Faculty of the Built Environment

HANDBOOK

1996
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 1 November 1995, but may be amended without notice by the University Council.

CREDIT POINTS - IMPORTANT NOTE

From 1996, UNSW is introducing a university wide credit point system for all subjects offered to both undergraduate and postgraduate students. The system will mean that a subject will have the same credit point value irrespective of which faculty's course it is counting towards. Students will be 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 standard 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Old subject measures have been replaced by new university credit points.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 1996 subject selections based on the credit points shown in this handbook.
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Introduction

The Faculty of the Built Environment offers courses that are designed to provide an education and qualification to practice the professions of architecture, building, industrial design, interior design, landscape architecture, quantity surveying and town planning. It also provides opportunities for graduate and professional development studies, and for research in and across these and related fields.

Architecture is a dynamic profession which has a profound influence on the way we live and interact with our environment. It is not just about the design and erection of buildings - it is also about how we use them, and about the world we chose to live in. Creativity is the keystone of the profession, but architects must also have soundly based technical knowledge. For those whose interests lie in other areas of architecture, study at the undergraduate level is also available which provides the opportunity for specialisation in a number of architecture related fields.

Modern building is about the organisation and management of people, materials and machinery for projects that may cost up to several hundred million dollars. It is about planning and programming, co-ordination, contracts administration, quality management, industrial relations, cash flows and information technology.

Industrial design involves the design of a whole range of consumer and capital products as diverse as telephones and cranes, gas fires and exhibition centres, toothbrushes and motor cars. Ideally, the industrial designer works as part of a team involving engineering, production and marketing.

Landscape architecture is concerned with the environment as a whole. Its principal focus is the theory and practice of landscape planning, cultural studies and conservation of the environment. Landscape architects seek creative strategies for environmental protection, sustainable development, land-use planning, site design and heritage conservation.

Planning and Urban Development encompass a wide-ranging profession which has a major impact on the form and functioning of cities, suburbs, towns and the non-urban environment. Town planners deal with the social aspects of urban and rural life, with the economics of development, and with the appearance and functioning of the environment. They consider the needs and futures of both existing places and newly developing areas.

This handbook provides information on courses of study offered by the Faculty of the Built Environment, at both undergraduate and graduate levels, together with descriptions of subjects available and areas in which research may be undertaken. Those who work in the Faculty are enthusiastic about the courses offered, and feel that these provide challenges and rewards in both the academic and professional spheres. I hope that this is also your experience!

Stephen Harris
Presiding Member
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

<table>
<thead>
<tr>
<th>Session 1</th>
<th>1996</th>
<th>1997</th>
</tr>
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<tbody>
<tr>
<td>(14 weeks)</td>
<td>4 March to 4 April</td>
<td>3 March to 27 March</td>
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<tr>
<td></td>
<td>15 April to 14 June</td>
<td>7 April to 13 June</td>
</tr>
<tr>
<td>Mid-session recess</td>
<td>5 April to 14 April</td>
<td>28 March to 6 April</td>
</tr>
<tr>
<td>Study period</td>
<td>15 June to 20 June</td>
<td>14 June to 19 June</td>
</tr>
<tr>
<td>Examinations</td>
<td>21 June to 9 July</td>
<td>20 June to 8 July</td>
</tr>
<tr>
<td>Mid-year recess</td>
<td>10 July to 28 July</td>
<td>9 July to 27 July</td>
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<table>
<thead>
<tr>
<th>Session 2</th>
<th>1996</th>
<th>1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>(14 weeks)</td>
<td>29 July to 27 September</td>
<td>28 July to 26 September</td>
</tr>
<tr>
<td></td>
<td>8 October to 8 November</td>
<td>7 October to 7 November</td>
</tr>
<tr>
<td>Mid-session recess</td>
<td>28 September to 7 October</td>
<td>27 September to 6 October</td>
</tr>
<tr>
<td>Study period</td>
<td>9 November to 14 November</td>
<td>8 November to 13 November</td>
</tr>
<tr>
<td>Examinations</td>
<td>15 November to 3 December</td>
<td>14 November to 2 December</td>
</tr>
</tbody>
</table>

Important dates for 1996

**January**
- M 1 New Year's Day - Public Holiday
- M 15 Medicine IV - Term 1 begins
- Th 18 Medicine V - Term 1 begins
- F 26 Australia Day - Public Holiday
- T 30 Enrolment period begins for new undergraduate students and undergraduate students repeating first year

**February**
- M 12 AGSM Open Learning GMQ and GDM programs - Semester 1 begins
- M 26 Medicine VI - Term 2 begins
- AGSM MBA program - Year 1 classes - Term 1 begins

**March**
- F 1 Last day for acceptance of provisional enrolment by re-enrolling students
- M 4 Session 1 begins for faculties other than Medicine and AGSM
- AGSM MBA program - Year 2 classes - Term 1 begins
- University College, ADFA - Session 1 begins
- F 15 Last day applications are accepted from students to enrol in Session 1 or whole year subjects
- Su 17 Medicine IV - Term 1 ends
- M 18 Medicine IV - Term 2 begins
- Su 24 Medicine V - Term 1 ends
- Su 31 Last day for students to discontinue without failure subjects which extend over Session 1 only
- HECS Census Date for Session 1
<table>
<thead>
<tr>
<th>April</th>
<th>Medicine V - Term 2 begins</th>
</tr>
</thead>
<tbody>
<tr>
<td>F 5</td>
<td>Good Friday - Public Holiday</td>
</tr>
<tr>
<td>Su 14</td>
<td>Mid-session recess begins for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>M 15</td>
<td>Medicine VI - Term 2 ends</td>
</tr>
<tr>
<td>M 15</td>
<td>Medicine VI - Recess begins</td>
</tr>
<tr>
<td>Su 21</td>
<td>Medicine VI - Term 3 begins</td>
</tr>
<tr>
<td>Th 25</td>
<td>Medicine IV - Term 2 ends</td>
</tr>
<tr>
<td>M 29</td>
<td>Medicine IV - Recess begins</td>
</tr>
<tr>
<td>May</td>
<td>University College, ADFA - May recess begins</td>
</tr>
<tr>
<td>Su 5</td>
<td>Medicine IV - Recess ends</td>
</tr>
<tr>
<td>M 6</td>
<td>Medicine IV - Term 3 begins</td>
</tr>
<tr>
<td>F 10</td>
<td>AGSM MBA program - all classes - Term 1 ends</td>
</tr>
<tr>
<td>M 13</td>
<td>AGSM MBA program - all classes - Examinations begin</td>
</tr>
<tr>
<td>T 4</td>
<td>Publication of provisional timetable for June examinations</td>
</tr>
<tr>
<td>M 10</td>
<td>Queen's Birthday - Public Holiday</td>
</tr>
<tr>
<td>T 11</td>
<td>Medicine V - Term 3 begins</td>
</tr>
<tr>
<td>F 14</td>
<td>Session 1 ends for faculties other than Medicine, AGSM and University College, ADFA</td>
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<tr>
<td>Su 15</td>
<td>Study recess begins for faculties other than Medicine, AGSM and University College, ADFA</td>
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<tr>
<td>W 22</td>
<td>Last day for students to advise of examination clashes</td>
</tr>
<tr>
<td>S 25</td>
<td>AGSM Open Learning GDM program - Semester 1 ends</td>
</tr>
<tr>
<td>June</td>
<td>AGSM Open Learning GDM program - Examination</td>
</tr>
<tr>
<td>S 1</td>
<td>AGSM Open Learning GMQ program - Semester 1 ends</td>
</tr>
<tr>
<td>Su 2</td>
<td>Medicine V - Term 2 ends</td>
</tr>
<tr>
<td>M 3</td>
<td>AGSM MBA program - all classes - Term 2 begins</td>
</tr>
<tr>
<td>T 4</td>
<td>Medicine VI - Term 4 begins</td>
</tr>
<tr>
<td>Su 16</td>
<td>Study recess ends for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>M 17</td>
<td>Medicine IV - Term 4 begins</td>
</tr>
<tr>
<td>Th 20</td>
<td>Study recess ends for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>F 21</td>
<td>Examinations begin for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>S 22</td>
<td>University College, ADFA - Mid-year recess begins</td>
</tr>
<tr>
<td>M 24</td>
<td>University College, ADFA - Examinations begin</td>
</tr>
<tr>
<td>July</td>
<td>University College, ADFA - Examinations ends</td>
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<tr>
<td>F 5</td>
<td>Examinations end for faculties other than Medicine, AGSM and University College, ADFA</td>
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<tr>
<td>W 10</td>
<td>Mid-year recess ends for faculties other than Medicine, AGSM and University College, ADFA</td>
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<tr>
<td>M 15</td>
<td>AGSM Open Learning GMQ and GDM programs - Semester 2 begins</td>
</tr>
<tr>
<td>Su 21</td>
<td>University College, ADFA - Mid-year recess ends</td>
</tr>
<tr>
<td>M 22</td>
<td>University College, ADFA - Session 2 begins</td>
</tr>
<tr>
<td>F 26</td>
<td>Medicine VI - Term 4 ends</td>
</tr>
<tr>
<td>S 27</td>
<td>Medicine VI - Recess begins</td>
</tr>
<tr>
<td>Su 28</td>
<td>Mid-year recess ends for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>M 29</td>
<td>Session 2 begins for faculties other than Medicine, AGSM and University College, ADFA</td>
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<tr>
<td>August</td>
<td>Medicine VI - Recess ends</td>
</tr>
<tr>
<td>Su 4</td>
<td>Medicine VI - Term 5 begins</td>
</tr>
<tr>
<td>M 5</td>
<td>Last day applications are accepted from students to enrol in Session 2 subjects</td>
</tr>
<tr>
<td>F 9</td>
<td>Last day for students to discontinue without failure subjects which extend over the whole academic year</td>
</tr>
<tr>
<td>Su 11</td>
<td>Medicine IV - Term 4 ends</td>
</tr>
<tr>
<td>M 12</td>
<td>AGSM MBA program - all classes - Examinations begin</td>
</tr>
<tr>
<td>F 16</td>
<td>AGSM MBA program - all classes - Examinations end</td>
</tr>
<tr>
<td>Su 18</td>
<td>Medicine IV - Recess ends</td>
</tr>
<tr>
<td>M 19</td>
<td>Medicine IV - Term 5 begins</td>
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<td>S 31</td>
<td>Last day for students to discontinue without failure subjects which extend over Session 2 only</td>
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<tr>
<td>September</td>
<td>University College, ADFA - September recess begins</td>
</tr>
<tr>
<td>Su 29</td>
<td>Medicine IV - Term 5 ends</td>
</tr>
<tr>
<td>M 30</td>
<td>Medicine IV - Term 6 begins</td>
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<tr>
<td>October</td>
<td>University College, ADFA - Examinations begin</td>
</tr>
<tr>
<td>M 7</td>
<td>Labour Day - Public Holiday</td>
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<tr>
<td>T 8</td>
<td>Publication of provisional timetable for November examinations</td>
</tr>
<tr>
<td>W 16</td>
<td>Last day for students to advise of examination clashes</td>
</tr>
<tr>
<td>Su 20</td>
<td>Medicine V - Term 4 ends</td>
</tr>
<tr>
<td>S 26</td>
<td>AGSM Open Learning GDM program - Examination</td>
</tr>
<tr>
<td>Su 27</td>
<td>Medicine VI - Term 6 ends</td>
</tr>
<tr>
<td>M 28</td>
<td>University College, ADFA - Examinations begin</td>
</tr>
<tr>
<td>T 29</td>
<td>Publication of timetable for November examinations</td>
</tr>
<tr>
<td>November</td>
<td>AGSM Open Learning GDM program - Semester 2 ends</td>
</tr>
<tr>
<td>S 2</td>
<td>AGSM Open Learning GDM program - Examination</td>
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<tr>
<td>F 8</td>
<td>Session 2 ends for faculties other than Medicine, AGSM and University College, ADFA</td>
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<tr>
<td>S 9</td>
<td>Study recess begins for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>Su 10</td>
<td>Medicine IV - Term 6 ends</td>
</tr>
<tr>
<td>M 11</td>
<td>AGSM MBA program - all classes - Examinations begin</td>
</tr>
<tr>
<td>Th 14</td>
<td>Study recess ends for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>F 15</td>
<td>Examinations begin for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>December</td>
<td>AGSM MBA program - all classes - Examinations end</td>
</tr>
<tr>
<td>T 3</td>
<td>Examinations end for faculties other than Medicine, AGSM and University College, ADFA</td>
</tr>
<tr>
<td>W 25</td>
<td>Christmas Day - Public Holiday</td>
</tr>
<tr>
<td>Th 26</td>
<td>Boxing Day - Public Holiday</td>
</tr>
</tbody>
</table>
Comprises Schools of Architecture, Building, Landscape Architecture, Planning and Urban Development, the Department of Industrial Design and Graduate School of the Built Environment.

Dean
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Presiding Member
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Senior Administrative Officer
Brian John Newell, BCom UNSW

Administrative Assistant (Part-time)
Annabel Enid Sutherland

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Professor of Architecture and Head of School
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Professors of Architecture
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Philip Cox, AO, BArch DipTCP Syd., FRAIA
Paul Stanhope Reid, BArch Auck., MArch Mich., ARAIA

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Adjunct Professor
Peter Thompson, DIC, MIEAust, FIStructE

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Adjunct Associate Professor
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Columbia, PhD Camb.
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Michael Charles Tawa, BSc(Arch) BArch PhD UNSW

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Catherine Mary De Lorenzo, BA DipEd PhD Syd.
Geoffrey Lindsay Dwyer, FRAIA
Peter Murray, BArch UNSW, MTCP Syd., DipEnvStud Macq., ARAIA
Stephen Peter, BArch DipArchComp Syd.
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Ann Maree Quinlan, BSc(Arch) BArch UNSW, ARAIA
Deborah van der Plaat, BA A.N.U.

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Peter Leggett Reynolds, BArch PhD UNSW

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Administrative Assistant
Harold Percy Chambers, BA S.Pac.

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Professor of Building
Vacant

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Karl Goran Runeson, BA MBuild UNSW

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David Dombkins, BBuild UNSW, MPM U.T.S.
Perry Forsythe, BBuild UNSW
Ojars Indulis Greste, BE ME UNSW, DEng Calif.
Jinu Kim, BSc(Eng) Seoul N.U., MPM UNSW, MAIPM, AVLE(Econ)
Barry Frederick Reece, BA N.E., MA Essex
James C. Senogles, MA Oxf., MBA Cape T.

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

Administrative Assistant
Niki Fardouly, BA UNSW, GradDipEd Syd. C.A.E.

Graduate School of the Built Environment

Head of School
Dr BH Judd

Course Coordinator MBEnv (Building Conservation)
D Godden

Data Analysis Continuing Education Coordinator
Murti Durvasula, BA DipEd Mitchell C.A.E., MEdAdmin UNSW, MBA AU, PhD UNSW

Department of Industrial Design

Senior Lecturer and Head of Department
Lance Green, BE N.S.W.I.T., MDes U.T.S., CPEng, MIEAust, MDIA, MPACIA

Lecturer
Ruth McDermott, DipID Well. Polya., MDIA
Johnathon Talbot, BSc(IndArts) DipEd UNSW

Adjunct Senior Lecturer
Wolfgang Köhler, MA(Des) U.T.S., DiplEngMech T.U.Karlsruhe, FIEAust

Honorary Visiting Fellow
John Redmond, BA DiplDEng, MA RCA, FRSA, MESA, AADM, FDIA

Technical Officer
Antony Yarham, DipEd U.T.S.

School of Landscape Architecture

Professor of Landscape Architecture and Head of School
James Weirick, MLA Harv.

Associate Professor
Finn Christopher Thorvaldson, BArch UNSW, MLA Bach., ARAIA, AAILA

Senior Lecturer
Helen Beatrice Armstrong, BSc Syd., GradDip MLArch UNSW, AAILA

Lecturers
Douglas Crawford, BArch Melb., GradDip MEngSc UNSW, MRAIPR
Helen Evans, BArch GradDip UNSW, Grad Dip Macq.
Elizabeth Mossop, BLArch UNSW, MUrbdPlan, Macq., AAILA
Alison Todd, BSc Waik., GradDipLP UNSW
Catherine Rush, BLArch Carnb., MDes(UD), R.M.I.T.
Michael Wright, BLArch, R.M.I.T.
School of Planning and Urban Development

Professor of Town Planning and Head of School
Alexander Rankine Cuthbert, DipArch DipTP MSc Heriot Watt, PhD Lond., MRIBA, MRTPI, MHKIP

Associate Professors
Robert Gordon Freestone, BSc UNSW, MA Minn., PhD Macq., MRAPI
Peter Ashton Murphy, BA Syd., PhD Macq.

Lecturers
Behnam Tal, BSc Perad’ya, MSc Moratuwa, PhD UNSW, MITP, MRAPI
Susan Margaret Thompson, BA DipEd Macq., MTCP Syd., MRAPI
Peter John Williams, BSc UNSW, MEnvPlan Macq., MPubPol N.E.

Robert Bolles Zehner, BA Amherst, MA PhD Mich., MASA, MRAPI

Senior Lecturer
Stephen Harris, BTP UNSW, FRPAI
This Handbook is divided into two main sections comprising undergraduate study and graduate study. Initially, course outlines are presented in each section, providing a guide to the degrees within organisational units. This is followed by a full listing of subject descriptions in each section, which provide full details of subject content, contacts and session/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
- **F**: full year (Session 1 plus Session 2)
- **HPW**: hours per week
- **L**: lecture
- **P/T**: part-time
- **S1**: Session 1
- **S2**: Session 2
- **SS**: single Session, but which Session taught is not known at time of publication
- **T**: tutorial/laboratory
- **U**: unit value
- **WKS**: weeks of duration
- **X**: external

Prefixes

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

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Organisational Unit</th>
<th>Faculty/Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT</td>
<td>School of Accounting</td>
<td>Commerce &amp; Economics</td>
</tr>
<tr>
<td>ARCH</td>
<td>School of Architecture</td>
<td>Built Environment</td>
</tr>
<tr>
<td>BLDG</td>
<td>School of Building</td>
<td>Built Environment</td>
</tr>
<tr>
<td>COMP</td>
<td>School of Computer Science &amp; Engineering</td>
<td>Engineering</td>
</tr>
<tr>
<td>GENS</td>
<td>Centre for Liberal &amp; General Studies</td>
<td></td>
</tr>
<tr>
<td>GEOG</td>
<td>School of Geography</td>
<td>Applied Science</td>
</tr>
<tr>
<td>GSBE</td>
<td>Graduate School of the Built Environment</td>
<td>Built Environment</td>
</tr>
<tr>
<td>IDES</td>
<td>Department of Industrial Design</td>
<td>Built Environment</td>
</tr>
<tr>
<td>LAND</td>
<td>School of Landscape Architecture</td>
<td>Built Environment</td>
</tr>
<tr>
<td>PHYS</td>
<td>School of Physics</td>
<td>Science</td>
</tr>
<tr>
<td>PLAN</td>
<td>School of Planning and Urban Development</td>
<td>Built Environment</td>
</tr>
<tr>
<td>SURV</td>
<td>School of Surveying</td>
<td>Engineering</td>
</tr>
</tbody>
</table>
Faculty Information

Some People Who Can Help You

If you require advice about enrolment, degree requirements, progression within courses, or any other general faculty matters, contact:

Brian Newell, Faculty of the Built Environment, Room 510, Architecture Building, Extension 4771.

For information and advice about subject content and requirements contact the appropriate person below:

Professor Jon Lang, School of Architecture, Room 100, Architecture Building, extn 4786.

Professor James Weirick, School of Landscape Architecture, Room 208, Old Main Building, extn 4844.

Mr Graham Levado, School of Building, Room 409, Architecture Building, extn 4832.

Professor Alexander Cuthbert, School of Town Planning, Room 205, Old Main Building, extn 4837.

Dr Bruce Judd, Graduate School of the Built Environment, Room 502, Architecture Building, extn 5274.

Lance Green, Department of Industrial Design, Room 211, Sir Robert Webster Building, extn 4849.

It is University and Faculty policy to promote equal opportunity in education (refer to EOE Policy Statement, University of New South Wales Calendar and the Guide for Students 1995).

Faculty of the Built Environment

Enrolment Procedures

Architecture Degree Course

All students re-enrolling in Architecture courses should obtain a copy of the free booklet Architecture Enrolment Procedures available from the School Office. This booklet provides detailed information on enrolment procedures and enrolment timetable.

Town Planning Degree Course

Before proceeding on practical experience, Town Planning students are required to obtain instruction relating to enrolment procedure from the School of Town Planning office. This particularly applies to students in Year 3.

Bachelor of Building Degree Course

The Building course is offered on a credit point semester system basis and students are required to enrol for the full year (two semesters) on the dates and at the times shown in the booklet Building Enrolment Procedures.

Students are required to complete 6 months of practical experience as part of their course. Building students who elect to take their industrial program in Session 1 in any year are required to enrol at the beginning of that year.

Enrolment for Session 2 subjects is a preliminary enrolment and accepted subject to the student having obtained the appropriate prerequisites before commencement of that session.

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 School may recommend a restricted program. This applies to all undergraduate courses offered by the Faculty.

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 Studio Collection 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 8.00 to 10.00 Monday to Thursday, 8.00 to 6.00 on Friday and 12.00 to 5.00 Saturday and Sunday. During vacations, Library hours of opening will vary.

Staff assisted service is available 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 Studio Collection Library

The Studio Collection is located on the second floor of the Faculty of the Built Environment. It is an undergraduate reference collection, with no lending facilities serving the day to day needs of staff and students in the Faculty. It includes monographs, a small selection of current serials and standards, these being duplicated in the Central Library. Unique materials held consist of donations, undergraduate theses, trade catalogues and an open reserve collection of specific materials left by lecturers to supplement course work. Access to the Central Library and the Studio Collection is through the Central Library’s On-Line Catalogue. The studio also provides CD-Rom and photocopying facilities. Assistance in using the Library and orientation tours are given by Ruth Buntman. In addition a printed guide on how to use the Library facilities is available.

Faculty Laboratories

Research Laboratories

The Faculty controls research laboratories situated on campus at Kensington, at the University of New South Wales Research Station, King Street, Randwick and 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 wind-rain machine, an artificial sky and sun, a structural modelling facility and a structural testing bay. The equipment and facilities of the laboratories are continually being expanded.

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 is located in the King St. laboratories and 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 100 personal computers available for general use by students in the Faculty. These laboratories are used for teaching formal classes, as well as providing general network and computing access for students. They are generally Intel-based computers ranging from older 486-based units through to Pentium-based CAD workstations. Included in this count are several SUN workstations, the bulk of them being used in a small network of CAD workstations associated with a high-end SUN SparcStation 10 operated by the Department of Industrial Design. The Faculty expects to replace 30 existing 386-style PCs with new Pentium computers at the start of 1996 to form what will be known as the Digital Media
Laboratory, supporting student use of multimedia as a presentation and communication tool.

The above facilities are generally for use by undergraduates. For postgraduate students, there are a total of around 30 dedicated computers within the Faculty, all provided by each separate School for their own students, and 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.

Active research is underway in the following areas:
- The use of computer graphics and multimedia techniques in architectural design and teaching.
- The development and use of management information systems in the building industry.
- Analysis and development of computer methods in land-use planning and design.
- Use of computers in transportation and strategic planning, social analysis and census data interpretation.

Faculty World Wide Web Site

The Internet or the Information Superhighway as it's sometimes known has seen enormous growth over the last two years. In 1994 the Faculty established a World Wide Web site <URL: http://www.arch.unsw.edu.au/>, the primary purpose of which is to disseminate information about the Faculty and the work carried out here. During 1995 the site has grown considerably. It now provides a vital resource for students and staff in the Faculty as well as being an internationally acclaimed WWW site in the Built Environment field.

The server provides detailed information about academic units within the Faculty; information about the staff of the Faculty; and exhibitions of student work. A significant feature of the site is the reference and tutorial material relating to AutoCAD which is read by up to 2000 people each week.

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 all School Offices, 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 through Mosaic or Netscape.

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 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 3855418 or at Student Services, Quadrangle Building.
Equal Opportunity in Education
Policy Statement

Under the Federal Racial Discrimination Act (1975), Sex Discrimination Act (1984), 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 sex, marital status, pregnancy, race, nationality, national or ethnic origin, colour, homosexuality or disability. 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, the Supportive English 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.

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 School.

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 School.

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

For Implementation from 1 January 1996

The University undertook a major review of the General Education program in 1994, the results of which were codified in Academic Board resolutions AB94/72 through AB94/81. These laid the ground rules for the present program, to be introduced in 1996 for students who commence undergraduate courses in that year.

Every undergraduate student (who is not otherwise exempt - see below) must take 112 hours (30 credit points) of General Education, and a further 28 hours (10 credit points) in a subject which fosters acceptance of professional environmental ethical action and social responsibility of graduates.

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.

Certain restrictions apply to students' choices:

1. Students cannot take GE subjects offered by the Faculty of the Built Environment
2. Students must not take General Education subjects which are judged by the Faculty 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 with insufficient enrollees will be cancelled.

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 1995 regarding the number of hours of General Education to be undertaken.

Previously, these hour 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 exemptions for students enrolled in single degree courses.

Student Exemptions

Students who believe that their prior learning, qualifications, and/or experience satisfy the University's General Education objectives, are eligible to seek exemption for General Education requirements which would otherwise apply to them. This includes students with a record of successful tertiary study at another institution, Mature Age Entry students, and UPP students.

Applicants for exemption must supply full written justification for their request, plus appropriate documentation, showing how they have satisfied the GE objectives. This will then be considered by the Faculty of GE Committee, which will make a determination and notify the student accordingly. The Committee's yardstick will be, in each case, the extent to which the student has already satisfied the GE objectives (as demonstrated by the argument and/or documentation presented), compared to the extent to which these objectives are satisfied by the typical student in that course who is taking all of his or her GE program at UNSW.

Substitution

Students may apply to the Faculty General Education Committee for approval to substitute any non-General subject(s) from other Faculties, for which they have the prerequisites, for General Education subjects up to a total maximum of (15 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.

Prerequisites, co-requisites, and exclusions

The Subject Authority will determine prerequisites, co-requisites, and exclusions for each GE subject.

Enquiries

Any General Education enquiries should be directed in the first instance to the Student's Course Office.
The Faculty of the Built Environment consists of the School of Architecture, the School of Building, the School of Landscape Architecture, the School of Town Planning and the Graduate School of the Built Environment and the Department of Industrial Design. These schools and this department conduct undergraduate courses in the fields of architecture, industrial design, building, quantity surveying, interior architecture, landscape architecture and town planning. The 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 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.

School of Architecture

Head of School
Professor Jon Lang

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, 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.

Bachelor of Architecture Course

Bachelor of Architecture
BArch

This course provides the academic education and practical experience leading to professional qualifications in architecture. It aims to equip students with the theoretical and practical knowledge, skills and techniques needed in the design and construction of buildings.

General Description of the Course

The course requires full time attendance for five years with an additional six months practical experience taken after the end of third year. Theoretical knowledge is covered by lectures in the following seven areas:
1. Architectural Communication
2. Theory of Architecture
3. History of Architecture
4. Architectural Construction
5. Architectural Structures
6. Environment
7. Architectural Practice

Progression through the course is by Design Stages comprising Studio and Seminar components. The first three Design Stages are of one year duration and the final four Design Stages are of one session, or half-year duration. Admission to each Design Stage is subject to completion of a majority of the components of the preceding Design Stage and certain prerequisite lecture subjects.
In the Studios a graded sequence of exercises in the form of projects provides experience in architectural design. Each Studio is accompanied by Seminars which draw on the theoretical material and demonstrate its practical application. The architectural projects designed in the Studios thus provide the means for integrating all aspects of architecture.

In the final four sessions of the course the selection of electives gives students the opportunity to concentrate their study on particular aspects of architecture. Elective subjects are offered according to demand and the availability of staff and resources.

Students at the end of First Year are required to seek the advice of a course adviser about progression to later years.

**General Education Requirement**

General Education subjects totalling 40 credit points must be taken. The Social Responsibility requirement of the General Education Program is satisfied as follows:

1. The 28 hour subject GSBE0002 is taken in Stage 5;
2. The following subjects include Social Responsibility issues: ARCH6135, ARCH6145, ARCH6302, ARCH6501 and ARCH6816.

**Practical Experience**

Each student is required to undertake 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; although other activities may be allowed after written approval has been granted.

Assessment is only within the terms of the subject ARCH6904 Practical Experience in the Bachelor of Architecture degree course 3260. The School of Architecture 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. No other subject may be taken concurrently with practical experience.

**Honours**

The Bachelor of 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.

**Registration and Professional Recognition**

The degree of Bachelor of Architecture of the University of New South Wales is recognised by the Board of Architects of New South Wales for the purposes 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 completion of the course; and 2. Pass a special examination in Architectural Practice.

Graduates with two years' approved practical experience, at least one of which is subsequent to completion of the course, 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.

The foregoing is a general statement and students are strongly advised to obtain further particulars from the RAIA and the Board of Architects of New South Wales.

**Schedule of Subjects**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sessions 1 and 2</th>
<th>CP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ARCH6201 Architectural Computing 1 (S2)</td>
<td>6</td>
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<tr>
<td></td>
<td>ARCH6301 Theory of Architecture 1</td>
<td>6</td>
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<tr>
<td></td>
<td>ARCH6401 History of Architecture 1</td>
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<tr>
<td></td>
<td>ARCH6501 Architectural Construction 1</td>
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<tr>
<td></td>
<td>ARCH6601 Architectural Structures 1</td>
<td>6</td>
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<tr>
<td></td>
<td>ARCH6701 Environment 1</td>
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<td>2</td>
<td>ARCH6101 Design Studio 1</td>
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<tr>
<td></td>
<td>ARCH6211 Communication Seminar 1</td>
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<td></td>
<td>ARCH6311 Theory Seminar 1</td>
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<td>ARCH6502 Architectural Construction 2</td>
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<td>ARCH6602 Architectural Structures 2</td>
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<td></td>
<td>ARCH6702 Environment 2</td>
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<td>General Education Elective/s (56 hours)</td>
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<tr>
<td>3</td>
<td>ARCH6102 Design Studio 2</td>
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Stage 4
ARCH6214  Architectural Computing 2 10
ARCH6924  Research Methodology 10
Elective Subject* 10

Design Stage 4
ARCH6134  Design Studio 4 20
ARCH6144  Design Seminar 1 5
ARCH6544  Technology Seminar 1 5
Total 60

Stage 5
ARCH6815  Architectural Practice A 10
2 Elective Subjects*/Dissertation 20
General Education: GSBE0002 Social Responsibility and Environmental Ethics 10

Design Stage 5
ARCH6135  Design Studio 5 20
ARCH6145  Design Seminar 2 5
ARCH6545  Technology Seminar 2 5
Total 70

Stage 6
ARCH6816  Architectural Practice B 10
2 Elective Subjects*/Dissertation 20

Design Stage 6
ARCH6136  Design Studio 6 20
ARCH6146  Design Seminar 3 5
ARCH6546  Technology Seminar 3 5
Total 60

Stage 7
3 Elective Subjects* 30
and

Design Stage 7
ARCH6137  Design Studio 7 20
ARCH6147  Design Seminar 4 5
ARCH6547  Technology Seminar 4 5
or
ARCH6127  Major Design Project 30
or
ARCH6907  Major Research Project 30
Total 60

*Elective Subjects
A range of electives will be offered each year selected from the list below. Generally, the minimum enrolment for an elective to be offered will be 12 students. The listing for electives includes an allowance for Dissertation which is a prerequisite for Design Stage 7. Students are advised to enrol in Dissertation only in the session they intend to submit for assessment and not before.
Bachelor of Interior Architecture Course

Bachelor of Interior Architecture
BIA

Interior architecture is that specialist area of professional involvement in the built environment concerned with the internal arrangement, fitting out and finishing of buildings of all sizes and types. As the name implies it differs from interior design in so far as it is more closely allied with architecture.

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

General Description of the Course

A four year full-time course, it is centred on design and built to a large extent upon a range of subjects from the Bachelor of Architecture course with 202 of the necessary course total of 540 credit points being allocated to special interior architecture subjects. The subjects fall into six categories:

1. Design
2. History
3. Theory
4. Technology
5. Communication
6. Professional Practice,

all of which have a theoretical and practical component and all of which are focussed on the Design Studio.

The first year of the course is a common year with the Bachelor of Architecture degree course. In the second, third and fourth years the course consists of increasingly more specialised interior architecture subjects. The second session of the fourth year is undertaken as a practical experience component under the guidance of an approved practitioner in consultation with staff of the School and is devoted to the production of a graduation project wherein the student must fully research, design, document and present an approved project to a high level of professional skill.

General Education Requirement

General Education subjects totalling 40 credit points must be taken during the course.

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 registered with the International Federation of Interior Architects and is structured to provide the educational prerequisites for graduates to seek membership of this body. Students enrolled in the course are eligible to apply for Student membership of the Design Institute of Australia and full Licentiate membership upon graduation.

Schedule of Subjects

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Session 2</th>
<th>CP</th>
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</thead>
<tbody>
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<td>ARCH6201</td>
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<td>ARCH5530</td>
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<td>ARCH5202</td>
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3265
Bachelor of Science (Architecture) Course

Bachelor of Science (Architecture) BSc(Arch)

This course provides architectural education for those whose interests and ambitions lie outside the field of professional practice. It offers an opportunity to select subjects on the basis of a student's individual interests.

General Description of the Course

The course may be completed in three years of full-time study. The first year is taken in common with BArch students. In each of the following three sessions an approved special research programme is undertaken followed by a research project in the final session. A selection of subjects is taken from those offered by the School of Architecture with the option of subjects totalling up to forty five credit points from outside the School. Specialisations are provided in the fields of architectural computing, heritage studies and architectural technology.

General Education Requirement

General Education subjects totalling 30 credit points must be taken during the course.

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.

Schedule of Subjects

Year 1

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Design Stage 1

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Total 68.5

Year 2

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Year 3

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Total 65.5

Year 4

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Total 70

Year 4

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<tr>
<td>ARCH5919</td>
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Total 60

The Special Research Programs, Science Seminars and Research Project may only be credited to the BSc(Arch)
degree programme. The Honours Projects may only be credited to the BSc(Arch) degree programme at Honours level.

The subjects in the BArch, BIA and BSc(Arch) courses are offered on a credit point basis which indicates the level of commitment and workload. While there is normally a relationship between credit points and class contact hours, this may not necessarily be so in all subjects.

---

School of Building

Head of School
Associate Professor Roger Miller

Undergraduate Course Director
Mr Graham Levado

3330
Building Degree Course

Bachelor of Building
BBuild

The Bachelor of Building 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.

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 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.

Prerequisites for the Course

While there are no prerequisite subjects to enter the Bachelor of Building course, it is strongly recommended that students have completed at least 2 unit Mathematics and 2 unit General English.

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 (BBuild).

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 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 112 (CP30) hours of General Education subjects taken outside the Faculty of the Built Environment.

In addition all students must complete the Faculty based general education subject GSBE0002 Social Responsibility and Environmental Ethics.

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 School;
- 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 graduation, students are required to have gained a minimum of 6 months practical experience by appropriate employment in the building industry.

Qualification for membership of the Australian Institute of Building requires that 80 days of this experience be completed before the start of the final session of the course.

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 School of Building for approval prior to starting work and 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.
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 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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BLDG4016</td>
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<tr>
<td>BLDG4275</td>
<td>Dispute Avoidance &amp; Resolution</td>
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<tr>
<td>BLDG4303</td>
<td>Quantity Surveying 3</td>
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<tr>
<td>BLDG4314</td>
<td>Building Economics 3</td>
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<tr>
<td>BLDG9998</td>
<td>Quantity Surveying Industry Program to be taken as 6 months continuous employment with a Quantity Surveying firm, and to be completed before the start of the final year of the course.</td>
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</table>

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Subject</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLDG4016</td>
<td>Construction 6</td>
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<tr>
<td>BLDG4275</td>
<td>Dispute Avoidance and Resolution</td>
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<td>BLDG4314</td>
<td>Building Economics 3</td>
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<tr>
<td>BLDG9998</td>
<td>Quantity Surveying Industry Program to be taken as 6 months continuous employment with a Quantity Surveying firm, and to be completed before the start of the final year of the course.</td>
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</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>BLDG4267</td>
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<tr>
<td>BLDG4273</td>
<td>Law for Builders 3</td>
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<td>BLDG4314</td>
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<tr>
<td>BLDG4492</td>
<td>Property Development &amp; Valuation</td>
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<tr>
<td>BLDG4391</td>
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<tr>
<td>BLDG4493</td>
<td>Property Management</td>
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</table>

and selection of a thesis topic on Land Economics.

The course is also recognised as an educational qualification for licencing by the NSW Building Services Corporation.

Schedule of Subjects

**Year 1 (All subjects compulsory)**

<table>
<thead>
<tr>
<th>Session 1</th>
<th>Subject</th>
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<tr>
<td>BLDG1091</td>
<td>Built Environment 1</td>
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<td>BLDG1111</td>
<td>Building Science 1 (Materials)</td>
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<td>BLDG1201</td>
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<td>BLDG1210</td>
<td>Construction Mathematics</td>
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General Education Elective: 7.5

**Year 2 (All subjects compulsory)**

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<td>ACCT9001</td>
<td>Introduction to Accounting A</td>
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<td>BLDG1151</td>
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<td>BLDG2003</td>
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<td>GMAT0411</td>
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General Education Elective: 7.5

**Year 3 (All subjects compulsory)**

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<td>Structures 2</td>
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<td>BLDG3266</td>
<td>Management 4 (People Management)</td>
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<td>BLDG3282</td>
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<td>BLDG3303</td>
<td>Quantity Surveying 2</td>
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<tr>
<td>GSBE0002</td>
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General Education Elective: 7.5

**Year 4 (All subjects compulsory)**

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<td>BLDG3060</td>
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CP
Department of Industrial Design

Head of Department
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, produceable, 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.

Bachelor of Industrial Design
BID

The course is an innovative 4 year industry cooperative program comprising approximately 50 percent industrial design and related subjects, 20 percent Faculty of Commerce, School of Marketing subjects and 25 percent engineering design and science 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 three 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 approximately half the subjects and are taken within the Department. 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 link subject (Product Studies Seminar), is given involving 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 Department. If a student fails the industrial design 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.

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.

Three 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 112 (30CP) hours of General Education subjects taken outside the Faculty of the Built Environment.

In addition all students must complete the Faculty based general education subject GSBE0002 Social Responsibility and Environmental Ethics.

1. The 28 hour subject GSBE0002 is taken in Year 4;

2. The following subjects include GSBE0002 issues: IDES1073, IDES2091, IDES2161, IDES2151, IDES2193, IDES3221, IDES4291, IDES4321, IDES4371, IDES4361 and IDES4382.

**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**

Credit points generally indicate the numbers of hours per week of student/staff contact for one session.

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 Department.

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**

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**Session 2**

| IDES2151  | Product Studies Seminar      |
| IDES3221  | Industrial Design Studio 3   |
| IDES3252  | Electrical Engineering Applications in Industrial Design |
| IDES3262  | Production Design & Technology for Industrial Design |
| IDES3271  | Form Theory                  |
| IDES3281  | Photography                  |
| IDES4331  | History of Consumer Products |
| IDES4341  | History of Industrial Design |
| MARK2042  | Consumer Behaviour B         |
| MARK2052  | Marketing Research           |
| GENR      | General Education Program    |

**Year 4**

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School of Landscape Architecture

Head of School
Professor James Weirick

Landscape Architecture
Degree Course

Bachelor of Landscape Architecture
BLArch

Landscape Architecture is a design discipline which is concerned with the environment as a whole. Landscape Architecture 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.

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.

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 the subjects shown.

The majority of subjects are taught specifically within the School of Landscape Architecture. However, contact with the students and staff of other Schools is assured by the inclusion of subjects from the Schools of Geography, Planning and Urban Development, Biological Science, the Department of Applied Geology and the University’s General Studies program. Staff from the School of Civil Engineering also provide instruction within the curriculum.

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 five broad strands: ecology and plant materials; history and theory of landscape architecture; communication skills; landscape planning; design documentation, construction and management.

General Education Requirement

All students are required to satisfy the University’s General Education requirements by completing 112 (30CP) hours of General Education subjects taken outside the Faculty of the Built Environment.

In addition all students must complete the Faculty based general education subject GSBE0002 Social Responsibility and Environmental Ethics.

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 under a landscape architect, landscape contractor or nurseryman. Each student entering upon practical experience must obtain prior approval of the Practical Experience Co-ordinator. Each student must obtain from the employer a statement of experience gained, maintain an accurate record in logbook form and submit a written report describing the work undertaken during the various practical experience components. This practical experience must be obtained prior to enrolling in LAND4270 Landscape Design 6.

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 after a specified period of graduate experience and formal examination.

3380
Landscape Architecture Course

Bachelor of Landscape Architecture
BLArch

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 School 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 be enrolled concurrently in the subjects of only two consecutive years, 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 School.

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

Schedule of Subjects

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*This subject includes a number of lectures and field trips for the purpose of practical observation. Students are expected to make their own transport arrangements for these trips.

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Note: Due to course revisions some subjects as listed are subject to change and approval by the University.
School of Planning and Urban Development

Head of School
Professor Alexander R Cuthbert

3360 Town Planning Course

Bachelor of Town Planning
BTP

Town Planning has as its focus the urban and rural development process, 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 organisations 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.

General Description of the Course

The course is of four years' duration with an additional mandatory year of practical experience 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 112 (30CP) hours of General Education subjects taken outside the Faculty of the Built Environment.

In addition all students must complete the Faculty based general education subject GSBE0002 Social Responsibility and Environmental Ethics.

1. In Year 4 the subject GSBE0002 is taken;

2. A number of compulsory subjects include GSBE0002 issues. These are: PLAN1021, PLAN1022, PLAN1042, PLAN2011, PLAN2051, PLAN2022, PLAN2032, PLAN3011, PLAN3021, PLAN3031, PLAN3041, PLAN3051, PLAN3012, PLAN3032, PLAN4011, PLAN4021.

Practical Experience

In the twelve months following Session 2 of Year 3 students must be engaged in 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. The type of employment proposed must be submitted to the Head of the School of Planning and Urban Development 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.

Professional Recognition

The course is recognised by the Royal Australian Planning Institute as an 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

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<td>PLAN2042</td>
<td>History of Urban Planning</td>
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### Year 3

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

### Year 4

#### Session 1

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*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

Descriptions of all subjects are presented in alphanumeric order within organisational units. For academic advice regarding a particular subject consult with the contact for the subject as listed. A guide to abbreviations and prefixes is included in the chapter ‘Handbook Guide’, appearing earlier in this book.

General Education Subjects

The student is to refer to the General Education Handbook for details of subjects available in these areas.

GSBE0002
Social Responsibility and Environmental Ethics
Staff Contact: Dr R Samuels, Architecture School
CP10

The aim of the 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 the 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 of students from all schools in the Faculty. Assessment will include individual and collaborative submissions.

Bachelor of Architecture

Core Subjects

Architectural Design Studio

Architectural synthesis is the central function of the design studio, the locus of the application of knowledge gained in the lectures and seminars. The vehicles for study are projects and exercises of increasing depth and complexity covering a wide range of building types. Students are encouraged to seek design solutions which cater for the full range of human needs and aspirations. The studios provide continuing opportunities to consider environmental, social, historic, aesthetic, technical and professional factors affecting architecture and the architect’s role in the community.

ARCH6101
Design Studio 1
Staff Contact: School Office
CP24

Analysis of the natural and built environment to develop an awareness of physical environment and the forces determining built form. An understanding of man’s functions, activities and aspirations and of the architects’ essentially creative and conceptual role.

Introductory studio focusing on the application of design method through simple three dimensional design exercises culminating in the design of simple, small-scale buildings and an understanding of the parameters of design.

ARCH6102
Design Studio 2
Staff Contact: School Office
CP30
Prerequisites: ARCH6101, ARCH6501, ARCH6601, ARCH6701, four from ARCH6211, ARCH6311, ARCH6511, ARCH6611, ARCH6711

The design of simple residential and non-residential buildings with few spaces, relatively simple functional relationships for clearly defined and familiar user groups on straightforward sites requiring basic contextual understanding. Integration of basic structural, constructional, servicing and environmental control concepts. The development of design method.

ARCH6103
Design Studio 3
Staff Contact: School Office
CP30
Prerequisites: ARCH6102, ARCH6502, ARCH6602, ARCH6702, four from ARCH6212, ARCH6312, ARCH6512, ARCH6612, ARCH6712

The design of non-residential projects of moderate complexity and scale with more demanding siting and contextual consideration and more complex and less familiar user needs including some adaptive reuse.

Further emphasis on design method. Development of structure, construction, services, environmental control, building regulations and landscape design. Some group work, but largely individual work.

ARCH6134
Design Studio 4
Staff Contact: School Office
CP20
Prerequisites: ARCH6103, ARCH6503, ARCH6603, ARCH6703, four from ARCH6213, ARCH6313, ARCH6513, ARCH6613, ARCH6713

The design of small-scale buildings in considerable depth including detailed design of internal and external spaces including material and colour choices, fixtures and fittings, construction detailing, services and environmental control.

ARCH6135
Design Studio 5
Staff Contact: School Office
CP20
Prerequisites: ARCH6134, ARCH6144, ARCH6544

The design of a relatively complex and large scale development, incorporating residential, involving a range of user groups. Resolution of conflicting issues such as site constraints, planning controls and building regulations, environmental context and the social role of the development. Group and individual work with an emphasis on urban design.
ARCH6136
Design Studio 6
Staff Contact: School Office
CP20
Prerequisites: ARCH6135, ARCH6145, ARCH6545, ARCH6904

Exploration and resolution of relatively complex human activities not necessarily of a familiar pattern for non-residential buildings, with emphasis on integration of structure, construction, services and environmental controls at an advanced level and contemporary technology.

ARCH6137
Design Studio 7
Staff Contact: School Office
CP20
Prerequisites: ARCH6136, ARCH6146, ARCH6546, ARCH6900

This subject represents the culmination of the BArch course for all students except those who take the Major Design Project or Research Project. It comprises a design project resolved in depth in all areas of architecture, including architectural design, urban design, interior design, construction, structure, services, acoustics, lighting and practice and management.

ARCH6144
Design Seminar 1
Staff Contact: School Office
CP5
Prerequisites: ARCH6103, ARCH6503, ARCH6603, ARCH6703, four from ARCH6213, ARCH6313, ARCH6513, ARCH6613, ARCH6713

Development and presentation of design and theory issues related to design projects in Design Studio 4.

ARCH6145
Design Seminar 2
Staff Contact: School Office
CP5
Prerequisites: ARCH6134, ARCH6144, ARCH6544

Development and presentation of design and theory issues related to design projects in Design Studio 5.

ARCH6146
Design Seminar 3
Staff Contact: School Office
CP5
Prerequisites: ARCH6135, ARCH6145, ARCH6545, ARCH6904

Development and presentation of design and theory issues related to design projects in Design Studio 6.

ARCH6147
Design Seminar 4
Staff Contact: School Office
CP5
Prerequisites: ARCH6136, ARCH6146, ARCH6546, ARCH6900

Development and presentation of design and theory issues related to design projects in Design Studio 7.

ARCH6127
Major Design Project
Staff Contact: School Office
CP30
Prerequisite: By approval

Under supervision of an individual member of staff, with a supportive package of Electives (C20) which are closely related to and form part of the final submission.

The scope and size of this project will have been agreed between the student, his/her supervisor and the School Committee set up to oversee these projects at least one session before enrolment in this subject. Much of the preliminary information gathering, site information, and associated research will have been done in the seminars and architectural research project during the preceding session.

The end result of this Major Design Project would be a building or a group of buildings of extremely high standard resolved in detail-structure, finishes, furnishings, environmental control, etc.

Architectural Communication

Objectives: To develop skills in oral, written and graphic communication; to introduce students to experimentation with materials and techniques in the context of current architectural thinking, and to expose them to new or less well known techniques and media. To that end, the first year of the course is geared to the development of skills and the later years to more experimental work.

ARCH6201
Architectural Computing 1
Staff Contact: School Office
CP6

An introduction to the technology of computing as it pertains to the practice of Architecture and Design. 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 architects. Emphasis is on the modelling of graphics information, including an introduction to CAD concepts and techniques. Basic principles of computer technology and programming are explained. Students engage in hands-on computer exercises to consolidate the knowledge gained in the lectures.

ARCH6214
Architectural Computing 2
Staff Contact: School Office
CP10
Prerequisite: ARCH6201

Advanced course in the techniques and processes of 2D and 3D computer-aided drafting for the production of architectural drawings and models. Hands-on experience: staged tutorial exercises and self-directed documentation tasks.

ARCH6211
Communication Seminar 1
Staff Contact: School Office
CP18

By the end of first year, students will be expected to present their final design project by means of the following: a set of presentation drawings, rendered in colour orthographics,
axonometric or isometric, perspective and simple construction drawings as required to explain the project fully. A model, written statement of intent and a verbal presentation to a jury will also be required.
To achieve this, they will receive information and practice in the following: drafting and drawing skills, with instruments and freehand, orthographic projection, axonometric, isometric, perspective, colour theory, rendering techniques, variety of media, model making, library use, study and research skills, scholarly writing, report and letter writing and oral presentation.

ARCH6212
Communication Seminar 2
Staff Contact: School Office
CP12
Prerequisites: ARCH6101, ARCH6501, ARCH6601, ARCH6701, four from ARCH6211, ARCH6311, ARCH6511, ARCH6611, ARCH6711

To experiment with a range of dry techniques for presentation. Elementary exercises in two and three dimensional composition in combination with advanced colour theory studies. Architectural model making using various techniques. Observational drawing exercises. Library use, study and research skills.
Use of the computer for simple three-dimensional modelling of building form: form analysis; massing; visualisation and perspective. Hands-on tutorial exercises linked to Studio design work. (3 cp segment of whole.)

ARCH6213
Communication Seminar 3
Staff Contact: School Office
CP12
Prerequisites: ARCH6102, ARCH6502, ARCH6602, ARCH6702, four from ARCH6212, ARCH6312, ARCH6512, ARCH6612, ARCH6712

To experiment with a range of wet techniques for presentation. Advanced exercises in three dimensional composition and the display of this through two dimensional presentation techniques including overlays and collages. Introduction to architectural and model photography, dark room techniques, and lighting theory. Jury and sales techniques. Advanced exercises in scholarly writing, report and letter writing and oral presentation.

Theory of Architecture

Objective: To provide a theoretical overview of the discipline of architecture and to explain the basis for and the limitations of its concepts, themes and practices.

ARCH6301
Theory of Architecture 1
Staff Contact: School Office
CP6

The role of theory; theoretical terms and concepts used in architecture and design; designing as process; human constructs in architecture.
Studies and readings of selected writings and theories in architecture and related disciplines.

ARCH6302
Theory of Architecture 2
Staff Contact: School Office
CP6
Prerequisite: ARCH6301

Formulations of the way architects conceive and design; social and behavioural considerations; selected architectural beliefs and values; relational and ordering systems in architecture.
Studies and readings of selected writings and theories in architecture and related disciplines.

ARCH6303
Theory of Architecture 3
Staff Contact: School Office
CP6
Prerequisite: ARCH6302

Architectural positions and movements; aesthetic and symbolic aspects of architecture; urban and contextual issues; ethical considerations; criticism and evaluation.
Studies and readings of selected writings and theories in architecture and related disciplines.

ARCH6311
Theory Seminar 1
Staff Contact: School Office
CP9

Discussion of and exercises embracing the concepts, themes and practices raised in ARCH6301 Theory of Architecture 1 related to projects in Design Studio 1.

ARCH6312
Theory Seminar 2
Staff Contact: School Office
CP9
Prerequisites: ARCH6101, ARCH6501, ARCH6601, ARCH6701, four from ARCH6211, ARCH6311, ARCH6511, ARCH6611, ARCH6711

Discussion of and exercises embracing the concepts, themes and practices raised in ARCH6302 Theory of Architecture 2 related to projects in Design Studio 2.

ARCH6313
Theory Seminar 3
Staff Contact: School Office
CP9
Prerequisites: ARCH6102, ARCH6502, ARCH6602, ARCH6702, four from ARCH6212, ARCH6312, ARCH6512, ARCH6612, ARCH6712

Discussion of and exercises embracing the concepts, themes and practices raised in ARCH6103 Theory of Architecture 3 related to projects in Design Studio 3.

History of Architecture

Objective: To provide an overall view of the historical development of architecture, and its achievements within different cultural traditions, with reference, where appropriate, to Australian architecture, with a view to giving the student a fuller awareness of design, and the objectives and influences that shape it.
ARCH6401
History of Architecture 1
*Staff Contact: School Office CP9*
Discussion of historical buildings and texts and the tools of the architectural historian, i.e., formal analyses of buildings, the use of manifestos and texts, and historiographical conventions.

General chronological exploration of selected buildings and architectural practices with emphasis on the range of influences on architecture, e.g., cultural institutions and power structures; other arts such as music, painting, theatre; technology and material developments; models of urbanity; history of ideas in architecture.

Discussion and analysis of past definitions of history and architecture examining issues regarding taste, morality, style, continuity and an examination of many of the ideologies and attitudes arising from modernism.

ARCH6402
History of Architecture 2
*Staff Contact: School Office CP12*
Prerequisite: ARCH6401
A selection of theme units which broach both the conceptual structures and theoretical borders of architecture. Themes for this subject will include Aspects of Classicism; Romantic Classicism and the Picturesque; Craft Traditions and the Vernacular; Rituals in Urban Settlement; Historiography.

ARCH6403
History of Architecture 3
*Staff Contact: School Office CP12*
Prerequisite: ARCH6402
Extends the range of theme units initiated in History of Architecture 2, including the following: Modernity and Modernism; Australia and the Architecture of Western Imperialism; National and Regional Images in Australian Architecture; Power Structures and Popular Culture as Architectonic Forces in The City; Readings on Modern and PostModern Imagery.

**Architectural Construction**

**Objective:** To develop breadth and depth in the understanding of the basic rationale governing the construction of buildings. Emphasis is placed upon design decisions which lead firstly to the selection of appropriate constructional systems and then to careful detail design. The theoretical field is mapped in the lecture series with complimentary exercises in practical application pursued in seminars, generally linked to studio projects. Progression is made from the study of the more familiar and small scale building types to that of larger scale buildings of a more complex technological nature.

ARCH6501
Architectural Construction 1
*Staff Contact: School Office CP9*
Introduction to the principles of architectural construction and their application to the design of simple, small-scale buildings. Architectural construction as a design activity and its relationship to building materials, structure, services, process and regulation. Basic building materials, systems and processes and their historic development. Introduction to materials science. Basic structure, properties, manufacturing techniques, use and performance of materials in building and artifact design. Introduction to construction drawing practice and use of resource materials.

ARCH6502
Architectural Construction 2
*Staff Contact: School Office CP12*
Prerequisite: ARCH6501
The principles of architectural construction applied to the design of buildings of moderate scale and complexity through a detailed analysis of common constructional systems, their elements, components, assembly methods, detailing, construction processes and regulatory controls. Suitability, application and performance of principal construction materials including timber, masonry, steel and concrete. Durability, movement and moisture control. Resource materials, dimensional co-ordination and construction drawing practice.

ARCH6503
Architectural Construction 3
*Staff Contact: School Office CP12*
Prerequisite: ARCH6502
The principles of architectural construction applied to the design of complex and large scale buildings. Appropriate construction systems, materials and organisation of the building process. Detailed analysis of junctions and connections between elements, components, materials and finishes. Construction durability, weathering and failure, regulatory controls, fire safety and protection. Rationalised systems, prefabrication, modular co-ordination and construction documentation.

ARCH6511
Construction Seminar 1
*Staff Contact: School Office CP12*
Exercises in the practical application of materials science and the principles of architectural construction. Emphasis on the exploration of basic building materials, systems and processes, dimensional co-ordination and construction drawing related where possible to Design Studio 1 communication and design projects.

ARCH6512
Construction Seminar 2
*Staff Contact: School Office CP9*
Prerequisites: ARCH6101, ARCH6501, ARCH6601, ARCH6701, four from ARCH6211, ARCH6311, ARCH6511, ARCH6611, ARCH6711
Exercises in the practical application of the principles of architectural construction to the design of small scale buildings. Emphasis on common constructional systems using timber, masonry, steel and concrete, resource and reference information, dimensional co-ordination and construction drawing practice related where possible to Design Studio 2 design projects.
ARCH6513
Construction Seminar 3  
Staff Contact: School Office  
CP9  
Prerequisites: ARCH6102, ARCH6502, ARCH6602, ARCH6702, four from ARCH6212, ARCH6312, ARCH6512, ARCH6612, ARCH6712  
Exercises in the practical application of the principles of architectural construction to the design of buildings of moderate scale and complexity. Emphasis on construction detailing as well as the general resolution of constructional systems related where possible to Design Studio 3 design projects.

ARCH6544
Technology Seminar 1  
Staff Contact: School Office  
CP5  
Prerequisites: ARCH6103, ARCH6503, ARCH6603, ARCH6703, four from ARCH6213, ARCH6313, ARCH6513, ARCH6613, ARCH6713  
Studies in the selection and application of structural and constructional systems, building materials and processes appropriate to Design Studio 4 design projects.

ARCH6545
Technology Seminar 2  
Staff Contact: School Office  
CP5  
Prerequisites: ARCH6134, ARCH6144, ARCH6544  
Studies in the selection and application of structural and constructional systems, building materials and processes appropriate to Design Studio 5 design projects.

ARCH6546
Technology Seminar 3  
Staff Contact: School Office  
CP5  
Prerequisites: ARCH6135, ARCH6145, ARCH6545, ARCH6904  
Studies in the selection and application of structural and constructional systems, building materials and processes appropriate to Design Studio 6 design projects.

ARCH6547
Technology Seminar 4  
Staff Contact: School Office  
CP5  
Prerequisites: ARCH6136, ARCH6146, ARCH6546, ARCH6900  
Studies in the selection and application of structural and constructional systems, building materials and processes appropriate to the Design Studio 7 design project.

Aspects of climate, thermal, lighting or acoustics will be incorporated into the seminar program, appropriate to the current studio topics.

Architectural Structures  
Objective: To understand basic forces and the means of resisting them, to know the main structural systems used in buildings, to understand the relation of structure to architectural form as a basis for creative collaboration with structural consultants.

ARCH6601
Architectural Structures 1  
Staff Contact: School Office  
CP6  
General introduction to structures, their development and their role; natural and man-made structures.

Basic structural concepts; load, force, flow of force (loadpath); graphical and mathematical resolution of forces, equilibrium; moment (overturning); stability (element, assembly), strength and stiffness, supports and connections; types of loads; stress (tension, compression, shear, bending, torsion), strain, modulus of elasticity.

Basic structural elements and assemblies: cable and arch, strut and column, beam, truss, frame, grid, plate/slab, vault and dome, tent and pneumatic.

Elemental structural behaviour applied to the above: load application, loadpaths, connections, reactions at supports/connections, internal forces (stresses).

Graphical techniques and models as means for structural behaviour studies.

ARCH6602
Architectural Structures 2  
Staff Contact: School Office  
CP6  
Prerequisite: ARCH6601  
The structural design and analysis process: definition of the structural task in relation to an architectural concept, system options and choice, establishment of loads and loadpaths (stability concept), estimation of loads, structural safety concept; satisfying equilibrium requirements; establishment of external and internal forces; sizing of elements.

Selective study of structural behaviour and application of the structural design and analysis process to simple structural assemblies (post/beam, frame, cable-stayed systems, truss, grid, plate/slab etc.) Graphic techniques and models as means for structural behaviour studies.

ARCH6603
Architectural Structures 3  
Staff Contact: School Office  
CP6  
Prerequisite: ARCH6602  
Constructional aspects of structures; structural design related to materials (timber, steel, concrete and composites), foundations, connections and joints.

The morphology of structures, structural shape, structural systems; efficiency (the 'lightweight' concept), structural systems for widespanning and high-rise structures, selective studies of structural behaviour.
ARCH6611
Structures Seminar 1
Staff Contact: School Office
CP6
Exercises aimed at developing an understanding of basic structural concepts and the fundamental behaviour of structural elements, related where appropriate to Design Studio 1 design projects.

ARCH6612
Structures Seminar 2
Staff Contact: School Office
CP6
Prerequisites: ARCH6101, ARCH6501, ARCH6601, ARCH6701; four from ARCH6211, ARCH6311, ARCH6511, ARCH6611, ARCH6711
Exercises in the behaviour, selection, analysis and design of simple structural assemblages, related where appropriate to Design Studio 2 design projects.

ARCH6613
Structures Seminar 3
Staff Contact: School Office
CP6
Prerequisites: ARCH6102, ARCH6502, ARCH6602, ARCH6702; four from ARCH6212, ARCH6312, ARCH6512, ARCH6612, ARCH6712
Exercises in the constructional aspects of structures, with particular emphasis on the characteristics of current and evolving structural systems, related where appropriate to Design Studio 3 design projects.

Environment

Objective: To present to students the theory in thermal behaviour, daylight, electric lighting, acoustics and air quality of buildings and the services to buildings in the context of contemporary building design. To present the principles of energy conservation and environmental impact to enable students to develop appropriate design strategies.

ARCH6701
Environment 1
Staff Contact: School Office
CP9
Human response to the environment, thermal, visual and acoustic comfort and air quality. Climate and the sunlighting and daylighting of buildings. Subjective and objective assessments of aural, visual and thermal environments and their integration. Laboratory work and field studies.
The building envelope: Thermal performance; principles of heat transfer, solar radiation effects, absorptivity, reflectivity, conduction, thermal gradients, condensation and thermal insulation. Acoustic performance; properties and behaviour of sound, sound transmission loss, external noise levels, selection of building envelope elements.
Daylighting performance: traditional methods of daylighting buildings, application of prediction methods, patterns of innovation and change, advanced glazing technologies. Integration of heat, light and sound in building envelope design.

ARCH6702
Environment 2
Staff Contact: School Office
CP12
Prerequisite: ARCH6701
Thermal evaluation design tools, correlation and simulation models, degree day concept, the control of sunlight. Quantitative and qualitative aspects of lighting design, electric light sources, light control and prediction methods. Design of rooms, basic shape and volume, acceptable ambient sound levels, structure borne and impact sound, reverberation times, selection of interior building materials and elements.
Thermal mass and its effects, air movement and ventilation, introduction to solar passive design and case studies. Integration of daylight with electric light, lighting for energy conservation, application and evaluation of light in interiors, case and field studies. Buildings for education, music and places of assembly. Integration of thermal, lighting and acoustic design implications.

ARCH6703
Environment 3
Staff Contact: School Office
CP12
Prerequisite: ARCH6702
Building services; Sources and distribution of water, wastes and energy supplies, application of electric power, hydraulics, vertical transport, fire protection in buildings, equipment selection and space allocation.
Air conditioning, heating and ventilating of buildings, design of systems, selection of equipment and allocation of space.
and allocation of space. Application of thermal, lighting and acoustics principles to promote human comfort in buildings.

**Architectural Practice**

**Objective:** To introduce aspects of professional ethics, management and administration and to develop communication skills relevant to architectural practice.

**ARCH6815 Architectural Practice A**

*Staff Contact: School Office*  
*CP10*  
*Prerequisite: ARCH6103*


**ARCH6816 Architectural Practice B**

*Staff Contact: School Office*  
*CP10*  
*Prerequisite: ARCH6815*


**Other Required Studies**

**ARCH6904 Practical Experience**

*Staff Contact: School Office*  
*CP0*  
*Prerequisite: ARCH6101*

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 Studio 6 of the Bachelor of Architecture course. The minimum single period of approved activity shall be eight weeks which must be taken outside of session such as during the summer breaks. Students undertaking this activity during session shall not be enrolled in any other subjects.

The School strongly recommends that all students plan to undertake at least one full semester of full time employment with a registered architect. The School further strongly recommends that each student spend some time undertaking an architectural study tour overseas for at least a semester during the course of their studies.

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 (RAIA or its equivalent in other countries) or other suitable documentation of approved activities such as an annotated and or illustrated diary in accordance with the guidelines issued by the School.

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

Where students choose to undertake practical experience with a registered architect, the School takes no responsibility for any assessment or consideration for registration with the Board of Architects of NSW or membership of the Royal Australian Institute of Architects or any other like body overseas.

**ARCH6900 Dissertation**

*Staff Contact: School Office*  
*CP20*  
*Prerequisite: ARCH6924*

A dissertation is a formal and scholarly piece of writing demonstrating a student’s ability to thoroughly investigate a selected topic of interest to the student. In order to achieve a high standard, students are encouraged to thoroughly investigate a concise topic; broad surveys tend to result in superficial generalities. At an undergraduate level it is not a requirement to undertake new research, although students wishing to do so will be given encouragement and assistance by the staff. All students will need to develop a bibliography and demonstrate an ability to critically evaluate the data and the interpretive arguments presented. Some may wish to undertake empirical and/or field research into a feasible aspect of the topic, present and analyse the data using some form of statistical analysis, then draw some conclusions. Opportunities occasionally occur for students to work closely with a member of staff on a major research project. In these instances staff will seek out interested students and/or students can approach staff members. The staff member will closely supervise research while expecting some independent contribution from the student, and will guarantee to acknowledge all satisfactory student contributions when tabling and publishing the results.

All 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, include good graphic presentation of relevant data, and be word processed in A4 format. Submissions will normally be about 10,000 words and be submitted by Friday of Week 14.

**ARCH6907 Major Research Project**

*Staff Contact: School Office*  
*CP30*  
*Prerequisite: By approval*

Under supervision of an individual member of staff, with a supportive package of Electives (C20) which are closely related to and form part of the final submission. Students who have approval to take this subject may be exempt from Dissertation and permitted to make up credit points by taking appropriate electives.

The scope and format of this project will have been agreed between the student, his/her supervisor and the School.

*Prerequisite: By approval*
Committee set up to oversee these projects at least one session before enrolment in this subject. Much of the preliminary information gathering will have been done in the seminars and architectural research project during the preceding session.

The end result of this project will be a research project of extremely high quality in a discipline related to the study of Architecture and of particular interest to the student.

ARCH6924
Research Methodology
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

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 School. 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.

Elective Subjects

ARCH5200
Computer Graphics Programming
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

Introduction to the fundamentals of interactive computer graphics programming. Advanced techniques including mouse-based input, menu-based interfaces and colour manipulation. Assessment will be through the development of an interactive computer graphics application.

ARCH5201
Computer Applications 1
Staff Contact: School Office
CP10
Prerequisite: ARCH6214

Computer modelling and rendering. This subject introduces the concepts and practices of modelling building spaces, including surface textures, lighting and animation. Students will produce a model of an interior space (of a specified type).

ARCH5202
Computer Applications 2
Staff Contact: School Office
CP10
Prerequisite: ARCH6201, ARCH6214

An exploration of CAD as a building modelling process and its implication for the future of architectural documentation. Topics covered include: emerging CAD data transfer standards; interaction of CAD with databases; conceptual building models; future directions. Assessment based on the implementation of a CAD-based building model.
and training. Assessment is by means of projects and student seminars.

ARCH5208
Advanced Graphics
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
A theoretical and practical study of the relationship between the visual and the plastic arts. Media and material studies. Development of a professional level of performance in adapting graphic theory and techniques to contemporary needs.

ARCH5209
Drawing
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
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.

ARCH5210
Painting
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
Investigation into colour theory; the history of painting; technique and media as well as the various disciplines of still life, landscape, portraiture and figure painting. The subject is studio-based incorporating lectures, discussions and demonstrations. Gallery visits and field trips will be incorporated.

ARCH5211
Pottery and Ceramics
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
Introduction to the geology of ceramic raw materials and their physical and chemical nature. The characteristics of earthenware, stoneware, and porcelain. Glazes, kilns and forming methods. Laboratory and studio; handbuilding, introductory throwing and design in pottery and ceramics.

ARCH5212
Rendering
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
Advanced architectural rendering.

ARCH5300
Theory of Form
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
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.

ARCH5301
Criticism and Evaluation
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
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 a 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. Classes will be in the form of seminars in which all students are expected to participate actively.

ARCH5302
Imagination
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
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. Seminars and practical projects focus on selected case studies.

ARCH5303
Spirit in Architecture
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
Spatial symbolism and intellectual intuition, principles, and methods of sacred architecture. Spiritual doctrine reflected in the layout of Judao-Christian architecture with reference to the Architecture of sacred traditions. Seminars and practical projects focus on selected case studies.

ARCH5304
Spatial Construction Studies
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
A rigorous and disciplined examination of skilfully, that is artfully, designed works of art. 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.

ARCH5400
Recent Australian Architects
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
Detailed study of the theories and work of selected Australian architects.

ARCH5401
Great Architects
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
Detailed study of the theories and work of selected architects throughout history. Normally four architects will be studied, two from the 20th century and two prior to the 20th century.

ARCH5402
The City Sydney
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
Studies of the social and technological systems that determine the form of contemporary cities. Government systems and controls, land and development economics, land use, transport, services. Sydney as a case study.

ARCH5403
Urban Design
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
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.

ARCH5404
Landscape Design
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
Aesthetic appreciation of chosen environments both urban and natural. The treatment of spaces between and upon buildings. 'Hard' and 'soft' landscape treatments. Functional uses of open space within the built environment and the design of street furniture.

ARCH5405
The Modern Movement in Architecture
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
A detailed illustrated examination of the architecture and architects who make up this movement from 1885-1965 from Chicago to Europe then to USA and Europe. A study of Australian examples of this movement.

ARCH5406
Post Modernism in Architecture
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
The rise of Post Modernism as both a reaction to, and a continuation of the Modern Movement. The subject will attempt to define the various aspects of Post Modern architecture to include Deconstruction. Period covered 1964-1991.

ARCH5407
Architecture and Culture
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
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'.

ARCH5408
Japanese Architecture
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
An exploration of contemporary and contrasting styles. Katsura Detached Palace and the Nikko Tōshō-gū were both started in the first half of the seventeenth century. They present two very different design attitudes and together incorporate influences from almost all major forms of earlier Japanese architecture. This subject uses the two buildings as starting points for analysing and assessing the religious, social, and artistic factors which produce a 'Japanese aesthetic' including not only buildings but a total environment.

There will be one examination which will take the form of a simple model with explanatory notes.
ARCH5409
Public Art
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

This elective will examine 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 second 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 school-based project on public art, architecture and urban design in Sydney.

ARCH5410
Readings in Architecture
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

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.

ARCH5411
Building Conservation 1
Staff Contact: School Office
CP10
Prerequisite: ARCH6103


ARCH5412
Building Conservation 2
Staff Contact: School Office
CP10
Prerequisite: ARCH5411

The conservation of the built environment. Individual buildings structures precincts and urban areas. Local environment plans and regional environment plans. The range of building stock available for conservation. The concepts of regaining and retaining significance. The conservation plan, its preparation and implementation. The concepts of constraints, opportunities and issues pertaining to a place. The analysis and critical appraisal of conservation plans prepared for a range of buildings. The practical preparation of a conservation plan for a item of the environment heritage.

ARCH5413
Conservation Technology
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

The range nature and significance of building structures and relics of the past. The development of technology/Sydney. The development of the shipping, rail and road transport systems; the development of hydraulic power, electricity generation and gas production and their extent remains. The assessment of items of environmental heritage. The nature of materials used in a range of structures. Causes of decay and corrosion in a wide spectrum of materials, their prevention and cure.

ARCH5414
Conservation Management
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

The conservation and maintenance of heritage assets, including building structures, relics and systems. The Environmental Protection and Assessment Act. The interpretation of heritage assets. The problems associated with visitation, including restricted and unrestricted access. The issues of public safety, indemnity insurance, acceptable decrease in significance and community expectations and participation. The role of museums and museum societies in conservation and interpretation of items of the environmental heritage.

ARCH5500
Advanced Building Materials (Ceramics)
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

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.

ARCH5501
Advanced Construction Systems
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

A review of recent developments, current trends and possible future directions in building design, construction systems, detailing and documentation. Case studies, projects, seminars.
ARCH5502
Construction Planning and Management
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

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.

ARCH5503
Advanced Building Materials (Organics)
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

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.

ARCH5504
Advanced Building Materials (Metals)
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

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.

ARCH5600
Conceptual Structural Design
Staff Contact: School Office
CP10
Prerequisites: ARCH6103, ARCH6503, ARCH6603

Choice of systems and their behaviour; scale, structural shape as a visual element in architectural design; conceptual design methods and structural shape-finding and shape-determination methods using analytical, model and computer methods. Model and computer laboratory exercises and project.

ARCH5601
Advanced Structural Design
Staff Contact: School Office
CP10
Prerequisite: ARCH5600

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.

ARCH5602
Lightweight Structural Design
Staff Contact: School Office
CP10
Prerequisites: ARCH6503, ARCH6603, ARCH6134


ARCH5700
Design for Energy Efficiency
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

The design of environmentally sustainable and energy efficient buildings. The use of technologies and their innovative integration in buildings to assist energy use minimisation. Demand side energy issues and energy supply options, especially renewable energy technologies. The use of computer simulation to study energy performance of buildings.

ARCH5701
Design of Lighting
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

Major factors influencing design and application in buildings. Evaluation of impact of current technologies on lighting using computer simulations, appraisals and model studies. Design project.

ARCH5702
Acoustics Studies
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

Experimental investigation and research in a selected aspect of acoustics. Laboratory and field work, methodology of results, development of techniques of application. Laboratory work.

ARCH5703
Applied Environmental Psychology
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

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.
ARCH5800
Building Economics & Development
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
1. The Economy: structure of the economy. History and development of modern economics. 2. Investment investigation in buildings, property (public and private), large scale, small scale. 3. Valuation; statutory valuations, market value, unimproved and improved land depreciation and obsolescence, valuation of improvements, valuation law, land laws. 4. Feasibility; economic models, optimisation, feasibility studies on small-medium-large-scale development and subdivisions. 5. Rationalised Building: dimensional control, component technology, building systems, cost planning. 6. Seminars.

ARCH5801
Project Management
Staff Contact: School Office
CP10
Prerequisite: ARCH6103
1. Principles of scientific management and organisation, 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 organisation. 7. Seminars.

ARCH5802
The Architect and the Law
Staff Contact: School Office
CP10
Prerequisite: ARCH6103

ARCH5803
Quality Management Concepts and Practice
Staff Contact: School Office
CP10
Prerequisite: ARCH6816
The basic principles of quality management including quality control, quality assurance and the design of quality systems. Exploration of issues relating to the quality of design and procurement process and of the end product of the construction process. Relevance of Australian standards and professional manuals in quality assurance. Application of the concepts of quality management. Preparation, documentation and evaluation of quality systems. Industrial and site visits.

ARCH5900
Architectural Studies 1
Staff Contact: School Office
CP10
Prerequisite: ARCH6924
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 School 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 School. 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 5,000 words and be submitted by Friday of Week 13.

ARCH5901
Architectural Studies 2
Staff Contact: School Office
CP10
Prerequisite: ARCH5900
The intellectual and procedural requirements for this subject are as described in ARCH5900. 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 5,000 words and be submitted by Friday of Week 13.

ARCH5902
Architectural Studies 3
Staff Contact: School Office
CP10
Prerequisite: ARCH5901
The intellectual and procedural requirements for this subject are as described in ARCH5900. 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 5,000 words and be submitted by Friday of Week 13.

Bachelor of Interior Architecture

Core subjects
The following subject descriptions are for those core subjects specific to the Bachelor of Interior Architecture. For descriptions of all Architecture subjects which make up the rest of the core of this course refer to the Bachelor of Architecture subject descriptions.

ARCH5960
Interior Design Studio 1
CP36
Prerequisite: ARCH6101
A series of interior design projects dealing predominantly with small to medium scale domestic and commercial interiors interspersed with a number of basic design and colour theory exercises.
ARCH5961  
*Interior Design Studio 2*  
CP36  
*Prerequisite: ARCH5960*

A series of interior design projects dealing with subjects selected from small to large scale community, commercial, heritage, public and semi-public interiors interspersed with a number of basic design and colour theory exercises.

ARCH5962  
*Interior Design Studio 3*  
CP18  
*Prerequisite: ARCH5961*

A subject requiring a very high level of development of a design project selected from predominantly large-scale community, commercial, heritage, public and semi-public interiors.

ARCH5963  
*Interior Design Research Project*  
CP12  
*Prerequisite: ARCH5961*

Research specifically for the Graduation Project submitted for assessment based on the demonstration of a professional level of research and presentation skills.

ARCH5964  
*Interior Design Graduation Project*  
CP60  
*Prerequisite: ARCH5963*

An approved interior design project thoroughly executed from first client contact to at least the completion of all documentation to a standard accepted as fully professional. To be monitored by means of regular appointments with a supervising member of staff.

ARCH5428  
*History of Art & Design 1*  
CP6  
*Prerequisite: ARCH6401*

A series of lectures dealing with the cultural significance of art and design throughout history with particular reference to the cultural and artistic heritage of the western world.

ARCH5429  
*History of Art and Design 2*  
CP6  
*Prerequisite: ARCH5428*

A series of lectures devoted to a study of the history of art and design with particular reference to furniture design and interior design of the twentieth century.

ARCH5525  
*Furniture Design 1*  
CP6  
*Prerequisite: ARCH6101*

A series of research and design projects concentrating on the design and manufacture of furniture and furnishings. Practical work.

ARCH5526  
*Furniture Design 2*  
CP6  
*Prerequisite: ARCH5525*

A series of research and design projects following on from Furniture Design 1 concentrating on the design and manufacture of furniture and furnishings. Practical work.

ARCH5529  
*Fabric Design*  
CP6  
*Prerequisite: ARCH6101*

A series of fabric design projects exploring the history, practice and theory of a wide range of techniques of weaving, dying, printing and use of fabrics used in interiors.

ARCH5530  
*Interior Materials and Finishes*  
CP10  
*Prerequisite: ARCH6101*

A series of talks and seminars based on set research projects focusing on the manufacture, properties, characteristics and uses of a range of materials and finishes used in interiors. Students will be required to investigate materials and finishes in a wide spectrum of categories and present their findings in the seminars. Excursions to factories, buildings and showrooms.

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**Bachelor of Science (Architecture)**

**Core Subjects**

ARCH6924  
*Research Methodology*  
*Staff Contact: School Office*  
CP10  
*Prerequisite: ARCH6101*

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 School. 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.

ARCH5914  
*Special Research Programme 1*  
*Staff Contact: School Office*  
CP15  
*Prerequisite: Head of School's approval*

Introductory programme on a topic area selected by the student in accordance with his or her field of specialisation. Approval of topic by Head of School and supervision by appropriate staff is required. The special research programmes provide the opportunity to practice research
methods, planning, organising and conducting and documenting study in the chosen field.

ARCH5915
Special Research Programme 2
Staff Contact: School Office
CP15
Prerequisites: ARCH5914 or equivalent, Head of School’s approval

Further development of the topic previously selected by the student in ARCH5914. Approval of topic by Head of School and supervision by appropriate staff is required.

ARCH5916
Special Research Programme 3
Staff Contact: School Office
CP15
Prerequisites: ARCH5915 or equivalent, Head of School’s approval

Culmination of study in topic area previously undertaken in ARCH5914 and ARCH5915. Approval of topic by Head of School and supervision by appropriate staff is required.

ARCH5917
Research project
Staff Contact: School Office
CP24
Prerequisite: ARCH5916 or equivalent

This project represents the culmination and integration of knowledge and skill gained in the student’s field of specialisation, including social, environmental and ethical aspects. The research project report should be presented in a thesis format.

ARCH5918
Honours Project
Staff Contact: School Office
CP60
Prerequisite: ARCH5917 or equivalent

The honours project provides opportunity for advanced study in a particular area of specialisation.

ARCH5919
Honours Project 2
Staff Contact: School Office
CP60
Prerequisite: ARCH5918

The honours project provides opportunity for advanced study in a particular area of specialisation.

ARCH5930
Science Seminar 1
Staff Contact: School Office
CP12
Prerequisite: ARCH6101

Student preparation of research programmes, methodologies, results and conclusions. Discussion and debate of ethical, environmental and related issues. Exercises in aspects of communication, computing, structures and environmental control.

ARCH5931
Science Seminar 2
Staff Contact: School Office
CP6
Prerequisite: ARCH5930

Student presentation of research programs. Discussion and debate of ethical, environmental and related issues. Exercises in architectural construction, particularly relating to building defects and their prevention.

Elective Subjects

Students should select subjects from those offered under the School’s BArch course as electives, with the option of subjects totalling up to forty five credit points being selected from courses outside the School.

Summer Term Subjects

The following subjects are offered only in Summer Term. Not all subjects may be offered in any year.

ARCH6140
Design ‘A’
Staff Contact: School Office
CP30

Architectural synthesis is the central function of the design studio. The vehicles for study are projects and exercises of increasing complexity and depth covering a wide range of building types. Students are encouraged to seek design solutions which cater for the full range of human needs and aspirations. The studio provides continuing opportunities to consider the environmental, social, historic, aesthetic, technical and professional factors affecting architecture and the architect’s role in the community. Design ‘A’ is concerned with the design of simple residential and non-residential buildings with few spaces, relatively simple functional relationships for clearly defined and familiar user groups on straightforward sites requiring basic contextual understanding. Integration of structural, constructional, servicing and environmental control concepts. Development of the design process. Individual work on a series of design projects of varying complexity and length.

ARCH6340
Theory of Architecture ‘A’
Staff Contact: School Office
CP15

The object of the subject is to lead to an understanding and application of the principles of design, in particular architectural design. The fundamental purpose of architectural design, the enhancement of life-events by spatial arrangements is illuminated by the logic of the process of designation - aim, possibilities, idea, acts and fulfilment. The exploration of the design process embraces both the physical and non-physical requirements and influences; the measure of the human body and of the collective events of many bodies; the mental and cultural influences operating in such events; the meaning of spatial extensions, directions, closure and order, especially geometric order.

The importance of the relationship between human behaviour and the built environment is introduced with an emphasis upon personal space, community and privacy, and the various characteristics of the public domain.
Composition, especially the theory of wholes and parts is examined in the light of unity and multiplicity, continuity and change: principles and conditions applicable either to a single building or, in a much wider context, to the task of fitting a building into its physical and cultural environment.

ARCH6440
History of World Architecture 'A'
Staff Contact: School Office
CP15
The role of architectural history. An account of world architecture from the earliest times to the present day, generally but not exclusively following a chronological format, covering such topics as: nomadic lifestyles and the beginnings of civilisation; ancient and mediaeval civilisations in Europe, the Middle East, Asia and the Americas; the growth of Christianity, Islam and the other major religions; the Renaissance and its effects around the world; the Industrial Revolution in Europe and North America; European Imperialism; the architecture of the twentieth century; Australian architecture. Visits to sites in and around Sydney. Seminars and project work.

ARCH5926
Architectural Studies 4
Staff Contact: School Office
CP15
An elective designed for students wishing to pursue an independent course of study in a field of architecture not falling specifically within the domain of any other elective. Students wishing to undertake a number of these research subjects are encouraged to think of these subjects as following on from each other and that, together, they form a larger package of academic study.

ARCH5927
Architectural Studies 5
Staff Contact: School Office
CP15
An elective designed for students wishing to pursue an independent course of study in a field of architecture not falling specifically within the domain of any other elective. Students wishing to undertake a number of these research subjects are encouraged to think of these subjects as following on from each other and that, together, they form a larger package of academic study.

ARCH5928
Architectural Studies 6
Staff Contact: School Office
CP15
An elective designed for students wishing to pursue an independent course of study in a field of architecture not falling specifically within the domain of any other elective. Students wishing to undertake a number of these research subjects are encouraged to think of these subjects as following on from each other and that, together, they form a larger package of academic study.

ARCH5540
Technological Design Development
Staff Contact: School Office
CP15
Prerequisite: ARCH6105
This subject will investigate in detail the technological requirements of technology-intensive buildings.

Methodology; owners' and managers' requirements. Site, access and foundation constraints; constructional processes; structural systems and materials; cladding and enclosure; finishing materials and fittings; services (environmental control, lighting, acoustics, transportation and communication); fire and egress constraints; security and building management, etc. The application of the above considerations to aspects of the design development of a schematic proposal for a suitable building. The major vehicle for both teaching and assessment will be a design project that has already been taken to a schematic stage; it will be the student's task to develop this project to the stage where all building systems have been selected, and where potential conflicts between systems have been resolved to the point where satisfactory details can be prepared. The student brief would contain a statement of user-needs, and a proposed schematic solution; the student would be required to work within the confines of the given proposal, and would not be permitted to re-design the schematic. Site visits.

ARCH5741
Design for Environmental Efficiency
Staff Contact: School Office
CP15
This subject aims to bring together the basic knowledge of environmental science gained in the junior years of the Bachelor of Architecture course and develop it in a structured manner which would make it applicable to real design situations. In any balanced design solution there is an equal interplay of the built environment, the natural environment and human participation. An imbalance of any of these factors will result in architectural failure. This subject will investigate real problems in the built environment as we attempt to address the issues of a sustainable environment. Class contact times will include visiting speakers, workshops for sustainable ideas, site visits and debates. Assessment will be based on involvement, participation and the submission of a report related to an area of study.

Building

Year 1
Session 1

BLDG1010
Communications and Resource Usage
Staff Contact: Mr J Kim
CP5 S1 HPW2
Note/s: Compulsory.
BLDG1091
Built Environment 1
Staff Contact: Prof J Haskell
CP5 S1 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: School Office
CP15 S1 HPW4
Note/s: Compulsory.

BLDG1201
Construction 1 (Domestic Construction)
Staff Contact: Mr CD Smythe
CP15 S1 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: Mr M Jaame
CP5 S1 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: Mr GE Levido
CP10 S1 HPW2
Note/s: Compulsory.

Session 2

BLDG1002
Construction 2 (Low Rise Domestic)
Staff Contact: Mr CD Smythe
CP15 S2 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 OGreste, Mr J Senogles
CP10 S2 HPW3
Note/s: Compulsory
Loads on structures; external and internal forces; free body diagrams; conditions of force & 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 stressesses 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: Mr R Zikmann
CP5 S2 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: Mr B Reece
CP10 S2 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 S2 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 S2 L2T1

Energy transfer: concepts of temperature and heat; catorimetry; 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
Session 3

ACCT9001
Introduction to Accounting A
*Staff Contact: Mr B Booth, School of Accounting*
CP7.5 S1 L2

*Note/s:* Architecture - 2 credit points compulsory for BBuild degree course students.

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: Mr N Kenny*
CP5 S3 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: Mr CD Smythe*
CP15 S3 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 & Control)
*Staff Contact: A/Prof T Uher*
CP10 S3 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: Mr G Runeson*
CP5 S3 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: Mr G Runeson*
CP10 S3 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 S3 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.

Session 4

ACCT9002
Introduction to Accounting B
*Staff Contact: Mr B Booth, School of Accounting*
CP7.5 S4 HPW2

*Prerequisite:* ACCT9001

*Note/s:* Compulsory

An introduction for noncommerce 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 N Gowripalan, Dr S Bandyopadhyay*
CP15 S4 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: Mr G Hogan  
CP5 S4 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; garage and incinerators.

BLDG2224  
Management 3 (Contracts)  
Staff Contact: A/Prof T Uhre, Mr P Davenport  
CP10 S4 HPW2  
Prerequisites: BLDG2261  
Note/s: Compulsory  

BLDG2301  
Quantity Surveying 1  
Staff Contact: Mr P Marsden  
CP15 S4 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 groundworks.

BLDG2500  
Construction Management Project 1  
Staff Contact: Mr G Levido  
CP5 S4 HPW2  
Prerequisites: All Stage 1 & 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  
Session 5  
BLDG3004  
Construction 4 (Highrise Buildings)  
Staff Contact: A/Prof R Miller  
CP15 S5 HPW2  
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 co-ordination of services. On site observation and report on high rise building.

BLDG3052  
Structures 2  
Staff Contact: Mr J Senogles, Dr O Greste  
Prerequisites: BLDG1051  
CP10 S5 HPW3  
Note/s: Compulsory.  

BLDG3266  
Management 4 (People Management)  
Staff Contact: Mr D Dombkins  
CP10 S5 HPW2  
Prerequisites: BLDG2264  
Note/s: Compulsory  

BLDG3272  
Law for Builders 2  
Staff Contact: Mr P Davenport  
CP10 S5 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  
CP10 S5 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 database 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 S5 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.

Session 6

BLDG3005
Construction 5 (Techniques)
Staff Contact: A/Prof R Miller
CP15 S6 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, craneage, 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 S6 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: School Office, School of Civil Engineering
CP5 S6 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, Mr J Kim
CP10 S6 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: Mr D Dombkins
CP5 S6 HPW2
Prerequisite: BLDG3266
Note/s: Compulsory

BLDG3321
Estimating 1
Staff Contact: Mr P Marsden
CP5 S6 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: Mr G Levido
CP10 S6 HPW4
Prerequisite: All Stage 1 & 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 & social aspects that have to considered by the construction professional.

Year 4
Session 7

BLDG4001
Project Management and the Design Process
Staff Contact: Mr D Dombkins
CP10 S7 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 organisational design.
Client needs determination and managing the design process. Scope management.

**BLDG 4002**
**Organisational Behaviour**
*Staff Contact: Mr D Dombkins*
CP10 S7 HPW3
*Prerequisite: BLDG 3266*
*Note/s: Elective*

**BLDG 4016**
**Construction 6 (Industrialisation and Technological Change)**
*Staff Contact: A/Prof M Marosszely*
CP10 S7 HPW3
*Prerequisite: BLDG 3005*
*Note/s: Elective*

**BLDG 4267**
**Management 7 (Marketing)**
*Staff Contact: Dr J Hutcheson*
CP10 S7 HPW3
*Prerequisite: BLDG 3275*
*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.

**BLDG 4273**
**Law for Builders 3**
*Staff Contact: Mr I Morrison*
CP10 S7 HPW3
*Prerequisite: BLDG 3272*
*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.

**BLDG 4314**
**Building Economics 3**
*Staff Contact: Dr J Hutcheson*
CP10 S7 HPW3
*Prerequisite: ACCT 9002*
*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.

**BLDG 4422**
**Estimating 2**
*Staff Contact: Mr P Marsden*
CP10 S7 HPW3
*Prerequisite: BLDG 3321*
*Note/s: Elective*
Advanced estimating techniques, competitive tendering, contract cost adjustments; computer techniques applied to estimating.

**Session 8**

**BLDG 4017**
**Advanced Materials**
*Staff Contact: A/Prof M Marosszely*
CP10 S8 HPW3
*Prerequisite: BLDG 3005*
*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.

**BLDG 4275**
**Dispute Avoidance & Resolution**
*Staff Contact: Mr P Davenport*
CP10 S8 HPW3
*Prerequisite: BLDG 2264*
*Note/s: Elective*
Nature of claims, remedies, alternative dispute resolution, mediation, expert appraisal, litigation, moot arbitration.

**BLDG 4284**
**Building Information Systems**
*Staff Contact: Dr O Greiste*
CP10 S8 HPW3
*Prerequisite: BLDG 3282*
*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 S8 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 & Small Business)
Staff Contact: Dr J Hutcheson
CP10 S8 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: Mr G Beckett
CP10 S8 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 & Valuation
Staff Contact: Dr J Hutcheson
CP10 S8 HPW3
Prerequisite: BLDG2411
Note/s: Elective

BLDG4493
Property Management
Staff Contact: Dr J Hutcheson
CP10 S8 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: Mr GE Levido
CP40 S7 & S8
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: Mr G Levido
S2-6
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.
Industrial Design

Design Studios

IDES1021
Basic Design
Staff Contact: Department 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.

IDES1031
Design Studio 1
Staff Contact: Department Office
CP12.5 S2 L1 T3
Corequisites: IDES1021, IDES1041

Theoretical and project work to introduce design methodologies and their application to three dimensional design problems.

IDES2161
Industrial Design Studio 2
Staff Contact: Department Office
CP25 F L1 T4
Prerequisite: IDES1031

The introduction of industrial design and research methodologies. Studies and projects are undertaken within the context of social, commercial and industrial requirements.

IDES3221
Industrial Design Studio 3
Staff Contact: Department Office
CP25 F L1 T4
Prerequisite: IDES2161

Continuation of the theoretical and project work of Industrial Design Studio 2. These two subjects cover examples from the range of major industrial design problems.

IDES4291
Industrial Design Studio 4
Staff Contact: Department Office
CP12 S1 L1 T4
Prerequisite: IDES3221

Advanced theoretical and project work taking a particular project to an advanced state of development, preparatory to undertaking the Project.

IDES4301
Project Research
Staff Contact: Mr J Talbot
CP10 S1 L1 T3
Prerequisite: IDES3221

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

IDES4311
Graphic Design for Industrial Designers
Staff Contact: Department Office
CP7.5 S1 L1 T2
Prerequisite: IDES1031

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

IDES4321
Environmental & Interior Design for Industrial Designers
Staff Contact: Department Office
CP5 S1 L1 T1
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
CP30 L1 T11
Prerequisite: IDES3221
Corequisites: IDES4301

A project within the practice areas of industrial design, chosen by the student in consultation with the School 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
S7.5 L0.5 T2

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.

IDES1041
Visual Thinking & Drawing
Staff Contact: Department Office
CP10 S1 L1 T3

The development of the capacity to see and the hand/eye co-ordination skills to record what is seen using a variety of media and methods. The capacity to develop and express visual concepts. The relationship between visual thinking and creative processes.

IDES1051
Geometrical & Mechanical Drawing
Staff Contact: Mr L Green
CP10 S1 L1 T3

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 & Rendering Techniques**  
*Staff Contact: Department Office*  
CP10 S1 L1 T3  
*Prerequisites: IDES1041 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.

IDES2121  
**Introduction to Computing**  
*Staff Contact: Department Office*  
CP7.5 S2 L1 T2  

Introduction to the computer with emphasis on its application in industrial design, engineering and information systems. Hardware and software. Experience in the use of equipment and development of basic programming skills.

IDES2171  
**Computer Aided Design**  
*Staff Contact: Department Office*  
CP10 L2 T2  
*Prerequisite: IDES2121*  

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

IDES2321  
**Computer Graphic Applications**  
*Staff Contact: Department Office*  
CP10 L2 T2  
*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.

IDES2381  
**Photography for Industrial Design**  
*Staff Contact: Department Office*  
CP5 S2 L1 T1  
*Prerequisite: IDES2161*  

The theory and practice of colour and black and white photography with particular reference to product and design presentation applications. Projects develop studio and dark room skills.

Design Theory

IDES1061  
**History of Art/Architecture/Design**  
*Staff Contact: Department Office*  
CP2.5 S1 L1  

General overview of the history of art, architecture and design from earliest times to the present, within the context of aesthetic and sociocultural influences.

IDES2091  
**Design Methodology**  
*Staff Contact: Mr L Green*  
CP4.5 S1 L1  
*Prerequisite: IDES1031*  

Design methodology and its applications in the industrial situation, analysis of problems, strategy planning, the application of research methods. The methods. The problem of problem solving.

IDES2151  
**Product Studies Seminars**  
*Staff Contact: Department Office*  
CP3 S3 T2  
*Prerequisite: IDES1031*  
*Corequisites: IDES2161*  

A series of case studies, in which products and their related systems are analysed for design, engineering, marketing and production factors and qualities. The Seminars are given by panels of staff experts and professional practitioners. The subject is taken during years 2, 3 and 4. Students undertake an assignment based on the Seminars and submit it during Year 4.

IDES3271  
**Form Theory**  
*Staff Contact: Department Office*  
CP2.5 S2 L1  
*Prerequisite: IDES1021*  

Study of form in nature, art and design. Theories of form. Form organisation, typology, and description.

IDES4331  
**History of Consumer Products**  
*Staff Contact: Department Office*  
CP1.3 L0.5  
*Prerequisite: IDES1061*  
*Corequisites: IDES4341*  

Products as an aspect of our culture/society and commerce/industry from 1750 to the present day. The development of consumer products is examined within the context of the changes taking place in industry and society.

IDES4341  
**History of Industrial Design**  
*Staff Contact: Department Office*  
CP1.3 L0.5  
*Prerequisite: IDES1061*  
*Corequisites: IDES4331*  

This subject is normally taken in conjunction with IDES4331 and is a chronological study of the emergency and development of industrial design from 1850 to the present day.

IDES4361  
**Professional Practice**  
*Staff Contact: Department Office*  
CP2.5 S2 L1  
*Prerequisite: IDES2161*  

Professional practice in industry and on consultancies. Organisation and management of design offices and projects. Professional and ethical responsibilities. Contracts, determination of fees, patents, design registrations, legal responsibilities and liabilities.
Managing Product Innovation and Development  
Staff Contact: Mr L Green  
C2.5 L1  
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.

Prerequisites:

- IDES2091

Ergonomics

Principles of Ergonomics  
Staff Contact: Mr J Talbot  
CP5 S2 L2

Applied anatomy and kinesiology, anthropometrics and application in product and environmental design. Physiological and psychological aspects of ergonomics, work, environment effects, manmachine interface. Principles of ergonomics research methods.

Applied Ergonomics  
Staff Contact: Mr J Talbot  
CP7.5 L1.5 T1.5  
Prerequisite: IDES1073

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

Industrial Experience  
Staff Contact: Department Office  
CP0 S2  
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

Engineering Design Mechanics  
Staff Contact: Mr L Green  
CP10 S2 L2 T2  
Prerequisites: MATH1021 and PHYS1937


Introduction to Materials Science  
Staff Contact: Department Office  
CP2.5 S1 L1  
Prerequisite: PHYS1937

Structure and properties of major engineering materials, including polymers and timbers. Including materials recognition and design potential.

Mechanics of Solids for Industrial Design  
Staff Contact: Mr L Green  
CP7.5 S2 L2 T1  
Prerequisite: IDES1082


Materials and Manufacturing Processes for Industrial Designers A  
Staff Contact: Department Office  
CP7.5 S2 L2 T1  
Prerequisite: IDES2132

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

Materials and Manufacturing Process for Industrial Designers B  
Staff Contact: Mr L Green  
CP7.5 S1 L2 T1  
Prerequisite: IDES2182

Economics of production processes, design constraints alternate design and manufacturing strategies. Test procedures.

Electrical Engineering for Industrial Design A  
Staff Contact: Mr J Talbot  
CP5 L1.5 T0.5  
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.

Electrical Engineering for Industrial Design B  
Staff Contact: Mr J Talbot  
CP5 S2 L1 T1  
Prerequisite: IDES3212


Production Design and Technology for Industrial Design  
Staff Contact: Mr L Green  
CP7 S2 L1.5 T0.5

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.

IDES4382
Production Management for Industrial Design
Staff Contact: Mr L Green
CP5 S2 L1.5 TO.5
Prerequisite: IDES2182
Methods engineering, motion and time study, financial incentives, applications to machine controlled processes, work sampling and data collection. Factory layout. Control of jobbing, repetitive batch and continuous production. Manufacturing organisations, functions, interrelationships and information flow. Sampling techniques in quality control, control charts, quality assurance. Economic objectives of the firm. Economic measure of performance net present value, annual equivalent value and the DCF rate of return (including the incremental rate of return) and their application in the selection and replacement of processes and equipment.

MATH1011
General Mathematics 1B
Staff Contact: School of Mathematics First Year Office
CP15 S1 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 S2 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 Office
CP10 F 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
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

ACCT9001
Introduction to Accounting A
Staff Contact: School Office
S1 L1.5
Note/s: Architecture - 2 credit points compulsory for BBuild degree course students.
Introduces non-commerce students to the nature, purpose and conceptual foundation of accounting: information systems including accounting applications, and analysis and use of accounting reports.

ACCT9002
Introduction to Accounting B
Staff Contact: School Office
S2 L1.5
Prerequisite: ACCT9001
Introduces non-commerce students to managerial accounting: long-range planning, budgeting and responsibility accounting; cost determination, cost control and relevant cost analyses.

MARK2012
Marketing Fundamentals
Staff Contact: School Office
S1 L2 T2
Prerequisites: ACCT1511, ECON1102, ECON1203
Corequisite: MARK2032
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.
MARK2032
Consumer Behaviour A
Staff Contact: School Office
S1 L2 T2
Prerequisites: ACCT1511, ECON1102, ECON1203
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.

MARK2042
Consumer Behaviour B
Staff Contact: School Office
S2 L2 T2
Prerequisites: MARK2012, MARK2032

This subject studies in detail the external influences on behaviour and the role of the marketplace in the sociopolitical system. Topics of study include attitude formation, the impact of reference groups and institutions on marketplace behaviour. Specific attention is given to the purchase and consumption situation in terms of individual and group purchase behaviour. In the latter particular attention is given to household and organisational buying behaviour.

MARK2052
Marketing Research
Staff Contact: School Office
S2 L2 T2
Prerequisite: MARK2012, MARK2032

This subject examines the sources and types of marketing information relevant to marketing management. Topics include: problem definition and research design; questionnaire design; sampling; data collection; interpretation and reporting; management control of research including briefing, evaluation of proposals and distinction between research results and marketing implications; the use of continuous research; and new developments in market research.

MARK3073
Brand Management
Staff Contact: School Office
S1 L2 T2
Prerequisite: MARK2012, MARK2042

This subject provides an overview of marketing planning for products and services with a focus on planning at the brand level. Marketing concepts such as segmentation, differentiation, positioning and product lifecycle will be re-examined from a strategic perspective. The marketing mix will be expanded to address strategies of new product development, pricing, distribution and promotions management. Case analysis will be introduced to develop strategic thinking.

MARK3083
Strategic Marketing Management
Staff Contact: School Office
S2 L2 T2
Prerequisite: MARK3073

Concepts introduced in previous subjects will be broadened to address issues at the business unit level. Corporate mission, competitive stance of the organisation, pricing policies, trade relations, internal marketing and logistics will be addressed. The management of organisational resources such as financial and human resources are considered using, for example, portfolio analysis. Decision support systems are also examined.

General Education Program

40 credit points of General Education Program subject taken throughout the course.

Landscape Architecture

LAND1130
Landscape Graphics 1
Staff Contact: Ms E Mossop
CP10 S1 L1 T2

Basic techniques of creative drawing with emphasis upon two dimensional graphics, use of pencil techniques. Assorted point media. Basic technical drawing with emphasis on twodimensional graphics. Pencil techniques, drafting conventions, layouts, lettering, instruments and scale presentation. The principles and application of orthographic, axonometric and isometric projection. Development of plan and section drawing techniques.

LAND1131
Introduction to Computer Applications
Staff Contact: Ms A Todd
CP10 S1 L1 T1

The use of computers by landscape architects. Necessary knowledge to make full use of opportunities that the computer can provide including time sharing, batch processing and the use of graphic output. Components of the computer and their interrelationships, data processing, file management, use of library programs, interpretation of results, basic programming.

LAND1132
Introduction to Landscape Architecture
Staff Contact: Prof J Weirick
CPS S1 L1

Introduction to the discipline of landscape architecture. Outline of the program and its major stands of planning; design and implementation; natural and social sciences; skills (graphic, verbal and written communication). Brief exposure to examples of landscape planning, design and implementation throughout history, both overseas and in Australia. Issues and opportunities for landscape architects.
LAND1170
Design 1
Staff Contact: A/Prof F Thorvoldson
CP10 S1 L1 T2
Basic visual design exploration to appreciate the language of design elements and principles. Investigation into the methods of expression and media used in art and design. Practical exercises in communication of ideas in both two and three dimensional projects. Sketching, painting and construction exercises in both studio work and assignments.

LAND1110
Landscape Analysis
Staff Contact: Ms A Todd
CP15 S1 L2 T4
Corequisite: GEOG3211
Note/s: This subject includes a number of lectures and field trips for the purpose of practical observation. Students are expected to make their own transport arrangements for these trips.
Observation and interpretation of both physical and biological environment and their interrelationships. Landscape character through sensory inputs and prehistory. Fundamental characteristics of biological systems, with emphasis on relationships with the physical environment, particularly geology, soils. 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.

LAND3151
Landscape Management 1
Staff Contact: Ms A Todd
CP10 S1 L1 T1
Prerequisite: LAND1110, LAND2110, BIOS3004, GEOL5110
Basic methods and techniques of resource data collection, analysis and valuation. Emphasis on an ecological approach to the investigation of resources and their management in relation to a range of land use types.

LAND3252
Landscape Management 2
Staff Contact: Ms A Todd
CP10 S2 L1 T1
Prerequisite: LAND3151
Planning and management of both natural and cultural landscapes. Historical review of landscape planning and management in Australia and overseas. Examination of a range of landscape management methodologies and processes. Projects will include critical evaluation of three case studies.

LAND1211
Horticulture for Landscape Architects
Staff Contact: Mr M Wright
CP10 S2 L1 T1
Corequisite: BIOS3004
Prerequisite: LAND1110
General horticultural study of propagation techniques, current nursery practice, impact of weeds, plant diseases, planting techniques and forestry practice. Plant collecting and identification.

LAND1230
Landscape Graphics 2
Staff Contact: Ms E Mossop
CP10 S2 L1 T2
Prerequisite: LAND1130
Advanced techniques of creative drawing with emphasis on various media. Advanced technical drawing techniques including the use of various media, with emphasis on three-dimensional graphic concepts. Investigation of the basic principles of perspective theory. Application of perspective drawing to landscape architectural works, including landforms and other elements.

LAND1270
Design 2
Staff Contact: A/Prof F Thorvoldson
CP10 S2 L1 T2
Prerequisite: LAND1170, LAND1130
Design theory and processes of spatial design and composition in both two and three dimensional projects, with references to present day and historical examples. Explorations of the geometry of form and principles of organisation. Development of a definite thought process and sequence of design development using two and three dimensional exercises in selected media. Concepts of abstraction and naturalism. Studio work includes sketching, photography and model making in order to develop conceptual awareness, perceptual sensitivity and visual literacy.

LAND1292
Landscape Technology 1
Staff Contact: Ms H Evans
CP10 S2 L1 T2
Site surveying and mapping techniques. Land surface manipulation including contour planning and basic earthworks. Field work exercises.

LAND2110
Environmental Sociology for Landscape Architects
Staff Contact: Ms H Armstrong
CP10 S2 L2 T2
Note: Only offered in S2 in 1996
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.

LAND2170
Landscape Design 1
Staff Contact: Ms C Rush
CP25 S1 L2 T8
Prerequisite: LAND1110, LAND1270, LAND1292
Basic Design. The interpretation of aesthetic values of sites and environments used in design exercises. Freehand drawing in the field. Applied Design. Logical design process applied to simple landscape design exercises with emphasis on site survey, site analysis and functional analysis. Applied graphic presentation techniques for site survey and analytical drawings.
LAND2171
History of Landscape Architecture
Staff Contact: Professor J Weirick
CP10 S1 L2
Chronological development of cultural landscapes described by the investigation of philosophical, aesthetic and social aspects of Eastern and Western cultures with an emphasis on the Australian context. Changing attitudes to nature as reflected in land uses. The development of garden design and landscape architecture.

LAND2192
Landscape Technology 2
Staff Contact: Ms H Evans
CP10 S1 L1 T2
Prerequisite: LAND1292
Materials science: the relationship between the properties and structure of materials. The derivation, conversion or production of materials commonly used in landscape construction. Investigation of structures: elements and systems, loads and structural requirements and basic structural form.

LAND2270
Landscape Design 2
Staff Contact: Ms C Rush
CP25 S2 L2 T8
Prerequisite: LAND2170
Basic Design. Aesthetic appreciation of chosen environments both urban and natural. Graphic communication using selected media. Seminars on design philosophy. Applied Design. An understanding of materials and construction as applied to a range of medium scaled projects with an emphasis on practical relationships between design, use of appropriate materials and construction detailing.

LAND2271
Planting Design
Staff Contact: Mr M Wright
CP10 S2 L1 T1
Prerequisite: LAND1211, LAND2170
Plants as design elements, management of plant designs. Plant designs for specific sites; water plants, indoor plants, roof gardens, industrial and reclaimed sites. Observation of existing landscape schemes. Documentation of plant design.

LAND2292
Landscape Technology 3
Staff Contact: Ms H Evans
CP10 S2 L1 T2
Prerequisite: LAND2192
Landscape construction methods, including documentation of grading, drainage, earthworks and structures. Application of materials in detailed design development.

LAND2291
Professional Practice A
Staff Contact: Ms E Mossop
CP10 S2 L2
Prerequisites: LAND2170, LAND2192
The Landscape Architect's responsibilities in Law. A study of the development of Law in Australia. Project procedure, the stages of a capital development project. Cost planning and feasibility studies. Construction contracts, including tender documentation, subcontract conditions and subconsultative responsibilities. The specification, its function and styles. A comparative analysis of various standard contract forms.

LAND3130
Research Methods
Staff Contact: Prof J Weirick, Ms A Todd
CP5 S1 L1
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, thesis, articles, papers and reports.

LAND3170
Landscape Design 3
Staff Contact: Ms E Mossop
CP25 S1 L2 T6
Prerequisites: LAND2270, LAND2110, LAND2292
Advanced design exercises within the context of both natural and urban environments. Emphasis on gaining a knowledge of site planning with specific reference to sites located within the Sydney Region. Projects are of a large scale and further emphasis is directed towards the relationship between landscape design, architecture and public art.

LAND3190
Landscape Engineering A
Staff Contact: Mr P Bliss
CP10 S1 L2 T1
Prerequisite: LAND2292, LAND2270
Design and construction techniques related to basic civil works, including earthworks, hydraulics, municipal services, urban and rural drainage. Interpretation of engineering design and development documents. Projects incorporating detail resolution of civil works.

LAND3270
Landscape Design 4
Staff Contact: Ms H Evans
CP25 S2 L2 T6
Prerequisite: LAND3170
Experience of dealing with medium to large scale projects of specific land uses such as schools and residential subdivisions, in which research is encouraged to assess environmental impacts, both physical and social. Emphasis on practical solutions and the preparation of contract documents including preliminary costing of design proposals.

LAND3290
Landscape Engineering B
Staff Contact: Mr V Vandebona
CP10 S2 L1 T2
Prerequisites: LAND3190, LAND3170
Design and construction techniques related to transport planning and route alignment. Overview of the principles of transportation systems including railway permanent ways, airports, ports and harbours.
LAND3291
Professional Practice B
Staff Contact: Ms H Evans
CP10 S2 L2
Prerequisites: LAND2291, LAND3170
Preparation of contract documentation, including technical
sections. Contract administration and project supervision,
the role of the consultant. Tender evaluation, award of
contracts, site inspections, variation procedure, claims and
certificate issue and general site administration. Practical
completion and final certification. The rights and duties of
the principal and contractor, including the relationship with
consultants. Postcontract activities, maintenance manuals,
appraisal of design and construction, and retention of
records.

LAND4031
Landscape Thesis A
Staff Contact: A/Prof F Thorvaldson, Ms A Todd
CP30 S1 or S2
Prerequisite: LAND3130, LAND3270
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,
which is completed as two subjects Landscape Thesis A
followed by Landscape Thesis B, culminating in a written
document deposited in the Faculty library.
The Landscape Thesis A subject allows each student to
carry out the required research, organisation or material,
and writing in order to submit a complete draft of a written
thesis at the end of Session. This one session subject is
graded as either Satisfactory or Fail. The proposed topic
area and title must be submitted and approved by the Head
of the School of Landscape Architecture prior to enrolment
in Landscape Thesis A.

LAND4032
Landscape Thesis B
Staff Contact: A/Prof F Thorvaldson, Ms A Todd
CP15 S2 or S1
Prerequisite: LAND4031
The Landscape Thesis B subject, follows on from
Landscape Thesis A and allows each student to refine the
draft material submitted previously. It also allows the
preparation of illustrative material and completion of all
necessary references and bibliography, before the
submission of the final unbound manuscript for
assessment, usually in week 8. 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 School by the end of the
Session. This one session subject is graded in accordance
with the normal University grading system, although it
reflects the assessment and worth of the final thesis
document prepared over two sessions in both landscape
Thesis A and Landscape Thesis B.

LAND4170
Landscape Design 5
Staff Contact: Prof J Weirick
CP15 S1 L1 T2
Prerequisite: LAND3270
Investigation of the relationship of the relationship between
design and contemporary landscape theory through a
series of critical design projects at site planning scale.

LAND4272
Urban Landscape Design
Staff Contact: Prof J Weirick, Ms H Armstrong
CP30 S2 L1 T5
Prerequisites: LAND3252, LAND4170
Corequisite: LAND4270
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.

LAND4270
Landscape Design 6
Staff Contact: Ms E Mossop
CP30 S2 L1 T5
Prerequisites: LAND4170, Four months approved practical
experience
Corequisite: LAND4172
Students are called upon to employ all the knowledge, skill
and understanding they have gained in previous years.
Emphasis on professional standard. Graduating project is
related to the natural, urban or rural environment.

Landscape Electives for Students of
Architecture and Related Disciplines
The following landscape electives require attendance of
two hours per week over a period of 14 weeks. They are
offered subject to demand and availability of resources,
consequently students are advised to contact the School
before finalising their program. Credit point values
specifically refer to students of Architecture enrolled in
courses 3260 or 3265.

LAND0001
Landscape Architecture
Staff Contact: Ms H Evans
CP10 S1 or S2 L2
Landscape and planting within the built environment with
particular reference to functional, ecological and aesthetic
considerations; the treatment of spaces between buildings
and in road reservations; hard and soft landscape
treatments; establishment and maintenance cost.

LAND0002
Site Planning Elective
Staff Contact: Prof J Weirick
CP10 S2 L2
Recognition of natural processes and factors in site
analysis. Opportunities and constraints with respect to
potential development. Development of a logical approach
to site planning.

LAND0003
Planting Design Elective
Staff Contact: Prof J Weirick
CP10 S2 L2
The selection and use of plant materials within the built
environment with particular reference to visual and
ecological considerations.
LAND0004
Urban Landscape Elective
Staff Contact: Prof J Weirick
CP10 S1 L2

The treatment of spaces between and upon buildings 'hard' and 'soft' landscape treatments. Functional uses of open space within the built environment and the design of street furniture.

LAND0005
Recreation Planning Elective
Staff Contact: Prof J Weirick
CP10 S1 L2

Various recommended provisions for open space allocation for recreation are examined and classified in terms of contemporary needs. Specific requirements of a range of recreation facilities are studied in detail and successful Australian and overseas examples evaluated.

Servicing Subjects

Biological Sciences

BIOS3004
Botany for Landscape Architects
Staff Contact: School of Biological Sciences School Office
CP12.5 S2 LT T1

The life of flowering plants from germination to seed-set.

An introduction to non-flowering plants. How plants grow and what they need from the environment. Their structure. Observing plants and reading and writing about them.

Applied Geology

GEOL5110
Geology for Landscape Architecture
Staff Contact: A/Prof AD Albani
CP5 S2 L2 T1

Minerals and rocks. Igneous, sedimentary and metamorphic rocks; their origin and their relationship with the landscape. Geological structures and their graphic representation. Interpretation of geological maps and sections.

Geography

GEOG3211
Australian Environment and Natural Resources
Staff Contact: A/Prof M Fox
CP15 S1 L2 T1

Australian Natural Environment and Natural Resources. The characteristics of Australia's physical and biotec environment: geology, climate, geomorphology, soils, vegetation and fauna. The problems of exploiting Australia's water and land resources including the degradation of land by erosion, salinisation and soil fertility decline; and habitat loss and fragmentation.

Planning and Urban Development

PLAN 1011
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.

PLAN 1021
Physical Geography
Staff Contact: School Office
CP10 S1

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.

PLAN 1041
The Language of Planning
Staff Contact: Mr S Harris
CP10 S1

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 organisations and their significance; the language of urban design; methods of describing society and its structures.

PLAN 1051
Graphic Communication
Staff Contact: School Office
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.
PLAN 1061
Computer Literacy
Staff Contact: School Office
CP10 S1
Computer use in the planning professions. Exercises using integrated software including data bases, spreadsheets, graphics and word processing. Planning information systems: applications, establishment, maintenance.

PLAN 1012
Principles of Political Economy
Staff Contact: School Office
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.

PLAN 1022
The Development Process
Staff Contact: School Office
CP10 S2
An introduction to real property law, the statutory requirements of the NSW planning system, environmental laws and land taxation. Also covered are small building construction issues, the nature of the housing market, commercial and industrial property markets, the funding of infrastructure and the roles of government agencies involved in the property market. Assignments are prepared in the form of consultant reports.

PLAN 1042
Planning Processes
Staff Contact: Ms S Thompson
CP10 S2
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.

PLAN 1052
Quantitative Methods
Staff Contact: A/Prof R Zehner
CP10 S2
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.

PLAN 1062
Communication Techniques
Staff Contact: Mr S Harris
CP10 S2
The range of non-graphic techniques of planners’ information communication: reports and letters language, structure, style; audiovisual presentation, video and slide/tape; public speaking, telephone, one-to-one, small groups, large meetings; physical models, basic techniques and uses.

PLAN 2011
The Economy of Cities and Regions
Staff Contact: A/Prof P Murphy
CP10 S1
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.

PLAN 2021
History of Urban Development
Staff Contact: Dr R Freestone
CP10 S1
Introduction to patterns and processes of urbanisation and urban development at global, national, regional and local scales canvassing theoretical, conceptual and empirical issues. Surveys evolution of urban space in a societal context from the pre-modern to the post-modern era 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.

PLAN 2041
Critical Research Seminars
Staff Contact: A/Prof R Zehner
CP10 S1
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.

PLAN 2051
Environmental Economics and Resource Management
Staff Contact: A/Prof P Murphy
CP10 S1
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.

PLAN 2061
GIS Geography Information Systems
Staff Contact: Mr D Crawford, Landscape Architecture
CP10 S2
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**

**Theories of Planning in Spatial Development**  
*Staff Contact: A/Prof P Murphy*  
*CP10 S2*  
*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.

**PLAN2022**

**Urban Infrastructure**  
*Staff Contact: School Office*  
*C10 S1*  
*Prerequisites PLAN1041, PLAN1021, PLAN1022*

This subject 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 landuse and transport planning, from the strategic level of local implementation. The pivotal role of transport in shaping our cities is explored.

**PLAN2032**

**Generic Planning Project 1 - Spatial Typologies**  
*Staff Contact: Prof A Cuthbert*  
*CP20 S1*

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 organisation of urban space and its adopted physical envelopes. The design organisation 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 S2*

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 S2*  
*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: School Office*  
*CP10 S1*

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: School Office*  
*CP10 F or SS*

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 S1*

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: School Office*  
*CP10 F or SS*

Supervised independent research on issues in the planning of cities and regions in developing countries.
PLAN3031
Generic Planning Project 2
Staff Contact: Dr R Freestone
CP20 S1
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 S1
Corequisite: 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 S1
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: Ms S Thompson
CP10 S2
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 S2
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 S2
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 disputation are also examined.

PLAN3052
Qualitative Methods
Staff Contact: Ms S Thompson
CP10 S2
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 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 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 S1
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 S1
Prerequisites: All subjects of previous years
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.

GSBE0002
Social Responsibility and Environmental Ethics
Staff Contact: Dr R Samuels, Architecture School
CP10 S2
The aim of the 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 two case studies. The exchange of information and the 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 of students from all schools in the Faculty. Assessment will include individual and collaborative submissions.

PLAN4071/4072
Planning Elective
School Contact: School Office
CP10 S1 S2 or F
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 F
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 School of Planning and Urban Development. 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: School Office
CP10 S2
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.

Subjects Offered to Other Schools

PLAN1093
Planning Perspectives
Staff Contact: Ms 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.

PLAN7123
Environmental Planning
Staff Contact: School Office
S2 L2
**PLAN7124**  
Environmental Planning  
*Staff Contact: School Office*  
S2 L2 T2  
The aim of this subject is to provide the student with an understanding of the objectives of environmental planning and how the system operates with particular reference to New South Wales. The nature of planning philosophy, environmental law and administrative structures are the core aspects of the course. Within this framework specific areas of concern are introduced and discussed: the central business district of cities, housing and equity, land-use and transport interaction, urban design, location theory, and urban and rural conservation.  

As planning is a temporal concept, historical, contemporary, and future themes are built into the subject. At the completion of the program the student should understand the environmental planning process and the individual’s rights under it.  

PLAN7124 is also offered as a half elective (PLAN7123) consisting of the lecture sessions only. Assessment is by written assignment, tutorial paper, and class participation. The assignment is based on the lecture material, and students are also required to prepare a written paper for tutorial discussion.

**Servicing Subjects**

**Biological Sciences**

**BIOS3004**  
Botany for Landscape Architects  
*Staff Contact: School of Biological Sciences School Office*  
The life of flowering plants from germination to seed-set. An introduction to non-flowering plants. How plants grow and what they need from the environment. Their structure. Observing plants and reading and writing about them.

**Mines**

**GEOL5110**  
Geology for Landscape Architecture  
*Staff Contact: A/Prof AD Albani*  
Minerals and rocks. Igneous, sedimentary and metamorphic rocks; their origin and their relationship with the landscape. Geological structures and their graphic representation. Interpretation of geological maps and sections.

**Geography**

**GEOG1051**  
Global Environmental Problems and Processes  
*Staff Contact: Dr I Prosser*  
S1 L2 T1  
The subject outlines the principles and processes necessary to appreciate the physical background behind major global scale environmental problems. Principles and processes include the linkages between the lithosphere, hydrosphere and biosphere, atmospheric circulation, energy and radiation balance and ecosystem function. Problems covered are the issues of desertification, deforestation, ‘greenhouse’, ozone depletion, energy conservation and pollution.
Faculty of the Built Environment
Graduate Enrolment Procedures

All students enrolling in graduate courses should obtain a copy of the free booklet Enrolment Procedures 1995 available from School Offices and the 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 (available in each School)
2. Master of Architecture
3. Master of Building
4. Master of the Built Environment
5. Master of Construction Management
6. Master of Industrial Design
7. Master of Landscape Planning
8. Master of Project Management
9. Master of Real Estate
10. Master of Science (Industrial Design)
11. Master of Science (Acoustics)*
12. Master of Urban Development and Design
13. Graduate Diploma in Housing and Neighbourhood Planning*
14. Graduate Diploma in Landscape Planning
15. Graduate Diploma in Real Estate
16. Graduate Diploma in Town Planning
17. Graduate Diploma in Valuation

Duration

Each course is programmed over one year full-time or two years part-time study in the University, generally involving attendance on two or three evenings per week. Subjects in the Master of Project Management and the Master of Built Environment (Building Conservation) courses are normally timetabled on two evenings and one afternoon per week. Subjects in the Master and Diploma of Landscape Planning courses are normally timetabled on three afternoons per week. The Master of Urban Development and Design is offered on a full-time basis only requiring predominantly day-time attendance.

*The Diploma of Housing and Neighbourhood Planning and the Master of Science (Acoustics) are under review, and no new enrolments in these courses are currently being accepted.
Graduate School of the Built Environment

Head of School
Dr BH Judd

The purpose of the Graduate School is to provide opportunities for inter-disciplinary postgraduate research and advanced study in the area of the built and natural environment across the various disciplines that make up the Faculty of the Built Environment. It offers research degrees at doctoral and masters level as well as coursework masters programs in Urban Development and Design, and Building Conservation. Additional coursework programs in Sustainable Development and Housing Studies are being planned.

Areas of built-environment research of particular interest to the school include Building and Urban Conservation, Housing Studies, Urban Design, Environment-Behaviour Studies, Sustainable Development and Facilities Planning and Management. Research students follow a largely self-determined program of study with joint supervision arranged from the wide range of expertise available in the Faculty and, where necessary, from elsewhere in the University.

The School welcomes applications from graduates in disciplines represented in the undergraduate programs of the Faculty of the Built Environment, as well as from graduates in any other relevant discipline. Prospective students are advised to contact the Head of School to discuss their academic interests and objectives before lodging a formal application.

8130
Master of the Built Environment (Building Conservation) Course

Master of the Built Environment (Building Conservation) MBE

Course Co-ordinator: Mr DM Godden
This course consists of graduate work in the major areas of heritage assessment and building conservation. It is designed for graduates who wish to specialise in the conservation of the built environment and who typically will be government or private-sector conservation architects, planners or other heritage specialists. Training is provided for the preparation and critical examination of conservation policies, heritage assessments and management plans for a wide spectrum of heritage precincts, buildings, structures and relics.

Admission Requirements

The conditions governing registration as a candidate for this course are given later in this handbook. In summary, admission is open to applicants who have completed at least a four year full-time university course in an appropriate area of an approved discipline.

In certain cases it may be necessary for applicants to complete a program of preparatory subjects set out by the Higher Degree Committee of the Faculty of the Built Environment, whose decision is influenced by the education and experience of each applicant.

Course Structure

The course is designed to be taken over a minimum of two sessions of full-time study or over four sessions of part-time study. It comprises 120 credit points with each credit point representing approximately 4 hours class contact. Full-time study requires 18 contact hours per week, while part-time study requires 9 hours per week.

A full-time course of study will be offered only if demand is sufficient. On current applications it is expected that the course will be offered on both a full-time and part-time basis.

The course is divided into four basic subject groupings plus the Graduate Project. One of the four subject groups is offered in each session for part-time candidates while two are offered in each session for full-time candidates. The Graduate Project, which has a loading of 20 credit points, is commenced in the early part of the course with the majority of work being completed in the latter stages. Both full-time and part-time candidates are to produce two progress reports and participate in one colloquium before the graduate project is submitted. The reports and the colloquium participation will be assessed and are rated at 5 credit points.

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.

2240
Master of the Built Environment

Master of the Built Environment MBE

This degree is available to part-time and external candidates in addition to full-time candidates. It requires the submission of a thesis embodying the results of an original investigation or design.
Integrated with the subjects in all subject groups there will be a series of site visits and excursions. These will normally take place in scheduled class hours.

Course Subject Areas  
(Total Credit Points)

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Credit Points</th>
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</thead>
<tbody>
<tr>
<td>Contextual Studies</td>
<td>25</td>
</tr>
<tr>
<td>History of the Built Environment</td>
<td>25</td>
</tr>
<tr>
<td>Conservation Practice</td>
<td>25</td>
</tr>
<tr>
<td>Conservation Management</td>
<td>10</td>
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<tr>
<td>Graduate Project and Research</td>
<td>35</td>
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<tr>
<td>Total</td>
<td>120</td>
</tr>
</tbody>
</table>

Typical Study Pattern for Full-time Candidates

The following table shows the subjects (and their credit points) which would normally be taken by full-time candidates.

<table>
<thead>
<tr>
<th>Session</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>GSBE0001</td>
<td>Conservation Policy and Practice</td>
<td>5</td>
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<tr>
<td></td>
<td>LAND9010</td>
<td>Environmental Heritage Studies</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>GSBE0004</td>
<td>Cultural Significance</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>GSBE0503</td>
<td>Postgraduate Research Design and Methodology</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>GSBE0008</td>
<td>Conservation Technology</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>GSBE0009</td>
<td>Conservation Research</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>GSBE0011</td>
<td>Conservation Processes</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>GSBE0014</td>
<td>Graduate Project (Report Colloquium)</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

| Session 2| GSBE0020    | Heritage Legislation                             | 5             |
|          | GSBE0005    | Historical Processes I - The Built Environment   | 10            |
|          | GSBE0006    | Historical Processes II - Technology             | 5             |
|          | GSBE0007    | Traditional Building Materials and Technologies  | 10            |
|          | GSBE0012    | Adaption, Recycling and Conservation Management  | 10            |
|          | GSBE0021    | Graduate Project                                 | 20            |
| Total    |             |                                                   | 60            |

Typical Study Pattern for Part-time Candidates

<table>
<thead>
<tr>
<th>Session</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>GSBE0001</td>
<td>Conservation Policy and Practice</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>LAND9010</td>
<td>Environmental Heritage Studies</td>
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<tr>
<td></td>
<td>GSBE0004</td>
<td>Cultural Significance</td>
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</tr>
<tr>
<td></td>
<td>GSBE0503</td>
<td>Postgraduate Research Design and Methodology</td>
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</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

| Session 2| GSBE0020    | Heritage Legislation                             | 5             |
|          | GSBE0005    | Historical Processes I - The Built Environment   | 10            |
|          | GSBE0006    | Historical Processes II - Technology             | 5             |
|          | GSBE0007    | Traditional Building Materials and Technologies  | 10            |
| Total    |             |                                                   | 30            |

| Session 3| GSBE0008    | Conservation Technology                          | 10            |
|          | GSBE0009    | Conservation Research                            | 10            |
|          | GSBE0011    | Conservation Processes                           | 5             |
|          | GSBE0014    | Graduate Project (Report Colloquium)              | 5             |
| Total    |             |                                                   | 30            |

8131
Master of Urban Development and Design Course

Master of Urban Development and Design (M.U.D.D.)

Program Head: Professor A Cuthbert
Course Co-ordinator: Dr B Judd

A full-time multi-disciplinary coursework program for a wide range of graduates from both design and non-design based disciplines. 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.

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 an appropriate field such as architecture, landscape architecture, urban planning, urban studies, real estate economics, property development, or another appropriate discipline. In exceptional cases students may be admitted on the basis of professional experience. 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 School 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 Head of School, 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, a major design project involving group and individual work, a South East Asian field project involving travel to a major South East Asian city, and the preparation of an exhibition and publication of the years work.

Program of Study

<table>
<thead>
<tr>
<th>Session 1</th>
<th>CP</th>
<th>Session 2</th>
<th>CP</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSBE2002 Urban and Environmental Law</td>
<td>10</td>
<td>GSBE2006 Urban Landscape</td>
<td>10</td>
</tr>
<tr>
<td>GSBE2003 Real Estate Development</td>
<td>10</td>
<td>GSBE2007 Urban Design Studio 2</td>
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<tr>
<td>GSBE2004 Urban Design Studio 1</td>
<td>20</td>
<td>Elective Subject</td>
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<tr>
<td>Elective Subject</td>
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<td>Total</td>
<td>60</td>
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<tr>
<td>Total</td>
<td>60</td>
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<table>
<thead>
<tr>
<th>Summer Term</th>
<th>CP</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSBE2008 Case Studies in Urban Development &amp; Design</td>
<td>20</td>
</tr>
<tr>
<td>GSBE2009 Urban Design Studio 3 (including S.E. Asian field project)</td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
</tr>
</tbody>
</table>

| Total Credit Points for Course | 180 |

Recommended Elective Subjects

| ARCH7301 Architecture and the City | 10 |
| ARCH7322 People and Urban Space | 10 |
| BLDG7305 Urban Economics | 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 |

School of Architecture

The School of Architecture offers facilities for research and welcomes enquiries from students who wish to pursue programs for the research degrees of Master of Architecture (MArch) Master of Science (MSc) or Doctor of Philosophy (PhD). Prospective students should consult the Director of Postgraduate Studies to discuss their research or coursework interests prior to making a formal application.


Director of Postgraduate Studies
Dr BH Judd

1130
Doctor of Philosophy

Doctor of Philosophy
PhD

This is a research degree requiring an original and significant contribution to knowledge in an approved subject.
Master of Science (Acoustics) Course

Master of Science (Acoustics)
MSc(Acoustics)

This course is currently under review and no new admissions will be made in 1996. Students already enrolled may continue with their studies until completion of the degree. Students should consult pages 61 and 62 of the 1992 Architecture Faculty handbook for details of this course.

Course Structure

Students undertaking the Course are required to select their area of specialisation 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. Note that each of the general core and elective subjects offered have a credit point value of 10. Two Programs (Architectural Computing, History and Theory of Architecture), as part of the core component, require the completion of a Graduate Project to the value of 60 credit points, representing half the requirement for the award of the degree. The Architectural Design Program is centred around two compulsory design studios which represent two-thirds of the total requirement for the award of the degree.

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.

Those applicants wishing to pursue the Architectural Design Program of the Course are specifically required to hold a Bachelor of Architecture degree at Honours level and to have had at least 12 months professional practice experience. In addition, all such applicants are required to submit a design portfolio demonstrating the range and quality of their architectural design experience prior to their final acceptance into the Program.

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.

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.

Note that where a candidate is required to undertake a Graduate Research Project as part of their area of specialisation, it is normally expected that they would complete the subject GSBE0503 Postgraduate Research and Design Methodology at the beginning of their candidature. Exemptions from this requirement may be granted by the Head of School where candidates can demonstrate prior research experience or the completion of an equivalent subject. Where that is the case, the candidate is required to undertake an approved elective subject in its place.

Notwithstanding the above, work on a Graduate Research Project is equally spread over two sessions of study, with the presentation of a graduate seminar at the conclusion of the first session introducing the topic of the project, outlining current work in the area from the literature and indicating their research strategy.

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) must each be undertaken and completed within a single session, even though they represent two-thirds of a session workload.

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 Head of School, 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.

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**Typical Patterns of Study**

**Architectural Design Program**

<table>
<thead>
<tr>
<th></th>
<th>Full-time</th>
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<tbody>
<tr>
<td></td>
<td>S1</td>
<td>S2</td>
<td></td>
</tr>
<tr>
<td>Architectural Design Project</td>
<td>40</td>
<td>40</td>
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</tr>
<tr>
<td>Core and Elective Subjects</td>
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<tr>
<td>Total</td>
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**Part-time**

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<tr>
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<th>Year 1</th>
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<tbody>
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<td>Architectural Design Project</td>
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<tr>
<td>Elective Subjects</td>
<td>20</td>
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<tr>
<th></th>
<th>Year 2</th>
<th></th>
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<tbody>
<tr>
<td>Architectural Design Project</td>
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</tr>
<tr>
<td>Elective Subjects</td>
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<tr>
<td>Total</td>
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**Architectural Computing and History and Theory of Architecture Programs**

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<thead>
<tr>
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<th>Full-time</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Core and Elective Subjects</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Research Design and Methodology</td>
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<tr>
<td>Graduate Research Project</td>
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<tr>
<td>Total</td>
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**Part-time**

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<tr>
<th></th>
<th>Year 1</th>
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<tbody>
<tr>
<td>Core and Elective Subjects</td>
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<td>30</td>
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</tr>
<tr>
<td>Research Design and Methodology</td>
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<td></td>
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<tr>
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<table>
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<th></th>
<th>Year 2</th>
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<tbody>
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The following sections detail the prescribed academic program for each of the specialisation strands available at the present time.

**Master of Architecture**

**Architectural Design Program**

**Prescribed Academic Program**

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**Recommended Electives:**

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**Master of Architecture**

**Architectural Computing Program**

**Required Academic Program:**

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**Master of Architecture**

**History and Theory of Architecture Program**

**Required Academic Program:**

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<tr>
<td>GSBE2006</td>
<td>Urban Landscape</td>
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School of Building

The School of Building has active programs of coursework and research studies and welcomes inquiries from students who wish to pursue programs for the degrees of Master of Real Property, Master of Building (MBuild), Master of Project Management (MProjMgt) (part-time), Master of Construction Management (MConstMgt) (full-time), Master of Real Estate (MRE) (part-time or full-time), Graduate Diploma of Real Estate (GradDipRE) (part-time or full-time), Graduate Diploma of Valuation (GradDipVal) (part-time or full-time) or Doctor of Philosophy (PhD). Graduates enrolled in these courses need not necessarily be building graduates. Prospective students should consult the Head of School to discuss their research interests prior to making a formal application.

The School also offers each year a series of short noncredit midcareer courses which are designed to provide practical ongoing education for experienced members of the building industry.

For further information contact:
Continuing Education Co-ordinator
Dr J Hutcheson

1140
Doctor of Philosophy

Doctor of Philosophy
PhD

This is a research degree requiring an original and significant contribution to knowledge in an approved subject.

2210
Master of Building

Master of Building
MBuild

This degree is available to part-time and external candidates in addition to full-time students. It requires the submission of a thesis embodying the results of an original investigation or design relative to building.

8116
Master of Project Management Course

Master of Project Management
MProjMgt

Course Co-ordinator: Mr Jinu Kim

This four session course has been designed to provide opportunities for advanced study in project management and building economics. It allows for study in two interrelated areas:

1. Planning and management aspects of a design or construction organisation, including programming, evaluation, costing, performance feedback, feasibility and management of properties.

2. Operations and control aspects of a design or construction organisation, concentrating on estimating and cost analysis, contract or design administration and building economics.

The course aims at attracting the qualified practitioner who wishes to widen his/her knowledge and understanding of construction planning, operation and economics related to project management.

Admission Requirements

The general conditions governing registration as a candidate for the degree Master of Project Management are given later in this handbook but the attention of intending applicants is directed to the following specific requirements:

1. Applicants will have been admitted to the degree of Bachelor of Architecture or Bachelor of Building in the University of New South Wales or an equivalent degree in another approved university and have appropriate industrial experience.

2. Graduates with a Bachelor of Architecture or Engineering or other four year degree, who have appropriate experience in building 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 set out by the Head of the School of Building whose decision will be influenced by the education and experience of each applicant.

Graduate experience and involvement in the building industry is considered an advantage in the selection of candidates.

Course Structure

The Master of Project Management is a formal four session part time degree course comprising 12 subjects. The subject program comprises studies in management, computations, building economics, operations planning, contract law and documentation. A student must successfully complete all the subjects in one session before progressing to the next session. Students with a grade
average of Credit or better in their course may choose to write a Project Report to qualify for the degree with honours.

Course Program

Subjects are offered on a four-session cycle. Subjects are normally timetabled on two evenings and one afternoon 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.

Session One
BLDG5111 Economics and Project Environment
BLDG5112 Project Management Framework
BLDG5113 Project Management Information Systems

Session Two
BLDG5211 Project Finance
BLDG5212 Human Resources Management
BLDG5213 Project Time Management

Session Three
BLDG5311 Project Cost Management
BLDG5312 Contracts Management
BLDG5314 Project Quality Management

Session Four
BLDG5411 Property Feasibility Development & Management
BLDG5412 Project Integration
BLDG5413 Project Applications in Building

Sessions Five and Six
BLDG5100 Project Report (full-time or part-time)

3. Applicants from non-English speaking countries must supply a certified statement of results in the IELTS Test or another equivalent recognised test.

4. The tuition fee is $A12,000.

Course Structure

The Master of Construction Management course is a formal one year full-time full-fee degree course comprising two sessions of academic study combined with an additional session of industry training and research. A student must successfully complete all the subjects in the first session before progressing to the second session.

Course Program

Session One
BLDG6151 Construction Methods and Techniques
BLDG6154 Economics in Construction
BLDG6155 Computers in Construction Management
BLDG6253 Construction Planning and Control
BLDG6158 Principles and Practice of Management
BLDG6257 Quantitative Methods in Management

Session Two
BLDG6259 Project Management
BLDG6157 Property Management
BLDG6251 International Construction Practice
BLDG6255 Contracts Management and Law
BLDG6256 Cost Planning and Analysis
BLDG6258 Construction Management Applications

Other Subjects
BLDG6150 Industry Training
BLDG6250 Research Report

8125
Master of Construction Management

Master of Construction Management
MConstMgt

Course Co-ordinator: 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 calendar year full-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. The tuition fee is $A12,000.

Course Structure

The Master of Construction Management course is a formal one year full-time full-fee degree course comprising two sessions of academic study combined with an additional session of industry training and research. A student must successfully complete all the subjects in the first session before progressing to the second session.

Course Program

Session One
BLDG6151 Construction Methods and Techniques
BLDG6154 Economics in Construction
BLDG6155 Computers in Construction Management
BLDG6253 Construction Planning and Control
BLDG6158 Principles and Practice of Management
BLDG6257 Quantitative Methods in Management

Session Two
BLDG6259 Project Management
BLDG6157 Property Management
BLDG6251 International Construction Practice
BLDG6255 Contracts Management and Law
BLDG6256 Cost Planning and Analysis
BLDG6258 Construction Management Applications

Other Subjects
BLDG6150 Industry Training
BLDG6250 Research Report

8128
Master of Real Estate

Master of Real Estate
MRE

Course Co-ordinator: Dr John M Hutcheson MC

This four-session part-time and two-session full-time course has been designed to provide opportunities for advanced study in Real Estate. It allows for study in five interrelated areas:

1. Valuation of property to an advanced level including rural to specialist valuations.

2. Law with special attention to contracts, consumer protection, land, environment and arbitration.

3. Agency studies, including trust accounting, marketing, property management, finance and tax.

4. Property studies and development including forecasting, investment analysis and development of complex projects.

5. Property economics involving urban economics, planning and land policy.

The course aims at attracting the qualified practitioner who wishes to widen his/her knowledge and understanding of valuation and real property economics.
Admission Requirements

The general conditions governing registration as a candidate for the degree of Master of Real Estate are given later in this handbook but the attention of intending applicants is directed to the following specific requirements:

1. Applicants will have been admitted to the degree of Bachelor of Building, BSc Arch (Hons), Town Planning, Landscape Architecture, Quantity Surveying or Engineering in the University of New South Wales or an equivalent degree in another approved university and have appropriate industrial experience.

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 Head of the School of building whose decision will be influenced by the education and experience of each applicant.

Graduate experience and involvement in the property industry is considered an advantage in the selection of candidates.

Fees

This is a full fee paying course. Contact School for details.

Course Structure

The Master of Real Estate is a formal four session part-time or two session full-time degree course comprising 20 subjects. The subject program comprises studies in valuation, law, agency studies, property studies and development and property economics. Students with a grade average of Credit or better in their course may choose to write a thesis to qualify for the degree with honours.

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.

Session 1
BLDG7101 Valuation 1 (Introduction)
BLDG7102 Real Estate Marketing
BLDG7103 Market Forecasting
BLDG7105 Agency & Trust Accounting
PLAN7204 Land & Environment Law

Session 2
BLDG7104 Contracts, Agency & Consumer Protection
BLDG7201 Valuation 2 (Valuation Theory)
BLDG7202 Strata Management
BLDG7203 Property Management
PLAN7205 Planning & Land Policy

Session 3
BLDG7301 Valuation 3 (Valuation Theory & Practice)
BLDG7302 Valuation 5 (Specialist Valuations)
BLDG7303 Property Development 1
BLDG7304 Arbitration & Litigation
BLDG7405 Organisation, Finance & Tax

Session 4
BLDG7305 Urban Economics
BLDG7401 Valuation 6 (Rural Utilisation & Valuation)
BLDG7402 Property Development 2
BLDG7403 Property Investment Analysis
BLDG7404 Valuation 4 (Advanced Theory & Practice)

5195 Graduate Diploma in Real Estate

Graduate Diploma in Real Estate
GradDipRE

Course Co-ordinator: Dr John M Hutcheson MC

This four session part-time and two session full-time course has been designed to provide opportunities for advanced study in Real Estate. It allows for study in three interrelated areas:

1. Law with special attention to contracts, consumer protection, land, environment and arbitration.
2. Agency studies, including trust accounting, marketing, property management, finance and tax.
3. Property studies and development including forecasting, investment analysis and development of complex projects.

The course aims at attracting the qualified practitioner who wishes to widen his/her knowledge and understanding of real estate.

Admission Requirements

The general conditions governing registration as a candidate for the degree of Graduate Diploma in Real Estate are given later in this handbook but the attention of intending applicants is directed to the following specific requirements:

1. Applicants will have been admitted to the degree of Bachelor of Building, BSc Arch (Hons), Town Planning, Landscape Architecture, Quantity Surveying or Engineering in the University of New South Wales or an equivalent degree in another approved university and have appropriate industrial experience.

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 Head of the School of building whose decision will be influenced by the education and experience of each applicant.

Graduate experience and involvement in the property industry is considered an advantage in the selection of candidates.
Fees

This is a full fee paying course. Contact School for details.

Course Structure

The Graduate Diploma in Real Estate is a formal four session part-time or two session full-time degree course comprising 10 subjects. The subject program comprises studies in law, agency studies, property studies and development.

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.

Session 1
BLDG7102 Real Estate Marketing
BLDG7103 Market Forecasting
BLDG7105 Agency & Trust Accounting

Session 2
BLDG7104 Contracts, Agency & Consumer Protection
BLDG7202 Strata Management
BLDG7203 Property Management

Session 3
BLDG7303 Property Development 1
BLDG7405 Organisation, Finance & Tax

Session 4
BLDG7402 Property Development 2
BLDG7403 Property Investment Analysis

Admission Requirements

The general conditions governing registration as a candidate for the degree of Graduate Diploma in Valuation are given later in this handbook but the attention of intending applicants is directed to the following specific requirements:

1. Applicants will have been admitted to the degree of Bachelor of Building, BSc Arch (Hons), Town Planning, Landscape Architecture, Quantity Surveying or Engineering in the University of New South Wales or an equivalent degree in another approved university and have appropriate industrial experience.

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 Head of the School of Building whose decision will be influenced by the education and experience of each applicant.

Graduate experience and involvement in the property industry is considered an advantage in the selection of candidates.

Fees

This is a full fee paying course. Contact School for details.

Course Structure

The Graduate Diploma in Valuation is a formal four session part-time or two session full-time degree course comprising 10 subjects. The subject program comprises studies in valuation, law, and property economics. To be registered as a Valuer by the RESC (NSW) candidates must also enrol in PLAN7205 Planning and Land Policy.

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.

Session 1
BLDG7101 Valuation 1 (Introduction)
PLAN7204 Land & Environment Law

Session 2
BLDG7104 Contracts, Agency & Consumer Protection
BLDG7201 Valuation 2 (Valuation Theory)

Session 3
BLDG7301 Valuation 3 (Valuation Theory & Practice)
BLDG7302 Valuation 5 (Specialist Valuations)
BLDG7304 Arbitration & Litigation

Session 4
BLDG7305 Urban Economics
BLDG7401 Valuation 6 (Rural Utilisation & Valuation)
BLDG7404 Valuation 4 (Advanced Theory & Practice)
Department of Industrial Design

Head of Department
Lance Green

2242
Master of Science (by Research)

Master of Science
MSc

This degree is available to part-time or external candidates in addition to full-time candidates. It requires the submission of a thesis embodying the results of an original investigation or design.

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, e.g., 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 non-design 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 School and the approval of the Higher Degree Committee of the Faculty of the Built Environment.

In certain cases, particularly for applicants from non-design 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 130-140 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
SAFE 9224 Principles of Ergonomics
MARK5902 Elements of Marketing
IDES4331 History of Consumer Products
IDES4341 History of Industrial Design
IDES3271 Form Theory
SAFE9424 Applied Ergonomics
IDES2151 Product Studies Seminar
IDES5152 Manufacturing Technology
IDES5051 Plastics, materials and processes
IDES4371 Managing Product Innovation
IDES5111 Visual Thinking

MID only
IDES6081 Graduate Project (MID)
GSBE0503 Research Methods
SAFE9426 Ergonomics and new technology
Approved Electives*

*Approved electives may be taken from subjects offered in other schools of the University of New South Wales, subject to the approval of the Heads of the Graduate School of the Built Environment and the school offering the subject.

MID electives may be chosen to increase specialist knowledge relevant to the student’s theory studies, project report or planned career activities. At least six credits must be taken of which up to four credits may be taken in undergraduate units at half their point value.

MSc(IndDes) electives are taken in approved subjects directly related to the development of the student’s industrial design knowledge and skill. At least four credits must be taken of which up to two credits may be taken in undergraduate units at half their point value.

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 Heads of the schools offering the courses. Where the credit point of subjects is increased by substitution of subjects from other schools, the requirement for the stated number of credits in elective subjects is correspondingly reduced.

School of Landscape Architecture

Head of School
Professor James Weirick

Postgraduate Studies Co-ordinator
Associate Professor Finn Thorvaldson

The School of Landscape Architecture has an active program of research and advanced study and encourages enquiries from students who wish to pursue graduate education. The degrees Doctor of Philosophy (PhD) and Master of Landscape Architecture are available for those wishing to engage in research. The degrees Master of Landscape Planning (MLP) and Graduate Diploma in Landscape Planning (GradDipLP) are available as course programs. Prospective students should consult the Head of School to discuss their research interests and educational objectives prior to making a formal application.

2220
Master of Landscape Architecture

Master of Landscape Architecture
MLArch

This degree is available to part-time and external candidates in addition to full-time candidates. It requires the submission of a thesis embodying the results of an original investigation or design.

8135
Master of Landscape Planning

Master of Landscape Planning
MLP

The course offers advanced education and study opportunities for graduate landscape architects, town planners, surveyors, geographers, engineers, and architects in landscape planning.

The intent is to offer students the opportunity to develop an understanding of the complex relationships between natural environments and expanding human population
and to acquire the skills needed for planning and management of emerging landscapes. Principles and concepts from the natural and social sciences along with techniques and methods of geographic information systems, remote sensing and other technologies are emphasized.

Admission Requirements

A four year degree of appropriate standing in landscape architecture, architecture, town planning, surveying, geography or other approved degree in a relevant area of land management or resource and environmental science or a Graduate Diploma in Landscape Planning is required. A qualifying or concurrent program may be required in some cases.

Course Structure

The course will be offered as a full-time program that can be completed in three sessions. To accommodate the practising professionals in the Sydney metropolitan area, the course can also be taken part time and would normally be completed in six sessions or less.

The course is built upon a core of eight required subjects totalling 120 credit points. As far as possible, these core subjects are offered between the times of 2 pm and 9 pm on Monday through Friday to accommodate the working professional. Beyond these core requirements students may select from project alternatives. In all cases the course requires the completion of 180 credit points. This would require the completion of a Landscape Project, Landscape Planning Exercise and/or electives. Topics for Landscape Research Projects and Landscape Projects will be determined in consultation with academic staff of the school.

Course Program

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Electives

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Graduate Diploma in Landscape Planning

Graduate Diploma
GradDipLP

This course is designed for people who wish to obtain formal qualifications in Landscape Planning through a program in which the emphasis is on completion of subjects. There is no research or independent project requirement.

The intent is as described above for the Master of Landscape Planning course but the program is offered in a more structured setting.

Admission Requirements

A three year degree from an approved university and/or qualifications deemed appropriate by the Higher Degree Committee of the Faculty of the Built Environment is required.

Course Structure

The course is offered as a one year full time, or two year part time program. Students are required to complete a program totalling at least 120 credit points. The required core subjects comprise 105 of these credit points and the remaining 15 credit points are from electives. After successful completion of the course the student may elect to transfer into the Master of Landscape Planning course. This would require the completion of one additional core subject and a Landscape Research Project or a Landscape Project, a Landscape Planning Exercise and/or electives.

Course Program

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<th>Core Subjects</th>
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Electives

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School of Planning and Urban Development

Head of School
Professor AR Cuthbert

The School of Planning and Urban Development has a significant commitment to research and to the training and involvement of postgraduate students in a variety of research areas. The School welcomes enquiries from individuals who wish to pursue the Doctor of Philosophy (PhD), Master of Town Planning (MTP) and Master of Science (Town Planning). Prospective students should contact the Head of School to discuss their research interest prior to making a formal application. Although direct entry into the research degree programs is possible, candidates may be asked to complete qualifying work of one or two sessions duration. Formal conditions governing the award of these degrees are set out later in this Handbook.

Course Work

Candidates who already have a degree in planning may be permitted to directly enter the MTP program.

Candidates with a primary degree in a discipline other than Town Planning may be required to complete an additional program of study. The actual program is determined by the Higher Degree Committee of the Faculty of the Built Environment on the recommendation of the Head of School of Planning and Urban Development. Candidates should contact the Head of the School about the guidelines used in formulating such a program.

1150
Doctor of Philosophy

Doctor of Philosophy
PhD

The Doctor of Philosophy is a research degree on an approved topic which requires an original and significant contribution to knowledge. Students enrol in a Research Seminar program as part of their candidacy.

2230
Master of Town Planning (by research)

Master of Town Planning
MTP

The Master of Town Planning is a research degree awarded on the basis of a thesis embodying the results of an original investigation. The research program is normally undertaken over a minimum of four sessions, but the period may be reduced in certain circumstances. Students enrol in a Research Seminar program as part of their candidacy.

Admission Requirements

A four year degree (or equivalent) of appropriate standing from an approved university and/or qualifications deemed appropriate by the Higher Degree Committee of the Faculty of the Built Environment.

Professional Recognition

The degree is recognised by the Royal Australian Planning Institute as an 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.

2335
Master of Science (by Research)

Master of Science
MSc

The Master of Science (Town Planning) is a research degree awarded on the basis of a thesis embodying the results of an original investigation. This degree is designed for students with prior degrees not in planning, who want to undertake masters-level research in the planning field, but do not wish to pursue the MTP. Students enrol in a Research Seminar program as part of their candidacy.

Admission Requirements

A four year degree (or equivalent) of appropriate standing from an approved university and/or qualifications deemed appropriate by the Higher Degree Committee of the Faculty of the Built Environment.

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 1996. Students should consult pages 72 and 80 of the 1994 Built Environment Faculty handbook for details of this course.
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, MTP or MSC (Town Planning). 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 required 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 Head of the School. 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

Descriptions of all subjects are presented in alphabetical order within organisational units. For academic advice regarding a particular subject, consult with the contact for subject as listed. A guide to abbreviations and prefixes is included in the chapter 'Handbook Guide', appearing earlier in this book.

Architecture

ARCH7001
Graduate Research Project
Staff Contact: Program Co-ordinator
CP60
Corequisites: GSBE0503 (unless exempt by Head of School)

A research project relating to the theory or practice of architecture selected by the student and approved by the Head of the School of Architecture. The research 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 research methodologies and techniques will be used in all aspects of the work.

The research project is to be completed in two phases: the first phase encompasses one-third of the work and involves the presentation of a graduate seminar introducing the topic of the research, outlining current work in the area from the literature and indicating the proposed research strategy; the second phase, encompassing the remaining two-thirds of the work, leads to the preparation of a written research project and its presentation in a second graduate seminar.

ARCH7101
Architectural Design Project 1
Staff Contact: Ms D Luscombe
CP40 S1

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.

ARCH7102
Architectural Design Project 2
Staff Contact: Ms D Luscombe
CP40 S2

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.

ARCH7201
Computational Design
Staff Contact: Mr J Plume
CP10 S1

A examination of the theoretical basis of computational design, covering topics such as: design as problem-solving and decision-making; design analysis, simulation and optimisation; theory of form and shape grammars; conceptual modelling; expert systems and knowledge engineering. This subject also touches on the techniques of architectural computing, such as: procedural programming; object-oriented programming; logic programming; expert systems programming; and spreadsheets and databases. Assessment is based on project work and class seminars.

ARCH7202
Computer Graphics Programming
Staff Contact: Mr S Peter
CP10 S1

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; interactive programming and graphics input; use of graphics libraries; menuing systems; three-dimensional modelling; and colour manipulation. The subject involves a staged series of programming exercises and the development of an interactive graphics-based application.

ARCH7203
Information Technology in Architecture
Staff Contact: Mr J Plume
CP10 S2
Excluded: ARCH5206 or equivalent

This subject reviews the current state of information technology and its application to the practice of architecture. 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.

ARCH7220
Computer-aided Architectural Drafting
Staff Contact: Mr J Plume
CP10 S1 & S2
Excluded: ARCH6214, ARCH5202 or equivalents.

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 drafting 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 S1 & S2
Excluded: ARCH5201 or equivalent.

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.

ARCH7222
Architectural CAD Management
Staff Contact: Mr S Peter
CP10 S2
Excluded: ARCH5207 or equivalent

This subject is concerned with the practical implementation and management of CAD systems in the context of architectural practice. 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.

ARCH7301
Architecture and the City
Staff Contact: Dr P Kohane
CP10 S2

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.

ARCH7302
Theories in History
Staff Contact: Dr P Kohane
CP10 S1

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.

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.

ARCH7322
People and Urban Space
Staff Contact: Prof J Lang
CP10 S2

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.

Building

Master of Project Management

BLDG5100
Project Report
Staff Contact: Mr GE Levido

Students with a grade average of Credit or better in their course work may choose to write a Project Report to qualify for the degree with honours. This will require a specialised individual study taken under staff supervision, with the objective of allowing the student to expand knowledge in some aspect of building management.

The Project Report may be taken full-time over one session or part-time over two sessions following the satisfactory completion of all course work subjects. As part of the examination of the Project Report, students will be required to make an oral presentation and defence of the subject matter covered in their report.

BLDG5111
Economics and Project Environment
Staff Contact: Mr G Runeson, Mr G Levido
S1 L2 T1

Economic modelling; a model of the Australian economy; economic targets and instruments; fiscal and monetary policies; the structure of the building industry; productivity and competition; land use theory; the structure of the financial market; sources and costs of finance; Political and environmental issues.

BLDG5112
Project Management Framework
Staff Contact: Mr J Senogles, Mr D Dombkins
S1 L2 T1

Introduction to general management theories; development of management disciplines and schools of thought; traditional functions of management - organising, planning, monitoring and control; leadership; management communication. Project Management as a discipline in itself; the project life cycle; project organisational design by
phase; distinctive attributes and tasks of Project Management; communication on projects; communication dysfunctions; development and management of conflict; concepts of uncertainty and risk; project risk identification and analysis.

**BLDG5113**  
**Project Management Information Systems**  
*Staff Contact: Dr O Greste*  
S1 L2 T1

Nature and scope of information for building construction estimating, planning and management. Overview of computer hardware and operating systems; spreadsheet, data base and word processing programs and application areas; design of relational data base structures; data communication and networks; programs for cost estimating, project scheduling, cost monitoring and project information management; CAD overview; computer system specification, selection, installation and operation. The subject involves practical use of various PC packages.

**BLDG5211**  
**Project Finance**  
*Staff Contact: Mr B Reece*  
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: Mr D Dombkins*  
S2 L2 T1


**BLDG5213**  
**Project Time Management**  
*Staff Contact: A/Prof T Uher*  
S2 L2 T1

Concept of operations analysis; operation research techniques; concept of a model; optimisation. Critical path method; arrow and precedence diagrams; project control time-cost trade-offs; basic overlapping networks; resource allocation and levelling; computer applications of CPM. Work study; line of balance; multiple-activity charting; PERT. Applications of planning techniques.

**BLDG5311**  
**Project Cost Management**  
*Staff Contact: Mr P Marsden*  
S1 L2 T1


**BLDG5312**  
**Contracts Management**  
*Staff Contact: A/Prof T Uher, Mr P Davenport*  
S1 L2 T1

Selection and preparation of contract documents for management, design and construction of building projects; options for project delivery; procedural and management aspects of alternative forms of contract; analysis of head contracts and subcontracts; contract claims and disputes; international contracting; risk allocation in construction contracts; effective management of tender process. Professional liability.

**BLDG5314**  
**Project Quality Management**  
*Staff Contact: A/Prof M Marosszeky*  
S1 L2 T1

T.Q.M. theories and application, alternative approaches to quality management, quality management plans, quantifying quality management and control.

**BLDG5411**  
**Property Feasibility, Development and Management**  
*Staff Contact: Dr J Hutcheson*  
S2 L2 T1

Feasibility studies including market research, client's needs, site selection and analysis, financing methods and development applications. Maintenance and obsolescence. Tenancy management. Management of commercial, retail, industrial and large scale residential complexes. Taxation law and implications.

**BLDG5412**  
**Project Integration**  
*Staff Contact: Mr D Dombkins*  
S2 L2 T1

The application of core project management skills to a case study. Students (in groups) will participate in an interactive situational case study. Team building. Feedback will be provided on student personal and group skills in simulated project environment, presentation and project management skills. Proposal planning, crisis management, feedback processes. International project management case studies.

**BLDG5413**  
**Project Applications in Building**  
*Staff Contact: Mr J Kim, Mr D Dombkins*  
S1 L2 T1

Project procurement options; initial strategy review; team member selection and briefing; team-building and partnering; consultant selection and commissioning; other stakeholders and approvals; the design process; project management in the construction process; commissioning tenant fitout and project finalisation; value engineering; project feedback process; strategic and detail planning; scope management.
Master of Construction Management

BLDG6150
Industry Training
Staff Contact: A/Prof T Uher
Students will be placed on a project for a period and be required to attend inspections of other major construction projects, demonstrations of plant and equipment, and short courses on specific building materials and construction systems.

BLDG6151
Construction Methods and Techniques
Staff Contact: A/Prof M Marosszeky
S1 L2 T1
Appropriate selection and use of current techniques and systems in all construction phases; Case studies.

BLDG6154
Economics in Construction
Staff Contact: Mr B Reece, Mr 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: Mr J Kim
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: Mr G Levido, Mr J Senogles
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.

BLDG6250
Research Report
Staff Contact: A/Prof T Uher
A specialised individual research study, under staff supervision, into an approved aspect of construction management or a related topic.

BLDG6251
International Construction Practice
Staff Contact: Mr D Dombkins
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: Mr B Reece, Mr G Runeson
S1 L2 T1
Statistical analysis and modelling methods in construction management.

BLDG6258
Construction Management Applications
Staff Contact: Mr N Yates
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.
Master of Real Estate
Graduate Diploma in Real Estate
Graduate Diploma in Valuation

BLDG7101
Valuation 1 (Introduction)
Staff Contact: Mr K Gunther
S1 L2
Qualities of the different main investments - classes compared.
Investment opportunities. Property investment and the underlying factors of the market.
Value: Reasons for valuation; Legal interests in properties.
Features of property and the property market. The role of the valuer. Rates of interest and yields (capitalisation rates) Methods of valuation. The role of the valuer, including social and ethical responsibilities to the public.

BLDG7102
Real Estate Marketing
Staff Contact: Dr J Hutcheson
S1 L2
Auctioneers & Agents Act & Regulations, documentation, agency agreements, ‘code of ethics’, conjunction, source of listings, vendor/buyer qualification, listing procedures, pricing, promotion, presenting marketing plans, advertising, enquiries, finance and staffing, negotiating.
Rural property - map reading aerial photography, land titles ‘restricted’ title, leasing Agricultural Holdings Act.
Auctions - procedures & practice. Tender, sale of plant, franchising, electronic marketing.
Consumer rights and protection, impact of the consumer protection and Free Trade Acts.

BLDG7103
Market Forecasting
Staff Contact: Dr J Hutcheson
S1 L1
The marketing mix; The relationship between a marketing system and the environment; Marketing tactics and strategy; market segmentation and the buyer decision process; Listing, selling and the auction process; International marketing; The underlying economic fundamentals of forecasting; Forecasting the economy; Forecasting the property market; Analysing demand and supply patterns of property; Social responsibilities.

BLDG7104
Contracts, Agency and Consumer Protection
Staff Contact: School Office
S2 L2
Current and social issues; the consumer’s point of view.

BLDG7105
Agency and Trust Accounting
Staff Contact: Mr F Kelly
S1 L2
Revision of the role of information systems, accounting systems as information systems, financial management accounting, statements of activity, position and flow, accounting principles, components of accounting systems, assets, liabilities, proprietorship, expenses, revenue, data accumulation, recording, classification, source documents, accounts of prime entry, ledger accounts, trial balances, generation of financial statements, statutory accounts.
The need for analysis, ratio analysis, debent/equity. Trust accounting and trustee obligations. Accounting procedures for the administration of an estate policy. Role of data processing in the administration of a real estate practice. Ethics, duty of care to public, social responsibility.

Graduate Diploma in Valuation

BLDG7201
Valuation 2 (Valuation Theory)
Staff Contact: Mr M Paris
S2 L2
Pre-requisite: Valuation 1
Investment - rates of interest, yields, risk. Yields and property investment. Methods of valuation - comparison, summation, hypothetical development, profits, capitalisation, mortgage/equity. Valuation mathematics and valuation tables; Application of the tables. Terminable income flows; Freehold interests and terminable incomes. Freehold interests and terminable incomes; Simple leasehold valuation. Analysis of simple leasehold valuations; Effect of tax on property income; Valuation of residential properties.

BLDG7202
Strata Management
Staff Contact: Dr J Hutcheson
S2 L1
Duties and responsibilities of the licensed strata managing agent to his principal, his customers and the public.
Strata schemes, the body corporate, the developer, managing agents.
Strata meetings - during initial period, the first annual general meeting, annual general meetings, extraordinary general meetings, council meetings.
The Council, the strata roll insurances, related matters. By-laws, disputes procedures. Responsibility to the public, ethical considerations, social relationships.

BLDG7203
Property Management
Staff Contact: Dr J Hutcheson
S2 L2
The duties and responsibilities of the licensed real estate agent to this principal, his customers and the public; relevant legislation.
The Landlord and Tenant (Amendment) Act; The Auctioneers & Agents Act and Regulations; Residential Tenancies Tribunal Act; Land & Tenant (Rental Bonds) Act; Management of residential, industrial, commercial, retail property and shopping centres; Lease agreements; Rent reviews; Maintenance, repairs, plant and equipment; Obsolescence, redevelopment; Computer programs; Office management.

Role and impact of resident action groups, customers and the public.

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.


Alternative models including other countries, Critical perspective, Heritage Law.

PLAN7205
Planning and Land Policy
Staff Contact: Mr P Williams
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.

BLDG7302
Valuation 5 (Specialist Valuation)
Staff Contact: Dr J Hutcheson
S3 L1
Prerequisites: Valuation 1 & 2
Corequisite: Valuation 3
Petrol filling stations; Hotels and restaurants. Licensed premises; Business valuations. Leisure and recreation properties; Cinemas and theatres. Plant and machinery; Basements; Valuations for insurance. Valuations for mortgages etc; Extractive industries. Ethical, social and environmental aspects of all types of specialist valuations.

BLDG7303
Property Development 1
Staff Contact: Dr J Hutcheson
S3 L2
A total approach to the building process through the four stages of predesign, design, construction and post-construction. Market research, establishing client’s needs, site selection and analysis, feasibility studies and financing methods.

Selection and monitoring the work of the design team, preliminary designs, preparation of development applications, cost value analysis, value management, life cycle costing and services integration. Preplanning and building process, utilisation of construction and management consultants.

Development control during construction and in completion, tenant fitouts and handing over to clients of the completed project. Social responsibilities of developers.

BLDG7304
Arbitration and Litigation
Staff Contact: Dr J Hutcheson
S3 L2
Compensation on acquisition or resumption; Rating and taxing; Professional responsibility; Court procedure and evidence; Role of valuer as expert witness; Arbitration and expert determination; Specific performance. Liability, ethics, self-regulation.

BLDG7305
Urban Economics
Staff Contact: Mr G Beckett
S4 L2
Political economics; Economic advantages and disadvantages of urbanisation; Issues in applying economic theory to urban land; Methods for analysing the economic base in urban areas; Elementary rent models; Rent and transport costs; Business location - access/space model; Residential location - factors other than central access; Tuning of the models of the development process; Intra-urban industrial location; Office location; Density and land value gradients; Inter-urban location; Urban population growth and its effects on urban development; systems of settlements and the emergence of cities as central places.
BLDG7401
Valuation 6 (Rural Utilisation and Valuation)
Staff Contact: Mr M Bardon
S4 L1
Prerequisites: Valuation 1 & 2
Corequisite: Valuation 3

Land settlement in Australia; Climatic regions; Soils, derivation, classification, improvement and management. Pastures; Crops and marketing systems; Livestock and management. Water and irrigation; Farm costs; Specialised rural enterprises. Rural land tenures; Mapping and aerial photography; Property specifications. Basic units of value; Rural land sales analysis; Improvements - depreciation. Methods of valuation. Landcare total catchment management environmental impacts. Ethics and social responsibilities.

BLDG7402
Property Development 2
Staff Contact: Dr J Hutcheson
S4 L2
Prerequisite: Property Development 1

Redevelopment, refurbishment, change in use; Special projects including leisure, hotels, restaurants, petrol stations, one-stop convenience stores, cinemas, theatres, canal developments, rural, mines. Land subdivision.

Revenue and costs; Risk and uncertainty; Supply and demand of subdividable land and development sites; Site assessment and assembly; Development and betterment; The impact of Acts, Regulations, By-laws and planning policies.

Analysing computer programs on the market; Statements of environmental effects; Rectification of contaminated sites.

Environmental sustainability, environmental impact statements.

BLDG7403
Property Investment Analysis
Staff Contact: Dr J Hutcheson
S4 L2
Prerequisites: Valuation 1 & 2

Capital investment analysis; Advanced investment evaluation; Financial management and analysis; Growth and development; The financial market; Analysing property investments and portfolios.

Public and private investment; Social issues and directions.

BLDG7404
Valuation 4 (Advanced Theory and Practice)
Staff Contact: Mr G Beckett
S4 L2


BLDG7405
Organisation, Finance and Tax
Staff Contact: Dr J Hutcheson
S3 L2

The property institutes and RESC, professionals (eg. planners, builders, lawyers, engineers, accountants, quantity surveyors, architects etc). The developer, the project manager and the property investor. Capital gains; Land; Income; Fringe benefits tax.

Nature of real estate as an investment; Principles of money and capital markets; Comparison of characteristics of government bonds, shares and real estate, technical aspects of these markets such as yield curves and the concept of market efficiency, and the effect of business cycles.

Characteristics of real estate lenders and alternative fund sources; Analysis of leverage in real estate; Concepts of risk and portfolio analysis; Measuring returns from real estate - the BOMA index.

Code(s) of ethics, efficiency of capital markets, social injustice, negatives of the capitalist societies.

Graduate School of the Built Environment

Not all graduate course subjects are necessarily offered in any one year.

GSBE0001
Conservation Policy and Practice
Staff Contact: Don Godden
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.

GSBE0020
Heritage Legislation
Staff Contact: Don Godden
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: Don Godden
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
Techniques used in the repair of damaged metal elements. Methods of inspection and techniques of control. The principal 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.
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.

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.

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 - i.e., 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.

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.
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 Paul S Reid (School of Architecture)*  
*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: Prof A Sandy Cuthbert (School of Town Planning)*  
*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 A Sandy Cuthbert (School of Town Planning)*

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.

GSBE0503
Postgraduate Research Design and Methodology
Staff Contact: Department Office
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.

IDES1021
Basic Design
Staff Contact: Department 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.

IDES2151
Product Studies Seminars
Staff Contact: Department Office
CP3 S3 T2
Prerequisite: IDES1031
Corequisite: IDES2161
A series of case studies, in which products and their related systems are analysed for design, engineering, marketing and production factors and qualities. The Seminars are given by panels of staff experts and professional practitioners.

IDES3271
Form Theory
Staff Contact: Department Office
CP2.5 S2 L1
Prerequisite: IDES1021
Study of form in nature, art and design. Theories of form. Form organisation, typology, and description.

IDES4331
History of Consumer Products
Staff Contact: Department Office
CP1.3 L0.5
Prerequisite: IDES1061
Corequisite: IDES4341
Products as an aspect of our culture/society and commerce/industry from 1750 to the present day. The development of consumer products is examined within the context of the changes taking place in industry and society.

IDES4341
History of Industrial Design
Staff Contact: Department Office
CP1.3 L0.5
Prerequisite: IDES1061
Corequisite: IDES4331
This subject is normally taken in conjunction with IDES4331 and is a chronological study of the emergency and development of industrial design from 1850 to the present day.

IDES4371
Managing Product Innovation and Development
Staff Contact: Mr L Green
C2.5 L1
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 L1.5
Describes plastics materials and their specification in design. Plastics manufacturing processes such as Infaction moulding, blow moulding, extrusion and rotational moulding are covered. Also describes casting techniques for plastic assemblies and components.

IDES5111
Visual Thinking
Staff Contact: Department Office
CP7.5 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.

MARK5902
Elements of Marketing
Staff Contact: School 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.
IDES5131
Industrial Design
Staff Contact: Department Office
CP10 S1 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: Department Office
CP15 S1 or S2 HPW6
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: Department 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: Department 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
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: Department Office
CP15 F
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: Department 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: Department 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.

Landscape Architecture

LAND9001
Landscape Project
Staff Contact: A/Prof F Thorvaldson
CP30 F

A project relating to the practice of landscape architecture selected by the student and approved by the academic staff of the school. 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: A/Prof F Thorvaldson
CP60 F

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 school. 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.
LAND9213
Land Systems and Management
Staff Contact: Ms A Todd
CP15 S2 L1 T2
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.

LAND9010
Environmental Heritage Studies
Staff Contact: Ms H Armstrong
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: Mr D Crawford
CP15 S1 L2 T1
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: Mr D Crawford
CP15 S2 L2 T1
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.

LAND9215
GIS in Landscape Architecture
Staff Contact: Mr D Crawford
CP15 S1 L2T1
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: Mr D Crawford; A/Prof F Thorvaldson
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.

LAND9214
Visual Landscape Assessment
Staff Contact: A/Prof F Thorvaldson
CP15 S2 L2 T1
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.

Planning and Urban Development

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: Ms 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: School Office
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.

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: Ms 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: Ms 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: School Office
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: Ms 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: School Office
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 landuse 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 disputation are also examined.

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.

PLAN0811
Planning (Special Subject)
Staff Contact: Head of School
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: Head of School
CP10 SS

Students have the opportunity to pursue a subject of special interest related to planning, depending on staffing resources.
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 details of graduate degrees by research and course work, arranged in faculty order, see UNSW Courses (by faculty) in the Calendar.

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<td>Master of the Built Environment</td>
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<td>Master of the Built Environment</td>
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**Graduate Diplomas**

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**Graduate Certificates**

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* Faculty of Science.
† Faculty of Biological and Behavioural 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.

(7) The research shall be supervised by a supervisor and where possible a cosupervisor 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 cosupervisor 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.

*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.
(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 reexamination.
   (e) The thesis does not merit the award of the degree and does not demonstrate that resubmission would be likely to achieve that merit.

(3) If the performance at the further work recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to represent the same thesis and submit to further examination as determined by the Committee within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the results of any further work, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate be permitted to resubmit the thesis after a further period of study and/or research.

Fees

7. A candidate shall pay such fees as may be determined from time to time by the Council.
Master of Architectural Design (MArchDes)

(No new candidates will be enrolled in this course from Session Two, 1992)

1. The degree of Master of Architectural Design 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 degree shall:
   (a) have been awarded a degree of Bachelor of Architecture 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 Higher Degree Committee of the Faculty of the Built Environment (hereinafter referred to as the Committee), and
   (b) have had at least one year's professional practice subsequent to graduation of a kind 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) 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 full-time candidate or three 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.

Master of Architecture by Research (MArch), Master of Building (MBuilding), Master of the Built Environment (MBEnv), Master of Landscape Architecture (MLArch), Master of Real Property (MRProp) and 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.

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.

*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.

Master of Architecture (MArch)

1. The degree of Master of Architecture may be awarded by the Council to a candidate who has satisfactorily completed a program of advanced research and study in a selected area of specialisation.

Qualifications

2. (1) A candidate for the degree shall have been awarded an appropriate degree of Bachelor of minimum 4 years 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) Further to (1), candidates wishing to pursue a specialisation in architectural design are required to hold such Bachelors degree in Architecture at Honours level and have had at least one year's professional practice of a kind acceptable to the Committee subsequent to graduation. In addition, in order to gain admission to the program, all such candidates are required to submit and have approved a portfolio which demonstrates the nature and quality of their past architectural design work.

(3) In exceptional cases, an applicant who submits evidence of such other academic and professional qualifications as may be approved by the Committee, may be permitted to enrol for the degree.

(4) If the Committee is not wholly satisfied with the qualifications held by an applicant, taking due notice of the intended area of specialisation, 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) Along with that formal application, candidates are required to submit a proposed Program of Study, identifying the selected area of specialisation and the proposed sequence of subjects to be taken.

(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 degree until the lapse of two academic sessions from the date of enrolment.

Graduate Research Thesis

4. (1) In general, the Graduate Research Thesis would not be commenced until an adequate grounding in the candidate's area of specialisation has been established through the study of appropriate core and elective subjects.

(2) The work shall be carried out under the direction of a supervisor appointed from the fulltime academic members of the University staff.

(3) The candidate shall give in writing to the Registrar two months notice of intention to submit a Research Thesis.

(4) Three copies of the Research Thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of Research Theses for higher degrees.

(5) It shall be understood that the University reserves the right to retain the three copies of the Research Thesis submitted for examination and is free to allow it to be consulted or borrowed. Subject to the provisions of the Copyright Act 1968, the University may issue the Research Thesis in whole or in part, in microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the Research Thesis, appointed by the Committee.

(2) Arrangements may be made by the School for oral presentation and defence of the Research 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 Research Thesis and shall make one of the following recommendations:

(a) the Research Thesis be noted as satisfactory; or

(b) the Research Thesis be noted as satisfactory subject to minor corrections being made to the satisfaction of the Head of School; or

(c) the Research Thesis be noted as unsatisfactory and the candidate permitted to resubmit it in a revised form after a further period of study and/or research; or

(d) the Research Thesis be noted as unsatisfactory and the candidate be not permitted to resubmit it.

(4) The Committee shall, after considering the examiners' reports, the candidate's results of assessment in the prescribed formal subjects, and their performance in Graduate Seminars, recommend (or otherwise) that the candidate be awarded the degree. If it is decided that the Research 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 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 given 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), Master of Science (Acoustics) (MSc(Acoustics)), 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 Engineering (ME) and Master of Science (MSc)

1. The degree of Master of Engineering or Master of Science by research may be awarded by the Council on 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.

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.
(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 of external candidate from the date of enrolment. In the case of a candidate who has been awarded the degree of Bachelor with Honours or who has had previous research experience the Committee may approve remission of up to one session for a full-time candidate and two sessions for a part-time or external candidate.

(8) A full-time candidate for the degree shall present for examination not later than six academic sessions from the date of enrolment. A part-time or external candidate for the degree shall present for examination not later than ten academic sessions from the date of enrolment. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) On completing the program of study a candidate shall submit a thesis embodying the results of the original investigation.

(2) The candidate shall give in writing two months notice of intention to submit the thesis.

(3) The thesis shall present an account of the candidate's own research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied about the extent of the candidate's part in the joint research.

(4) The candidate may also submit any work previously published whether or not such work is related to the thesis.

(5) Three copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.

(6) It shall be understood that the University retains the three copies of the thesis submitted for examination and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968, the University may issue the thesis in whole or in part, in photostat or microfilm or other copying medium.

Examination

5. (1) There shall be not fewer than two examiners of the thesis, appointed by the Committee, at least one of whom shall be external to the University unless the Committee is satisfied that this is not practicable.

(2) At the conclusion of the examination each examiner shall submit to the Committee a concise report on the merits of the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination; or

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the head of the school*; or

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report; performance in this further examination being to the satisfaction of the Committee; or

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; or

(e) the candidate be not awarded the degree and be not permitted to resubmit the thesis.

(3) If the performance at the further examination recommended under (2)(c) above is not to the satisfaction of the Committee, the Committee may permit the candidate to represent the same thesis and submit to a further oral, practical or written examination within a period specified by it but not exceeding eighteen months.

(4) The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be awarded the degree. If it is decided that the candidate be not awarded the degree the Committee shall determine whether or not the candidate may resubmit the thesis after a further period of study and/or research.

Fees

6. A candidate shall pay such fees as may be determined from time to time by the Council.

* 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 examiner shall submit to the Committee a concise report on the thesis and shall recommend to the Committee that:

(a) the candidate be awarded the degree without further examination; or

(b) the candidate be awarded the degree without further examination subject to minor corrections as listed being made to the satisfaction of the head of the school*; or

(c) the candidate be awarded the degree subject to a further examination on questions posed in the report, performance in this further examination being to the satisfaction of the Committee; or

(d) the candidate be not awarded the degree but be permitted to resubmit the thesis in a revised form after a further period of study and/or research; or

* 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.
(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.

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**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 part-time 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 four 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 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 full-time 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 full-time 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.
Scholarships and Prizes

The scholarships and prizes listed below are available to students whose courses are listed in this book. Each faculty handbook contains in its Scholarships and Prizes section the scholarships and prizes available with that faculty. The General Information section of the Calendar contains a comprehensive list of scholarships and prizes offered throughout the University. Applicants should note that the awards and conditions are subject to review.

Key: V Value T Year/s of Tenure C Conditions

Scholarships

Undergraduate Scholarships

Provided below is an outline of undergraduate scholarships. Students should check the scholarships listed in the General Section and those listed for their Faculty. Students should also consult the Scholarship information for related Faculties. Applicants should note that the awards, conditions and particularly closing dates may vary from year to year.

Unless otherwise indicated application forms and further information are available from the Student Centre (lower Ground Floor, Chancellery) and applications should be submitted by 31 January each year. Applications normally become available four to six weeks before the closing date. Scholarship information is regularly included in the University publication 'Uniken/Focus'.

Students investigating study opportunities overseas should consult Study Abroad which is published by UNESCO and is available in the University library. The UNSW International Student Centre can provide information about exchange programs (see the 'Go Away Travel Scholarship' included in the General section below).

The British Council (tel 02 3262365) may be of assistance for information about study in Britain. The Australian American Education Foundation (tel 06 2479331) can provide information about study in America. Information may also be obtained from the embassy or consulate of the country in which study is proposed and the proposed overseas institution.

Details of overseas awards and exchanges administered by the Department of Employment, Education and Training can be obtained from the Awards and Exchanges Section, Department of Employment, Education and Training, PO Box 826, Woden, ACT 2606.

General

Alumni Association

V Up to $1500 pa
T 1 year with the possibility of renewal
C Available to students enrolled in any year of a full-time course. Candidates must be the children or grandchildren of Alumni of the University of New South Wales and may be either permanent residents of Australia or international students. Applications close 13 January.

Apex Foundation for Research into Intellectual Disability Studentships

V $1000 paid in a lump sum.
C Applicant should be 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 by 31 May.

Australian Development Co-operation Scholarship (ADCOS)

V Tuition fees. Some students may be eligible for airfares and a stipend.
C This award is for international students from selected countries only. Information should be obtained from the Australian Education Centre or Diplomatic Post in the home country. Conditions and entitlements vary depending on the home country. The closing date is normally early in the year before the year of study.

**Australian Vietnam Veterans Trust Education Assistance Scheme**

V $3,500 pa for the duration of the course.

C Applicant must be a child of a Vietnam veteran and under the age of 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 Trust's Regional Offices in each state capital. Applications close 31 October.

**General Accident Australian Bicentennial St Andrews Scholarship**

V £Stg4840

T Approximately 12 months

C Applicants should be Australian citizens who are proceeding to Honours in Economics, History, Philosophy, Economic and Social History or Social Anthropology. The awards are for study at St Andrews, United Kingdom. Applications close 12 November.

**Girls Realm Guild**

V Up to $1500 pa

T 1 year with the prospect of renewal subject to satisfactory progress and continued demonstration of need

C Available only to female students under 35 years of age who are permanent residents of Australia enrolling in any year of a full-time undergraduate course. Selection is based on academic merit and financial need

**Grains Research and Development Corporation (GRDC) Undergraduate Honours Scholarship**

V $6000 (ie $5000 to the student and $1000 to the host School/Department).

T 1 year

C Applicants must be undertaking a full-time Honours program. Study in an area of significance to the grains industry will be viewed favourably. Written applications including a curriculum-vitae, academic record, letter of support from the Head of School/Department and 2 referees’ supporting statements should be sent to GRDC Undergraduate Honours Scholarship, PO Box E6, Queen Victoria Terrace, Canberra ACT 2600 (tel 06 2725528). Applications close 25 November.

**Great Barrier Reef Marine Park Authority Research Support**

V $1500

C 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 16 December.

**Mitsui Education Foundation Scholarship**

C A one month 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 aged between 20-24 and preferably in their third or fourth year. The successful student will travel to Japan during November and December. Applications become available in July and close mid-August with the Scholarship Unit.

**National Health and Medical Research Council (NH&MRC) Aboriginal Health Research Scholarships**

V $22,250

T Up to 3 years

C Applicants may be undertaking an undergraduate degree in order to pursue research relevant to Aboriginal health. Applications close 24 July with the Scholarship Unit.
Pig Research and Development Corporation (PRDC) Undergraduate Encouragement Award

V $600 lump sum.
C Applicants must be in the later stage of an undergraduate degree and interested in undertaking a research project related to the Australian pig industry. Applications close 3 times a year (ie 1 March, 1 July, 1 October) with the PRDC, PO Box 4804, Kingston ACT 2604.

River Basin Management Society Ernest Jackson Memorial Research Grants

V Up to $2000
C To assist tertiary students undertaking research in the field of River Basin Management. Applications close with the Research Grants Co-ordinator, PO Box 68, Clifton Hill VIC 3068 on 11 August.

RSPCA Alan White Scholarship

V $2500
C Applicants should be undertaking original research to improve the understanding and welfare of animals. Written applications should be sent to the Executive Officer, RSPCA Australia, PO Box E369, Queen Victoria Terrace, Canberra ACT 2600 (tel 06 2311437) by 31 March.

Sam Cracknell Memorial

V Up to $1500 pa
T 1 year
C 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 7 March.

Sporting Scholarships

V $2000 pa
T 1 year with possibility of renewal
C Available to students who are accepted into a course of at least 2 years duration. Prospective applicants should have an outstanding ability in a particular sport and are expected to be an active member of a UNSW Sports Club. Apply directly to Sport and Recreation Section, UNSW, Sydney 2052 (tel 385 4878).

Built Environment

Woods Bagot Scholarship

V $1000 pa
T 2 years
C The scholarship may be awarded to a student undertaking full-time study in Year 4 of the BArch program. The scholarship will be awarded on the basis of a number of factors including academic performance. Applications close 20 October with the Scholarship Unit.

The UNSW Co-op Program

The University of New South Wales has industry-linked education scholarships to the value of $9800 per annum in the following areas: Accounting (and Economics or Finance); Business Information Technology; Aerospace, Bioprocess, Ceramic, Chemical, Civil, Electrical, Environmental, Materials, Mechanical, Mechatronics, Metallurgical, Mineral, Mining and Petroleum Engineering; Food Science and Technology, Industrial Chemistry, Manufacturing Management, Textile Management, Textile Technology, and Wool and Pastoral Science.
Graduate Scholarships

Provided below is an outline of Graduate Scholarships. Students should check the scholarships listed in the General Section and those listed for their Faculty. Students should also consult the Scholarship information for related Faculties. Applicants should note that the awards, conditions and particularly closing dates may vary from year to year.

Unless otherwise indicated application forms and further information are available from the Student Centre (lower Ground Floor, Chancellery). Applications normally become available four to six weeks before the closing date. Scholarship information is regularly included in the University publication 'Uniken/Focus'.

Students investigating study opportunities overseas should consult Study Abroad which is published by UNESCO and is available in the University library. The British Council (tel 02 3262365) may be of assistance for information about study in Britain. The Australian American Education Foundation (tel 06 2479331) can provide information about study in America. Information may also be obtained from the embassy or consulate of the country in which study is proposed and the proposed overseas institution.

Details of overseas awards and exchanges administered by the Department of Employment, Education and Training can be obtained from the Awards and Exchanges Section, Department of Employment, Education and Training, PO Box 826, Woden, ACT 2606.

General

The main programs of assistance for postgraduate study are:

**Australian Postgraduate Awards (APA)**

V $14,961 (1995 rate). Other allowances may also be paid.

T Up to 2 years for a Masters, 3 years for a PhD degree. PhD students may request in certain circumstances up to 6 months extension.

C Applicants must be honours graduates or equivalent or scholars who will graduate in current academic year and proposing to undertake a Masters by Research or PhD. Applicants must be Permanent Residents who have lived continuously in Australia for 12 months or Australian citizens. Applications to Scholarship Unit by 31 October.

**Australian Development Co-operation Scholarship (ADCOS)**

V Tuition fees. Some students may be eligible for air fares and a stipend.

T Determined by normal course duration

C This award is for international students from selected countries only. Information should be obtained from Australian Diplomatic Posts or Australian Education Centres in the home country. Conditions and entitlements vary depending on the home country.

**Overseas Postgraduate Research Scholarships (OPRS)**

V Tuition fees and medical cover only.

T 2 years for a Masters and 3 years for a PhD degree

C Eligibility is confined to postgraduate research students who are citizens of countries other than Australia or New Zealand. Applications to the Scholarship Unit by 30 September

**Other General Scholarships:**

**Australian Bicentennial Scholarships and Fellowships Scheme**

V £4000 (stg)

T At least 3 months

C Applicant must be enrolled as a postgraduate student at an Australian higher education institution and usually resident in Australia. Awards are available for study in the UK in any discipline. Applications close with the Executive Director, Australian Vice-Chancellors' Committee, GPO Box 1142, Canberra ACT 2601 on 31 October.

**Australian Brewers Foundation Alcohol Related Medical Research Postgraduate Scholarships**

V Similar to the NH&MRC (see NH&MRC entry under General).

T 2 years

C Similar to the NH&MRC. Applications and further information may be obtained from the Secretary, ABF - Medical Research Advisory Committee, Level 8, 235 Pyrmont Street, Pyrmont 2008 (tel 552668).

**Australian Geographical Survey Organisation (AGSO) Postgraduate Awards in Geosciences**

V $20,323 plus allowances

T Up to 3 years

C Applicants must be enrolled or enrolling in a full-time PhD. Applicants must be permanent residents with 12 months continuous residency in Australia or Australian citizens. Applications which include a curriculum vitae should be sent to the Postgraduate Scholarship Co-ordinator, Human Resources Services, AGSO, GPO Box 378, Canberra ACT 2601 (tel 06 2499673). Applications close 11 August.
Cambridge Australia Scholarships including the Packer Scholarships

V Fees and maintenance allowance of £5340 (stg), return air travel to the UK.
T Up to 3 years
C Applicants must be Australian citizens who graduated with honours 1 or equivalent, from an Australian University who have gained admission to a PhD at Cambridge. Applicants must also have won a British Overseas Research Student Grant. Applicants should request an application for the scholarship at the time of applying for admission to Cambridge. Enquiries can be directed to the Cambridge Commonwealth Trust, Cambridge (tel 06 249 7204). Applications close 30 April.

Commonwealth Scholarship and Fellowship Plan (CSFP)

V Varies for each country. Generally covers travel, living, tuition fees, books and equipment, approved medical expenses. Marriage allowance may be payable.
T Usually 2 years, sometimes 3
C Applicants must be graduates who are Australian citizens. Tenable in Commonwealth countries other than Australia. Applications close at different times depending on the country in which the study is proposed.

Federation of University Women

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 Australian Federation of University Women. The NSW Branch Office is located in the Dymocks Building, 428 George Street, Sydney NSW 2000 (tel 232 5629).

Frank Knox Memorial Fellowships

V $US13,500 pa plus tuition fees and student health insurance
T 1 year with the possibility of renewal for a further year.
C Applicants must be Australian citizens, who are graduates or near graduates of an Australian university. Applications close with the Scholarship Unit mid-October.

Fulbright Postgraduate Student Awards

V Up to $A29,250 depending on the type of award.
T 1 year
C Applicants must be enrolled in a higher degree at an Australian institution and wishing to undertake research at an American institution. The research should be related to School-to-Work transition, Visual Arts, Performing Arts, Journalism, Engineering or Business Administration. Awards are also available for Aboriginal and Torres Strait Islander students. Applications and additional information are available from the Honorary Secretary, Fulbright NSW State Selection Committee, Research and Scholarships Office, Sydney University 2006 (tel 02 3514464).

Gowrie Scholarship Trust Fund

V $6000 pa. Under special circumstances this may be increased.
T 2 years. Under special circumstances this may be extended.
C Applicants must be Australian citizens or have taken steps to achieve citizenship. The candidate will usually have an honours degree or equivalent, or an outstanding record of achievement in creative arts, journalism or other career. The award focuses on health care, education, employment and training schemes and issues which affect the quality of life in cities. Applicants should be over 21 years of age. Applications and further information are available from Mr R Beale, Department of the Prime Minister and Cabinet, 3-5 National Circuit, Barton ACT 2600. Applications close 30 September.

Grains Research and Development Corporation (GRDC) Junior Research Fellowship

V $21,000 plus up to $3,000 to the supporting institution, some conference/workshop attendance allowances.
T Up to 3 years
C Applicants must be undertaking full-time research toward a PhD. Applicants must be Australian citizens or entitled to reside permanently in Australia. Applications should be sent to the Junior Research Fellowship, GRDC, PO Box E6, Queen Victoria Terrace, Canberra ACT 2600 (tel 06 2725525) on 25 November.

Great Barrier Reef Marine Park Authority Research Support

V $1000
C Applicants must be enrolled in a full-time PhD or Honours year with a 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 07 7818811). Applications close 16 December.

The Harkness Fellowships

V Travel and other allowances for travel and study in the USA
T 12-21 months
C Candidates must be Australian citizens or have taken steps to achieve citizenship. The candidate will usually have an honours degree or equivalent, or an outstanding record of achievement in creative arts, journalism or other career. The award focuses on health care, education, employment and training schemes and issues which affect the quality of life in cities. Applications should be over 21 years of age. Applications and further information are available from Mr R Beale, Department of the Prime Minister and Cabinet, 3-5 National Circuit, Barton ACT 2600. Applications close 30 September.

Kobe Steel Scholarship for Postgraduate Study at St Catherine's College, Oxford University

V Maintenance allowance of at least £7,000 (stg) plus tuition fees and due and travelling expenses to and from Oxford.
T Up to 2 years with the possibility of some extension.
C Applicants must be Australian nationals. Students should have a past or future interest in Japan. Applications close on 31 October with the Australian Vice-Chancellor’s Committee (AV-CC), GPO Box 1142, Canberra ACT 2601.

**Land and Water Resources Research and Development Corporation (LWRRDC)**

V $20,000 pa plus $5,000 for operating expenses
T 2 years for a Masters, 3 years for a PhD degree
C The scholarships are available for research that will lead to better management, sustainable use and conservation of land, water and vegetation resources in Australia. Applications close with the LWRRDC on 28 July. Applications should be forwarded to the LWRRDC, GPO Box 2182, Canberra, ACT (tel 06 2573379).

**Menzies Research Scholarship in the Allied Health Sciences**

V Up to $24,000 pa
T 2 years
C The scholarship is awarded to stimulate research by persons working in the health field in disciplines other than medicine. Applications close on 25 September with the Menzies Foundation, 210 Clarendon St, East Melbourne Vic 3002.

**National Drug Strategy (NDS) Postgraduate Research Scholarship**

V $21,666 pa
T initially for 1 year, with the possibility of renewal for a further 2 years

Applicants must have completed Year 1 of a PhD program. Scholarships aim to develop expertise in researching and evaluating non-biomedical approaches to the prevention and treatment of drug misuses. Selection is based on academic merit, work experience and the potential of the project. Applications close 15 July.

**National Health and Medical Research Council (NH&MRC) Aboriginal Health Research Scholarships**

V $22,250
T Up to 3 years
C Applicants must enrol for a diploma, certificate, undergraduate degree or postgraduate research degree in order to pursue research relevant to Aboriginal health. Applications close 24 July with the Scholarship Unit.

**National Health and Medical Research Council (NH&MRC) Dora Lush Postgraduate Scholarships**

V $14,961 (or $19,307 for AIDS research) plus allowances
T Up to 3 years

C Applicants should be permanent residents living in Australia or Australian citizens who have already completed a Science honours degree or the equivalent at the time of submission of the application. Students enrolled in the honours year at the time of application are not eligible. Applications close 24 July with the Scholarship Unit.

**National Health and Medical Research Council (NH&MRC) Medical Postgraduate Scholarships**

V $22,250 plus allowances
T Up to 3 years
C Applicants must be Australian citizens or permanent residents who are medical graduates. Applications are particularly encouraged from students in the following fields - alcohol and substance abuse, prostate cancer, nursing and allied health services, breast cancer, dementia, injury and HIV/AIDS. Applications close 23 June with the Scholarship Unit.

**National Health and Medical Research Council (NH&MRC) Public Health Postgraduate Scholarships**

V $19,500 (science graduates), $22,000 (medical graduates) plus allowances
T Up to 3 years
C The scholarship is designed to enable graduates to obtain formal academic training in public health research. Applications close 23 June with NH&MRC.

**Pig Research and Development Corporation (PRDC) Postgraduate Top-Up Scholarships**

V A supplement to other scholarship(s) up to a maximum of $21,000 plus possibility of other allowances.
C Applicants must be undertaking a PhD with research relevant to the increased competitiveness of the Australian pig industry. Applications close with the PRDC, PO Box 4804, Kingston ACT 2604 on 1 December.

**Pig Research and Development Corporation Research Fellowship**

V $25,000 plus allowances
T Up to 3 years
C Applicants must be undertaking a PhD with research relevant to the increased competitiveness of the Australian pig industry. Applications close with the PRDC, PO Box 4804, Kingston ACT 2604 on 1 December.

**The Rhodes Scholarship to Oxford University**

V Approximately $15,000 pa, fees and assistance with travel
T 2 years, may be extended for a third year
Australian citizens aged between 19 and 25 who have an honours degree or equivalent. Applications close September each year with The Honorary Secretary to the NSW Rhodes Selection Committee, Building G17, University of Sydney, NSW 2006 (tel 3514567).

River Basin Management Society Ernest Jackson Memorial Research Grants
V Up to $2000
C To assist tertiary students undertaking research in the field of River Basin Management. Applications close with the Research Grants Co-ordinator, PO Box 68, Clifton Hill VIC 3068 on 11 August.

Robert Gordon Menzies Scholarship to Harvard
V Up to $A25,000. Students who enrol in the Harvard Business School may be provided an additional $12,000.
T To be determined
C Tenable at Harvard University. Applicants must be Australian citizens or permanent residents and graduates of an Australian tertiary institution. The successful applicant will be expected to repay the scholarship in later years when circumstances permit. Applications and additional information may be obtained by writing to the Management Services Office, ANU, Canberra ACT 0200. Applications close 5 January.

RSPCA Alan White Scholarship
V $2500
C Applicants should be undertaking original research to improve the understanding and welfare of animals. Written applications should be sent to the Executive Officer, RSPCA Australia, PO Box E369, Queen Victoria Terrace, Canberra ACT 2600 (tel 06 2311437) by 31 March.

Shell Scholarship in Science or Engineering
V $20,000 pa
T Up to 3 years
C Applicants must be Australian citizens or permanent residents. Applicants should intend to study a Doctorate in science, engineering, economics/commerce, computer science, or a closely related discipline. Applications close with Shell Australia, Box 872k GPO, Melbourne VIC 3001 (tel 03 96665666) on 27 October.

STA Travel Grant
V Up to $3000
C 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 30 April each year.

The Wenkart Foundation Grants
V Up to $22,000 pa
T 2 years but may be renewed
C Applicants must be permanent residents or undergraduates educated in Australia and planning to reside in Australia. Applicants must be undertaking full-time research in clinical, biomedical and health related sciences. Applications close with the Scholarship Unit on 24 May.

Built Environment

The Associated Hardware Manufacturers Scholarship
V $15,000 pa or such other amount as the Dean may determine
T 1 year. Where a recipient is enrolled in a higher degree program and is making satisfactory progress the scholarship may be extended subject to the availability of funds.
C Applicants shall have qualified for the degree of Bachelor of Architecture with honours or Bachelor of Building with honours at the University of New South Wales and such graduates shall be of not more than 5 years standing at the time of taking up the scholarship. Tenable at any approved institution overseas or in Australia. Applications to the Scholarship Unit by 31 October.

The Lindsay Robertson Memorial Travel Award
V A maximum of $1500
T 1 year
C Candidates should be Landscape Architecture graduates of the University of New South Wales. The award is to undertake full-time graduate study or research in Landscape Architecture at an approved institution overseas or in Australia. Applications close 30 May with the Scholarship Unit.

Wightman University Scholarship
V To be determined by the Dean
T 1 year
C Awarded to an Architecture student proceeding to graduate study. Applications close 31 January with the Scholarship Unit.
Prizes

Undergraduate University Prizes

The following information summarises undergraduate prizes awarded by the University. Prizes which are not specific to any School are listed under General. All other prizes are listed under the faculty, school or department in which they are awarded. 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 Enrolments and Assessment Section located on the Ground Floor of the Chancellery.

General

The Sydney Technical College Union Award
V $400.00 and Bronze Medal
C Leadership in student affairs combined with marked academic proficiency by a graduand

The University of New South Wales Alumni Association Prize
V Statuette
C Achievement for community benefit by a student in the final or graduating year

School of Architecture

The Board of Architects of NSW Prize
V $350.00
C The outstanding graduand in the School of Architecture

The Eric Daniels Prize in Residential Design
V $500.00
C The best performance in design for Residential Accommodation by a student in the Bachelor of Architecture degree course

The Frank Fox Memorial Prize
V $150.00
C The best performance in Historical Research by a student in the Bachelor of Architecture degree course

The Frank W. Peplow Prize
V $100.00
C The best performance in Church Architecture or Design by a student in the Bachelor of Architecture degree course

The James Hardie & Co Pty Ltd Prize
V $150.00
C Outstanding performance in Architectural Design and related studies in the final two years of the Bachelor of Architecture degree course

The Morton Herman Memorial Prize
V $100.00
C The best performance in Studies of Historic Structures in the Bachelor of Architecture degree course

The Royal Australian Institute of Architects Prize
V $250.00
C Outstanding performance in Architectural Design and related studies in the final two years of the Bachelor of Architecture degree course

School of Building

The Building Services Corporation Prize
V $1,000.00
C For meritorious academic performance in Year 1 or Year 2 of the Bachelor of Building course
The Institute of Wood Science (Australian Branch) Timber in Building Prize
C The best performance in BLDG4114 Building Science 4 (Timber) by a student in the Bachelor of Building degree course

The James Hardie & Coy Pty Limited Prize
V $100.00
C The best performance in Year 1 of the Bachelor of Building degree course

The Master Builders’ Association of NSW Prize
V $350.00
C Outstanding performance in the Bachelor of Building degree course

The Multiplex Constructions Prize
V $1,500.00
C The best performance in the major Building Construction subjects Construction 1 to 5 in the Bachelor of Building degree course

The Reed Constructions Prize
V $1,000.00
C The most outstanding performance by a student in the Bachelor of Building degree course

School of Landscape Architecture

The Lindsay Robertson Memorial Prize
V $300.00
C The best performance in LAND2270 Landscape Design 2 in the Bachelor of Landscape Architecture degree course

Undergraduate and Graduate University Prizes

School of Building

The Alex Rigby Prize
V $250.00
C The best overall performance in the Master of Project Management degree course

The TWCA Prize
V $300.00
C The best performance by a student in Year 2 of the Master of Project Management degree course

Graduate University Prizes

Faculty of the Built Environment

The J M Freeland Prize
V Annual interest on $8000.00
C 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 University of New South Wales • Kensington Campus

Theatres
Biomedical Theatres E27
Central Lecture Block E19
Chemistry Theatres
(Dwyer, Mellor, Murphy, Nyholm, Smith) E12
Classroom Block (Western Grounds) H3
Fig Tree Theatre B14
Io Myers Studio D9
Keith Burrows Theatre J14
Mauley Theatre E15
Mathews Theatres D23
Parade Theatre E3
Physics Theatre K14
Quadrangle Theatre E15
Rex Vowels Theatre F14
Science Theatre E20
Sir John Clancy Auditorium C24
Webster Theatre G15

Buildings
Applied Science F10
Arcade D24
Architecture H14
Barker Street Gatehouse N11
Basser College (Kensington) C18
Central Store B13
Chancellery C22
Dalton (Chemistry) F12
Goldstein College (Kensington) D16
Goll House A27
Gymnasium B5
Hettron, Robert (Chemistry) E12
International House G6
John Goodsell (Commerce and Economics) F20
Kensington Colleges (Office) C17
Library (University) E21
Link B6
Main, Old K15
Maintenance Workshop 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
Sam Cracknell Pavilion H8
Samuels Building F25
Shalom College N9
Webster, Sir Robert G14
Unisearch House L5
University Regiment J2
University Union (Roundhouse) E5
University Union (Blockhouse) G6
University Union (Squarehouse) E4
Wallace Wurth School of Medicine C27
Warrane College M7

General
Aboriginal Resource & Research Centre E20
Aboriginal Student Centre A29
Accommodation (Housing Office) E15
Accounting E15
Admissions C22
Adviser for Prospective Students C22
Alumni Relations: Pindari, 75 Wentworth St, Randwick
Anatomy C27
Applied Bioscience D26
Applied Economic Research Centre F20
Applied Geology F10
Applied Science (Faculty Office) F10
Archives, University E21
Arts and Social Sciences (Faculty Office) C20
Audio Visual Unit F20
Australian Graduate School of Management G27
Banking and Finance E15
Biochemistry and Molecular Genetics D26
Biological and Behavioural Sciences (Faculty Office) D26
Biomedical Engineering F25
Biomedical Library F23
Biotechnology F25
Built Environment (Faculty Office) H14
Campus Services C22
Cashier's Office C22
Centre for Membrane Science & Technology F10, K14
Chaplains E4
Chemical Engineering and Industrial Chemistry F10
Chemistry E12
Civil Engineering H20
Co-op Bookshop E15
Commerce and Economics (Faculty Office) F20
Communications Law Centre C15
Community Medicine D26
Computer Science and Engineering G17
Corneal and Contact Lens Research Unit
22-32 King St, Randwick
Economics F20
Education Studies G2
Educational Testing Centre E4
Electrical Engineering G17
Energy Research, Development & Information Centre F10
Engineering (Faculty Office) K17
English C20
Equal Employment Opportunity: 30 Botany Street Randwick
Examinations C22
Facilities Department C22, B14A
Fees Office C22
Fibre Science and Technology G14
Food Science and Technology B8
French C20
Geography K17
Geomatic Engineering K17
German and Russian Studies C20
Graduate School of the Built Environment H14
Groundwater Management and Hydrogeology F10
Health Service, University E15
Health Services Management C22
History C20
Human Resources C22
Industrial Design G14
Industrial Relations and Organizational Behaviour F20
Information, Library & Archives Studies F23
Information Systems E15
Information Technology Unit F25
International Student Centre F9
IPACE Institute F23
Japanese Economic and Management Studies E15
Landscape Architecture K15
Law (Faculty Office) F21
Law Library F21
Legal Studies & Taxation F20
Liberal and General Studies C20
Library Lawn D21
Lost Property C22
Marine Science D26
Marketing F20
Materials Science and Engineering B8
Mathematics F23

Mechanical and Manufacturing Engineering J17
Media Liaison C22
Medical Education J27
Medicine (Faculty Office) B27
Microbiology and Immunology D26
Michael Birt Gardens C24
Mines K15
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
Political Science C20
Printing Section C22
Professional Development Centre E15
Professional Studies (Faculty Office) G2
Psychology F23
Publications Section C22
Remote Sensing K17
Research Office: 34-36 Botany Street Randwick
Safety Science B11a
Science (Faculty Office) E12
Science and Technology Studies C20
Social Science and Policy C20
Social Policy Research Centre F25
Social Work G2
Sociology C20
Spanish and Latin American Studies C20
Sport and Recreation Centre B6
Squash Courts B7
Student Centre (off Library Lawn) C22
Student Services:
Careers, Loans, Housing etc E15
Counselling E15
Students' Guild E15
Swimming Pool B4
Textile Technology G14
Theatre and Film Studies B10
Town Planning K15
WHO Regional Training Centre C27
Wool and Animal Sciences G14
Works and Maintenance B14A
The University of New South Wales • Kensington Campus
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:
- Applied Science
- Arts and Social Sciences
- Built Environment
- Commerce and Economics
- Engineering
- Law
- Medicine
- Professional Studies
- Science
- Australian Graduate School of Management (AGSM)
- Australian Taxation Studies Program (ATAX)
- College of Fine Arts (COFA)
- University College,
- Australian Defence Force Academy (ADFA)
- General Education

For fuller details about the University – its organization; 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.