
 Aboriginal Student Centre A29
 Accommodation (*Housing Office*) E17
 Accounting E15
 Admissions C22
 Alumni C22
 Anatomy C27
 Applied Bioscience D26
 Applied Economic Research Centre F20
 Applied Geology F10
 Archives, University E21
 Arts and Social Sciences (*Faculty Office*) C20
 Asia-Australia Institute: 45 Beach Street,
 Coogee
 Asian Business and Language Studies E15
 Audio Visual Unit F20
 Australian Graduate School of Management G27
 Banking and Finance E15
 Biochemistry and Molecular Genetics D26
 Biological Science D26
 Biomedical Library F23
 Biotechnology F25
 Built Environment (*Faculty Office*) H14
 Business Law and Taxation F20
 Campus Services C22
 Careers Service E15
 Cashier's Office C22
 Chaplains E4
 Chemical Engineering and Industrial
 Chemistry F10
 Chemistry E12

Civil and Environmental Engineering H20
 Commerce and Economics (*Faculty Office*) F20
 Communications Law Centre C15
 Community Medicine D26
 Computer Science and Engineering G17
 Cornea and Contact Lens Research Unit 22-32
 King St. Randwick
 Counselling Service E15
 Economics F20
 Education Studies G2
 Educational Testing Centre E4
 Electrical Engineering G17
 Energy Research, Development & Information
 Centre F10
 Engineering (*Faculty Office*) K17
 English C20
 Equity and Diversity Unit E15
 Examinations C22
 Facilities Department C22, B14A
 Fees Office C22
 Food Science and Technology B8
 Geography K17
 Geomatic Engineering K17
 Graduate School of Biomedical Engineering F25
 Graduate School of Engineering (MBT Program)
 K17
 Groundwater Centre F10
 Health Service, University E15
 Health Services Management F25
 History C20
 Housing E15
 Human Resources C22
 Industrial Relations and Organisational
 Behaviour F20
 Information, Library & Archives Studies F23
 Information Systems E15
 Information Technology Unit F21
 Institute of Languages,
 22-32 King St. Randwick
 International Student & Scholar Services H14
 IPACE Institute F23
 Kanga's House O14
 Law (*Faculty Office*) F21
 Law Library F21
 Legal Studies and Taxation F20
 Library Lawn D21
 Life Sciences (*Faculty Office*) D26
 Loans C22
 Lost Property H11
 Marine Science D26
 Marketing F20
 Materials Science and Engineering E8

Mathematics F23
 Mechanical and Manufacturing Engineering
 J17
 Media Liaison C22
 Medical Education C27
 Medicine (*Faculty Office*) B27
 Microbiology and Immunology D26
 Michael Birt Gardens C24
 Mines K15
 Mining Engineering K15
 Modern Language Studies C20
 Music and Music Education B11
 News Service C22
 Optometry J12
 Pathology C27
 Performing Arts B10
 Petroleum Engineering D12
 Philosophy C20
 Physics K15
 Physiology and Pharmacology C27
 Planning and Urban Development K15
 Political Science C20
 Pooh Corner N8
 Printing Section C22
 Professional Development Centre E17
 Psychology F23
 Publishing and Printing Services C22
 Remote Sensing and Geographic Information
 Systems K17
 Research Office: 34 Botany Street, Randwick
 Safety Science B11
 Science and Technology (*Faculty Office*) E12
 Science and Technology Studies C20
 Security H13
 Social Science and Policy C20
 Social Policy Research Centre F25
 Social Work G2
 Sociology C20
 Sport and Recreation Centre B6
 Squash Courts B7
 Student Centre (*off Library Lawn*) C22
 Student Recruitment Office C22
 Students' Guild E15
 Swimming Pool B4
 Tennis Pavilion J6
 Textile Technology G14
 Theatre, Film and Dance Studies B10
 UNSW Bookshop E15
 UNSW International H14
 WHO Regional Training Centre C27
 Wool and Animal Sciences G14
 Works and Maintenance B14A

UNSW

This Handbook has been specifically designed as a source of detailed reference information for first year, re-enrolling undergraduate and postgraduate students.

Separate Handbooks are published for:

Arts and Social Sciences
Built Environment
College of Fine Arts
Commerce and Economics
Engineering
Law
Medicine
Science
Australian Graduate School
of Management (AGSM)
Australian Taxation Studies Program (ATAX)
University College,
Australian Defence Force Academy (ADFA)
General Education.

For further information about the University – its organisation; staff members; description of disciplines; scholarships; prizes and so on, consult the University Calendar (Summary Volume). For further information on student matters, consult the UNSW Student Guide.