Semester and vacation dates 1995

<table>
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<tr>
<th>Semester</th>
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<tr>
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<tr>
<td>Semester and lectures begin</td>
<td>Monday</td>
<td>27 February</td>
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<tr>
<td>Easter recess</td>
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<td>Monday</td>
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<td>Examinations commence</td>
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<td>Second</td>
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<td>3 October</td>
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<tr>
<td>Study vacation—1 week beginning</td>
<td>Monday</td>
<td>6 November</td>
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<tr>
<td>Examinations commence</td>
<td>Monday</td>
<td>13 November</td>
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</tbody>
</table>

* There may be variations to the semester dates for some courses.
## Contents

Message from the Dean  iv  

1 The Faculty and staff  
   A brief history  1  
   Faculty structure  1  
   Department of  
      Architecture  1  
      Architectural and Design Science  2  
      Urban and Regional Planning  3  
   The University of Sydney Art  
      Workshop  3  
   The Denis Winston Architecture  
      Library  3  
   Planning Research Centre  4  
   Ian Buchan Fell Housing Research  
      Centre  4  
   Key Centre of Design Computing  4  
   Resource centres  4  
   Sydney University Architecture  
      Society  5  

2 Undergraduate professional architecture  
   program — BSc(Arch) and BArch  
   Program structure  6  
   Courses of study  
      —BSc(Arch)  10  
      —BArch  26  
   Senate resolutions  35  
   Faculty resolutions  43  

3 Postgraduate study  
   Degree and diploma requirements  46  
   Degrees by research  47  
   Degrees, diplomas and  
      certificate by coursework  48  
      Department of Urban and Regional  
         Planning (Grad DipURP, MURP)  48  
      Department of Architectural and  
         Design Science (MDesSc,  
         Grad DipDesSc, Grad CertDesSc)  50  
      Department of Architecture  
         (MHeritCons, Grad DipHeritCons)  60  
   Postgraduate courses in UrbanDesign  
      (Grad Dip UrbDes, M UrbDes)  63  
   Senate resolutions  65  
   Faculty resolutions  68  

4 Other Faculty information  
   Information specific to the Faculty  76  
      Enrolment  76  
      Assessment methods  76  
      Faculty Late Submission Policy  76  
      Surryville Times  77  
      Professional qualifications  77  
      Mathematics Learning Centre  77  
      Learning Assistance Centre  77  
      Scholarships and prizes  77  
      General University information  78  

Main campus map  83
I welcome you to the Faculty of Architecture and wish you well in the program you have chosen for your studies.

Your choice to study here indicates that you are interested in one of the most fascinating and complex fields of human endeavour — the investigation and design of the built environment. People have become much more aware of the quality of their living, working and community environments and, through a variety of organisations, are having a greater say in the development of cities, towns, their local community and the buildings that provide shelter and suitable environments for a wide range of activities. Those who plan and design our communities and their structures are providing physical solutions to the communities’ needs.

The undergraduate program leads, through a two degree structure, to professional architecture. The Faculty's graduates are conspicuous in their leading roles in the profession in Australia. The undergraduate programs also lead to other employment opportunities in the design professions and elsewhere.

You will find that the Faculty has anticipated the future demands on architects, planners and designers and has provided educational programs which will prepare you for your future. As you read Ms handbook you will also see that there are many post-professional (postgraduate) programs to allow you to specialise or to keep you up-to-date.

This faculty offers postgraduate programs directed at graduates from most of the design professions, such as those in the Department of Architectural and Design Science and others directed towards graduates in geography, economics, social policy, etc., particularly those in the Department of Urban and Regional Planning.

If you are interested in research work in matters related to the built environment, the Faculty offers a variety of research programs.

Whatever the program that you have chosen you will find you have entered a stimulating and exciting environment. All courses of study allow you to explore areas of special interest in addition to the core subjects. Being part of the largest and most comprehensive university in Australia you may have the opportunity, through the elective studies, to include some subjects of interest from other faculties.

The Faculty is one of the smallest in the University and has a reputation for the care it shows its students. It is important that you consult your lecturers if you are experiencing difficulties in particular subjects. If you have more general difficulties or questions relating to your studies or your needs you will find that the Faculty office staff will be able to assist with most matters. The University in caring for its community, also provides a wide range of assistance, for example, the University Student Services can help with the problems of adapting to the various demands, academic and personal, of an unfamiliar institution which expects you to be largely independent. You will also find assistance with housing, finding employment and financial matters.

The University offers much more than its courses of study — it is a large, diverse community with clubs and societies catering for most interests. It has fine sporting facilities, live theatre, music, galleries and museums. While you are here I suggest that you become involved in the life of the University.

I hope to meet you during your time in the Faculty and I wish you well with your chosen field of study.

Warren Julian
Dean
A brief history of the Faculty

The Faculty of Architecture was established in 1919 to conduct an undergraduate professional Bachelor of Architecture program. In 1948 the Department of Town and Country Planning was founded within the Faculty and in 1989 was renamed the Department of Urban and Regional Planning. In 1954 a Chair of Architectural Science was created around which the Department of Architectural Science developed. In 1989 the department was renamed the Department of Architectural and Design Science. The Art Workshop became part of the Faculty in 1990 having previously been a central academic service unit which developed from resources provided by the Faculty in the 1960s.

The Faculty now consists of the three academic departments and the Art Workshop and there are 884 students enrolled in the following 16 degrees, diplomas and certificate that may be awarded in the Faculty:

- BSc(Arch) Bachelor of Science (Architecture)
- BArch Bachelor of Architecture
- MSc(Arch) Master of Science (Architecture)
- MArch Master of Architecture
- MDesSc Master of Design Science
- MURP Master of Urban and Regional Planning
- M UrbStud Master of Urban Studies
- M UrbDes Master of Urban Design
- MHeritCons Master of Heritage Conservation
- PhD Doctor of Philosophy
- DArch Doctor of Architecture
- GradDipDesSc Graduate Diploma in Design Science
- GradDipURP Graduate Diploma in Urban and Regional Planning
- GradDipUrbDes Graduate Diploma in Urban Design
- GradDipHeritCons Graduate Diploma in Heritage Conservation
- GradCertDesSc Graduate Certificate in Design Science

- The Faculty, since 1984, has been housed under one roof in the purpose-designed Wilkinson Building which also contains the most comprehensive architecture and planning library in Australia, the Denis Winston Architecture Library. The Faculty contains three research centres and a continuing education unit.

The structure of the Faculty

The academic programs of the Faculty are established by the University Senate on the advice of the Academic Board and the Faculty. The undergraduate programs are conducted by the Faculty with teaching and other support being provided by the departments and the Art Workshop. Some postgraduate programs are faculty-based and others are departmentally-based while the PhD is a degree of the University and governed by the Academic Board. Academic governance of Faculty is by all the academic staff of the Faculty together with student and professional representatives. The departments have departmental boards which determine policy and contain general staff and student representatives in addition to the academic staff. Students are encouraged to participate in the governance of the Faculty through elected membership of Faculty, faculty committees, departmental boards, etc.

The Faculty office provides management and administrative support to the Faculty and the departments. The Faculty office staff are:

- Dean
  Professor Warren G. Julian, BSc BE MSc(Arch) DipBdgSc PhD, LFIE SANZ

- Secretary to the Faculty and Assistant to the Dean
  Lyn Harrison, BAA N U. DipEd Syd Teach Cott.

- Finance Officer (half-time)
  Administration Officer
  Jane Clark

- Administrative Assistant
  Judith Maddison

- Senior Research Assistant
  Susan Clarke, BArch DipTCP DipBdgSc

- Computer Systems Manager
  Ali Fazelpour, MCompSc Middle East Technical

- Attendants
  Marcus Krifilik
  Scott McNamara

Assistance in academic administration is provided by the Associate Deans:

- Associate Dean (postgraduate)
  John S. Gero, BEN S. W. MBdgSc PhD, FRSAIE Aust MASCE

- Associate Dean (undergraduate)
  Richard D. Coyne, BArch MLArch Melb. PhD, ARAIA

- Associate Dean (teaching)
  A. Terrence Purcell, PhD Macq. BA

Department of Architecture

The interests of the Department of Architecture relate to the widespread issues and challenges facing designers of the urban environment. They range from areas of history and theory, architectural and landscape
design, social and environmental factors, building construction, practice and management, to conservation and urban design.

The focus of the work of the department is on developing and understanding the process of design, and teaching design skills. That means absorbing values, learning skills, acquiring knowledge, making judgements, and especially gaining the ability to conceptualise three-dimensional forms which will answer complex sets of requirements. It also means seeking out and testing information, understanding human needs, harnessing the potential of structures and materials, developing the ability to communicate ideas in speech, in writing and, most importantly, by images drawn by hand or by machine.

The department teaches three-quarters of the courses in the two undergraduate programs, and offers postgraduate courses in heritage conservation and in urban design. The interrelationship of social, political, and environmental issues and their impact on the built environment in which we live and work is the subject of much of the teaching and research in the department.

The staff of the Department of Architecture are:

**Professors of Architecture**
Lawrence Nield, MLitt Comb. BArch, FRAIA ARIBA  
Appointed 1993

Geoffrey Philip Webber, MSc(Arch) Col. BArch MTCP, FRAIA MRAPI ARIBA (part-time)  
Appointed 1979

**Professor of Conservation Planning**
Serge Domicelj, LicArchit Buenos Aires DipCD Edin., MRAPI  
Appointed 1975

**Lend Lease Professor of Urban Design**
Peter Drooge, DiplIng Munich MArch M.I.T.  
Appointed 1993

**Associate Professors**
Jennifer E. Taylor, MArch Wash., FRAIA  
Ross H. Thome, MArch, FRAIA MAAS (part-time)

**Senior Lecturers**
Keith Billings, DipArch Oxf. MScArch Col. PhD, MRAIC  
James R. Conner (head of department), PhD Edin. MArch DiplTCP

Allan D. Correy, MLArch/Z.MEnvStud Macq. DipLD Durh., ALI  
Graham E. Holland, BArch N.S.W. PhD, FRAIA  
Trevor Wellows, DipConsStud York BArch  
Colin L. James, MArch Haru, AASTCS.T.C. DiplTCP, MRAPI  
Serge Domicelj, LisArchit Buenos Aires DipCD Edin., MRAPI

**Associate Lecturers**
Kristine S. Sodersten, BArch, ARAIA  

**Visiting Professors and Lecturers**  
(please refer to the department.)

**Technical Officers**
Mark Boudib (part-time)  
John Neirotti

**Audio Visual Officer**

**Administrative Assistants**
Diana Lang  
Anna Roache, MA Macq. MHeritCons (part-time)  
Sally Yong

**Department of Architectural and Design Science**

The Department of Architectural and Design Science is concerned with the many aspects of architecture and design that have a scientific or technical basis. It provides part of the undergraduate teaching including studio tutoring. It offers postgraduate degrees both by coursework and by research.

Undergraduate teaching areas include structural systems, building materials, the thermal environment, energy efficient building design, sustainable design, the thermal performance of buildings, wind effects, illumination, architectural psychology, acoustics, buildings services systems, design computing, computer graphics, design methods and applications of mathematics.

Postgraduate degrees and diplomas are offered in the general areas of building science, as well as in the specialised areas of design computing, illumination design, building services, facilities management and energy conservation.

The department has a worldwide reputation for the breadth of its coverage of architectural and design science subjects, as well as for its standing in several of its specific areas of interest.

The department also houses the Key Centre of Design Computing which acts as a focus for the department's computer related research, teaching and consulting. The mission of the Centre is to improve the effectiveness of designers, and therefore the competitiveness of design, through the application of advanced design computing technologies.

The staff of the Department of Architectural and Design Science are:

**Professor of Design Science**  
John S. Gero, BEN, S.W. MBdgScPhD, FRSAFIEAust MASCE  
Appointed 1985

**Associate Professors**
Warren G. Julian, BSc BE MSc(Arch) DipBdgSc PhD, LFIESANZ  
Mary Lou Maher, BS Col. MS PhD Carnegie-Mellon (part-time)

**Lecturers**
A. Terrence Purcell, PhD Macq. BA  
Peter R. Smith, MArch PhD, FRAIA (part-time)

**Senior Lecturers**
Richard D. Coyne, BArch MLArch Melb. PhD, ARAIA  
Bruce S.A. Forwood (head of department), BArch  
David J. Gunaratnam, BSc(Eng) Ceyl. PhD Comb.  
David M. Rowe, ASTC, MAIRAH (half-time)

**Lecturers**
Ann B. Godfrey, BArch W.A. GradDipUrbEstMan U.T.S.
The Department of Urban and Regional Planning

The Department of Urban and Regional Planning attracts students from a wide range of disciplines from all Australian states and from overseas, particularly the Asian and Pacific regions. Graduates now occupy senior academic, government, community and private sector positions throughout Australia, the Pacific region and elsewhere.

The Urban and Regional Planning program is designed for students who seek to shape urban and regional development policies in relation to land use, environmental protection, infrastructure, transportation, industrial development and employment, retail and commercial centres, community development and welfare, housing, conservation, recreation and tourism.

Departmental research covers a wide range of policy and development issues, including urban development and local government finance, social/spatial restructuring of cities, remote settlements in northern Australia, tourism, global restructuring, provision of urban infrastructure, local economic development, rural settlement trends, housing and tenure, social planning and multiculturalism.

The staff of the Department of Urban and Regional Planning are:

**Professor**
Sophie Watson, BA PGCE Sus. PhD Open
Appointed 1991

**Associate Professors**
MRTP MIEAust (part-time)
John G. Toon, DipAxch Leic. FRAPIMTRPIARIBA ARAIA

**Senior Lecturers**
Steven C. Bourassa, BA Delaware MA Temple PhD Perm.
Gregory C. Mills (head of department), BA N.E. MSc(Econ) Lond. DipTP Edin.
Peter Phibbs, BA MSc PhD N.S.W.

**Lecturer**
Martin J. Payne, MS Colorado State

**Associate Lecturer**
Rosemary A. Bulgin, BA AppSc U.T.S.

**Administrative Assistant**
Robin Connell

The University of Sydney Art Workshop

The Art Workshop/Tin Sheds Gallery, besides being a general cultural facility of the University and wider community, provides students with the opportunity to work in various media under the direction of professional artists and to enjoy the experience of developing aspects of their creative potential as a means of complementing their work in the architecture design studios where, of necessity, there are more constraints. To this end, the courses offered by the Art Workshop provide a foundation for technical competence and creative understanding.

A range of classes is offered in drawing, ceramics, etching, graphic design, painting, photography, set design, screenprinting, sculpture, and video.

The staff of the Art Workshop are:

**Director**
Therese Kenyon, BA(VisArts) Alex. Mackie C.A.E. MFA N.S.W. (Drawing and Set Design)

**Lecturer**
Bette Mifsud, BA N.S.W. BA (Vis.Arts) S.C.A. (Photography)

**Associate Lecturers**
Jan Fieldsend, DipEd Auck. (Screen Printing)
Frank Littler, DipPaint Nat. Art Sch. (Painting)
Seraphina Martin, DipArts Ecole Nat. Beaux Arts (Etching)
Ari Purhonen, BSc(Arch) N.S. W. (Photography and Sculpture)

**Administrative/Curatorial Assistant**
Pauline Guthrie, BA, DipGallMan N.S.W.

The Denis Winston Architecture Library

The Denis Winston Architecture Library is a branch of the University Library and is acknowledged as one of the best architecture and planning libraries in Australia. Students also have access to the other 17 branch libraries as well as the main University (Fisher) Library.
The library staff are:

**Librarian**
Margaret Whetton, BA, DipLib N.S.W. GradDipAdultEd (TESOL) U.T.S.

**Library Assistant**
Alison Bell

**General Library Assistant**
Jean Bassett

### Planning Research Centre

The Planning Research Centre is associated with the Department of Urban and Regional Planning. Its main purpose is to further fundamental research into physical planning and development. It also sponsors seminars in specialised fields, promotes the publication of research material and conducts short courses in conjunction with the Department of Urban and Regional Planning.

The staff of the Planning Research Centre are:

- **Director (part-time)**
  John G. Toon, DipArch Leic, FRAPIMTRPIARIBA ARAIA

- **Deputy Director (part-time)**
  Peter Phibbs, BA MSc PhD N.S. W.

- **Administrative Assistant**
  Joanne Greenwood

### Ian Buchan Fell Housing Research Centre

Ian Buchan Fell, who died in 1961, left the income from his estate to the University for the promotion and encouragement of education and for the purpose of establishing scientific research on housing needs.

The Centre is located in the Faculty of Architecture and is concerned with the needs of people relative to their housing. These needs are related to the complex interactions between people, their housing and other aspects of the built environment.

The research possibilities in this field are vast and the Centre attempts to maintain a principal interest in low income housing, conducting and sponsoring research and by periodically providing research scholarships. It produces publications by its own and other researchers on various aspects of housing.

The staff of the Ian Buchan Fell Housing Research Centre are:

- **Director (part-time)**

- **Research Assistant (part-time)**
  Brita Beeston, BAppSc(Info) U.T.S.

- **Administrative Assistant (part-time)**
  Diana Lang

### Key Centre of Design Computing

The Key Centre of Design Computing was established by the University with funding provided by the Department of Employment, Education and Training under its Key Centres program, and the University of Sydney. It subsumes and builds upon the recognised expertise and resources of the former Design Computing Unit (established 1968) with its international research and graduate teaching programs, and the former Key Centre of Design Quality with its multidisciplinary research projects. It is part of the Department of Architectural and Design Science. Its research is largely funded by the Australian Research Council, the University Research Grant and various scholarship funds.

Research carried out within the Key Centre falls into the area of design science and can be classified under the following headings:

- **knowledge-based design systems** — the application of knowledge engineering and artificial intelligence to represent design knowledge and reasoning in computer programs to explore future aids for designers;
- **multimedia systems** — the application of multimedia computing in design
- **cognitive models of design** — the application of cognitive science to the elicitation and development of cognitive models of design as a precursor to the development of computer aids.

The Key Centre has a teaching and research design computing laboratory of SUN SPARCstations, Silicon Graphics workstations, IBM RS/6000 graphics workstations, and Apple Macintosches with network connections to internet and the world wide web.

- **Co-Directors**
  Richard D. Coyne, BArch MLArch Melb. PhD, ARAIA
  John S. Gero, BEN.S.W.MBdgScPhD, FRSAFIEAustFAAAI MASCE
  Mary Lou Maher, BS Col. MS PhD Carnegie-Mellon

### Resource centres within the Faculty

The Faculty contains, in addition to the facilities mentioned above, a number of specialised resource centres, mostly located within the departments of the Faculty. These have been developed to assist the Faculty’s teaching and research.

### Audio Visual Library

The audio visual library has an extensive film, video, slide/tape and slide collection and a wide range of equipment for use by staff or students in 8 carrels in the library or in the small viewing theatre attached.

### Workshops

Both the Departments of Architecture and Architectural and Design Science maintain workshops which are available to students for experiencing the use of various materials, making items of equipment not readily available, constructing models and making and instrumenting models and specimens to be tested in laboratories. The workshops have a comprehensive range of tools and equipment and a variety of portable power and hand tools. Students receive instruction on the safe and correct use of these tools.

### Darkrooms and plan printing

Darkrooms, plan printing equipment and an artiscope are available for student use.

### Urbanscope

A small television studio, located in the Architecture workshop, houses the urbanscope which uses a
periscope and a video camera to present a realistic view of either walking or driving through an architectural or landscape model.

Laboratories
The Department of Architectural and Design Science has well-established laboratories and items of equipment for teaching, student project work and postgraduate and staff research. There are laboratories for materials, ventilation, services, a heliodon, mechanics, psychophysics, natural lighting, photometry, thermal environment, acoustics including anechoic and reverberant rooms, and artificial skies.

Computer studios
These have been established to provide resources for teaching computer-aided design, computer-aided presentation and the technical skills of programming and systems, organisation and management in design computing. They are also used extensively in higher degree and funded research projects. The laboratories contain networked multimedia computers representative of the cutting edge in computer-aided design, and have links to university and external computer networks for access to internet and the world wide web's resources.

Departmental and Faculty offices
Each department has an office where students can direct enquiries regarding coursework and assessment matters or contact academic staff. The Faculty office deals with general student enrolment issues.

Building attendants
The building attendants provide a range of services relating to the use of the building including operation of the lecture theatres, security, safety and deliveries.

Sydney University Architecture Society
The Sydney University Architecture Society is run by the students to promote student interaction both within and outside the Faculty through a variety of activities, which includes participation in Faculty and departmental committees, inter-faculty sporting competitions, guest lectures, a faculty newspaper, the Architecture Ball and the Architecture Revue.

Every undergraduate student in the Faculty is automatically a member of the Society — part of the SRC subscription paid by each student is allocated to the Society, which uses the money to promote activities. Enquiries about the Society should be directed to the SUAS office, level 2, Wilkinson Building, University of Sydney. Messages may be left in the Department of Architecture.
Program structure

In order to satisfy the academic requirements for registration as an architect it is necessary to complete studies which include certain minimum knowledge requirements set by the Architects Registration Board and the Royal Australian Institute of Architects. That minimum knowledge is expanded and extended in the professional architecture program offered in the Faculty.

The program requires the completion of two degrees — the Bachelor of Science (Architecture) (BSc(Arch)) and the Bachelor of Architecture (B Arch). Completion of the BSc(Arch) or equivalent studies is the prerequisite for entry to the BArch.

The BSc(Arch) is a full-time three year pass degree or four year honours degree program which is a design degree, with a very strong emphasis on architecture as the object of design. It is possible to proceed from the BSc(Arch) into other areas of study apart from architecture, for example, urban and regional planning or other specialist degrees and diplomas in the Faculty.

The BArch is a three year pass/honours degree in architecture. The first year is a 'practical experience' year followed by two years of full-time study at the University.

Both degrees require a student to complete, on a full-time basis, mandatory and elective courses, and to gain sufficient units for those courses.

Each course is allotted a certain number of units, based on the number of hours of contact time between staff and students in lectures, tutorials, seminars, studio sessions or other meetings. One unit is roughly equivalent to one hour of contact time per week for one semester. When a student satisfactorily completes a course its unit value is credited towards the degree. No units are given for partial completion of, or failure in courses. All courses for which a student is enrolled are shown on the student's record, whether units are gained or not.

Details of the courses and the minimum number of units required for each degree are given later in this chapter and in "the Senate\"Rest\lutoTis--gvernmg"the-\degrees (pages 35 to 43).

Entry to the program

Admission

Students must apply for entry to the BSc(Arch) on the application form available from the Universities Admissions Centre. Applications close each year at the end of September prior to enrolment but on payment of a late fee UAC may accept applications up to the end of October prior to enrolment. This procedure applies to all applicants including those who wish to transfer from another faculty or university, or are of mature age or who have been educationally disadvantaged. Mature age and educationally disadvantaged applicants should also contact the Undergraduate Admissions Office at the University for details of the Special Admissions Scheme. Students who live overseas should contact the University's International Education Office before the end of November prior to enrolment.

Assumed knowledge

There are no prerequisites for students wishing to enrol in the BSc(Arch). The degree is, however, taught on the assumption that students will have successfully completed 2 unit Mathematics or have equivalent knowledge. Students who have not reached that standard will benefit from supplementary work in this subject prior to the commencement of the BSc(Arch) degree. It is recommended that students whose mathematical background is weak should, after discussion with Mr Hayman, attend one of the bridging courses in mathematics offered by the Mathematics Learning Centre (see page 77 for more details).

Assistance is also offered, during the first few weeks of the course, to students who are not familiar with simple mechanics and statics. A capacity for freehand drawing is important and, although tuition is given during the program, students will benefit from some elementary practice in sketching, for example, by trying to draw simple objects as they are seen, developing observation, and coordination between mind and hand.

Students will also benefit from some background knowledge of architecture and design and are welcome to read in the Architecture Library before commencing the course.

Equipment

Students commencing the first year are required to obtain during the enrolment period the equipment necessary to carry out the course. Lists will be provided.

Transfer students

Students transferring from other disciplines may receive credit for elective units where these are deemed relevant to the aims and objectives of the degrees. Advanced standing for transferring students in architecture or related disciplines is subject to review by the Faculty.
Entry to the BArch

Although most students entering the BArch are proceeding from the BSc(Arch), depending on resources, the Faculty reserves some places for applicants who have academic standing equivalent to the BSc(Arch).

Admission is competitive and is determined by the Faculty’s BArch Admissions Committee on the basis of academic record, a portfolio of design work and work experience. Students must apply for entry direct to the Faculty (not to the Universities Admissions Centre) using the application form available from the Faculty office. Applications close at the end of October prior to enrolment. It is essential that all applicants provide with their application form original transcripts of previous study and details of work experience. Applicants will then be considered for entry and, if shortlisted, may be asked to attend an interview with a portfolio of their work.

The Bachelor of Science (Architecture)

Aims of the BSc(Arch) degree
The aim of the BSc(Arch) is to educate people in the design of the built environment as embodied in architecture, landscape architecture, urban design, interior design and component design. This education is:

• of value in its own right, apart from any vocational relevance;
• a preparation and qualification for entry into the Bachelor of Architecture and postgraduate courses at the University of Sydney;
• a basis for further learning through studies in design-related areas such as architecture, landscape architecture, interior design, urban design and planning, building science, illumination design, design computing and facilities management;
• a basis for further learning through practice, particularly through participation in design office at a beginning level.

Objectives of the BSc(Arch) degree
To fulfil these aims the degree offers courses in the following areas and with the following objectives:

• to impart skills in and an understanding of the social context within which the built environment and design exist. This includes human and socio-cultural factors which affect and influence the perception, form and production of the built environment from the domestic place to the city.
• to impart skills in and an understanding of environmental sciences and technologies and the built environment including the physical processes which interact with, and influence the design of the built environment.
• to impart skills in and an understanding of the materials, structures and construction of the built environment, including the characteristics and use of materials, structure and construction methods in the design of the built environment.
• to impart skills in and an understanding of the historical and theoretical context of design, in particular of architectural, landscape and urban history, and of major trends in design theory and method.
• to impart skills in and an undertaking of the theory, techniques and practice of communications in design. This includes understanding the nature of design information, and to develop skills and confidence in the effective use of design and communications media and techniques.
• to impart an understanding of the activity of design and to develop skills and confidence in the process of designing.

Requirements for the BSc(Arch)
A minimum of 105 units is required to qualify for the BSc(Arch) degree including the completion of certain mandatory courses. If it is intended to proceed to the BArch, certain prerequisite courses for that degree should also be completed. The maximum number of units that can be taken in any one year is 40.

Mandatory requirements
The mandatory courses for the degree total 79 units and if the prerequisites for the BArch (17 units) are included this leaves 9 units of electives to be selected from those available within the Faculty and in a number of disciplines within other faculties. These electives allow students to further develop their knowledge and skills in areas of particular interest beyond the opportunities offered by the mandatory curriculum.

The timetable will indicate the availability of elective courses in each semester. Students are reminded that certain electives are only available in alternate years and some have a limit upon class sizes. In addition to formal elective courses, independent study electives are available by arrangement with the teaching staff. These allow students to pursue private study of a particular topic in any of the degree subject areas.

The recommended sequence of study is given below.

FIRST YEAR — MANDATORY COURSES
People and the Environment 3 units
Climate, Landscape and the Built Environment A 2 units
Climate, Landscape and the Built Environment B 2 units
Materials and Form in Building 2 units
Building Principles 3 units
History of the Built Environment A 3 units
History of the Built Environment B 3 units
Mathematics and Science in Design 2 units
Design Communications A 3 units
Design Communications B 3 units
Design A 4 units
Design B 4 units
Total 34 units

ELECTIVE COURSES
Maximum 6 units

SECOND YEAR — MANDATORY COURSES
Habitat and Society A 2 units
Habitat and Society B 2 units
Landscape Design 2 units
Construction A 3 units
Structure and Form 2 units
Environmental Science and Technology A 3 units
Design Communications C 2 units
Design Communications D 2 units
Design C 6 units
Design D 6 units
Design Support D 1 unit
Total 31 units

ELECTIVE COURSES
Maximum 9 units

THIRD YEAR — MANDATORY COURSES
History of the Australian Built Environment 3 units
The Design Professions 3 units
Design, Theory and Method 2 units
Design E 6 units
Total 14 units

ADDITIONAL MANDATORY COURSES REQUIRED FOR ENTRY TO THE BARCH DEGREE
Environmental Science and Technology B 3 units
Construction B 4 units
Structural Systems Design 2 units
Design F 6 units
Design Support F 2 units
Total 17 units

ELECTIVE COURSES
Maximum 9 units (excluding BArch prerequisites)

Honours degree
The Faculty's Honours Committee determines the minimum standard of students admitted to the honours year (fourth year). The minimum standard is the weighted average mark (WAM) of the three years of the pass degree study below which no student will be allowed to undertake the honours research and thesis presentation.

The WAM is \[ \frac{\sum M \times U_g}{\sum U_a} \]
where \( U_g \) is the number of units gained by passing a course; \( U_a \) is the number of units attempted including failures and courses discontinued; \( M \) is the mark awarded. (Note: If the result is for supplementary assessment, the mark \( M \) is 45. If the result is a failure, the mark \( M \) is the lesser of 40 or the mark awarded.)

During the honours year, each student will work closely with a supervisor appointed by the Honours Committee on an approved thesis topic and undertake coursework on research methods. Third-year students contemplating honours should begin considering a thesis topic, in discussion with the appropriate staff member, as early as possible. At the end of the honours year the Honours Committee will appoint two examiners to assess the student's thesis. The Committee will consider the examiners' reports in consultation with the supervisor. The mark for the thesis represents 65 per cent of the total mark and the WAM (weighted average mark) for the student's coursework in previous years represents 35 per cent. On the basis of the total mark the Committee determines whether honours are to be awarded and if so the class. Honours may be awarded in two classes, Class I and Class II (with Divisions 1 and 2).

A successful honours student may be exempted from the practical experience requirements for the BArch degree. An unsuccessful honours student may, in certain circumstances, also be granted this exemption.

The Bachelor of Architecture

Aims of the BArch degree
The basic aims of the BArch course are to provide the knowledge, skills and experience which will equip the graduate to be an architect. The practice of architecture today is, however, extraordinarily diverse and complex and no course could provide training in depth for all areas of practice. It is therefore essential that students obtain from the course a firm grounding in fundamentals, an ability to think creatively and logically, and a capacity to explore for themselves those areas which they wish to pursue in detail.

Objectives of the BArch
Each architecture program has a particular bias or emphasis, within the guidelines for professional accreditation, based on the interests and strengths of the staff and departments. The Faculty has the major strength of its three departments and Australia's largest university.

The program will enable:
- the student to gain the necessary knowledge and skills to become an architect, noting the increasing complexity and diversity of the architect's role.
- the satisfaction, where possible, of the demands of the professional and statutory bodies for entry to the professional institute and to qualify for registration, with minimal additional examination. However, while this is an objective, the Faculty will maintain its academic independence in the judgements it makes on the education it provides.
- the student to experience a range of attitudes and philosophies relating to architecture.
- the student to be exposed to and acquire a range of knowledge which is expected to result in graduates who can provide the community with the highest quality of architecture. The student will be able to think clearly and be able to make reasoned judgements by having:
  (i) an understanding of and experience in architectural design;
  (ii) a knowledge of the history of architecture;
  (iii) a knowledge of theories of architecture;
  (iv) a knowledge of the materials, construction practices and production methods which are essential to architecture;
  (v) the ability to absorb and interpret the needs of society in relation to the built environment;
A student may discontinue one or all courses and individual research and its documentation. Honours be attempted. The Report is the record of experience year) before any mandatory or elective courses may requirements for the BArch including the completion of certain mandatory courses. A minimum of 60 units is required to satisfy the requirements for the BArch including the completion of certain mandatory courses. The course Report is to be completed (in the first year) before any mandatory or elective courses may be attempted. The Report is the record of experience the student gains in a range of practical activities approved by the Faculty. No units are gained for the Report. Students with an honours degree in the BSc(Arch) are exempted from the Report.

The 60 units required for the degree are obtained over the next two years of full-time study when the 44 mandatory units will be completed and at least 16 units of electives. The maximum number of units that can be taken in any one year is 34.

Honours degree
Honours are determined by the Honours Committee based on the student's performance in the 60 units of the degree. The weighted average mark is used as the basis for assessment. To be eligible for the award of honours a student must complete at least one of the courses from the area, Advanced Study, wherein the student demonstrates an ability to undertake individual research and its documentation. Honours are awarded in two classes, Class I and Class II (with Divisions 1 and 2).

Important information for BSc(Arch) and BArch students
For ease of reading, the preceding sections have given the general requirements for each of the degrees. Students undertake the degrees in accordance with the Resolutions of the Senate and Faculty regarding the degrees, the Resolutions of the Senate and the Academic Board with regard to conduct, examinations, enrolments, etc., and the administrative requirements of the University. This section draws your attention to those requirements which may affect your progress. Honours degree
Honours are determined by the Honours Committee based on the student's performance in the 60 units of the degree. The weighted average mark is used as the basis for assessment. To be eligible for the award of honours a student must complete at least one of the courses from the area, Advanced Study, wherein the student demonstrates an ability to undertake individual research and its documentation. Honours are awarded in two classes, Class I and Class II (with Divisions 1 and 2).

Resolutions of the Senate and Faculty
These are the strict requirements for the degrees with which candidates must comply. Read them on pages 35 to 45.

Variation of Enrolment
A student may discontinue one or all courses and have these shown as a non-failure on his or her record as set out below. He or she may also enrol in new courses as replacements according to the following:

(i) Withdrawal
A candidate who discontinues enrolment in a full-year or first semester course on or before 30 March, or in a second semester course on or before 30 August, shall be recorded as having withdrawn from that course.

(ii) Discontinuation
A candidate who discontinues enrolment in a course before the end of the lectures for that course shall be recorded as 'Discontinued' unless the Dean, on grounds of serious ill health or misadventure determines that the discontinuation should be recorded as 'Discontinued with Permission'.

(iii) Adding to enrolment
A student may not add to the total number of units of his/her enrolment after 30 March.

(iv) New enrolments
After withdrawal or discontinuation, a student may enrol in a replacement course up until the end of the third week of semester one for a full year or first semester course and the end of the third week of semester two for a second semester course, provided that the total number of units in which the student was enrolled at 30 March is not exceeded.

All variations to enrolment must be approved by the Faculty office staff.

Timetable
The timetables for the BSc(Arch) and BArch are available before enrolment. Students must consult the timetables closely in planning their enrolment. Courses must not be taken if lecture times clash with other courses being taken.

Courses of study
Courses and arrangements for courses, including staff allocated, as stated in this or any other publication, announcement or advice of the University are an expression of intent only and are not to be taken as a firm offer or undertaking. The University reserves the right to discontinue or vary such courses, arrangements or staff allocations at any time without notice.

Courses available outside the Faculty of Architecture
It is possible, with permission, for students to take courses outside the Faculty of Architecture and on satisfactory completion of those courses to have them credited towards a degree course within the Faculty. Applications in writing should be lodged with the Faculty office staff.

Works visits as part of courses
Some courses include works or site visits to places of interest for first-hand observations. Details of these works visits will be given during lectures. Where works visits are a normal part of a course, this is indicated in the course description. Students are asked to prepare reports on each works visit, particularly in courses run by the Department of Architectural and Design Science. Other courses may involve field work or a community project outside the University grounds.

Student projects
Although a student’s work which is carried out as an
assignment during the course will normally be returned, it should be noted that the Faculty has the right to keep all work which may be used for exhibition or publication. It remains the responsibility of every student to safeguard his or her work to prevent damage or loss, particularly at the end of semester when studios are cleaned out.

Students are required to keep all the graphic material related to their design work in a portfolio for end-of-year inspections.

Further study options after the BSc(Arch) apart from the BArch
Upon completion of the BSc(Arch) degree there are several options available to students for further study within the Faculty of Architecture other than the BArch. Subject to having achieved the appropriate qualifications and having taken the specific prerequisite courses, a student may apply for admission to any of the following courses:

- Master of Science (Architecture)
- Master of Design Science
- Master of Urban and Regional Planning
- Master of Urban Studies
- Master of Urban Design
- Master of Heritage Conservation
- Graduate Diploma in Design Science
- Graduate Diploma in Urban and Regional Planning
- Graduate Diploma in Urban Design
- Graduate Diploma in Heritage Conservation
- Graduate Certificate in Design Science
- Doctor of Philosophy

Students should seek the advice of Faculty staff on the career opportunities offered by the various postgraduate programs.

Courses of study — BSc(Arch)

Area: Social Context of Design and the Built Environment
This area draws on a number of disciplines and includes the study of: environmental perception and cognition; socio-spatial related behaviour; means of articulating environmental needs including consultation and participation; the socio-economic, political, legislative and (cross-) cultural considerations influencing the form of habitats with an emphasis on Australian cities; and the interface between the design professions and society, including the ethics and responsibilities of the design professional.

MANDATORY COURSES

People and the Environment 3 units
11005
Assoc. Prof. Purcell
Classes lectures
Assessment assignments

The results of the architectural design process become, when built, the spaces and places that we experience and use and where we interact with others. An understanding of the complex sets of relationships between people and buildings can, as a result, both inform the design process and form the basis for an evaluation of a design proposal or an existing building.

The relationship between people and buildings can be viewed from a number of perspectives: buildings can be considered from an ergonomic point of view; buildings and groups of buildings enclose space; enclosed spaces and the external form of buildings are defined by surfaces; builtforms can also be considered as consisting of sets of shapes located in a three dimensional environment; different types of buildings or more generally places are not only experienced and interacted with on the basis of the information that is available at a particular point in time. Rather our experience results from the relationship between this information and a mental representation of past experience.
their cultural practices which help shape or give meaning to the environment. Social responsibility is discussed in terms of a design praxis which acknowledges and incorporates cultural meaning, and the consideration of equity through design.

Theme (a) explores the professional skills required in understanding the relationship between habitat and society. Consideration is given to (culturally) appropriate participatory design processes in interpreting individual client needs and working effectively with communities, and to the benefits and difficulties of participation. Theme (b) illustrates the ways in which social and cultural ideas help shape the built environment. Belief systems, power, politics, ethnicity, class, gender and life cycle issues, for example, are considered in relation to selected building types and environments in the developed and developing world. Examples are selected from amongst the following to illustrate the relationship between habitat and society: housing and living patterns; schools and educational philosophies; work places and patterns of work; prisons and the law; commercial buildings and retailing practices.

The course draws on the disciplines of architecture, environmental psychology, anthropology and history to communicate these understandings.

The Design Professions 3 units
31082
Dr Billings
Classes lectures and discussions
Assessment assignments
The course examines the nature of the design professions including the range and types of design offices and typical professional roles of men and women in design practices. Roles and responsibilities are discussed in the context of organisational management theory, and attention is paid to gender differences. The social and economic organisation of offices, concepts of management, and techniques of planning and controlling organisations are central to a critical understanding of professional practice. Attention is also directed to the legal structures of professional practice, including conventions, rights and responsibilities. These structures include an introduction to legal organisational frameworks such as companies and partnerships, and the conduct of a practice in terms of contracts, agencies, property, copyrights, insurance. All of these issues are considered within an ethical framework, where professional actions and modes of organisation are discussed in terms of the individual and environmental good, and the more general question of social equity.

ELECTIVE COURSES

Colour Design 3 units
37799
Assoc. Prof. Purcell
Prerequisite People and the Environment
Classes lectures and seminars
Assessment assignment
Quota 30 students
The aim of this course is to develop a theoretical context and method for making decisions about colour as an integral element in design. Making decisions about colour involves knowledge about colour perception and a number of other issues. The following areas of knowledge form the basis of this course: ways of describing and measuring colours; the mechanics of colour vision; Gestalt properties of figure/ground and pattern; emotional/aesthetic responses to colour; and learning and culture in colour experience.

A number of skills are required in order that colour choices can be made including the ability to measure colours. Various techniques are reviewed and explored by students through application to elevations of urban streetscapes.

Knowledge Structures in Design 3 units
37800
Assoc. Prof. Purcell
Prerequisite People and the Environment
Classes lectures and seminars
Assessment assignment
Quota 30 students
The course examines the idea of meaning in architecture and deals with such questions as what are the meanings conveyed; is there a hierarchy of meanings; what is it about the building(s) and its surround that conveys the meaning; are there different types of buildings associated with different meanings; and what are the roles of complexity, ambiguity, anomaly, contradiction and novelty in creating meaning? This theoretical background draws on the work of Venturi, the Post-modernists and the general field of semiotics and is illustrated by the analysis of a number of building types and particular buildings important in the history of architecture.

Cross-Cultural Approaches to Architecture and Planning 2 units
33198
Dr Rubbo, Dr Snodgrass
Prerequisite Habitat and Society A and B
Classes seminars
Assessment assignment/seminar presentation
Using examples from Third World countries in Asia, Latin America and Africa and by reference to the Australian Aborigines, this course highlights some of the major issues influencing the form of housing and planning in developing countries and among minority groups. The focus of the course will be the relationship between culture and architecture, development policy and the economics and politics of settlement, and the often conflicting role facing professionals in countries characterised by class differences and ethnic diversity. The question, 'What can be learned from a cross-cultural approach to housing and planning?' is an underlying theme to this course.

Urban Conservation Planning 2 units
31194
Prof. Domicelj
Prerequisite History of the Built Environment A and B
Classes lectures and seminars
Assessment assignment
The course has three aims: to identify the cultural significance of historic places in urban and regional contexts; to analyse the interaction between heritage studies and the requirements of environmental plans, and to further their integration; and to examine the various legal institutions for heritage conservation at various scales—N.S. W., Australian and international. Studies will include the preservation and renovation of historical places and the re-use of historic places in urban areas. Case materials will illustrate Australian and international conservation experiences.

**Building Contract Law**
1 unit
31218
Dr Billings
*Prerequisite* The Design Professions
*Classes* lectures
*Assessment* assignment

The objectives of the course are to provide knowledge, understanding and ability to apply the contractual and legal aspects of building contracts, including their administration, and claims and disputes under them. Topics covered are: all aspects of contracts (from terms to remedies for breach), the architect's role in contract documents, definition of 'the architect', architect's instructions, site conditions, execution of the works, payment and completion of the works.

**Design in the Natural Environment**
2 units
32624
Dr Lamb
*Prerequisite* Climate, Landscape and the Built Environment A and B
*Classes* lectures, site visits
*Assessment* assignment
*Quota* 15 students

The course examines the impact of the development process on the physical, biological, aesthetic and social environment. This impact is considered in relation to the ethical and professional responsibilities of designers. Choices made by designers in the development process such as subdivision layout, site and access works, design proposals, building and construction methods, site planning, building and landscape materials, servicing and maintenance are studied in relation to their environmental costs and the possibility of innovative solutions explored. Extensive use is made of site visits and case studies.

**Design and Consultation**
2 units
31262
Dr Rubbo
*Prerequisite* Habitat and Society B
*Classes* seminars
*Assessment* assignment/semester presentation

An important factor in the design of successful buildings is an ability to understand the needs of clients. In a complex and multi-cultural society where a professional's area of expertise and values often differ from those of the people he/she designs for, a sympathetic and systematic approach to the understanding of people's needs is an important skill. This seminar will expand, on themes introduced in Habitat and Society B, and explore issues of client communication and participation with individuals and groups. A range of methodologies will be covered and techniques discussed through which relevant design information may be obtained. 'Fieldwork' or case studies, will be an important aspect of the course.

**INDEPENDENT STUDY ELECTIVES**

**Social Context Elective A**
2 units
31284-F (first semester)
31284-S (second semester)

**Social Context Elective B**
1 unit
31296-F (first semester)
31296-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

**Area: Environmental Science and Technology**

This area aims to develop an awareness of the environmental constraints of the built environment and an understanding of the physical processes which interact with built forms to produce these constraints. It explores appropriate responses to climate, topography and landscape, and the behaviour of thermal, visual and aural phenomena in the natural and built environments. Appropriate evaluative and analytical skills are developed.

**MANDATORY COURSES**

**Climate, Landscape and the Built Environment A**
2 units
12100
Mr Forwood
*Classes* lectures, tutorials, laboratory classes
*Assessment* examination, assignment

The course begins with a study of the physical processes which generate the natural environment and explores how these processes create the world's climates. Attention is then focussed upon Australia, and more particularly, Sydney as settings for design and these microclimates are studied in more detail. Techniques are presented for the collection and analysis of climatic data as a knowledge base to support the design process. The regional biosphere is then studied, again concentrating upon Sydney, in order to study the operation of natural processes in the landscape and as an introduction to assessing the impact of designed interventions upon these processes. The scale of the individual site is then considered and techniques for site planning are presented as a systematic process for exploring the full environmental potential of a site.
Climate, Landscape and the Built Environment B 2 units
12118
Mr Forwood
Classes lectures, tutorials, laboratory classes
Assessment examination, assignment

The first component of the course examines the influence of climate upon the need for environmental control, identifying the evolving relationship between technology and architecture. These lectures propose the hypothesis that the architecture of any age is influenced by the interaction between climate, available technology and materials and cultural values and elaborate two basic approaches to environmental control and their impact upon architectural form and space. Techniques are presented for evaluating the impact of climatic factors upon form and materials. This leads to a discussion of the need to define space in terms of its environmental dimensions, as well as conventional geometric dimensions, in order to be able to fully describe its intended impact upon people.

The second component of the course defines three sets of environmental dimensions: thermal, luminous and aural. Each is described in detail and techniques for their measurement are explored in a series of practical exercises. This component also considers the impact of these dimensions upon human response to the environment. The relationship between thermal comfort and climate is examined. It concludes by exploring how environmental dimensions may be exploited in the creation of dynamic and sensual spatial experiences in the designed environment. The role of the building fabric in creating these dimensions is discussed and some examples are examined.

The third component of the course introduces some of the literature of environmental design, particularly that concerned with the relationship between people and the built and natural environments.

Environmental Science and Technology A 3 units
22127
Mr Hayman
Prerequisite Climate, Landscape and the Built Environment A and B
Classes lectures and seminars
Assessment examinations, assignment

The course discusses the physical processes involved in the transmission of light, sound and thermal energy and the properties of materials and construction of elements which influence this transmission are outlined; thermal response of buildings; daylighting and windows; acoustics; water and buildings

Landscape Design 2 units
22145
Mr Powell
Classes lectures integrated with design studio
Assessment assignment, examination

Design theories, principles and practices are explored as themes through various lecture topics providing different ways of perceiving landscapes. The major physical elements of landscape, such as space, scale, land, air, water, vegetation and built forms are discussed together with their related surfaces, edges and types of materials used in different contexts.

PREREQUISITE COURSE FOR THE BARCH
Environmental Science and Technology B 3 units
32157
Assoc. Prof. Fricke
Prerequisite Environmental Science and Technology A
Classes lectures, seminars, tutorials
Assessment assignment

In this course the theoretical principles covered in Environmental Science and Technology A are extended and applied to the design of particular building elements and to a consideration of the whole issue of environmental control in buildings. In a series of seminars, students are expected to research particular environmental issues in depth and to relate these to specific building types as a prelude to the summary project in Design F. The course develops a framework for incorporating environmental control decision making and evaluation into the total design process and this framework is applied to the summary project. The treatment and resolution of environmental issues in this project form a substantial component of the assessment for this course.

ELECTIVE COURSES
Energy and the Built Environment 2 units
32163
Mr Forwood
Prerequisite Climate, Landscape and the Built Environment A and B
Classes lectures and seminars
Assessment assignment/seminar presentation

This course discusses the issue of energy usage in the community generally and the built environment in particular. It explores the impact of the energy crisis upon community attitudes to energy consumption, the reaction of governments, business and community groups, and the implications of lowering energy consumption upon the design, construction and use of buildings in Australia. Alternative design approaches and the use of alternative energy systems are also explored.

Ergonomics 2 units
32178
Mr Hayman
Prerequisite People and the Environment and Mathematics and Science in Design
Classes lectures and tutorials
Assessment assignments

Ergonomics, as a science, is the systematic study of the relationship between individuals and populations and their environment. Consequently it is not just the study of human dimensions (static anthropometrics) and muscular stress (dynamic anthropometrics) but also includes environmental, perceptual, cognitive
and systems ergonomics. This elective will introduce principles of ergonomics, including the required applied statistical background. Existing case studies will be used to explore these principles and students will also be expected to develop their own case studies.

**Introduction to Plant Material** 3 units  
32194  
Mr Correy  
*Prerequisite* Landscape Design  
*Classes* lectures, practicals, fieldwork  
*Assessment* examination, assignment  
*Quota* 15 students

To successfully design with plants it is essential to know something about them as a material. This course examines basic plant structures and functions and the essential requirements to promote growth. It discusses broad classification systems, important vegetation types, taxonomy, nomenclature and simple identification techniques. Distinguishing visual and structural characteristics of broad sub-divisions of plants such as trees, shrubs, ground covers, climbers, herbaceous perennials and grasses are identified and their design potential, together with aesthetic and environmental values, are discussed. Both native and exotic species are used as examples, and students are expected to acquire a sound working knowledge of useful landscape plants for a range of design situations.

**INDEPENDENT STUDY ELECTIVES**

**Environmental Science Elective A** 2 units  
32209-F (first semester)  
32209-S (second semester)

**Environmental Science Elective B** 1 unit  
32242-F (first semester)  
32242-S (second semester)

**Landscape Design Elective A** 2 units  
32258-F (first semester)  
32258-S (second semester)

**Landscape Design Elective B** 1 unit  
32266-F (first semester)  
32266-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

**Area: Materials, Structure and Construction**

This area covers structural and construction principles employed in the built environment. It provides knowledge and skills sufficient to detail the design of a small scale building, and to understand construction and structural systems for larger buildings.

**MANDATORY COURSES**

**Materials and Form in Building** 2 units  
13003  
Ms Sodersten  
*Classes* lectures and seminars  
*Assessment* assignments and class quiz

The course will address three major themes:  
Materials: use as forming the structure and enclosure of buildings; characteristics and physical properties; manufacture; durability; availability.  
Architectural character: the expressive language of architectural character, material and structural themes; relationship to structure; 'heavy' and 'light' form; texture; rhythm; scale; directionality of floor, walls, roofs, openings, stairs.  
The making of buildings: the language of structure, materials and construction; linear and planar systems; primary and secondary structural systems; footing, floor, wall and roof systems.

**Building Principles** 3 units  
14667  
Assoc. Prof. Smith  
*Classes* lectures, tutorials and laboratory classes  
*Assessment* assignments and examination

The course first introduces the ideas of structural sufficiency for the building as a whole and each of its parts, followed by a brief study of the structural properties of materials and materials testing.  
The course then introduces loads and forces, and studies the equilibrium of elements and freebodies, including moments and the resolution of forces, and the graphical representations of internal actions in shear force and bending moment diagrams.  
The requirement of structural performance in linear structural systems is introduced through the properties of cross-sections of members, and the selection of sections in relation to the properties of the material.  
The course provides the knowledge to select structural assemblies of linear elements, and to select sizes for these elements, for simple configurations and loading conditions.

**Construction A** 3 units  
23027  
Dr Holland  
*Prerequisite* Building Principles and Materials and Form in Building  
*Classes* lectures and tutorials  
*Assessment* assignments

Semester 1 involves research and theory and is based on investigation, observation, deduction and analysis. The course will address three major 'zones' of typical small-scale buildings:  
Footing-Floor-Wall: materials and their characteristics including the concepts of environmental sustainability; structural systems, introductory sizing, constructional and structural compliance with relevant selected SAA codes, including concrete slabs, footings, timber framing of floors and walls, masonry walls, primarily brickwork; cladding and lining; waterproofing and flashing; insulation; typical standard details and junctions of materials and components within and between elements.
Roof-Ceiling-Wall: materials; typical standard forms and structural systems; sizing and compliance with SAA codes; materials of roofing and lining; waterproofing and flashing; water disposal and insulation; typical standard details and junctions as above.

Timber Windows and Doors - wall/floor/ceiling: construction to SAA specifications; installation in timber framed, masonry and masonry veneer walls, and to typical floors and ceilings as previously addressed; details of components and junctions to large scale.

Semester 2 involves the application of the principles of the theory and research gained in Semester 1 to the design and detailing of a small-scale building, including structure and construction.

Structure and Form 2 units
23035
Dr Gunaratnam
Prerequisite: Materials and Form in Building and Building Principles
Classes: lectures and seminars
Assessment: assignments and examination

The course further examines the relationship between the loading on building structures, their forms and their constituent materials and assemblies. It extends the repertoire introduced in the course Building Principles and aims to convey an essentially complete understanding of structural form in architecture. Topics include: continuity in structures; funicular form; tension systems; compression systems; plane surface structures; curved surface structures; and structures in history including the ideas of line and curve, frame and envelope as structure.

PREREQUISITE COURSES FOR THE BARCH
Construction B 4 units
34719
Dr Holland
Prerequisite: Structure and Form and Construction A
Classes: lectures and seminars
Assessment: assignments

The course addresses construction and structural systems for medium- to large-scale buildings on the basis of 'knowing about' rather than 'knowing how'. The course is primarily concerned with the design process and procedures for the construction detailing of medium- to large-scale buildings. A performance based approach to construction elements is emphasised as the basis for the selection of materials and construction methods. The repertoire of materials and systems is broadened by the introduction of non-loadbearing brickwork, steel, reinforced concrete and lightweight materials. The issues of constructability and resource management are also introduced. Students are not expected to gain a full knowledge of all construction details, rather they are expected to develop an understanding of the design process for detailing, the principles on which design decisions are made and the documentation process for communicating those decisions to the client and builder.

The course addresses four main themes:

Strategic planning for building construction design: This section introduces performance-based analysis of construction and detailing as a design activity. It relates construction methods used for medium scale buildings to design strategies.

The role of building codes and their influence on building design and construction: The Building Code of Australia (BCA) is examined for sections A, C, D, and F on Fire Resistance, Access and Egress and Health and Amenity. The relationship of the Code to design processes is examined.

Historical survey of building processes: This section surveys the developments of brick, steel and concrete and 20th century construction technology and their impact on building design. This also introduces the performance characteristics of building materials and their influence of those considerations on building design.

Construction detailing for medium scale buildings: This section introduces the conceptual approaches to developing details for medium scale buildings (framed buildings up to four storeys). It emphasises the analysis of the performance characteristics of various building materials in developing details. The following materials are examined: brickwork, steel and related alloys and other metals, reinforced concrete: precast and cast in-situ, GRP, GRC, glazing, masonry and ceramics.

Structural Systems Design 2 units
34772
Dr Gunaratnam
Prerequisite: Construction A and Structure and Form
Assessment: assignment

The course provides information for making structural decisions within the context of building design. It examines the different stages in the structural design process and explores the means of integrating the different types of structural knowledge with information available in the various codes of practice to arrive at an appropriate structural system for medium sized buildings. It considers the different representations of structural design knowledge available for making structural decisions and provides experience in their use.

The course is structured around three major topics: structural design process; structural design codes; and structural design information.

ELECTIVE COURSES

The Building Industry in Australia 2 units
31261
Dr Holland
Classes: lectures
Assessment: assignments

An overview of the Australian building industry, including its role in the national economy, the nature of organisations and processes that produce buildings, the role of the various organisations within the industry, e.g. manufacturers, builders, unions, describing the architect's role in this context. Reference is made to historical examples of the organisation of the building process.
Cost Planning and Control 2 units
33059
Dr Holland
Classes lectures and tutorials
Assessment assignment
An outline of the principles and techniques of cost planning and control, including feasibility studies, estimating methods of finance, costs in use, the Australian Standard Method of Measurement of Building Works and the role of the quantity surveyor.

Structures Theory 2 units
33068
Dr Gunaratnam
Prerequisite Structure and Form
Classes lectures
Assessment assignment and open-book examination
This course extends the theoretical basis for the analysis of structural responses and the satisfying of performance criteria, and links these with practical methods and computer-based tools for the exploration of structural design. It complements the survey of building structure morphology presented in the prerequisite course Structure and Form and thus leads to a fuller understanding of the provision of adequate building structures in architecture.

Component Detailing and Construction 2 units
33072
Mr Wheeler
Prerequisite Construction A
Classes lectures, tutorials, site visits and workshop
Assessment assignment
Quota 15 students
The course develops experience in the production of detailing and shop drawings for the production of architectural components. The work includes the selection of architectural components, the analysis of their performance and production characteristics, the preparation of detail/shop drawings and the execution of part or all of the component as a prototype by construction in a workshop.

Workshop Technology — Timber 2 units
35088
Dr Holland
Classes studio workshop
Assessment assignment
Quota 24 students
This course is designed to introduce students to basic woodworking techniques using a range of hand and power tools. Its aim is to give an understanding of the nature and behaviour of timber, methods of working, jointing and finishing it. Good workshop practices are emphasised. Asmall objects such as a box or tiles is made.

Object Design and Construction 2 units
31003
Dr Holland
Prerequisite Workshop Technology — Timber
Classes studio workshop
Assessment assignment
Quota 36 students
The objective of this course is to develop design and making skills. Each student designs an object, does working drawings and makes it. Tables, chairs, beds and light fittings have been made in previous years. Any materials can be used but the student must bear in mind his/her own and the workshop's limitations. Each student should choose an associate lecturer from the full-time staff, who will supervise the design's development and making. The technical officer will also be involved in its making.

INDEPENDENT STUDY ELECTIVES
Materials, Structure and Construction Elective A 2 units
33093-F (first semester)
33093-S (second semester)
Materials, Structure and Construction Elective B 1 unit
33101-F (first semester)
33101-S (second semester)
For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

Area: History and Theory of Design
History
The history courses indicate some of the past and contemporary theories of history and introduce some of the main current philosophies of history. The language of design discourse is introduced, continuities and changes in design forms are discussed, and the present relevance of earlier design processes and products shown.

Theory
The theory courses provide a general theoretical background for the design process. They are intended to show the range and variety of design ideas and their richness of meaning. They seek to develop a questioning attitude through informed and critical appraisal and investigate concepts of relevance, meaning and value, and of evaluation, as they pertain to design.

Method
The courses in method introduce some of the main methodological approaches to design together with
their theoretical bases and philosophical implications. They introduce basic concepts of typology and taxonomy.

MANDATORY COURSES

History of the Built Environment A 3 units
14003
Mr Howells, Ms Stewart
*Classes* lectures
*Assessment* essay, assignments

The course introduces students to a theoretical background of the built environment with particular focus on the histories of architectural, urban and landscape design. The course employs innovative methods of teaching by using a thematic structure rather than the traditional chronological approach. Drawing on a wide range of specialist lecturers from the Departments of Architecture, Architectural and Design Science and Urban and Regional Planning, it examines the fundamental elements of the closely related areas of environmental design. Beginning with a brief overview of the development of Western architecture for those unfamiliar with historical studies, the course explores themes to develop students' understanding of the theoretical, linguistic, terminological and historical interpretations of architectural, urban and landscape design. The themes include the development of structure, the languages of Western and non-Western architecture, historicism, conservation, twentieth-century landscapes, adapted intellectual traditions, contemporary thought and philosophy, and social issues in contemporary housing. Examples are drawn from a wide range of cultures including those of Australia, China, Europe, India, the Islamic world, Japan and North America.

History of the Built Environment B 3 units
14019
Mr Howells, Ms Stewart
*Classes* lectures, tutorials
*Assessment* essay, assignments

The course is intended to complement and extend the students' acquired knowledge and build on skills developed from History of the Built Environment A. It is similarly thematically structured. Themes explore urban typologies, the device of the wall, the use of axis and movement, Romantic landscapes, the role of colonialism, women and the built environment, and the inter-relationship between architecture and the arts, drawing examples from Australia, China, Europe, India, the islamic world, Japan, North and South America, and Southeast Asia. A wider range of specialist lecturers is drawn from the Departments of Architecture, Architectural and Design Science and Urban and Regional Planning.

Mathematics and Science in Design 2 units
14029
Mr Hayman
*Classes* lectures, tutorials
*Assessment* assignments

The design of the built environment, particularly western architecture, has been strongly connected to developments in ideas and technology. Architecture, as a result, is a quantitative as well as qualitative discipline. An understanding of mathematics and science is required to see how they have played and continue to play, important roles in these developments. This is, consequently, an introductory course in mathematics and science as it relates to design theory and practice.

The major topics in this course are: model making; numbers; geometry; proportion; logic and argument; transformational geometry; calculus and analytical geometry; and statistics.

History of the Australian Built Environment 3 units
37803
Mr Howells
*Classes* lectures
*Assessment* essay and measured drawing assignment

The course introduces students to the development of architecture, urban design and landscape design in Australia from European settlement until the present. The course has been structured thematically to explore such issues as the influence of British and Aboriginal building methods, the regional use of materials, the adaptation of fashionable ideas from abroad, response to geographic and climatic conditions, relationship of plan, form, texture and colour, vernacular forms of design, evolution of the Australian house, structural innovation, design in the public realm, urban development and Australian decorative arts.

Design Theory and Method 2 units
34036
Dr Snodgrass, Dr Coyne
*Prerequisite* Design A, B, C and D

*Classes* lectures and tutorials
*Assessment* essay, tests, tutorial participation

The course of lectures investigates recent paradigms for design methodology, locating them in a wider context of current reactions against Cartesian concepts of method. It looks at the relationship of architecture, and architectural science, to recent developments in thinking about science and technology; it examines linguistic models of the design process, with special attention to recent investigations into the nature of metaphor; it looks at theories of historiography as they relate to architectural theory and historical studies; analyses the relationship of architecture to the media; and introduces notions of pragmatic and hermeneutic philosophies as they pertain to design theory and method. Finally, lectures refer to contemporary notions of space and place and indicate their relevance to design. The content of all lectures is referred to and closely tied in with students' experiences in the design studio.

HISTORY ELECTIVE COURSES

*History of the Built Environment A and B are prerequisites for all elective courses in this subject area.*
Art History  2 units
37798
Assoc. Prof. Taylor
Classes lectures
Assessment assignment

An outline of the development of art from earliest times to the present day. Some attention is given to the art of pre-history and ancient Egypt, Greece and Rome but the major stream of the course is devoted to the development of western art from Gothic through Renaissance to the emergence of the art movements of the 20th century. The development of art in Australia is also considered. Emphasis is on the understanding of art values and an appreciation of art in relation to the social context of the times.

History of Building Science  3 units
34182
Emeritus Professor Cowan
Classes lectures
Assessment multiple choice examination and essay

The history of architecture is examined from the constructional and scientific point of view. What materials and erection methods were used? How were structural sizes determined? To what extent were heat, coldness and noise considered in the design? The first part of the course will cover the traditional architecture of Ancient Egypt, Greece, Rome and Byzantium; Europe in the Romanesque, Gothic, Renaissance and Baroque eras; the Islamic countries; and India, China and Japan. The second part deals with the development of scientific methods in the 18th, 19th and 20th centuries, and their effect on architectural design: particularly the new structural technologies; the new materials; the invention of electricity/artificial light, lifts, air conditioning, and computer controls; as well as the development of computerised design methods, and theories for acoustics and thermal comfort.

History of Eastern Architecture  2 units
37806
Dr Snodgrass
Classes lectures
Assessment assignments

The course is a thematic survey of the architectures of Asia, serving as a vehicle for introducing students to concepts of cultural interpretation and understanding. The concepts underlying and determining the architectural forms of India, Southeast Asia, Indonesia, China, Japan and Islam will be juxtaposed with the concepts which operate in the production of present-day Western architecture. This is done not only to introduce the student to an unfamiliar world, but also to use the unfamiliar as a means of bringing into focus unexamined contemporary preconceptions concerning the nature and function of architecture so that they can be reassessed. In this way the course will analyse the relevance of unfamiliar architectural concepts to contemporary practice.

History of Landscape Design pre 1700  2 units
37804
Mr Correy
Classes lectures
Assessment assignments

Beginning with the impact on the land of prehistoric civilisations the course examines chronologically each of the major landscape design styles which have developed in both Western and Eastern cultures up to the end of the seventeenth century.

The ways in which geographical, biophysical, environmental, social, political and technological factors have influenced landscape design are addressed to assess the appropriateness of individual designs in relation to their specific regional context. The formal approaches used in the simple Paradise garden through to the grandiose Baroque style in Western countries are discussed and contrasted with the informal and mystical Eastern philosophies of landscape design.

History of Landscape Design post 1700  2 units
37805
Mr Correy
Classes lectures
Assessment assignment

The English 'picturesque', the American 'romantic' and the Victorian 'gardenesque' styles are identified as starting points. Each is examined in detail and its influence on 20th century landscape design is traced and discussed. Modern movements in art and architecture and technological advancements in science and engineering have strongly influenced current landscape architectural philosophies and these are explored in depth. Special emphasis is placed on the development of landscape design in Australia over the last 200 years.

History of Urban Design pre 1800  2 units
37801
Prof. Webber
Classes lectures
Assessment assignment

This course has similar objectives to History of Urban Design pre 1800. Urban design in the period from the
early 19th century to the present is discussed with particular emphasis upon urban design in its relationship to the development of the major metropolitan cities. The discussion deals with the impact of traditional values and ideas, and the gradual evolution of new principles.

Renaissance to Baroque Architecture in Italy 2 units
34193
Mr Kprzeniewski
Classes lectures and tutorials
Assessment assignment, study models and/or drawings
The bias of this course is towards consideration of specifically architectural principles and approaches to the making of buildings and spaces, as demonstrated in the works and ideas of this period. Many significant works including urban architectural projects and gardens of the Italian tradition are examined. The main emphasis is on the period from the 14th to the 18th century but reference is made to Greek, Roman and Medieval precedents and also to influences of Italian architecture on subsequent developments. The works of some of the great architects: Brunelleschi, Alberti, Michelangelo, Palladio, Borromini, Bernini and Guarini, are examined in some detail. The course introduces a comparative method of looking at buildings.

Theatre Design and History 2 units
37861
Assoc. Prof. Thome
Classes lectures and site visits
Assessment assignment
The course is given jointly by the Centre for Performance Studies and the Department of Architecture. Following a general outline, the concentration will be on the anthropology of theatre and performance, on ritual and how this has developed into theatre performance as we know it. Theatre buildings will then be viewed in the urban fabric from Greek times to today’s performing arts centres. They will be observed for their meaning to their communities and the experience of attending them. Their design will be analysed in relation to the social mores of their times. Stage settings will be discussed according to the movement of the performers in the stage space; and finally, the theatre organisation, and the design elements that allow that organisation to operate successfully, will be described.

Special Topics in Architectural History-and Theory A 2 units
37858-F (first semester)
37858-S (second semester)

Special Topics in Architectural History and Theory B 1 unit
37859-F (first semester)
37859-S (second semester)

For current offerings, refer to the department:

THEORY ELECTIVE COURSES

Science and Society 2 units
Mr Hayman
Prerequisite Mathematics and Science in Design
Classes seminars
Assessment assignment
This course is an introduction to the study of science. It will cover the major philosophical developments in western scientific thought from Ancient Greece. Topics covered include: medical science, the Copernican revolution, the Enlightenment, the Darwinian revolution and the 20th century critiques of science. Part of the course will look at the impact of science on the profession and practice of architecture.

Statistics in Environmental Design 2 units
Mr Hayman
Prerequisite Mathematics and Science in Design
Classes lectures
Assessment assignments
The aim of this course is to provide students with an understanding of the range of statistical tools that can be applied to the analysis of problems in environmental design, in particular the person-environment studies area. The course will cover descriptive statistics, inferential statistics (both parametric and non-parametric tests), correlation and prediction, hypotheses testing and multivariate analysis. Tools will be provided, for example, non-parametric tests, that have immediate use. Their theoretical background will be covered in sufficient detail to outline their limitations and assumptions.

Mathematical Modelling for Designers 2 units
Mr Hayman
Prerequisite Mathematics and Science in Design
Classes lectures
Assessment assignment
This course expands the concept of mathematical modelling introduced in Mathematics and Science in Design. Models will be developed using the following mathematical domains: time series, integral and differential calculus, differential equations, matrix algebra, optimisation, graph theory and statistics. Particular attention will be paid to models for managerial decision making, for example, cost estimation and critical path analysis.

INDEPENDENT STUDY ELECTIVES

History and Theory Elective A 2 units
34301-F (first semester)
34301-S (second semester)

History and Theory Elective B 1 unit
34312-F (first semester)
34312-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a
selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

**Area: Design Communications**

The design communications area involves both the communication of ideas to others and the articulation of the designer’s own ideas. It combines an understanding of the theory of communications, critical abilities in evaluating communicated messages, and some practical skills in a variety of communications media including computer-based media.

**MANDATORY COURSES**

**Design Communications A** 3 units 15006
Ms Sodersten
*Classes:* lectures and tutorials
*Assessment:* assignments

The course covers the following: basic design notation – observation and diagrammatic sketching; representational sketching of the built environment (from life); orthographic drawing of plan, section, and elevation, in pencil; axonometric and isometric pencil drawings; introductory model-making skills for representational models; introductory computer skills of use in word and image processing; writing skills of use in preparing and referencing an essay or report; verbal presentation: approaches and skills.

An important part of the course involves the completion of at least 4 to 5 pages of log book observations per week. These are drawings and notations of spaces and places in the built environment. The aim is to elucidate the nature of the space, building or object, how it was designed, and why it is the way it is.

**Design Communications B** 3 units 15023
Ms Sodersten
*Classes:* lectures and tutorials
*Assessment:* assignments

The course covers the following:

- Diagrammatic drawing and the development of techniques for design notation.
- Technical drawing and development in the following skills: pencil and ink drafting; plan, section, elevation and axonometric drawing.
- Representational drawing and an introduction to perspective drawing and the setting up and rendering of one and two point perspectives.
- Model making and skills development in abstract and conceptual models and fine model making for design.

An important part of the course involves the completion of at least 4 to 5 pages of log book observations per week. These are drawings and notations of any designed object in the built environment. The aim is to elucidate the nature of the space, building or object, how it was designed, and why it is the way it is.

**Design Communications C** 2 units 25034
Mr James, Assoc. Prof. Maher
*Prerequisite:* Design Communications A and B
*Classes:* lectures and studio
*Assessment:* portfolio

The course covers computer skills and is integrated with Design C as appropriate.

Using Autocad UNIX-based software the course introduces and develops the use of CAD for 2D drawing and 3D modelling and includes: basic CAD orientation, drawing and editing commands and tools; 2D orthographic drawing; 3D wire frame and surface modelling.

**Design Communications D** 2 units 25047
Mr James, Assoc. Prof. Maher
*Prerequisite:* Design Communications A and B
*Classes:* lectures and studio
*Assessment:* portfolio

The course covers manual skills, focused on increasing knowledge and awareness of ways to communicate design ideas to groups and individuals, including:

- Technical drawing in mixed media with colour and shadows for site and landscape drawings, building plans, sections and elevations.
- Representational drawings in mixed media for realistic presentation in serial vision (multi-views) development of perspective using photography and models.
- Log book entries as a continuing weekly practice to record site, sketching, design ideas and descriptive notes for reference.
- Presentation techniques using reproduction processes, print-making and collage.
- Oral and written communication presentation techniques.
- Portfolio presentation, lettering and composition.

Where appropriate these techniques and skills are integrated with Design D.

**ELECTIVE COURSES**

**Design Detailing** 2 units 33085
Mr James, Ms Sodersten, Mr Wheeler
*Prerequisite:* Design Communications A and B and Materials ‘and Form in Building
*Classes:* lectures and studio
*Assessment:* assignment

This course further develops experience and skills in the preparation of working drawings suitable for professional practice. The work is conducted in the studio, as a simulation of office experience. Course topics include: tracing, measured drawing, detailing and preparing working drawings from sketch designs.

**Understanding Design** 2 units 31283
Prof. Gero
*Classes:* lectures
*Assessment:* assignment
The aim of this inter-Faculty course is to provide a basic understanding of design at two levels for undergraduates undertaking degrees where the study of design is seen to have direct relevance to improving an understanding of the main areas of knowledge in each degree.

Level 1. General. The presentation of a broad interdisciplinary profile of design, as a mode of thought and as an organised conceptual process, as a specific productive function within economic systems, as an agency which directs the creation of functional objects, and as an activity which constitutes much of contemporary material culture.

Level 2. Specific. The presentation of the complexity of design activity and its resultant forms, including environments, manufactured and constructed products, organisational models and aesthetic appearance. The presentation of design issues, within the course context, in such a way as to assist students to make better informed choices on the direction of the search for knowledge and increase in skills, in their chosen studies and subsequent careers.

The course will include lectures on the following areas of knowledge and skills: design as an activity; design in/as social context; design problems and formulation; design products, and human response; design and quality; the design process, historical and contemporary; the design process: problems, models and processes; design expertise and creativity; design representation and communications; design futures and design context.

Computer-Based Design 2 units
31275
Assoc. Prof. Maher
Classes lectures
Assessment project

This course addresses the various roles and types of computer-based tools used during design. The aim is to broaden students’ understanding of computer-based design beyond the models or perspectives provided by individual departments and to introduce the needs and tools for integrated computer-based design in different disciplines. The philosophy of the course is to present the principles of the various approaches to computer-based design incorporating both practical interests of industry and the research toward better tools and tool integration.

The scope of the course covers computer-based tools for: modelling; analysis and simulation; synthesis; model integration. The first three topics will be covered in an introductory manner to familiarise students with the various models and programs used by designers from different disciplines. The fourth topic will cover issues such as database management systems, data exchange standards, software for management of design process, case studies of integrated design environments, research issues in computer integrated design environments.

Students will form interdisciplinary teams to develop and design a particular product or system. The product/system will be selected to take advantage of the different disciplines and requires that students integrate their own efforts towards the total solution. Examples of such projects are designing a bicycle, umbrella, fluid distribution network, buildings, etc. Students will use computer programs to develop an aspect of the design solution.

Art Workshop courses
Art Workshop staff
Classes studio
Assessment assignment

Ceramics — Wheel Throwing 1 2 units
13214-F (first semester)
13214-S (second semester)
Quota 14 students

This course caters for beginners and is an introduction to throwing techniques on the potter’s wheel. The aim is to develop proficiency in making a variety of thrown forms from simple bowls and mugs to more advanced pieces which may incorporate handbuilding methods. Various decorative techniques include use of coloured slips, underglazes and glazes.

Ceramics — Wheel Throwing 2 2 units
13215-F (first semester)
13215-S (second semester)
Prerequisite Ceramics — Wheel Throwing 1
Quota 14 students

This course is for students with some experience in wheel throwing. Larger and more advanced forms will be attempted and more involved decorative techniques used. The emphasis will be on technical proficiency with an individual approach to the vessel and how it can be used as a base for decorative and sculptural exploration.

Ceramics — Handbuilding 1 2 units
13212-F (first semester)
13212-S (second semester)
Quota 16 students

This course introduces the many and varied techniques of handbuilding in clay and the process of firing and glazing. It involves an exploration of the plastic properties of clay to create a wide variety of constructions, including the vessel and other sculptural forms. Various surface finishes and decorative techniques will be introduced including brightly coloured underglazes, slips and glazes.

Ceramics — Handbuilding 2 2 units
13213-F (first semester)
13213-S (second semester)
Prerequisite Ceramics — Handbuilding 1
Quota 16 students

This course will allow students to expand the knowledge acquired in Ceramics — Handbuilding 1 and develop their technical abilities to facilitate more conceptually advanced work. The emphasis will be on exploring and developing ideas using more advanced techniques such as working with plaster moulds, tile making, murals, slip casting as well as the
usual handbuilding methods. Experimental and personal expression will be encouraged. A wider variety of decorative techniques and firing methods will be introduced and may include Raku and pit firing.

**Drawing 1**  
2 units  
11093-F (first semester)  
11093-S (second semester)  
*Quota* 20 students

The course aims to develop visual, representational, interpretive and expressive skills in drawing—taken more or less in that order. Students will be introduced to a variety of approaches to and interpretation of drawing. Students will be encouraged to use different materials.

**Drawing 2**  
2 units  
11121-F (first semester)  
11121-S (second semester)  
*Prerequisite* Drawing 1  
*Quota* 20 students

Following from Drawing 1, the aim of this course is to increase the level of skill in all three skill areas of drawing — representational, interpretive and expressive — and in the use of media, more specific to the individual student’s needs of expression.

**Etching 1**  
2 units  
11133-F (first semester)  
11133-S (second semester)  
*Quota* 14 students

Students will be introduced to the creative side of etching while developing new skills. They will acquire a broader understanding of how a print is made, while emphasis will be placed on the theory and history of printmaking. Techniques covered are: drypoint, hard ground, soft ground, aquatinting, sugar lift, marbling and embossing. Students will be able to elaborate and apply these skills, being free to explore the potential of these diverse techniques while developing their own individual approach to printmaking.

**Film/Video 1**  
2 units  
11712-F (first semester)  
11712-S (second semester)  
*Quota* 20 students

This course aims to give students an understanding of the principles and working methods of film, video and sound production. Super-8, VHS video systems, spool and cassette audio tape mediums will be utilised in the Workshop. Emphasis will be placed on skills development, process and conceptual awareness. The course will be divided into units, exploring the approaches to lighting, shooting, editing, sound production and concept development for film and video. It is anticipated that a short work in either film or video with sound will be completed by each student by the end of the semester.

**Graphic Design 1**  
2 units  
11190-F (first semester)  
11190-S (second semester)  
*Quota* 10 students

The course will introduce to students the basic skills, concepts and materials of graphic design, undertaking preliminary exercises in layout, use of type, illustration techniques, and paper engineering. A set of exercises will integrate and develop the range of skills explored in the preliminary exercises by concentration on set themes.

**Painting 1**  
2 units  
11216-F (first semester)  
11216-S (second semester)  
*Quota* 20 students

This introductory course will show students, who have little or no experience with painting, how to prepare canvas and grounds, and mix colours, then undertake practical work in observational painting (stillLife painting-form, modelling and shading techniques), anatomy (painting with a live model, self portraiture), perspective (trompe d’oeil, anamorphosis) and ideas and images (style and appropriation, the decorative, words and text, collage and abstraction).

**Painting 2**  
2 units  
11254-F (first semester)  
11254-S (second semester)  
*Prerequisite* Painting 1  
*Quota* 20 students

Students with some experience in the basic elements of painting, as described in Painting 1, will develop their skills at a more advanced level, still choosing from a variety of media, styles and content within the guidelines set by the painting tutor.

**Photography 1**  
2 units  
11285-F (first semester)  
11285-S (second semester)  
*Quota* 28 students

The course is designed for students with access to a 35 mm camera, but with little or no previous hands-on experience in photographic work. It combines the acquisition of technical skills with an introduction to theoretical aspects of photographic art in its various guises; the reading of specific images in relation to existing image sources across different art historic movements and genres. Technical skills will include the operation of camera, exposure, lighting, processing, printing and experimentation in photographic media.

**Photography 2**  
2 units  
11330-F (first semester)  
11330-S (second semester)  
*Prerequisite* Photography 1  
*Quota* 28 students

This course allows students to refine and develop the skills introduced in Photography 1. Students will research a number of different genres in photographic
art history with a view to completing their own visual project in an area of interest to them. A critical attitude to the production and construction of images will be encouraged.

**Screen Printing — Paper 1** 2 units
11369-F (first semester)
11369-S (second semester)
*Quota* 12 students

This course introduces the creative aspects of screenprinting while teaching design and printing techniques suitable for those with little or no experience. Design development, the preparation of hand-cut, gum acacia and photographic stencils, colour mixing, image registration and editioning are covered in this course. Students are required to produce an edition of prints.

**Screen Printing — Paper 2** 2 units
11392-F (first semester)
11392-S (second semester)
*Prerequisite* Screen Printing — Paper 1
*Quota* 12 students

The course will experiment and specialise in techniques developed in commercial printing; camera-ready artwork, collage and montage, photo stencils, transparent colour overlays and reduction printing techniques. Students choose their own theme and are expected to research and develop their work to a high standard combining an innovative design thematic with improved technical skills and workshop responsibility.

**Screen Printing — Fabric 1** 2 units
11432-F (first semester)
11432-S (second semester)
*Quota* 10 students

This course will demonstrate and teach printing techniques using direct and indirect stencils. It will cover: awareness of and research into the decorative arts to explore personal and functional expression on fabric; stencil methods (hand-cut paper, tusche, pastel drawn onto the screen, photographic hand-painting); colour theory (mixing and fixing of inks); techniques of printing onto fabric lengths for clothing and interior furnishings (T-shirts and one-of-a-kind theme prints) and workshop economy, responsibility, health and safety.

**Sculpture 1** 2 units
11473-F (first semester)
11473-S (second semester)
*Quota* 10 students

The course is an introduction to the history of the evolution of sculptural casting methods for artistic and domestic-functional uses. It will be demonstrated that it is important to learn and understand a technique, but also it is equally important to understand the place in time in which the technique is used. Students will investigate and experiment with the different meanings that working with cement and plaster, wood and metal can effect. They will utilise various techniques, dealing with different industrial and traditional methods. The subject matter will be a set of objects which will be used and transformed during the course.

**Sculpture 2** 2 units
11694-F (first semester)
11694-S (second semester)
*Prerequisite* Sculpture 1
*Quota* 10 students

This course elaborates on the techniques and creative skills initially introduced in Sculpture 1, allowing greater experimentation and development in the sculptural media selected.

**Set Design 1** 2 units
11105-F (first semester)
11105-S (second semester)
*Quota* 12 students

This course introduces students to stage and set design. Students are required to research, design and build a miniature set, utilising the floor plans of local theatre spaces and imaginary film and TV sets. Students will select from a series of nominated projects and present their research, scale drawn design and model for assessment. This course will utilise the skills of painting, model construction, interior design and lighting. Liaison with the Centre for Performance Studies will inform the course with structure and direction of plays and deal with the use of space necessary to performance. Group visits to Belvoir Street, the Performance Space and other interested groups is anticipated.

**Art Elective 1** 2 units
11749-F (first semester)
11749-S (second semester)

**Art Elective 2** 2 units
11772-F (first semester)
11772-S (second semester)

**Art Elective 3** 2 units
11791-F (first semester)
11791-S (second semester)

**Advanced Art 1** 4 units
11805 (first semester)

**Advanced Art 2** 4 units
11814 (first semester)

**Advanced Art 3** 4 units
11842 (first semester)

Advanced Art courses include an advanced use of media, artistic content and design, art theoretical coursework, the production of a visual research book.
and exhibition. The course's theme will be published prior to enrolment. As the project of the Advanced Art course changes each year, students may take the course more than once.

INDEPENDENT STUDY ELECTIVES

Design Communications Elective A  2 units
36129-F (first semester)
36129-S (second semester)

Design Communications Elective B  1 unit
36138-F (first semester)
36138-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

Area:  Design

Design involves the interaction of analytic and creative processes and includes the collection of data and the establishment of criteria in response to: human needs (physical and aesthetic); environment (context and site); physical sciences and technology.

Design courses emphasise the development of an awareness and understanding of people's needs and behaviour as they relate to the design of the built environment. The programs are structured around the design of appropriate environments for diverse individuals and groups. Design courses provide an understanding of the activity of design and skills and confidence in the process of design.

Structure of courses

Design courses occur in a studio setting and the primary medium of instruction is the design project. The design studio promotes 'learning by doing' and offers experience in group and individual work in a wide range of creative design activities. Coursework in other subject areas provides the intellectual framework for design activity and/or knowledge that can be directly applied to design. Students are expected to integrate relevant coursework in their design projects. Design Support D and F provide for specific inputs to a design project which will enable students to better apply other course material to design.

Assessment is continuous with grades being given for each project and averaged at the end of the semester. In the case of failure, students must repeat the failed semester. They may proceed with the design course sequence providing adequate performance is demonstrated in other subject areas. It should be noted that the time allocated on the timetable for Design includes an allowance for 'non-credit' studio time in addition to the normal one hour of contact time per unit per week.

MANDATORY COURSES

Design A  4 units
17021
Ms Sodersten
Classes studio and lectures
Assessment design projects

Design A consists of weekly design 'investigations' or exercises through which the various design disciplines are introduced. In these investigations students respond to a range of client groupings (individuals to the general public), and settings and scales (city to individual buildings and interiors). The course is closely linked to Design Communications A where graphics and model making exercises are drawn from Design A projects.

The common thread to these investigations is the consideration, through studio and lectures, of relationship between ideas and form and composition, architectural expression of the building fabric and the shaping of space, in the following concepts:

- Process: ways of designing
- Place: site and physical context
- Purpose: the brief including data collection and the social context of the project
- Precedent: reference to prior building forms, morphologies and traditions

Design B  4 units
17037
Ms Sodersten
Classes studio and lectures
Assessment design projects

As in Design A, process, place, purpose, and precedent provide the conceptual framework for the course, through lectures and weekly studio exercises. Particular emphasis is given to the way a design concept is generated and brought to fruition, and to design composition. These issues are explored through two design projects. The course is closely linked to Design Communications B, and graphics and model making exercises are drawn from Design B projects.

Design C  6 units
27045
Mr James
Prerequisite Design A and B
Classes studio and lectures
Assessment design projects

Part 1: Landscape and Building Design
An investigation of the site and brief, and preparation of a master plan and the design of a building and associated landscape on the site studied. The building type is a modest public building. Where practical a real project is chosen for this program of study so that students can have contact with a client group and develop a proposal that responds to the special needs of the client. Material from the courses Climate, Landscape and the Built Environment A and B, Landscape Design and elementary structural design
and construction inform the design, and the project is integrated with Design Communications C.

Part 2: Elective Design
Study programs will vary markedly, each exhibiting the particular objectives of the project. The studio may have a primary emphasis on one or more of the following:
- A particular client and the involvement of that client
- A particular site and responses to siting characteristics
- Theoretical considerations in exploration of architectural form and composition
- The relationship of architecture to art, landscape architecture, urban design or planning
- Questions of social justice, ethics and architecture
- Heritage and conservation
- Ecologically sustainable design
- Appropriate technologies.

Design D 6 units
27052
Mr James
Prerequisite Design A and B
Classes studio and lectures
Assessment design projects

Part 1: Medium Density Housing
An understanding of the environmental, cultural and social context of (housing) design is central to this project. This understanding is achieved through contact with clients, post occupancy evaluation of housing precedents, site appreciation studies, and cultural mapping of the locality. Emphasis is given to:
- understanding and interpreting clients' needs and aspirations;
- design brief and feasibility studies;
- planning and ergonomic considerations;
- interior design;
- compliance with regulatory requirements;
- environmentally sustainable strategies suited to residential buildings;
- the development of a residential architectural language.

Part 2: Design Dynamics
Through the design of a small public building students will engage in a 'reflection in action' mode of learning. The work is carried out over a four-week period in small groups. The design process is a group effort, requiring collaboration, and a central aspect of the project is recording the dynamics of the group effort, including the experience of giving and taking criticism. Students are encouraged to develop their own critical vocabulary for discussing design problems and ways of designing.

Design Support D 1 unit
27060
Dr Snodgrass, Dr Coyne
Corequisite Design D
Classes lectures and discussions
Assessment assignment

Half of the course is allocated to lectures, discussion, and site visits that support the medium density housing project in Design D, and half of the course is for instruction and discussion on the process of designing in teams. The latter part of the course relates to the second part of Design D and recognises the importance of the active subject in the design process and the importance of developing skills and expertise in collaborative work.

Design E 6 units
37071
Mr Korzeniewski
Prerequisite Design C and D
Classes studio and lectures
Assessment design project

Part 1: Mixed Use Three Storey Building
The project integrates material from the courses Construction B, Structural Systems Design and Environmental Science and Technology B, and promotes a holistic approach to the design of a smaller urban commercial building.

Part 2: Elective Design
Consult the course description for Design C.

PREREQUISITE COURSES FOR THE BARCH

Design F 6 units
37133
Dr Rubbo
Prerequisite Design C and D
Classes studio and lectures
Assessment design projects

Part 1: Urban Design: People in the Urban Environment
The emphasis is on designing for people in an urban setting. The project deals with a locality where social and cultural identity, and ecological issues and architectural character can be understood through techniques of observation, interview and social history, and also involves townscape and figure ground analyses, studies of landscape, transport and building typology. Through group and individual work three activities will be undertaken; social and physical analysis; analysis of design opportunities and constraints; and design propositions grounded in analysis.

Part 2: A Moderately Sized Public Building
This involves the development of concepts and ideas (schematic design), and, through a 1:20 sectional perspective, detailed development of an aspect of the design proposal. Site visits, lectures and discussions relevant to the project are part of the program of study.

Design Support F 2 units
37145
Dr Rubbo, Assoc. Prof. Maher
Corequisite Design F
Classes lectures and demonstrations
Assessment portfolio

Design Support F is divided into two parts. Half of the course is allocated to lectures, demonstrations and visits that support the Design F project and the knowledge and skills required for the preparation of a graduation portfolio. Half of the course is for instruction in CAD and the development of knowledge and skills that can be represented in the portfolio and, as appropriate, in Design F.
INDEPENDENT STUDY ELECTIVES
Design Elective A 2 units
37158-F (first semester)
37158-S (second semester)

Design Elective B 1 unit
37169-F (first semester)
37169-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

BScfArch) Honours
Thesis and Research Methods 44752

To assist in the preparation of their Honours theses, BSc(Arch) Honours candidates are required to undertake coursework on research methods. The content includes: nature of research topics in terms of appropriate topics and ways of exploring them; generic type of research—distinctive characteristics; types of research methodologies—related to different research purposes; information retrieval — from library and other sources; information management and processing; writing a research proposal.

Courses of study — BArch

Area: General
MANDATORY COURSE
Report 26444
Coordinator Dr Billings
Assessment 5000 word essay

A prerequisite for undertaking the coursework of the BArch is the completion of a year of approved self-directed study/employment related to professional architecture.

The objective of the Report is to increase the student’s experience and knowledge relevant to architecture and/or its practice by undertaking study externally to the University, or employment related to architecture.

This preparation is essential to the completion of the professional degree. Without being exclusive, the objectives of the Report can be achieved through a combination of suitable employment, study, travel and research. The emphasis should be on the gaining of practical skills, the widening of architectural knowledge, the experience of a range of architectural cultures and/or the application of the knowledge obtained in the BSc(Arch).

Before enrolment can be completed a program for the Report must be submitted to the coordinator for approval. Detailed guidelines and approval forms are available from the Faculty office.

The Report will be a 5000 word essay to be submitted by the end of second semester. The essay should not only document the activities undertaken in the approved program but should draw upon the literature of the area to provide an appraisal of the activities.

Area: Architectural Design
MANDATORY COURSES
Architectural Design I 10 units
21685
Mr Wheeler
Classes studio
Assessment design projects

The course comprises four projects which explore various architectural types and settings. The first project is a small civic building with one main room and ancillary spaces set in a garden or park. The search for a suitable appearance and character for the building is carried out through a series of study models and drawings leading to presentation drawings and model.

The second project involves the consideration of a large civic space in an urban setting. The relation of the building to its neighbours, the street or corner condition and the synthesis of its various parts into a whole are the major architectural tasks. The integration with services and the development of structure are part of this project.

The third project is concerned with a group of buildings that make urban spaces between and around them. This group brings in more complex relationships, and issues of planning and appropriate character. For the fourth project one of the major spaces is taken and developed in greater detail.

Architectural Design II 10 units
31717
Prof. Nield
Prerequisite Architectural Design I
Classes studio
Assessment design projects

The submission of two projects is required. The second typically will involve the resolution of a range of more complex issues — environmental, social and programmatic. As the project develops the students will be required to demonstrate ability to integrate structural and servicing requirements into the design, and to demonstrate knowledge of the construction of more complex structures. The smaller project offers students an opportunity to explore an area of particular interest or concern, usually related to a more specific area of their own studies.

The course consists of either two or three projects:
One explores urban design and planning issues and may relate to or be integrated with the second.
One is urban based and requires the designing of a larger and/or complex building.
One is individually chosen and emphasises the development of one or more specific areas of design.
Students should be able to investigate, maintain, or amend, a proposition. This means that a student should state a design-related position (ideological, functional, aesthetic, etc) and through consideration of needs, the use of ideas and concepts, and the development of a design, demonstrate that the proposition is sound and that the design supports that position.

Applications of Technology in Architectural Design 4 units
31832
Prof. Nield
Classes lectures, studio and site visits
Assessment assignments

The course involves:
Application of building services systems in the final Architectural Design II project. It will involve a range of climate modification systems and airconditioning as well as strategic considerations of electrical systems, lifts and hydraulic services.

Advanced construction will consider the performance of materials in buildings with particular reference to change and complexity, innovation and risk of failure, multi-layer construction and durability. Lessons will be developed from failures of materials, construction and other parts of buildings over the last 20 years.

Architectural structures and materials in relation to the major design project.

ELECTIVE COURSES

Building Programming Documentation 2 units
39407
Dr Billings
Classes lectures, seminar and office related workshops
Assessment assignment

This course familiarises students with the existence of and necessity for pre- and early design related reports in architectural practices, with particular emphasis on organisational program requirements, feasibility studies and functional briefs.

The course begins by providing the context and coverage of reports produced and examines their compilation, contents and use in terms of data and decision-making during the process of project planning. It continues with a detailed study of material required from the following areas: socio-political/economic, market, organisational, functional, environmental, regulatory, financial and physical. It concludes with the interrelationship between reports and design solutions, data retrieval of an organisational, functional and psychological nature from post-occupancy evaluations. It also examines the reports, needs and effect on office manpower and finance.

Assignments where possible will be related to Architectural Design projects.

Master Planning 2 units
39415
Dr Billings
Classes lectures
Assessment assignment based on the production of a master plan of a real situation, or a 5000 word illustrated essay

The course aims to familiarise the student with the existence of and need for master plans for single buildings and complexes. It begins by dealing with master plans, their scale and context; shapes and their characteristics; building forms and the limits of their behaviour and site studies, including building disposition, their form and implications, obsolescence, internal traffic patterns and the influence of acquisitions. This is followed by a study of phasing, including growth and change flexibility; the behaviour of complexes under administrative, functional and physical stress including obsolescence and their effect on structures, mechanical engineering and traffic patterns. Alternatives are then examined in terms of change, time, space, activities, moneys, priorities and policies and human scale, on associated charts, buildings, grids, zoning diagrams, cost and aspect value grids and 3-dimensional positioning. The first part of the course concludes with costing and control for master plans through design and construction including suitable forms of contract, and with a review and outline for assignments and the relationship to the course Building Programming Documentation. The second part of the course will be conducted as individual tutorials to assist the production of the assignment and where possible will be related to the design course.

Specific Building Type Studies 1 unit
39445
Classes lectures
Assessment assignment

This course provides the opportunity, by means of lectures and assignments, to study in depth one of a number of building types. The lectures for each type will cover the history and contemporary design state of the building, the social, political, organisational and functional aspects of data required for design, and a study of different solutions for the building type. The building to be studied will vary from year to year according to the expertise available.

INDEPENDENT STUDY ELECTIVES

Architectural Design Elective A 2 units
32119-F (first semester)
32119-S (second semester)

Architectural Design Elective B 3 units
32136-F (first semester)
32136-S (second semester)

Architectural Design Elective C 1 unit
32769-F (first semester)
32769-S (second semester)

These electives enable students to undertake additional design work to a maximum of 6 units over the two
years of the degree. This may be an individually structured program or, for example, related to an architectural design competition sponsored by a professional institute. In all such cases application must be made for approval, setting out the specific educational objectives of the project, and the program of work proposed.

**Building Programming Elective A** 2 units  
39461-F (first semester)  
39461-S (second semester)

**Building Programming Elective B** 1 unit  
39475-F (first semester)  
39475-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

**Area: History and Theory of Architecture**

Studies in this area are concerned with underlying principles and concepts of architecture. The courses presented examine theories, models and parameters for the creation of architecture and the physical outcome of these in built form.

**MANDATORY COURSES**

**Theory of Architecture** 2 units  
22148  
Prof. Webber  
*Classes* lectures and seminars  
*Assessment* assignments and seminars

The first part of this course provides an opportunity to review and reflect on the fundamental and timeless attributes of architecture. A series of questions are raised as a basis for argument. Lectures provide an introduction to various positions and arguments which relate to these questions. Some of the core questions deal with issues of the integrity of structure and form, the nature and expression of materials, environment and context, the relation of moral and political issues to architectural expression, the role of formal themes, and the nature of meaning in architecture.

The second part of the course explores some issues which are the subject of current debate, and which are also of critical importance to understanding of the nature of architecture.

**Architecture in the Twentieth Century** 3 units  
27807  
Assoc. Prof. Taylor  
*Classes* lectures and seminars  
*Assessment* tests and essay

The first section of the course covers the emergence of modern architecture in Europe and America and the development of the ideas and proposals arrived at through the heroic phase of the 1920s and 1930s.

The second part of the course will look at the dominance of modern architecture following the war and the early critiques. This will be followed by an analysis of the emergence of postmodern thought and the various directions being pursued to find viable and meaningful designs for the current period.

**ELECTIVE COURSES**

The following courses offered in the BSc(Arch) degree may be taken as electives in this area by B Arch students. Consult the BSc(Arch) section of this handbook for course descriptions.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>Art History</td>
<td>2</td>
</tr>
<tr>
<td>History of Building Science</td>
<td>3</td>
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<tr>
<td>History of Eastern Architecture</td>
<td>2</td>
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<tr>
<td>History of Landscape Design pre 1700</td>
<td>2</td>
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<tr>
<td>History of Landscape Design post 1700</td>
<td>2</td>
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<tr>
<td>History of Urban Design pre 1800</td>
<td>2</td>
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<td>History of Urban Design post 1800</td>
<td>2</td>
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<tr>
<td>Renaissance to Baroque</td>
<td>2</td>
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<tr>
<td>Architecture in Italy</td>
<td>2</td>
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<tr>
<td>Theatre Design and History</td>
<td>2</td>
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<tr>
<td>Special Topics in Architectural History and Theory</td>
<td>2</td>
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<tr>
<td>Special Topics in Architectural History and Theory B</td>
<td>1</td>
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<tr>
<td>Science and Society</td>
<td>2</td>
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<tr>
<td>Statistics in Environmental Design</td>
<td>2</td>
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<tr>
<td>Mathematical Modelling for Designers</td>
<td>2</td>
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<tr>
<td>History and Theory Elective A</td>
<td>2</td>
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<tr>
<td>History and Theory Elective B</td>
<td>1</td>
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</tbody>
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**Seminars on Contemporary Architecture** 2 units  
37808  
Assoc. Prof. Taylor  
*Classes* seminars  
*Assessment* participation in class, weekly readings, the presentation of a seminar paper and bibliography

The intent of this course is to provide a forum for the discussion of current issues in architecture. The specific areas of investigation will vary but they will be issues of concern pertinent to architecture at this time. The intention is not to attempt to provide answers but rather to encourage informed and critical debate, aiming to uncover the rationale behind some considerations within the various complex strands that characterise the search for a relevant architecture today. The first section of the course will be based on weekly readings and participation in the seminars by all class members. This will be followed by seminars on selected topics led by individual students.
Architecture, Poststructuralism and Contemporary Thought  2 units
37811
Dr Snodgrass
Classes: lectures and seminars
Assessment: tests and essay

The course aims to show the close relationship of ideas and architecture, with special reference to the way in which the ideas which have prevailed since the Enlightenment have been reflected in architectural forms and in attitudes towards architectural practice. The course looks at the ways in which these perspectives are now being subjected to an intense scrutiny which is transforming some of our fundamental understandings. The course is intended to introduce, in broad outlines, some of the main themes of contemporary thought, and to show their relevance to architectural theory and practice.

The course looks at the foundations of the modern outlook in the philosophies of Plato and the Enlightenment thinkers, and traces these influences through to Structuralism. It then proceeds to show how these ideas are being dismantled, concentrating on the thinking of the Poststructuralists, the Postmodern philosophers of science, and hermeneutic philosophy. In each case the implications for architecture will be spelt out.

History and Theory Group Research Project  3 units
37812
Assoc. Prof. Taylor
Classes: depends on the nature of the project
Assessment: participation and report

The group research projects will be initiated by various members of staff and will be concerned with areas of investigation in pertinent historical enquiry and critical theoretical studies. The intention of the projects is to encourage group research activity. The practical aims of the research will depend on the nature of the enquiry. A series of relevant public lectures will be held in relation to the projects. Details of the specific program for each year will be made available prior to enrolment.

Area: Building technology and Economics

Courses in this area deal with the construction of non-domestic scale buildings and are designed to acquaint students with the theory and practice of current building materials and techniques. The mandatory core course is Advanced Construction. The other courses enable students to develop an understanding of the economics of construction, the building industry, and to pursue particular subjects in depth.

MANDATORY COURSE

Advanced Construction  3 units
25035
Mr Wheeler
Classes: lectures, tutorials and site visits
Assessment: assignments

Construction Design Issues: Design and construction issues and conflicts, strategic decision making and building layout, Building Code of Australia and other codes, stairs and exits, coordination issues.

Buildability: Construction and building issues and conflicts, site techniques, supply considerations, coordination issues.

Programming and equipment: Techniques of programming, building sequencing, effects of design decisions on plant and equipment, general outline of plant and equipment (hoists, cranes, site offices, deliveries and access etc.).

Building Elements Foundations and Basements: Foundations and footings, basements walls and floors, tanking, waterproofing and penetrations, drainage.

Cores, Frames and Floors: Precast and in-situ reinforced concrete, selection criteria (fire rating, ease of construction, formwork etc.), steel frames, selection criteria etc, core construction methods.

External walls: Performance criteria and functional requirements, joints, weathering, tolerances and durability. Materials: precast and in-situ reinforced concrete, loadbearing and infill brickwork, GRC, GRP, other lightweight panels metal, glass, FC.

Roofs: Performance criteria and functional requirements. Pitched and flat roofs, metal deck, membranes, junctions and penetrations, drainage.


ELECTIVE COURSES

The Building Industry in Australia  2 units
Cost Planning and Control  2 units
Consult the BSc(Arch) section of this handbook for the course descriptions.

Materials and Methods  3 units
36913
Dr Holland
Classes: lectures and tutorials
Assessment: assignment
Quota: 10 students

This course is an opportunity to explore aspects of construction in depth, mainly using a problem-solving approach. Emphasis is based on a performance approach and on the selection of components and assemblies to meet criteria. Particular attention is paid to tolerances, joint design, fixing methods, sequence of construction, durability, maintenance and cost.

INDEPENDENT STUDY ELECTIVES

Technology and Economics Elective A  2 units
35075-F (first semester)
35075-S (second semester)
Technology and Economics Elective B

35086-F (first semester)
35086-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their, proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

Area: Building Services and Environmental Controls

This area covers the use of mechanical and electrical services systems in buildings, and aspects of building science relating to heat, light, sound and the natural environment. It includes the effect of wind, sun and fire on the building and its surroundings, building acoustics, security systems and conventional and alternative energy systems including energy-conservative design.

The courses in the area are based on the assumption that a student has completed the mandatory courses in the BSc(Arch). The mandatory courses in this area are intended to provide a minimum level of familiarity with and practice in the use of the services systems most commonly encountered in building design. The specific and general elective courses are intended to allow study in more depth of particular aspects.

MANDATORY COURSE
Building Services Systems 2 units
26382
Assoc. Prof. Smith
Classes lectures, seminars, site visits and tutorials

The course aims to prepare students for dealing with the building services issues that arise in buildings of the scale that they will encounter in Architectural Design I and II.

Topics covered include: strategic planning for building services; airconditioning and ventilation systems; lifts and escalators; hydraulic systems; fire services; electrical services and communication systems; and lighting.

ELECTIVE COURSES

Energy-Conservative Architectural Design 2 units
36403
Mr Forwood
Classes lectures, tutorials and seminars

This course is an exploration of: (i) the principles and technologies of energy-conservative architectural design; (ii) the integration of these principles and technologies into the formal language and aesthetics of architecture; and (iii) the potential of using these principles to consciously create rich, dynamic enclosed environments which contribute to the sensory delight of architecture by an analysis of those primal environmental control mechanisms inherent in the form and materials of a building.

These objectives will be pursued in a series of lectures and seminars in which the technology of energy-conservative architectural design principles will be established and various methods of analysis reviewed and utilised. Students will be encouraged to evaluate solutions (both their own and built examples) using these analysis tools. The latent formal content of these principles will also be explored in a series of structured investigations.

Wind Effects on Buildings 2 units
36430
Mr Forwood
Classes lectures and practical sessions

Assessment assignment

An historical background to the influences of wind effects on town planning and building design up to recent problems in urban centres. Common problems are identified and current acceptable design criteria are provided. Basic fluid mechanics associated with airflow around buildings is outlined together with its limitations. Wind tunnel techniques are described and students perform simple wind tunnel studies and report on them as an assignment. Wind loads are studied in relation to the current wind load code as well as special design problems in areas affected by tropical cyclones. Methods of estimating natural ventilation are provided as well as basic data related to wind powered generators.

Introduction to Lighting Design 2 units
36441
Prof. Julian
Classes lectures, demonstrations, design work

Assessment assignment

This course introduces the concepts of lighting design. It uses as its basis AS1680 and places emphasis on the need for task analysis and a designed appearance approach to lighting for both work and pleasure. It is assumed that the student has a good understanding of photometric concepts and visual perception and some understanding of light sources, luminaires and daylight. Topics covered include the visual basis of design standards, methods for achieving desired luminances in the visual field, the control of unwanted reflections and glare effects, the characteristics of lighting systems, the design of lighting systems, the limitations of technology, lighting maintenance, energy considerations, coordination of lighting and other building systems. Several sessions will be spent with lighting designers to discuss their approaches to design problems and a lighting design exercise will form the main part of the assessment for the course.

Solar Energy and Passive Design 2 units
36463
Assoc. Prof. Smith
Classes lectures and seminars

Assessment assignment and seminars

The need for sunlight and for the exclusion of sunlight. Problems of overshadowing and reflection. The nature

Electricity in Buildings 2 units 36457
Prof. Julian
Classes lectures, demonstrations and laboratory classes
Assessment examination and laboratory report

The course treats the mathematics of alternating current in circuits and the concepts associated with phase relationships. Generation and reticulation are discussed at system level. At the building application stage the following topics are treated: load diversity, calculation of maximum demands; cables (types, sizes, ratings); control equipment; protection philosophy and equipment; standards and wiring rules; switchboards; transformers; special equipment; substations; space requirements. Laboratory exercises will be used to demonstrate the concepts, such as power factor, the use of power factor correction devices and the operation of circuit breakers and their characteristics.

INDEPENDENT STUDY ELECTIVES

Building Services Elective A 2 units 36477-F (first semester) 36477-S (second semester)

Building Services Elective B 1 unit 36489-F (first semester) 36489-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

Area: Architectural Structures and Materials

This area deals with the selection of structural form, and its relationship to the design of buildings; and the selection and appropriate use of building materials, their performance, and their effect upon the performance of the building.

Most of the courses in the area relate to buildings of larger than domestic scale; structural systems and materials for small buildings having been dealt with in the BSc(Arch) degree.

MANDATORY COURSE

Architectural Structures and Materials 3 units 27134
Dr Gunaratnam
Classes lectures, tutorials and site visits
Assessment assignments

The course focuses on structural design issues applicable to advanced structures that fall within the categories of widespan and tall building structures, and provides knowledge required for their synthesis and preliminary design. It provides experience in making structural decisions within the context of building designs that exploit these classes of structures. It also provides information on the properties, processes and applications of a selected group of building materials.

ELECTIVE COURSES

Workshop Technology — Timber 2 units

Object Design and Construction 2 units

Consult the BSc(Arch) section of this handbook for the course descriptions.

INDEPENDENT STUDY ELECTIVES

Architectural Structures and Materials Elective A 2 units 37159-F (first semester) 37159-S (second semester)

Architectural Structures and Materials Elective B 1 unit 37163-F (first semester) 37163-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

Area: Management

This area deals with the legal and management aspects of office and project organisation, including relationships with the community, authorities, clients, consultants, contractors and suppliers.

Courses are presented on the assumption that a student has completed a course related to the law and professional practice in the BSc(Arch) degree, or elsewhere.

The mandatory courses in this area provide a basic level of familiarity with the ethics of professional practice, systems for implementing processes, and recognised contract procedures available within the construction industry. They also provide instruction on approaches to documentation and the preparation of contract documents, and include contract drawings, specification and preliminary estimates of simple buildings. Other courses are provided to allow study in depth of areas of concern to the student of management.

MANDATORY COURSES

Contract Documentation 3 units 28728
Dr Billings
Classes lectures, seminars and tutorials
Assessment assignments and quiz
The course provides instruction on the writing of specifications, the making of contract drawings, and the estimation of probable cost. These tasks in turn include information on trades, schedules, prime cost and provisional sums, and bills of quantities. Specific data is given on the form and purpose of contract documents and specifications, preliminaries, contracts, local government requirements, drawings on the site, measuring and pricing working drawings, specific requirements for site and floor plans, elevations and sections, schedules and details, computer drafting, design/construct for larger projects, using Natspec Basic Schedules and including: preliminaries, demolition, groundwork, concrete, terrazzo, masonry, metalwork, woodwork, glazing, hardware, paving, roofing, windows, doors, tiling, resilient finishes, plastering, painting, paperhanging, carpets, drainage, water, gas and electrical services, and external works.

The course also includes a series of lectures on the law as it relates to contract documents, including law court definition and arbitration, property, contract, agency and employment, torts and liability.

Professional Practice 4 units
38734
Dr Billings
Prerequisite Contract Documentation
Classes lectures and seminars
Assessment assignments and seminars

The course includes the following topics: the regulation of the profession, a brief overview of the construction industry, consultants (selection, engagement, coordination and responsibilities), liabilities, disputes and arbitration, copyright and ownership, insurances (contract and professional liability), modes of practice, conditions of engagement, fee structure, client meetings and briefings, site and authority investigations, components of contract documentation, pre-contract management, contract selection, and contract administration, alternative building procurement systems, together with seminars on comparisons of contracts and on case studies in architectural practice.

ELECTIVE COURSES

Architectural Office Management 1 unit
38747
Dr Billings
Classes lectures and tutorials
Assessment assignments

An introduction to management practices and systems appropriate to an architectural office. Covers general business principles, profit planning, costing and pricing, expense budgeting, liquidity forecasting, programming of the design team, job programming and resource scheduling within the office, and management information for control of a practice as a business.

Building Contract Law 1 unit
Consult the BSc(Arch) section of this handbook for the course description.

INDEPENDENT STUDY ELECTIVES

Management Elective A 2 units
38811-F (first semester)
38811-S (second semester)

Management Elective B 1 unit
38823-F (first semester)
38823-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

Area: Design Computing

The current transition from traditional media for design, documentation and communication to computer-based media is changing the processes of design and construction. These innovations are occurring at a rapid rate and are imposing increasing pressures on design professionals. The courses in this area explore the placement, management and use of computers in design offices as well as some techniques of computing. The representation of design knowledge in computers (knowledge engineering) is also explored. In addition, higher level postgraduate courses in this area may, with permission, be taken by BArch students.

ELECTIVE COURSES

Theory and Practice of Design Computing 3 units
17713
Classes lectures
Assessment project and presentation

The core of the course has two parts: (i) an overview of the design computing program — computational methods, decision support, graphics and modelling applications, multimedia, artificial intelligence, and CAD in practice; and (ii) an introduction to design theory, methods and issues. The latter covers the range of thinking about design from rationalistic, scientific, linguistic, cognitive and theory-based views of design, to pragmatic and post-rationalist understandings.

CAD in Design 3 units
17714
Classes lectures
Assessment project

The course provides exposure to commercial CAD environments and their use in practice, including the issues related to their practical use. There are opportunities to pursue the application of CAD in practice, or advanced levels of integrated CAD application.
Computer Systems for Design 3 units
17715
Classes lectures
Assessment project and presentation
Students are exposed to the range of current technologies pertaining to the design of interactive, networked multimedia systems, and their use in practice. There is an opportunity to pursue some aspect of the course in greater detail, and to extend the programming concepts.

Graphics Applications in Design 3 units
17716
Classes lectures
Assessment project
The course provides an overview of the broad range of computer graphics tools and techniques available to designers. Applications of the tools and advanced technologies such as animation, multimedia and image processing are developed.

Understanding Design 2 units
Computer-Based Design 2 units
Consult the BSc(Arch) section of this handbook for course descriptions.

INDEPENDENT STUDY ELECTIVES
Design Computing Elective A 2 units
31777-F (first semester)
31777-S (second semester)
Design Computing Elective B 1 unit
31784-F (first semester)
31784-S (second semester)
For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

Area: Conservation
Conservation of the Built Environment 2 units
32806
Mr Howells
Classes lectures, site visits
Assessment assignment
This course is an introduction to the concepts and practice of building conservation in Australia. Drawn from a wide range of specialist lectures, areas of study include the history and development of conservation in Europe and Australia as well as current conservation philosophy and practice.

Area: Advanced Study
Students are encouraged to prepare a report based upon in-depth study in a specialised area, normally during the third year of the degree. This may be either an individual study program, or be taken concurrently with the Conservation of the Built Environment course.
This work provides an opportunity for training in research, analysis and documentation of material in a systematic academic format. Advanced Study Reports do not in themselves consist of architectural design work or art work, but may be very closely related to and supportive of the process of design and production of the works of art. Successful completion of an Advanced Study Report is a prerequisite to the award of an honours degree.
Prior to enrolment, students should discuss a potential topic with a member of staff and obtain their agreement to supervise the study. Students may be asked to present seminars on their work to the staff and students of the Faculty. The report will be assessed by two examiners. Only one course of Advanced Study may be taken in any year.

Preparatory Advanced Study Report Elective 2 units
37860
Dr Snodgrass
Classes lectures, seminars
Assessment
Option 1: A developed research proposal which provides a referenced discussion of the literature (for students who wish to continue and complete an ASR the following year)
Option 2: An essay that is a critical analysis of the literature studies (for students who do not wish to continue with an ASR)
The objective is to equip students with the research and writing skills needed to prepare an Advanced Study Report of similar research-oriented documents. The aims of the course are to provide students with an introductory overview of the following: basic research techniques; basic methodological skills; information search, storage and retrieval techniques; organisation and writing skills for completing a research document.
The course is divided into two parts. The first covers the following basic issues which are involved in an ASR; deciding on a research topic; searching for information; managing a research project; writing a research proposal. The second part of the course involves
each participant working with his or her supervisor to produce a research proposal, or an essay.

Advanced Study Report I 6 units 33323
Prerequisite Preparatory Advanced Study Report Elective

Advanced Study Report II 6 units 33340
Prerequisite Preparatory Advanced Study Report Elective

Advanced Study Report (Conservation and Restoration) 6 units 32823
Mr Howells
Prerequisite Conservation of the Built Environment
Classes—lectures, tutorials and site visits
Assessment Advanced Study Report

This course is intended to introduce students to the philosophies and accepted professional standards of practice of the conservation of the built environment in Australia. Students are encouraged to develop skills in historical research, documentary recording techniques, the analysis and interpretation of the physical fabric, the assessment of cultural significance and the formulation of sound conservation policies and programs. The course will include specialist lectures, seminars, numerous site visits, excursions and tutorials.

Area: Art

The ability to explore and express ideas through visual media is extremely important for architects who must be able to communicate in two and three dimensions, detailed and precise plans about properties, objects and processes, as well as general concepts and ideas.

The courses offered by the Art Workshop provide students with the opportunity to expand their abilities by acquiring specific art media skills invaluable for their development into professional architects. Art Workshop courses also enable students to refine their understanding through first-hand experience in a variety of art media of the continuing and productive relationship between architecture and art.

Consult the BSc(Arch) section of this handbook for descriptions of these courses.

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<td>Screen Printing -- fabric 1</td>
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Area: Landscape Studies

The professions of architecture and landscape architecture have much in common. Increasing numbers of design projects, where both professions work together, are being undertaken in urban, rural and natural locations.

A basic knowledge of the theory and practice of landscape design, an understanding of the major elements of the landscape and how these can be manipulated in design, together with an appreciation of how and why buildings and their surroundings should be designed as a totality and not as separate entities, is an important part of architectural education.

Refer also to the History and Theory of Architecture area for courses covering the History of Landscape Architecture.

INDEPENDENT STUDY ELECTIVES

Landscape Architecture Elective A 2 units 35190-F (first semester)
35190-S (second semester)

Landscape Architecture Elective B 1 unit 35207-F (first semester)
35207-S (second semester)

For these courses students are able, by means of private study and research, to explore in depth a selected topic. In the first instance students should obtain written approval of their proposed study from a lecturer in the area concerned. This approval should then be handed to the Faculty office.

Area: Urban and Regional Planning

The theory and practice of town planning is of very considerable interest and relevance to practitioners of architecture. Whilst planning professionals are involved with a wide range of issues and policies relating to problems sometimes at a national and regional level, and many of them without specific spatial implications, there are nevertheless important areas which are the common concern of both planners and architects.

Some understanding of current theory and directions in planning, and in particular planning.
ELECTIVE COURSES
Planning and Architecture 2 units
36383
Staff of the Department of Urban and Regional Planning
Assessment assignments
This course will explore the impact of current planning philosophies and planning practice on building development and design in New South Wales. The first part of the course will outline contemporary planning issues and literature, while the second part will focus on the specific role and operations of planning and related authorities. The learning mode will emphasise seminars and assessment will be by case studies and assignment.

Urban Conservation Planning 2 units
31194
Consult the BS(Arch) section of this handbook for the course description.

Senate resolutions

Table of courses for the BS(Arch) (1993 resolutions)

<table>
<thead>
<tr>
<th>Area</th>
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<th>Unit value</th>
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<td>Workshop Technology — Timber</td>
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### Table of courses for the BArch (1993 resolutions)

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Consult the timetable for electives offered in any year.
Bachelor of Science (Architecture) and Bachelor of Architecture

Coursework to be completed

1. (1) A candidate shall complete the courses prescribed by the Faculty for the relevant degree, satisfying all requirements with regard to mandatory courses and taken in such sequence as the Faculty may determine from time to time.

(2) Coursework shall consist of lectures and seminars together with such tutorial instruction, essays, exercises, practical work and assignments as may be prescribed by the Faculty.

(3) A candidate who does not satisfy the coursework requirements in subsection (2) may be refused permission to present for examination in that coursework.

(4) Credit is granted for coursework on the basis of units being gained for successfully completing courses. One unit is equivalent to one hour of contact time per week for one semester together with any appropriate practical work.

(5) Courses may include prerequisites and/or corequisites and may be grouped to form areas of study.

(6) A candidate may, in satisfying the requirements of subsection (1), receive credit for courses previously completed or may enrol in substitute courses for those prescribed, subject to sections 7, 8, 9 and 10.

2. A candidate who completes a course at a standard higher than that required for a Pass may be awarded High Distinction, Distinction or Credit.

3. A candidate who has been prevented by duly credited illness or misadventure from completing a course may be required to complete that course or a supplementary course as the Faculty shall determine.

4. Unless exempted by the Faculty a candidate, having failed to complete a course and being permitted to re-enrol, shall complete all the requirements for that course.

5. A candidate who presents for re-examination in any course shall not be eligible for any prize or scholarship awarded in connection with such examination.

6. (1) A candidate may take in one year courses whose total unit value exceeds 40 units for the Bachelor of Science (Architecture) or 34 units for the Bachelor of Architecture only with the approval of the Faculty. Provided that no candidate may take in any one year courses whose total unit value exceeds 43 for the Bachelor of Science (Architecture) or 37 for the Bachelor of Architecture.

(2) If in the opinion of the Faculty any change of the resolutions relating to the requirements for the degrees of Bachelor of Science (Architecture) or Bachelor of Architecture acts to the prejudice of a candidate, that candidate may complete candidate under such conditions as may be prescribed by the Faculty subject to the authority of the Academic Board and the Senate.

(3) A candidate who commenced candidature for the BSc(Arch) before 1 January 1992 shall:

(a) complete the requirements for the Pass degree no later than 31 December 1993 in accordance with the resolutions of the Senate and Faculty in force at the time of commencement, or

(b) complete the requirements for the degree in accordance with these resolutions. The Faculty may grant credit for any courses completed towards the degree.

(4) A candidate who commenced candidature for a degree before 1 January 1993 shall:

(a) complete the requirements for the degree no later than 31 December 1994 in accordance with the resolutions of the Senate and Faculty in force at the time of commencement, or

(b) complete the requirements for the degree in accordance with these resolutions. The Faculty may grant credit for any courses completed towards the degree.

Credit for courses completed at the University of Sydney

7. (1) A candidate may be granted credit towards the degree for any course or courses completed during a previous period of candidature as a non-degree student or in any Faculty or under a Board of Studies at the University, provided that the Faculty shall not grant credit if the result recorded for that course is, or is equivalent to, 'Terminating Pass'.

(2) The Faculty may, with the consent of another Faculty or Board of Studies, permit a candidate to complete while enrolled in the Faculty of Architecture a course or courses taught in the other Faculty or under a Board of Studies but not listed in the Tables of Courses.

(3) Where credit is granted under subsection (1), or permission granted under subsection (2) in relation to a course not listed in the Tables of Courses, the Faculty shall specify the deemed unit value of that course for the purpose of these resolutions.

Credit for courses completed elsewhere

8. (1) A candidate may be granted credit towards the degree for a course or courses regarded by the Faculty as equivalent in workload and academic standard, completed at another university or other tertiary institution.

(2) The Faculty may permit a candidate to complete after admission to candidature a course or courses offered at another university or tertiary institution.

(3) Where credits granted under subsection (1), or permission granted under subsection (2) the Faculty shall specify in relation to the course or courses concerned either:

(a) the course or courses in the Tables of Courses for which credit has been or would be granted, or
(b) their deemed unit value for the purpose of these resolutions.

(4) The maximum credit granted under subsection (1) or permission granted under subsection (2) shall not, without the special permission of the Faculty, exceed half the unit requirement of the relevant degree.

Credit for informal learning and experience

9. (1) A candidate may apply to the Faculty to have credit granted towards the degree on the basis of non-credentialled learning or experience, that is equivalent to a course or courses in the Table of Courses.

(2) The Faculty will determine the method for demonstrating the achievement of the equivalent academic standard.

Conditions on receipt of credit

10. A candidate granted credit towards the degree under section 7, 8 or 9 shall:

(a) count towards the degree all courses and units so credited subject to the provisions of these resolutions,

(b) not count towards the degree any course subsequently completed within the University of Sydney which overlaps substantially in content with the course or courses upon which grant of credit is based, and

(c) complete all necessary qualifying courses for the degree within such period of time and such number of years of enrolment as the Faculty may determine having regard to the amount of credit granted, the length of the time over which the course or courses concerned were completed and the time limits for completion of the degree prescribed under these resolutions.

Restrictions on the grant of credit

11. (1) A candidate shall not, except with the approval of the Faculty, be granted credit towards the degree on the basis of any course or courses completed more than nine years prior to admission or readmission to candidature.

(2) A candidate seeking credit on the basis of a course or courses for which the candidate has relied for the award of another academic qualification may:

(a) receive specified credit, together with any other credit to the limit set in section 8(4) when the application for credit is on the basis of section 8(1),

(b) receive unspecified credit subject to limits set by resolution of the Faculty.

(3) In addition to the credit granted in subsection (2) a candidate for the BArch may have unspecified credit granted for elective courses completed in the BSc(Arch), in excess of those needed for the award of the BSc(Arch), and common to both Tables of Courses to a maximum of 7 units.

(4) The Faculty may limit the total unit value of courses completed outside the Table of Courses that may be credited towards a degree.

(5) Except as provided in subsection (3) credit will not be granted to BArch candidates on the basis of courses completed in the BSc(Arch).

Time limits

12. (1) Unless the Faculty otherwise determines a candidate shall complete all the requirements for the award of the degree within a (cumulative) total of 10 calendar years of admission or re-admission to candidature.

(2) A candidate proceeding from the BSc(Arch) to the BArch shall commence candidature for the BArch within six years of completing the BSc(Arch), or shall be required to apply for admission to the BArch.

Approval for suspension

13. (1) A candidate must seek suspension of candidature if the candidate:

(a) intends not to re-enrol in the next calendar year after discontinuing or failing due to absence each of the courses in which that candidate has been enrolled, or

(b) intends not to re-enrol within two years of last having been enrolled, otherwise the candidature will lapse.

(2) Except where the Faculty determines otherwise in any particular case, a candidate who suspends candidature for a period in excess of one year shall proceed under the by-laws and resolutions in force at the time of re-enrolment.

Lapse of candidature

14. (1) Unless the Faculty otherwise determines in any particular case, a candidature for the degree shall lapse if:

(a) all the requirements for the award of the degree in accordance with sections 9 and 11 have not been satisfied, or

(b) re-enrolment for the degree as required by section 12 does not occur.

(2) A person whose candidature has lapsed under subsection (1) shall not re-enrol as a candidate for the degree unless again selected for admission.

Bachelor of Science (Architecture)

15. An applicant for admission to candidature for the degree of Bachelor of Science (Architecture) shall, before such admission, produce evidence of having qualified for admission under Chapter 10 of the by-laws.

16. The degree shall be awarded in two grades, namely the Pass degree and the Honours degree.

Pass degree

17. (1) A candidate to be eligible for the award of the degree shall have completed courses of total unit value of at least 105 units.
(2) A candidate for the degree shall:
(a) complete all mandatory courses shown in the Table of Courses for the Bachelor of Science (Architecture), and
(b) complete elective courses from the Table of Courses for the Bachelor of Science (Architecture), provided that the candidate may complete instead of any of the courses referred to in (a) and (b) above, such other courses as the Faculty may approve.
(3) A candidate who proposes to proceed to the Bachelor of Architecture shall complete all prerequisite courses for the Bachelor of Architecture shown in the Table of Courses for the Bachelor of Science (Architecture).

18. A candidate who has completed a course referred to in 16 above shall have units credited towards the completion of the degree in accordance with the values shown in the Table.

Honours degree
19. An applicant for admission to candidature for the degree with Honours shall:
(a) except with the permission of the Faculty be of not more than four years' standing or equivalent as a candidate for the Pass degree,
(b) have qualified for the award of the Pass degree, and
(c) be considered by the Faculty to have requisite knowledge and aptitude.

20. (1) Subject to subsection (2), a candidate for the Honours degree shall, in the year subsequent to qualifying for the award of the Pass degree, present a thesis on a subject approved by the Faculty.
(2) A person to whom the Pass degree of Bachelor of Science (Architecture) has been awarded may, with the permission of the Faculty and in such further time as the Faculty shall determine, be admitted to candidature for the Honours degree of Bachelor of Science (Architecture) provided that person satisfies the other requirements of these resolutions for admission to candidature for Honours.

21. (1) There shall be two classes of Honours namely, Class I and Class II and within Class II there shall be two divisions, namely Division I and Division 2.
(2) The candidate most distinguished at the final examination shall, if the candidate has obtained Honours Class I and in the opinion of the Faculty possesses sufficient merit, receive a bronze medal.
(3) Except with the special permission of the Faculty, no candidate who is of more than four years' standing as a candidate for the degree shall be awarded Honours at graduation.

Bachelor of Architecture
22. (1) An applicant for admission to candidature for the degree of Bachelor of Architecture shall have completed all the requirements for the degree of Bachelor of Science (Architecture) in the University of Sydney with a weighted average mark in the degree of at least 50, or such other degree of the University of Sydney as the Faculty of Architecture may approve or possess such equivalent standing as may be approved by the Faculty.
(2) The Faculty will regard an applicant for admission to candidature as possessing equivalent standing within the meaning of subsection (1) if the applicant has completed studies and has experience that together provide the applicant with a standard of knowledge equivalent to the standard of knowledge required of an applicant who has completed all the requirements for the degree of Bachelor of Science (Architecture) or such other degree of the University of Sydney as the Faculty of Architecture may approve.

23. The degree shall be awarded in two grades, namely, the Pass degree and the Honours degree.

Pass degree
24. (1) A candidate to be eligible for the award of the degree shall have completed courses of total unit value of at least 60 units.
(2) Except with the permission of the Faculty a candidate for the degree shall, before undertaking courses in accordance with subsection (3), have completed the courses shown as prerequisites for the Bachelor of Architecture in the Table of Courses for the Bachelor of Science (Architecture) if the candidate is proceeding from the Bachelor of Science (Architecture) degree provided that in special circumstances a candidate may be exempted from these requirements with the approval of the Faculty.
(3) Subject to subsection (2), a candidate shall:
(a) complete all mandatory courses in the Table of Courses for the Bachelor of Architecture, and
(b) complete elective courses from the Table of Courses for the Bachelor of Architecture, provided that the candidate may complete instead of any of the courses referred to in (a) and (b) above, such other courses as the Faculty may approve, and provided that a candidate who has completed all the requirements for the Honours degree of Bachelor of Science (Architecture) or such other equivalent qualifications as may be approved by the Faculty may be exempted from the course, Report.

25. A candidate who has completed a course referred to in section 23 shall have units credited towards the completion of the degree in accordance with the values shown in the table.

Honours degree
26. To be eligible for the award of Honours a candidate must complete at least one of the courses:
(a) Advanced Study Report I,
(b) Advanced Study Report II,
27. Except with the special permission of the Faculty, no candidate who is of more than three years’ standing as a candidate for the degree may be awarded Honours at graduation.

28. (1) There shall be two classes of Honours, namely Class I and Class II and within Class II there shall be two divisions, namely Division 1 and Division 2.

(2) The award of Honours at graduation shall depend upon the proficiency shown by a candidate in completing the courses for the degree and in completing such specific courses, if any, as may be determined by the Faculty of Architecture.

(3) The candidate most distinguished at the final examination shall, if awarded Honours Class I and in the opinion of the Faculty possesses sufficient merit, receive a bronze medal.

Failure and exclusion

The Senate authorises the Faculty of Architecture to require a student who is a candidate for the degree of Bachelor of Science (Architecture) or Bachelor of Architecture to show good cause why he or she should be allowed to re-enrol in the Faculty of Architecture if he or she fails to maintain a weighted average mark of at least 50 per cent.

Faculty resolutions

Bachelor of Science (Architecture) and Bachelor of Architecture

Availability

1. The number of students admitted and the Bachelor’s degrees and the courses available may be limited and will be determined by:

(a) the availability of resources, including space, library, equipment and computing facilities,

(b) availability of adequate and appropriate supervision, and

(c) availability of staff resources for the conduct of courses.

Eligibility for admission to Honours in the BSc(Arch)

2. Inadditiontotherequirementsoftheseresolutions of Senate regarding the BSc(Arch) degree, an application for admission to the Honours degree shall be determined by the Honours Committee which will consider the candidate’s academic performance over the three years of the Pass degree.

3. A research topic which is satisfactory in terms of research interests, resources and availability of supervision within the Faculty must be agreed upon between the applicant and the relevant head of department before the candidate can enrol in the course Thesis.

Appointment of supervisors for Honours theses and Advanced Study Reports

4. The Faculty shall appoint a member of the full-time or fractional academic or research staff of the Faculty to act as supervisor of the candidate. The Faculty may also appoint an associate supervisor or co-supervisor who may be a member of the academic or research staff of the University, an Honorary Associate or a person with appropriate qualifications in another institution or organisation.

Thesis and Advanced Study Report requirements

5. Candidates undertaking a thesis or Advanced Study Report shall:

(a) lodge with the Faculty the thesis or Advanced Study Report embodying the results of an original investigation carried out by the candidate,

(b) state in the thesis or report, generally in the preface and specifically in the notes, the sources from which the information was derived, the extent to which the candidate has made use of the work of others and the portion of the thesis or report which is claimed to be original, and

(c) not lodge as the candidates' work any work previously submitted for a degree of the University of Sydney or any other university, but may incorporate such work in the thesis, provided that the candidate indicates the work so incorporated.

Form of a thesis or Advanced Study Report

6. (1) A thesis or Advanced Study Report may be bound in either a temporary or permanent form.

(2) Temporary binding must be able to withstand ordinary handling and postage. The preferred form of binding is the ‘Perfect Binding’ system; spring back, ring-back or spiral binding is not permitted.

(3) The cover of a temporarily bound thesis or Advanced Study Report must have a label showing the candidate’s name, name of the degree, title of the thesis and the year of submission.

(4) The requirements for permanent binding are given in the Calendar, Volume I, under the statutes governing the degree of Doctor of Philosophy.

(5) Following examination and emendation if necessary, at least one copy (the Library copy) of the thesis or Advanced Study Report must be bound in a permanent form.

(6) If emendations are required, all copies of the thesis or Advanced Study Report which are to remain available within the University must be amended.

Examination of a thesis or Advanced Study Report

7. The Faculty shall appoint two examiners. The examiners shall report to the Faculty.
Result of Honours candidature

8. (1) The Honours Committee recommends the award the degree whenever:
   (a) the examiners have recommended without reservation that the degree be awarded,
   (b) all of the examiners have recommended the degree be awarded or awarded subject to emendations to all copies of the thesis or Advanced Study Report which are to remain available in the University, or
   (c) the Committee unanimously accepts the recommendation of the supervisor that the degree be awarded subject to emendations despite reservations expressed by one or more examiners, and
   (d) the coursework results are satisfactory.

(2) The Honours Committee will determine the class of Honours, if any, on the following basis:
   (a) BSc(Arch): The overall performance of the candidate using a mark derived from weighting the mark for the thesis at 65 per cent and the weighted average mark of the Pass degree studies at 35 per cent.
   (b) BArch: The weighted average mark achieved over the two coursework years of the degree.

(3) The Honours Committee may recommend that an unsuccessful candidate be permitted to prepare for re-examination if, in its opinion, the candidate's work is of sufficient merit and the supervisor has so recommended.

Satisfactory progress

9. In addition to the resolutions of the Senate regarding satisfactory progress the Faculty shall require a candidate to show good cause why re-enrolment in a course which has been failed twice should be allowed.

Delegation

10. (1) The Faculty delegates its responsibility for admissions to the BArch to the BArch Admissions Committee.
    (2) The Faculty delegates its responsibility for examinations to the Board of Examiners.
    (3) The Board of Examiners delegates its responsibility for the determination of Honours to the Honours Committee.
    (4) The Faculty delegates the following responsibilities to the Dean, who in turn, may delegate them to the Associate Dean (Undergraduate):
        (a) approval of examiners,
        (b) supervisory arrangements,
        (c) approval of enrolments,
        (d) administration of results,
        (e) variations of candidature,
        (f) extension of candidature, and
        (g) completion of candidature away from the University.

The determination of credit granted on the basis of equivalence to courses in the Tables of Courses

11. Pursuant to sections 8 and 9 of the Senate resolutions the Faculty has determined that a candidate seeking credit:
   (a) for courses completed elsewhere shall apply on the form provided by the Faculty, supply documentary evidence of the course description and the assessment result and will be available for discussion with the appropriate course coordinator, and
   (b) on the basis of non-credentialled learning or experience shall apply on the form provided by the Faculty and shall be available for assessment by the appropriate course coordinator.

The course coordinator will be satisfied of the equivalence from the documentary evidence and discussion under (a) and by appropriate assessment of the candidate under (b) before credit will be granted.

Restrictions on unspecified credit and credit for courses outside the Tables of Courses

12. (1) The maximum credit that a candidate may receive on the basis of:
    (a) unspecified credit based on courses completed towards another degree for which there has been an award, and
    (b) credit received for courses completed after admission outside the Table of Courses, and
    (c) in the case of the BArch, credit received for excess units in the BSc(Arch), shall not exceed 26 units for the BSc(Arch) or 16 units for the BArch.
    (2) The granting of unspecified credit towards the BSc(Arch) or the BArch shall be limited to the degree in which the candidate enters the architecture program.

Assessment Appeals Review Board

The Faculty has resolved that there shall be an Assessment Appeals Review Board.

1. The Board will meet at the formal request of a student of the Faculty to consider an appeal regarding the assessment of any coursework subject of the Faculty.
2. The Board will not review marks awarded but will consider appeals for a reassessment of work based on assessment procedures, illness, misadventure, etc.
3. The Board will request the attendance of the examiner for the appeal. If either the examiner or student wishes, they may attend separately, but only if the other party agrees or if there are, in the view of the Board, exceptional circumstances.
4. The Board will report its recommendations to the examiner and to the Faculty's Board of Examiners.
5. The membership of the Board will be the Dean and up to five persons referred to in subsection 1(a) of the resolutions of the Senate relating to the constitution of the Faculty of Architecture and up to four students who are enrolled in the coursework degrees of the Faculty, all of whom will be appointed by the Dean, on the advice of the heads of departments and in consideration of the nature of the appeals before the Board. For an appeal by an undergraduate student, the four students shall be nominated by the Sydney University Architecture Society.
Postgraduate degree and diploma requirements

There are ten postgraduate degrees, four diplomas and a certificate that may be awarded in the Faculty of Architecture. They are outlined in the table below.

<table>
<thead>
<tr>
<th>Degree/diploma</th>
<th>Normal admission requirements</th>
<th>Study method</th>
<th>Normal length of study (yrs)</th>
<th>Department and contact person</th>
</tr>
</thead>
<tbody>
<tr>
<td>DArch</td>
<td>Doctor of Architecture</td>
<td>master's or honours</td>
<td>3-5 3-7</td>
<td>any department</td>
</tr>
<tr>
<td>PhD</td>
<td>Doctor of Philosophy</td>
<td>research</td>
<td>2 4</td>
<td>any department</td>
</tr>
<tr>
<td>MArch</td>
<td>Master of Architecture</td>
<td>BArch</td>
<td>2 4</td>
<td>Architectural and Design Science</td>
</tr>
<tr>
<td>MDesSc(Research)</td>
<td>Master of Design (Research)</td>
<td>graduate</td>
<td>2 4</td>
<td>any department</td>
</tr>
<tr>
<td>MSc(Arch)</td>
<td>Master of Science (Architecture)</td>
<td>graduate</td>
<td>2 4</td>
<td>any department</td>
</tr>
<tr>
<td>MUrbStud</td>
<td>Master of Urban Studies</td>
<td>graduate</td>
<td>1 2</td>
<td>Urban and Regional Planning (Prof. Watson)</td>
</tr>
<tr>
<td>MURP</td>
<td>Master of Urban and Regional Planning</td>
<td>graduate</td>
<td>2 4</td>
<td>Urban and Regional Planning (Mr Mills)</td>
</tr>
<tr>
<td>MDesSc</td>
<td>Master of Design Science (Building), (Building Services), (Computing), (Energy Conservation), (Facilities Management), (Illumination)</td>
<td>graduate or certain professional qualifications</td>
<td>2 4</td>
<td>Architectural and Design Science</td>
</tr>
<tr>
<td>MHeritCons</td>
<td>Master of Heritage Conservation</td>
<td>graduate</td>
<td>1 2</td>
<td>Architecture (Dr Lamb)</td>
</tr>
<tr>
<td>MUrbDes</td>
<td>Master of Urban Design</td>
<td>graduate (degree with major design component)</td>
<td>1 1</td>
<td>Interdepartmental program (Prof. Droege)</td>
</tr>
<tr>
<td>GradDipURP</td>
<td>Graduate Diploma in Urban and Regional Planning</td>
<td>graduate or certain professional qualifications</td>
<td>2 4</td>
<td>Urban and Regional Planning (Mr Mills)</td>
</tr>
<tr>
<td>GradDipDesSc</td>
<td>Graduate Diploma in Design Science (Building), (Building Services), (Computing), (Energy Conservation), (Facilities Management), (Illumination)</td>
<td>graduate or certain professional qualifications</td>
<td>2 3</td>
<td>Architectural and Design Science</td>
</tr>
<tr>
<td>GradDipUrbDes</td>
<td>Graduate Diploma in Urban Design</td>
<td>graduate (degree with major design component)</td>
<td>1 2</td>
<td>Interdepartmental program (Prof. Droege)</td>
</tr>
<tr>
<td>GradDipHeritCons</td>
<td>Graduate Diploma in Heritage Conservation</td>
<td>graduate</td>
<td>1 2</td>
<td>Architecture (Dr Lamb)</td>
</tr>
<tr>
<td>GradCertDesSc</td>
<td>Graduate Certificate in Design Science</td>
<td>graduate or certain professional qualifications or prior learning</td>
<td>1 2</td>
<td>Architectural and Design Science</td>
</tr>
</tbody>
</table>

Detailed information on these degrees and diplomas is given in the following pages. For further details about the doctorates see the University’s Statutes and Regulations 1994-95 and the Doctor of Philosophy Handbook.
Application procedure (for all postgraduate applicants)

1. All applicants are required to supply the following information:
   (1) a completed 'Application for Admission to Candidature' form;
   (2) an original transcript of academic record including evidence of the award of the degrees held.

   For some postgraduate degrees/diplomas, applicants are asked to provide (in any case it is advisable) a written statement supporting the application. This should address career objectives and the interest in the particular program. Applicants wishing to undertake a research degree must provide a detailed research proposal.

   Applicants are encouraged to make contact with the department or lecturer concerned with the program prior to submitting an application form.

2. Applications must be addressed to and received by the Registrar, University of Sydney, N.S.W. 2006, no later than 31 October of the year preceding that in which the applicant wishes to enrol.

   They may also be lodged by hand at the Faculty of Architecture office (room 458) in the Wilkinson Building. Applications received later than 31 October will be considered in order of receipt after due consideration has been given to all applications received on time.

3. Applications from overseas students should be addressed to the University's International Education Office and will be considered at the time of their receipt. This procedure is designed to allow overseas students as much time as possible to overcome any delays and difficulties experienced in the completion of the necessary formalities prior to their arrival in Australia.

4. Successful applicants must inform the Faculty office in writing, as soon as possible after receipt of the offer of a position, of their intention to accept or reject the offer. Failure to do so may result in the place being offered to another applicant.

5. Please note that students are normally only eligible for AUSTUDY if enrolled in a diploma course. Seek advice before enrolment from the Department of Employment, Education and Training.

Resolutions of the Senate and Faculty

Students undertake degrees and diplomas in accordance with the resolutions of the Senate and Faculty. These are strict requirements with which candidates must comply. Read them on pages 65 to 75. They include information on admission, length of candidatures and coursework to be completed.

Degrees by research

Doctor of Philosophy

The degree of Doctor of Philosophy is a research degree awarded for a thesis considered to be a substantially original contribution to the subject concerned. Some coursework may be required (mainly in the form of seminars) but in no case is it a major component. Applicants should normally hold a master's degree or a bachelor's degree with first or second class honours of the University of Sydney, or an equivalent qualification from another university or institution. The degree may be taken on either a full-time or part-time basis.

For full-time candidates, the minimum period of candidature is two years for candidates holding a master's degree or equivalent, or three years in the case of candidates holding a bachelor's degree with first class or second class honours; the maximum period of candidature is normally five years.

Part-time candidature may be approved for applicants who can demonstrate that they are engaged in an occupation or other activity which leaves them substantially free to pursue their candidature for the degree. The minimum period of candidature is three years and the maximum period of candidature is normally seven years.

Consult the University's Statutes and Regulations 1994-95 and the Doctor of Philosophy Handbook for further information about the PhD. The Faculty resolutions governing part-time PhD candidatures are set out on page 71.

Master of Architecture

If you have a professional qualification in architecture you may undertake research in any one of many related areas towards the MArch degree, which may include some coursework.

Master of Design Science (Research)

The MDesSc(Research) option allows a candidate to undertake research in any of the areas of design science offered by the Department of Architectural and Design Science. The candidate is required to submit a thesis incorporating the results of the research, and may undertake some coursework relevant to the topic.

Master of Science (Architecture)

The MSc(Arch) degree offers research opportunities in environmental design and related topics including the application of the human sciences to environmental design. An MSc(Arch) candidate will normally have a degree in design studies or appropriate equivalent qualifications. However, as a graduate from any other disciplines you may also undertake research related to environmental design.

Master of Urban Studies

The MUrBStud is a program offered for students to pursue a broad range of issues relating to cities in the late twentieth century. The emphasis is on developing the more conceptual and theoretical side of urban studies and planning, and students are given the opportunity to pursue their own interests within a flexible course structure. The course, as much as possible, is comparative in focus, drawing on international research and literatures. Students come from a wide variety of backgrounds including arts or social sciences. They may be interested in seeking
work in planning related areas, rather than in local or state government planning offices. A candidate for the degree is required to submit a research thesis and may be required to undertake some coursework.

**Degrees, diplomas and certificate by coursework**

**DEPARTMENT OF URBAN AND REGIONAL PLANNING**

The Department of Urban and Regional Planning is a postgraduate department within the Faculty of Architecture. It offers courses leading to the award of:

- Master of Urban and Regional Planning (MURP)
- Graduate Diploma in Urban and Regional Planning (GradDipURP)

Suitable applicants may be accepted as candidates for the research degrees, Doctor of Philosophy and Master of Urban Studies.

**GradDipURP and MURP**

Courses in Urban and Regional Planning are recognised by the Royal Australian Planning Institute and graduates and diplomates are eligible, subject to the professional experience requirements, for corporate membership of that body.

The department, being a postgraduate unit, operates largely as a resource base for students, and students' success depends heavily upon self-motivation in pursuing those study areas in which they have a particular interest.

Staff in the department will help students clarify matters related to the choice and pursuance of these interests and attainment of study aims. Students are encouraged to select courses reflecting their particular interests and study objectives from the range of courses offered.

Undertaking an average workload a full-time student may expect to spend 12 class hours per week supported by an additional 24 to 30 hours per week of background reading and general preparation during the academic year. A part-time student could expect to spend roughly half this amount of time per week. As a general guide, all students are expected to take no fewer than 12 units per year.

The department accepts candidates with a wide range of academic backgrounds including engineering, architecture, surveying, economics, law, and other qualifications in the social sciences, humanities and the natural sciences.

The diploma and master's program operates on a unit system. Candidates for the master's degree must complete a minimum of 48 units; candidates for the diploma must complete at least 40 units. Both can be completed in two years of full-time or four years of part-time study. All candidates are required to complete 24 mandatory units of core courses. The balance is made up of elective courses which provide students with the opportunity to specialise in their preferred field. In addition, master's candidates complete a dissertation (8 units). No more than 30 units may be taken in any one year.

The requirements for the GradDipURP and MURP are shown in the resolutions of the Senate and the Faculty (pages 65 to 71) and the Table of Courses (page 72).

**Course outlines**

**MANDATORY COURSES**

**Urban Perspectives** 2 units 17524

Most specialised and elective coursework in the professional urban and regional planning program presupposes familiarity with Australian urban history and the chief inter-disciplinary approaches which help us to understand the processes involved in structuring cities. The objectives are to enable a good understanding of the context within which Australian physical planning problems are identified and to make key interdisciplinary contributions to urban research.

**Economic Applications in Planning** 2 units 17377

This course provides non-economists with a basic understanding of major economic concepts, and an introduction to major economic techniques likely to be encountered by planners. Topics include supply and demand analysis, the theory of costs, the pricing of public goods and externalities. Teaching of the material relies heavily on the use of case study material.

**Physical and Transportation Planning** 4 units 17378

This course presents a series of topics: linkages between land uses, activities, environments, and networks; reticulated community facilities and human services; residential, industrial and commercial areas; networks, hierarchies, precincts and environmental areas; population, dwelling densities, and housing forms; site analyses/sieve maps and land capability studies; types of plans, planning controls and instruments; land budgets and layouts; urban design and conservation studies; access, linkages and circulation; trip generation, distribution, modal split and assignment; appraisal of travel cost savings; environmental capacity and impacts of road improvements; transport systems management, traffic planning, intersection design and local area traffic management; and design of local areas and proposals for staging development.

**Planning Law and Procedures** 4 units 17380

The major objective of this course is to give students a basic understanding and practical knowledge of environmental planning law and planning procedures which apply to the preparation and implementation of planning instruments and the evaluation of planning
proposals at the local, regional and state level in N.S.W. Students will be assessed on their ability to demonstrate competence in addressing substantial planning issues and the preparation of sound planning documents within relevant legal and procedural frameworks.

Planning Methods 6 units 17383
This course provides students with the basic technical and analytical skills required to complete their planning studies. The course is very much 'hands-on', with widespread use of microcomputers in undertaking assignments and class exercises. Topics covered include using census data, demographic analysis, feasibility analysis, elementary statistics and survey design.

Planning Theory and Practice 4 units 17384
The course presents an overview of literature on planning theory and history, policy analysis, organisations, and decision-making; and of political and social contexts of planning. It examines planning as a communicative process leading from formulations of complex issues to proposed actions. The role of debate, arguments and documents are discussed. The structure of advocate arguments, elements of arguments, and basic forms of planning arguments are presented. Attention is given to concepts, such as implementation structures, organisational processes, stories and arguments, which act as heuristics for preparing arguments. Examples relating to building and development applications, and to statutory and land use plans demonstrate applications.

Regional Planning: Theory and Analysis 2 units 17389
This course examines regional development theory, policies and practice. The emphasis is on integrating regional analysis and elements of regional economic impact studies with discussions of theory and policy. Topics include methods of regional analysis, regional growth theory, competing views of the causes of regional growth and decline and issues of local economic development.

SPECIALISATIONS
Economic and Community Development 8 units 14484
The materials for this specialisation are divided into two parts. The first part deals with the development of practical skills in project and program evaluation. The second part deals with the application of these skills to specific contexts. Two streams are available in the second part of this specialisation. The first covers local economic development in the Australian context and will deal with the preparation of local economic development plans and programs. The second covers regional development planning in the context of less industrialised nations. Students will select which stream to follow after completing the first part of the specialisation.

Housing Policy and Practice 8 units 14517
The course provides both an inter-disciplinary introduction to housing theory and policy as well as the opportunity to explore the use of the chief analysis techniques and other procedures likely to be used by Australian planning professionals in the workplace. The main concepts in the housing literature are covered with an emphasis on the role of public housing and the needs of the Australian metropolitan areas.

Land Use and Infrastructure Planning 8 units 14571
This course develops skills in preparing planning proposals, arguments and documents. The aim is to develop capability so students can prepare dissertations and professional reports. The course covers planning for a range of land use activities (housing, industry, commerce, etc.) and attendant infrastructure (roads, sewers, water and electricity supply, schools, open space, shops, child care, etc.). Both procedural and substantial aspects are addressed. Students prepare responses to planning issues at a variety of scales (development precinct, town centres, regional centres, release areas), and land use plans and servicing proposals. Students are required to adopt an advocate stance in relation to their proposals, outlining necessary actions and implementation arrangements.

Urban Design and Development Control 8 units 14627
This course emphasises the integration of urban design skills with the statutory framework for urban planning and arrangements for the implementation of design proposals and policies. The essential role of design arguments in the preparation and implementation of urban design proposals is also emphasised. Students undertake a series of practical exercises which include the preparation and evaluation of design proposals and projects within the procedures for preparing local environmental plans, development control plans, design codes together with the analysis of design criteria in development control applications.

GENERAL
Contemporary Urban Issues 2 units 17707
This course considers contemporary urban issues in an international perspective. Topics covered include: the implications of information technology for urban forms and structures, cultural planning, infrastructure
pricing, environmental management, race, ethnicity and multiculturalism, managing growth, social and spatial inequalities and gender issues.

**DEPARTMENT OF ARCHITECTURAL AND DESIGN SCIENCE**

The Department of Architectural and Design Science offers postgraduate courses leading to the award of the:
- Master of Design Science MDesSc
- Graduate Diploma in Design Science GradDipDesSc
- Graduate Certificate in Design Science GradCertDesSc

Specialising in:
- Building
- Building Services
- Computing
- Energy Conservation
- Illumination
- Facilities Management

Suitable applicants may be accepted as candidates for the research degrees, Doctor of Philosophy, Master of Architecture, Master of Science (Architecture) or Master of Design Science (Research).

The requirements for the coursework degrees, diplomas and certificates are shown in the resolutions of the Senate and the Faculty (pages 65 to 71) and the Table of Courses (pages 72 to 74). Generally they are:

**Dissertation**
An option for the MDesSc.

**Coursework**
- GradCertDesSc — 12 units of coursework as specified
- GradDipDesSc — 24 units of coursework including at least 14 units of advanced courses
- MDesSc — 36 units of coursework including at least 23 units of advanced courses

Individual courses are usually of 1, 2, or 3 units in length, and candidates are required to select a program of study from these courses, in consultation with staff. Refer to the Table of Courses on pages 72 to 74 for details.

**Coursework outside the department**
For the diploma and master’s degree up to 6 units of coursework may be undertaken outside the department, with permission.

**Credit for prior study**
For the diploma and master’s degree up to 12 units may be counted for prior acceptable work.

**SPECIALISATIONS**

**Building**
The Building program provides an overview of building science and allows students to specialise in areas such as acoustics, building aerodynamics, CAD, structures, building services and environmental science.

The courses are aimed at architects and engineers who require a greater understanding of the science and technology of building design and construction and provide a range of knowledge and skills for educators in the building science area.

**Building Services**
The built environment makes an increasing impact on our daily lives. As national and international economic growth draws people to work and live in the world’s cities, the services of space heating and cooling, ventilation and air conditioning, lighting, hot and cold water, drainage, sanitation, communication and transport systems have become accepted as necessities — part of the modern urban and industrial way of life. The building services engineer provides the skills and technology to help create a comfortable and stimulating environment and makes an important contribution to society and the economy in limiting by design and recommendation energy use in buildings.

The course aims to accelerate the acquisition of knowledge and skills for professionals currently employed in the building services industry and to provide continuing professional development for those in the related fields of architecture and the building industry or to provide vocational training for those intending to transfer into this industry.

**Computing**
The certificate, diploma and master’s degree specialising in Computing allow those associated with the architecture and building professions the opportunity to become knowledgeable in the specialised area of architectural computing.

The basis of the program is that many disparate parts of architecture and building can be better understood from knowledge of the methodological background of system analysis and computing. This has become clear since the introduction of computers to the general areas of building design. Thus, the program prepares students to participate in the implementation of these new techniques.

The program provides the opportunity for studying at a high level, the application of computing, and the related developing discipline of knowledge engineering, to the problem of design. The context includes architectural design and other related fields of design.

As more and more architects and architectural firms adopt computational techniques and introduce computers, there will need to be architects and designers who are competent in this area to complement the computer scientists rather than to replace them. One of the reasons for the slow acceptance of computers amongst the design professions has been the lack of suitably trained personnel with a level of expertise in both areas who can bridge the gap. Already graduates from this faculty who have specialised in architectural computing are sought after.

Students may substitute suitable courses from other departments, particularly those offered in computer science in the Faculty of Science.

**Energy Conservation**
The Energy Conservation specialisation provides those associated with the architecture, engineering and
specialising in Illumination are postgraduate programs exist. Much of the knowledge has developed under the program's first year in two parallel streams — one concerned with the physics and technologies of lighting and the other which explores the human bases of seeing and aesthetics.

The breadth of knowledge required for an understanding of lighting is the reason so few programs exist. Much of the knowledge has developed in areas of study which have no direct application to design, such as physiology, psychology, physics, chemistry, etc. Other knowledge has been developed by manufacturers of equipment and applications knowledge has been developed by engineers and architects. Rarely does an institution bring this knowledge together to provide a comprehensive Lighting design course.

The program assumes the knowledge and maturity of a graduate with some experience of the design professions. However, it recognises the differences in educational backgrounds of its candidates and provides support courses in related fields concerning the built environment, as well as emphasising the need for students to experience both the technological and human factors bases of lighting.

The program has a core of courses in the area of study called Illumination. This core is compulsory. The successful completion of the core qualifies the candidate for full membership of the Illuminating Engineering Societies of Australia subject to the required practical experience. The core comprises 12 of the units required for the award of the GradCertDesSc, GradDipDesSc or MDesSc. The remaining units can be selected from the options available within the Department of Architectural and Design Science or the Faculty. Some candidates, depending upon their previous studies, may be eligible for credit of up to 12 units, reducing the number of optional courses which need to be completed. The core courses are generally lectures, supported by laboratory work, tutorials and design exercises.

The core courses can be completed in three semesters, either full-time or part-time. The core courses are offered once every two years and are always timetabled in the evenings (6-8 pm).

**Facilities Management**

Commercial and domestic buildings are a long-term proposition and a considerable capital investment. Operating costs can often equal or outweigh this investment. Facilities managers are responsible for maintaining the value of the investment by ensuring that buildings and other facilities are properly serviced and adequately maintained.

The Facilities Management program leads to a Master, Graduate Diploma or Graduate Certificate in Design Science. It covers such topics as life cycle costing, selection of design elements, materials and equipment, functional/aesthetic trade-offs, procurement methods, maintenance management, asset registers, energy management, facility audits and post-occupancy evaluations.

**Course outlines**

**Area: General**

**Dissertation (advanced) 12 units**

The aim of the dissertation is twofold:

1. To train the student in how to undertake advanced study. The student should learn how to examine published and unpublished data, survey and experimental results, set objectives, organise a program of work, analyse information, evaluate this in relation to existing knowledge and document the work.

2. To allow the student to pursue an area of interest in greater depth than is possible in coursework or to investigate an area of interest which is not covered in coursework.

The appointment of a supervisor will depend on the topic chosen for the dissertation by the student. There will be no classes associated with the dissertation but it is recommended that the student enrols in the Research Methods course.

The dissertation will normally involve a critical review of published material in a specified subject area, but it may also be an experimental or theoretical investigation, a feasibility study, a case study, a computer program, or other work demonstrating the student's analytical ability.
There is no prescribed word or page limit on the dissertation, but it will usually be less than 25,000 words. The dissertation should contain a literature review, a research methodology, analysis of data, a discussion of results and conclusions. The dissertation will be judged on the extent and quality of the student’s work, and in particular on how critical, perceptive and constructive the student has been in assessing his or her own work and that of others.

Three typed A4 sized copies of the dissertation are required to be presented for examination. (Consult page 69 of the Faculty resolutions for more details of the form of the dissertation.)

Elective A
17615
**Elective B**
17616
Elective C
17617
Elective D
17621
Elective E
17622
Elective F
17623
Electives are subject to agreement between the student and staff member concerned, and may be carried out by a combination of private study, seminars and other means.

Research Methods
21030
Classes: Lectures and seminars
**Assessment:**

The various disciplines involved in a Faculty concerned with design and planning call upon apparently very different research traditions. Further it is often the case that the research methods and techniques, the managing of research projects and the writing of research reports and publications are not taught within professionally oriented disciplines. It is also true however that a practising professional in any of these disciplines will, at some stage, be required to assess and use in their design and planning activities, the results of research from this wide spectrum of research orientations. The correct interpretation and understanding of this material is therefore essential for a practising professional. In addition, the ability to carry out research is essential for the development of the knowledge base of these disciplines.

The course has two aims. The first is to provide an overview of these various research orientations and to demonstrate that, while the details of how research is conducted and written up varies widely between disciplines, there is a more abstract level at which there are significant similarities between research areas. The second aim of the course is to provide students with an understanding of the range of statistical tools that can help in carrying out research.

**History of Building Science**
34182
**Classes:** lectures
**Assessment:** examination

An examination of the history of Architectural Science and its relation to history in general and to the history of architecture and of science in particular. The core problems of architectural science are studied from the earliest structural forms up to the beginning of the era of scientific structural design. The first part of the course concentrates on the period prior to the 19th century.

The second part is an examination of the history of Architectural Science in relation to general history and the histories of architecture and science during the 19th and 20th centuries. Topics covered include: the invention of steel and reinforced concrete construction, the development of rigid frame theory, the mechanisation of structural design, the revival of three-dimensional structures, new building materials, and the industrialisation of architecture.

**Science and Society**
32275
**Classes:** lectures
**Assessment:** assignments

This course is an introduction to the study of science. It will cover the major philosophical developments in Western scientific thought from Ancient Greece. Topics covered include: medical science, the Copernican revolution, the Enlightenment, the Darwinian revolution and the 20th century critiques of science. Part of the course will look at the impact of science on the profession and practice of architecture.

**Statistics in Environmental Design**
31274
**Classes:** lectures
**Assessment:** assignments

The aim of this course is to provide students with an understanding of the range of statistical tools that can
be applied to the analysis of problems in environmental design, in particular the person-environment studies area. The course covers descriptive statistics, inferential statistics (both parametric and non-parametric tests), correlation and prediction, hypothesis testing and multivariate analysis. Tools will be provided, for example, non-parametric tests, that have immediate use. Their theoretical background is covered in sufficient detail to outline their limitations and assumptions.

**Mathematical Modelling for Designers**  
*(background) 2 units*

34278  
**Classes** lectures  
**Assessment** assignments

This course develops some concepts of mathematics and science related to design. Models are developed using the following mathematical domains: time series, integral and differential calculus, differential equations, matrix algebra, optimisation, graph theory and statistics. Particular attention will be paid to models for managerial decision-making, for example, cost estimation and critical path analysis.

**Architectural Acoustics 1**  
*(advanced) 2 units*

14887  
**Classes** lectures  
**Assessment** assignments

An introduction to acoustics terminology, and the development of the wave equation, simple sound propagation theory, the ear and hearing. Subjective effects of noise, sound transmission through walls and partitions, sound absorption, the behaviour of sound in a room, and auditorium acoustics.

**Architectural Acoustics 2**  
*(advanced) 3 units*

17580  
**Classes** lectures  
**Assessment** assignments

This course, which is a continuation of Architectural Acoustics 1, includes: the measurement, prediction and control of environmental noise; noise control in building; acoustic modelling; and legal aspects of noise control, as well as laboratory and field measurements with some lectures on instrumentation and measurement techniques. Information includes on sound level measurement, source identification, frequency analysis, time domain analysis, statistical analysis of time-Varying signals, sound power measurement, sound absorption, sound transmission loss, environmental noise measurement and assessment, audio system performance assessment and vibration and shock measurement and analysis.

**Building Services Systems**  
*(background) 3 units*

26382  
**Classes** lectures, visits  
**Assessment** assignments

This course discusses the planning of the major services components in large buildings, and their integration with the structural, constructional, and other planning considerations. Topics covered include: preliminary planning of services; impact of services on building design; vertical transportation including space requirements, equipment and preliminary calculations; airconditioning systems including types of systems, and calculation of duct and plant sizes from loads, and the location of major components of the system; energy conservation in relation to airconditioning; hydraulic and fire services; electrical services; lighting installations; and noise in relation to services.

**Wind Effects on Buildings**  
*(background) 2 units*

36430  
**Classes** lectures, laboratory  
**Assessment** assignment

The influence of wind effects on town planning and building design is studied, including recent problems in urban centres. Common problems are identified and currently acceptable design criteria are discussed. Basic fluid mechanics relating to airflow around buildings is outlined, together with its limitations. Wind tunnel techniques are described and students perform simple wind tunnel tests and report on them. Wind loads are studied in relation to the current wind code, as well as special design problems in areas affected by cyclones. Methods are provided for estimating natural ventilation as well as basic data related to wind power generation.

**Electricity in Buildings**  
*(background) 2 units*

36457  
**Classes** lectures  
**Assessment** examination

The course treats the mathematics of alternating current in circuits and the concepts associated with phase relationships. Generation and reticulation is discussed at system level. At the building application stage the following topics are treated: load diversity calculation of maximum demands; cables (types, sizes, ratings); control equipment; protection philosophy and equipment; standards and wiring rules; switchboards; transformers; special equipment; substations; space requirements.

Laboratory exercises will be used to demonstrate the concepts, such as power factor, the use of power factor correction devices and the operation of circuit breakers and, their characteristics.

**Cognitive Processes in Design I**  
*(background) 2 units*

12675  
**Classes** lectures  
**Assessment** examination

The aim of this introductory course is to give an overview of the major issues raised by the study of the design process in the context of recent work in a number of disciplines concerned with: the solving of
complex and ill-defined problems; the representation and use of everyday knowledge; the representation and use of expert knowledge; and the role of analogy and metaphor in everyday understanding and expert performance.

**Cognitive Processes in Design II**

(advanced) 2 units  
12785  
*Classes* seminars  
*Assessment* assignments

This course develops detailed knowledge in each of the areas covered in the previous course. It focuses on a discussion of key papers in the areas of problem definition and problem solving; knowledge representation and processing; the nature of expertise and analogy and similarity. On the basis of this discussion, a small research project is identified. Participants then design an experiment and collect and analyse the data.

The format of the course is based around seminars given by the participants. Each seminar will review a particular key paper and associated material and explores its relationship to the activity of designing and design evaluation.

**Introduction to Lighting Design**

(background) 2 units  
36441  
*Classes* lectures  
*Assessment* assignments

This course introduces the concepts of lighting design. It uses as its basis AS1680 and places emphasis on the need for task analysis and a designed appearance approach to lighting for both work and pleasure. It is assumed that the student has a good understanding of photometric concepts and visual perception and some understanding of light sources, luminaires and daylight. Several sessions will be spent with lighting designers to discuss their approach to design problems and a lighting design exercise will form the main part of the assessment for the course.

**Area: Building Structures and Materials**

**Appraisal of Existing Structures**

(advanced) 1 unit  
17575  
*Classes* lectures  
*Assessment* examination

The course studies the purposes, procedures and responsibilities in structural appraisal, the nature of requisite information and methods of survey. It includes an appreciation of the history of construction methods and materials, assessment and modelling of the structure, functional requirements and non-destructive testing.

**Structural Systems Synthesis**

(advanced) 2 units  
12563  
*Classes* lectures  
*Assessment* examination

This course explores the models available for structural synthesis and provides experience in the use of AI and optimisation techniques within the synthesis process. Topics covered include: structural design process; models of structural synthesis; functional, behavioural and constructional requirements for structural and foundation systems and their influence on the synthesis processes; approximate behaviour models (including those for tall and wide span structures); AI and optimisation techniques for structural synthesis. Assignments include application of AI and optimisation for case studies.

**Computer-aided Design of Structures**

(advanced) 2 units  
12621  
*Classes* lectures  
*Assessment* examination

This course provides hands-on experience in integrating computer-based design tools into the structural design process and in rapidly exploring the different structural design options. Information is also provided on the theoretical bases, structure and organisation of some of the state-of-the-art computer-based analysis and design tools. Topics covered include: introduction to stiffness, flexibility and finite-element methods of structural analysis; modelling of structure (including finite element models, static and dynamic loads, and materials); pre- and post-analysis processing; modelling guidelines (including model refinement). Assignments include applications from skeletal, planar, shell and tension structures and case studies.

**Building Materials 1**

(background) 1 unit  
17588  
*Classes* lectures  
*Assessment* examination

Durability, durability testing, corrosion, temperature and moisture effects in relation to common building materials including metals, concrete, glass, plastics and sealants.

**Area: Building Services**

**Project Management**

(advanced) 3 units  
17566  
*Classes* lectures  
*Assessment* examination

This course provides a knowledge of contracts/subcontracts, including an understanding of pre- and post-contract procedures, an appreciation of estimating and measurement practice, and an understanding of project financing and planning. It also aims to develop communication skills.

The course includes: administration of contracts; tendering and estimating; building industrial relations; financial planning and control; project planning and control; communication.

**Building Construction Technology and Control**

(advanced) 3 units  
17555  
*Classes* lectures  
*Assessment* examination
Students are provided with an appreciation of building construction technology and control relevant to the work of the building services engineer. The course emphasises those aspects of the built environment which are of particular concern to the building services engineer, especially in the early design stages when important decisions on form, fenestration and building fabric have to be taken.

The syllabus includes: structural form; foundations; external walls; solar geometry; heat transmission through external cladding; internal partitions, fittings and finishes; roof enclosures; floors; ceilings; ducts; N.S.W. Building Regulations; services requirements; building planning permits.

Note: Students who have successfully completed or are concurrently enrolled in 17708 Facilities Management I will need to attend about ten lectures, complete the associated assignments, and complete an additional assignment on a topic related to the content of those lectures. The additional assignment will be arranged with the course coordinator.

Mechanical Services (advanced) 3 units 17587
Classes lectures
Assessment examination
The course provides an integrated program that complements the training building services engineers receive with their employers. It informs about the mechanical building services involved in the built environment and aims to enhance the professional standing of engineers involved in the building services industry.

The syllabus includes: elementary physics and thermodynamics as related to refrigeration and airconditioning; environmental standards; the thermal environment; estimation of heating and cooling loads; psychrometrics; heat distribution; fluid flow in pipes and duct systems; theory and practice of refrigeration; airconditioning; and an introduction to acoustics, hydraulics and fire protection.

Electrical Services (advanced) 3 units 17565
Classes lectures
Assessment examination
Like Mechanical Services, this course provides an integrated program that complements the training building services engineers receive with their employers. It aims to inform all building services engineers about the electrical building services involved in the built environment and to enhance professional standing.

The course includes: fundamental electrical theory as related to building services; introduction to appropriate codes of practice and regulations; principles of electricity generation and distribution; an introduction to electric motors and transformers; lightning protection and telecommunications. It also includes fundamentals of daylight; windows and roof lights; sky glare; lamps and light production; discomfort and disability glare; glare control; and local lighting.

Airconditioning Design (advanced) 3 units 17573
Classes lectures
Assessment examination
The course extends students' ability to design basic airconditioning systems for buildings and to appreciate the need for environmental control and energy conservation.

It covers: airconditioning system selection; design for energy efficiency; quality of the indoor environment; air distribution; piped services; water treatment; and airconditioning system components such as fans, coils, filters and heat rejection equipment.

Computer Aids for Airconditioning Design (advanced) 3 units 17577
Classes lectures
Assessment examination
This course provides instruction for students in the use of four airconditioning load estimation programs that are commercially available and supported in Australia. An opportunity is provided to put them to use in the analysis of building loads and to evaluate and compare them. The effects of variations in building envelope design and occupancy are examined.

Services Control Systems (advanced) 2 units 17589
Classes lectures
Assessment examination
The course aims to develop in students a knowledge of services control systems. It provides instruction in basic control theory and in the application and design of pneumatic, electric, electronic, programmable logic, and direct digital controls and automated building management systems.

Electric Power Systems for Buildings (advanced) 3 units 17562
Classes lectures
Assessment examination
The course aims to enhance the ability of students to design electrical installations for buildings and to develop the ability to design specialist systems and analyse supply irregularities.

It includes: power distribution in buildings; requirements for safety; selection and erection of low voltage equipment; selection of cables and wiring systems; installation of systems; high voltage distribution; protection; supply irregularities; emergency services; reactive power compensation; specialist installations; electro-mechanical drives; case studies.
Fire Protection Services  (advanced) 3 units
17796
Classes lectures
Assessment assignments
The course presents an introduction to fire protection services and the methodology and calculations involved in fire safety engineering. It provides detailed instruction in the design and application of fire hydrant and hose reel systems; automatic sprinkler systems; fire detection and alarm systems; and an overview of special hazard protection. Instruction will be provided in the use of software driven systems for engineering analysis of risk and effectiveness of fire protection strategies and as an aid to the design of automatic sprinkler pipe systems.

Hydraulic and Sanitary Services  (advanced) 2 units
17579
Classes lectures
Assessment examination
The course presents the principles, concepts, assumptions, rules and regulations required for the analysis and design of hot and cold water supply systems, sanitary plumbing and drainage systems, stormwater drainage systems, refuse systems and piped gases for commercial and industrial buildings.

Building Acoustics and Noise Control  (advanced) 2 units
17608
Classes lectures and laboratory
Assessment assignments
The course extends the knowledge of students of acoustics and noise, and the practice of noise and vibration control in buildings. It includes: vibration measurement and control; interaction of sound, vibration, space and structure; sound and vibration source control and isolation; noise and vibration control and practice; noise and vibration control aids; impact assessment techniques; noise and vibration hazards.

Communications  (advanced) 2 units
17564
Classes lectures
Assessment examination
The course provides an overview of the communications environment in Australia. It develops in students an appreciation of voice, video and data and integrated communications systems, including planning and traffic analysis with an introduction to queuing theory and systems. It gives an understanding of transmission and exchange systems within and beyond buildings for voice, video, data and integrated circuits by cabling, fibre optic and radio. Topics for discussion include: wireless telephone systems; integrated services digital networks (ISDN); error detection and correction and system redundancy; and the intelligent building.

Vertical Transportation Systems  (advanced) 2 units
17591
Classes lectures
Assessment examination
The course extends knowledge on vertical transportation in buildings, including varieties of lifts, escalators and moving pathways, over that gained in core subjects. The course includes: standards and regulations; construction and installation of equipment; facility design and lift traffic analysis, using alternative systems; programming and site inspection.

Building Services Case Studies  (advanced) 3 units
12516
Classes lectures
Assessment examination
Syllabus to be advised.

Urban Environmental Sciences and Services  (background) 2 units
17695
Classes lectures
Assessment assignments
The course covers nine areas important to the understanding of urban design practice and the environment in which buildings must be constructed and maintained. These are noise, sunlight, shade and reflections, urban ecology, microclimatology, wind effects, lighting, atmospheric pollution and utility services.

Area: Design Computing

Theory and Practice of Design Computing  (background) 3 units
17713
Classes lectures
Assessment project and presentation
The core of the course has two parts: (i) an overview of the design computing program — computational methods, decision support, graphics and modelling applications, multimedia, artificial intelligence, and CAD in practice; and (ii) an introduction to design theory, methods and issues. The latter covers the range of thinking about design from rationalistic, scientific, linguistic, cognitive and theory-based views of design, to pragmatic and post-rationalist understandings.

CAD in Design  (background) 3 units
17714
Classes lectures
Assessment project
The course provides exposure to commercial CAD environments and their use in practice, including the issues related to their practical use. There are opportunities to pursue the application of CAD in practice, or advanced levels of integrated CAD application.

**Computer Systems for Design**  
(Background) 3 units  
17715  
*Classes* lectures  
*Assessment* project and presentation  
Students are exposed to the range of current technologies pertaining to the design of interactive, networked multimedia systems, and their use in practice. There is an opportunity to pursue some aspect of the course in greater detail, and to extend the programming concepts.

**Graphics Applications in Design**  
(Background) 3 units  
17716  
*Classes* lectures  
*Assessment* project  
The course provides an overview of the broad range of computer graphics tools and techniques available to designers. Applications of the tools and advanced technologies such as animation, multimedia and image processing are developed.

**Computer Graphics Programming**  
(Advanced) 3 units  
17717  
*Classes* lectures  
*Assessment* project and programming assignments  
Students are instructed in the design of software and the principles of structured programming. Specific experience in a structured programming language such as Pascal will be provided. Opportunities exist to extend the programming experience into other structured languages, object-oriented systems, and macro languages.

**Graphics and Modelling in Design**  
(Advanced) 3 units  
17722  
*Classes* lectures  
*Assessment* project and presentation  
Students will be exposed to specific technologies for the photorealistic representation of models of artifacts. Students will pursue a specific application in significant detail. Opportunity exists to extend the modelling into 3D solid geometry, fully coloured, textured and lit.

**Design Decision Support Systems**  
(Advanced) 3 units  
17723  
*Classes* lectures  
*Assessment* assignment  
The course covers material drawn from computational processes to support design decisionmaking, database management systems, and mathematically-based models of simulation and optimisation in design. The course addresses the use of design computing beyond the graphical visualisation and modelling.

**Artificial Intelligence in Design**  
(Advanced) 3 units  
17725  
*Classes* lectures  
*Assessment* assignments  
The course includes symbolic models and symbolic processing, representation of knowledge (approaches and techniques), logic and rule-based languages in design, and knowledge-based systems and expert systems in design.

**Design Computing Elective 1**  
(Advanced) 1 unit  
17604

**Design Computing Elective 2**  
(Advanced) 2 units  
17605

**Design Computing Elective 3**  
(Advanced) 3 units  
17726

**Design Computing Elective 4**  
(Advanced) 4 units  
17606
Electives are subject to agreement between the student and staff member concerned, and may be carried out by a combination of private study, seminars and other means.

**Area: Energy Conservation**  
Energy Conservation Research Project  
(Advanced) 4 units  
13145  
*Classes* tutorials, seminars  
*Assessment* project  
This course provides an opportunity for students to develop their interests in particular issues or aspects by preparing a seminar paper which will be presented to the class as well as other interested students and staff. The project may take many forms including state of the art reviews, case studies, modelling exercises, monitoring, and position papers on particular issues. Students undertaking a dissertation for their master's degree could use this course to explore and develop potential topics.

**Building Climatology and Thermal Comfort**  
(Background) 2 units  
17582  
*Classes* lectures  
*Assessment* assignment
This course defines climatic and human behavioural constraints upon energy conservative design solutions. A study of the elements of climate leads to the definition of the natural environment to which the design must relate. An understanding of the interaction between the human body and its thermal environment and a study of human thermal perception and response develops an ability to specify thermal planning objectives which define the enclosed environment to be achieved. The course explores techniques for the generation of both sets of knowledge and discusses their use in the design of energy conservative buildings.

**Building Energy Analysis (advanced) 3 units**

17585

*Classes* lectures, tutorials

*Assessment* assignment

Students are exposed to the analytical and design tools available for producing and evaluating climate and energy conscious building designs. Among the techniques and tools explored are: analysis of climatic data; graphical and model techniques for analysing solar geometry and designing sun control devices; steady-state and steady cyclic heat flow theory; simplified methods for sizing passive solar elements of buildings; computer models of thermal behaviour; modelling ventilation in buildings and estimating energy consumption in buildings.

**Energy Management in Buildings (advanced) 2 units**

17612

*Classes* lectures, seminars

*Assessment* assignment

This course explores the effectiveness of energy conservation techniques in existing and proposed buildings which rely upon behavioural or management actions by the users and owners of buildings. Topics include: basic principles of energy management; community scale energy management strategies and the role of governments; energy management in the commercial building sector; energy management in institutional buildings; and energy management in the domestic sector.

**Energy Conservative Design Workshop (advanced) 4 units**

13201

*Classes* tutorials, seminars

*Assessment* project

This course provides the opportunity for applying the principles enunciated in Climate Conscious Architectural Design and the tools explored in Building Energy Analysis to a particular design project. Students are expected to respond to the requirements of a brief by producing a building design proposal which can be demonstrated to be climate conscious and sustainable in its use of natural resources and energy. Students are encouraged to develop their own briefs and develop the project in directions which coincide with their own interests.

**Architecture, Energy and Environment (advanced) 3 units**

12892

*Classes* lectures, seminars

*Assessment* assignment

This course develops an awareness of the environmental context of architecture at the global scale and to make students cognisant of the major environmental issues of concern to contemporary society so that they can develop informed opinions about the relationship of architecture to these issues and the role the architect should play in contributing to their solution. The course begins by discussing the nature and extent of the energy and environmental crises facing the world and then explores the response of the architectural profession to these crises in relation to its response to previous intellectual and technological change. The rise of the passive solar movement of the 1970s and 1980s is examined in detail. The course explores the potential for exploiting energy and environmental issues as ideas from which a sustainable, socially relevant architecture can spring.

**Climate Conscious Architectural Design (advanced) 3 units**

12946

*Classes* lectures

*Assessment* assignment

This course initially examines the influence of climate upon architectural form in various civilisations and climates. A case is established for the relevance of climate responsive architecture as part of a sustainable, low energy future. It then enunciates the basic principles for producing a climate responsive architecture concentrating upon temperate to hot climates and the Australian, Southeast Asian and Southern Pacific regions. The course considers the impact of climatic factors upon the thermal performance of buildings and discusses the major elements of the building fabric which determine this performance, including thermal mass, insulation, solar control and ventilation. General design principles are developed for relevant climate types and a number of case studies are studied in detail.

**Solar Energy and Passive Design (background) 2 units**

36463

*Classes* lectures

*Assessment* assignment

The first component of this course explores the sun as an energy source and discusses the collection and use of solar energy as a source of power. Methods for sizing and detailing active collector systems are given and the efficiency and economics of solar based systems is explored. The second component concentrates upon the principles of passive solar building design for various climates. Methods of sizing basic components are given and examples of passive solar buildings are examined in a series of case studies.
Area: Illumination
Vision and Visual Perception
(advanced) 2 units 17697
Classes lectures
Assessment assignments and examination

An introduction to the science and art of illumination, examining how individuals maintain contact with and gather information about their environment via their sensory systems, and how this information is dealt with by the brain to create complex perception and awareness of the environment. After a brief general overview of human sensory systems the physiological and psychological processes in seeing are discussed. Topics covered are: the dual nature of light; the physiology of the eye and its musculature; light detection; the visual anomalies; contrast sensitivity; colour vision; adaptation; brightness and lightness. The processes involved in image detection and recognition are discussed including: edge detection; lightness determination; the association of the characteristics of patterns; camouflage; stef eopsis; the importance of the visual attributes of tasks, such as alphabets; expectation. Some of the characteristics of seeing are explored in the laboratory, particularly the size-contrast-luminance relationship.

The Visual Field and Human Factors
(advanced) 2 units 17698
Classes lectures
Assessment assignments and examination

Development of material dealt with in the previous course to examine full-field vision and the human factors involved in lighting the visual field. Topics covered include: the definition of the visual field with regard to size, luminance, contrast and time; the extension of threshold studies to practical task situations; the evaluation of visual tasks with regard to difficulty and complexity; the development of measures of discomfort and disability glare; the illuminance and glare scales used in practical standards; methods for the assessment of tasks and environments; experimental techniques of evaluation, such as multi-dimensional scaling. Laboratory exercises on the assessment of environments in physical and psychophysical terms are used to support the lectures and demonstrations.

Photometric and Colorimetric Concepts and Mensuration
(advanced) 2 units 17682
Classes lectures
Assessment assignments, laboratory work and examination

This course introduces the rational system of measurement of lighting qualities and provides the bases for statometric and colorimetric calculations. Topics include: the development of the system of measurement of luminous flux; luminous intensity; illuminance; luminance; reflectance; luminance factor; transmittance; mention of refraction, diffraction and reflection laws; relationships between luminous qualities; basic calculations involved with diffuse surfaces; inverse square law; cosine law; interreflections; Munsell Colour System; CIE Colour System; graphical representation of photometric data; measuring instruments; accuracy; repeatability; colorimetric calculations (chromaticity coordinates Yxy, L*a*b*, Luv, correlated colour temperature, colour rendering indices); the integrating sphere; goniophotometry; distribution photometry. Various measurement and calculation techniques are applied in the laboratory exercises which support the course.

Light Sources and Luminaires
(advanced) 2 units 17676
Classes lectures
Assessment assignments, laboratory work and examination

The various methods employed in the production of light and the performance criteria applied to the sources are discussed. Topics covered include: a historical outline of the development of sources; the practical requirements of light sources; black-body radiation; the sun; the sky; gaseous discharges; electroluminescence; chemoluminescence; incandescent lamps; the halogen cycle; fluorescence; tubular fluorescent lamps; various high pressure and low pressure discharge lamps. Practical lamps are discussed in terms of luminous efficacy, spectral output, colour rendering, life, supply requirements, control gear, cost, etc.

The design, manufacture, testing and the provision of data on luminaires are discussed. Topics covered include: the requirements of luminaires, methods of light control; the properties of optical systems; refractors; reflectors and diffusers; luminaire control techniques; manufacture of luminaires and auxiliaries; codes and provision of photometric data for indoor and outdoor luminaires; the calculation of utilisation factors; luminaire luminances; computerised testing; machine readable photometric data.

Laboratory exercises will demonstrate some lamp characteristics and luminaires are photometered and photometric data calculated.

Lighting Design
(advanced) 4 units 17413
Classes lectures
Assessment assignments

This course brings together the material of the four previous courses to develop the concepts and methodologies of interior lighting design. Topics covered include: the perception of colour, form, pattern and space, and issues relating to the perception and comprehension of the large-scale environment, aesthetics, perception and emotion; the limited quantitative procedures available for use in achieving the foregoing; the practical methods available for predicting illuminances from daylight and uniform arrays of luminaires; the prediction of discomfort; appraisals; codes of practice; economics; maintenance; integration of daylight and electric light.

More advanced methods of interior lighting design follow, including: design appearance techniques;
lighting systems; colour and atmosphere-creating; task analysis; choices of sources and luminaires; practical considerations of various lighting situations (e.g. domestic, offices, factories, hospitals, schools, etc.); special applications (stage, television, merchandising, agriculture, etc.).

The requirements for various exterior lighting applications are discussed. Some topics are treated in greater depth (e.g. various floodlighting techniques) than others (e.g. road, tunnel, aircraft and navigation lighting). Topics covered include; general floodlighting requirements; floodlighting equipment; light distributions; calculation methods; area floodlighting; building floodlighting; road lighting; pedestrian lighting; tunnel lighting; vehicle lighting; traffic signals; airport lighting; navigation lighting; display lighting; advertising.

Various computer-aided design methods are discussed and demonstrated. Assignments based on computer-aided design are used as part of the assessment.

**Area: Facilities Management**

**Facilities Management 1** (advanced) 3 units 17708

*Classes* lectures

Assessment assignments

The course covers the theories and principles of Facilities Management, strategic planning for facilities, space standards, space planning and design, space inventory and management, furniture specifications, financial planning, architectural services, building systems, energy conservation. This subject is intended to provide a broad overview of Facilities Management as a foundation for the remainder of the course.

*Note:* Students who have successfully completed or are concurrently enrolled in 17555 Building Construction Technology and Control will need to attend about ten lectures, complete the associated assignments, and complete an additional assignment on a topic related to the content of those lectures. The additional assignment will be arranged with the course coordinator.

**Facilities Management 2** (advanced) 3 units 17709

*Classes* lectures

Assessment assignments

Students will be exposed to the role of the Facilities Manager within an organisation, the working environment, organisational behaviour, interior design tools, lease administration, building codes and legal requirements, project management, construction management and documentation and maintenance/operations.

**Managerial Accounting and Decision Making** (advanced) 3 units 17711

*Classes* lectures

Assessment assignments

This course includes the key concepts of micro-economic theory and an introduction to the theories and practices relevant to soundly based management information. Specific topics will include marginal costing, budgeting, cost-volume-profit analysis, product costing, responsibility accounting, accounting for activities and transfer pricing.

**Organisational Analysis and Behaviour** (advanced) 3 units 17712

*Classes* lectures

Assessment assignments

As a field of study, organisational behaviour is primarily concerned with the causes of both individual and group behaviour, and the application of this knowledge to influence individual and group performance and satisfaction within an organisation.

This course emphasises processes of implementing organisational change, and reflects a humanistic concern for people within the field of organisational effectiveness. The course focuses on topics such as work motivation, empowerment, job design, new technology and work (including teleworking), individual and group decision making, leadership, power and conflict resolution, group dynamics, total quality management, and other relevant organisational issues.

**Financial Reporting** (advanced) 3 units 17793

*Classes* lectures

Assessment assignments

Objectives:

- to provide students with the ability to understand, analyse and interpret the products of the financial reporting process;
- to understand the usefulness of accounting information in corporate and public decision models;
- to gain an awareness of the functions of accounting information in corporate and public decision models;
- to gain an awareness of the functions of accounting information in corporate and public regulation, economic decision making and investment.

The course is designed as a broad introduction where primary emphasis is placed upon the ability to understand, analyse and interpret accounting reports.

**Project Management** (advanced) 3 units 17566

*Classes* lectures

Assessment examination

(For description, see *Area: Building Services*)

**DEPARTMENT OF ARCHITECTURE**

The Department of Architecture offers postgraduate courses leading to the award of the:

- Master of Heritage Conservation MHeritCons
- Graduate Diploma in Heritage Conservation GradDipHeritCons
The Heritage Conservation postgraduate program aims to develop both a national and international perspective on heritage issues through theoretical investigation, and an interdisciplinary approach. This interrelation of heritage philosophy and the areas of architecture, urban planning and landscape architecture is explored. Although the course has a strong cultural theory base, it also emphasises the importance of management issues together with a practical understanding of mechanisms and statutory authorities, both international and local, which control and affect heritage conservation and development.

The broad educational objectives of the MHeritCons and the GradDipHeritCons courses, are to:

• define skills in the interpretation and theoretical analysis of issues;
• evaluate the relevance of places and sites within the heritage agenda;
• develop working skills in a team situation with applied professionals in heritage conservation and planning;
• develop professional strategies and policies for balancing the relevance of heritage conservation with development, and of theory to practice;
• acquire skills in areas of both policy and implementation of heritage conservation programs, including specific building and landscape conservation techniques.

A professional placement provides a link between the academic core of the program and the discipline and methods of practice.

Application for entry to the program is open to those with first degrees in architecture, landscape architecture, planning, the liberal arts or related disciplines.

The program is offered on both a full- and part-time basis although students are encouraged to enrol full-time where possible. This will require enrolment for one academic year for either the degree or diploma, with master's degree candidates being required to complete a research report.

Course outlines

MANDATORY COURSES

Interpretation of Cultural Environments 2 units

13378
Coordinator Dr Lamb

Assessment assignments and seminars

The course addresses three major themes:

Historic: the historic basis of conservation, and the location of heritage values in high and popular culture. The traditions of object based conservation, the museum concept and its role in perceptions of the past.

Theoretical: the relationship between values, methods, perceptions and history: an introduction to research techniques and the relationship of theory to practice. Landscape meanings and values: changing attitudes and tastes.

Place: the cultural landscape as the physical setting and social context of conservation: the need for a natural systems base to interpretation of cultural environments. Holistic methods of assessment and evaluation of cultural environments.

Transformation of Cultural Environments 2 units

13421
Coordinator Professor Domicelj

Assessment assignments, seminars and site visits

The course considers the following areas:

Cultural development: cultural identity and continuity in urban places and their relationship to heritage conservation.

Cultural transformation: trends in the cross-cultural occupation, use and rehabilitation of places in historic settlements. Change in habitats and the resilience of local communities in urban places.

Dual urban structures: Asian and European morphologies in colonial and post-colonial settlements.

Cultural tourism: cultural heritage and tourism: creating heritage as a commodity and its relationships to value systems. Cultural exchange, visitation trends and cultural rush: carrying capacity of historic places and resources.

Principles of Conservation Management 2 units

13474
Coordinator Dr Conner

Assessment essays, class exercises and seminars

The course comprises the following themes:

Management: principles of human resources management; principles of conflict resolution; principles of professional legal practice and financial management.

Planning: policy formulation, politics of conservation and development, community expressions of heritage values (green bans, etc.), conservation and the public domain.

Institutional: international institutions of conservation of cultural heritage and their relationships. Australian institutions and their interactions.

Ethics: principles of professional and environmental ethics.

Conservation Methods and Practices 4 units

13526
Coordinators Mr Howells and Mr Correy

Assessment practical exercises and field studies

The course considers material from each of the following areas:

Survey and documentation methods (locating, describing and recording components with possible heritage value): historic and archival research methods; thematic history methods; pattern recognition; natural systems; settlements; cultural mapping; aesthetic analysis; material and stylistic analysis.

Evaluation methods (assigning heritage significance): criterion, typology and threshold-based systems; statements of significance; hybrid methods with both classification and conservation actio goals.
Assessment methods (establishing conservation priorities): the developmental context; the dynamic context; methods to relate dynamic processes to the identified patterns of cultural values; methods to describe, prioritise and justify the values worthy of conservation action.

Conservation action (actions taken to conserve heritage values): conservation plans; management plans; landscape management plans; conservation agreements, covenants, conservation orders.

Principles of conservation of historic fabric and materials: materials identification; preservation methods, reinstatement, replacement; restoration methods, substitution, re-use; traditional crafts.

Professional Placement 4 units 13580
Assessment 5000 word (minimum) report
The department assists candidates in finding suitable (unpaid) professional placement. It is anticipated that professional placement will extend from 4 to 6 weeks' full-time engagement with one or two organisations.

At the conclusion of the professional placement period, the candidate will submit a minimum 5000 word appraisal report, which will include the following:
(a) an analysis of the theoretical issues raised in coursework and their expression in practice;
(b) a critical assessment of the interaction which occurs between theoretical matters and their practical application;
(c) an identification of the potential research topics which flow from the placement.

Non-placement alternative: should it not be possible for either the department or the candidate to arrange a suitable professional placement then, after consultation, an alternative study program will be devised which meets the academic objectives of this course. This alternative also applies to students with previous experience.

Research Report 6 units 13808
Assessment 10 000 (maximum) word report
Students undertaking the MHeritCons are required to submit a research report. The aims of the report are: to provide opportunities for students to pursue and demonstrate research skills in conservation themes of special relevance to their cultural and professional backgrounds; to enable students to develop innovative research approaches to the conservation of places, landscapes and buildings under expert supervision; to extend the research base of heritage conservation in the faculty and professions.

The research report is not necessarily a piece of original research, but is primarily designed to extend the knowledge of individual students and assist them in developing relevant skills.

Each student will have an academic supervisor for the research report. As a guide, the text of the report should not exceed 10 000 words. Consult the department for further details of the required format.

ELECTIVE COURSES

Traditional Building Methods and Conservation of Materials 2 units 13850
Coordinator Mr Howells
Assessment assignment, seminar and site visits
Note: It is recommended that students take this elective course and Conservation of Finishes and Introduction of Modern Services together. Permission may be sought from the head of department to vary this.

The course consists of:
Traditional methods of construction: including stone and brick masonry, vernacular and primitive building methods, timber construction, use of glass, terracotta, ceramic tiles, decorative and structural metals, corrugated iron, pressed metal.

Conservation of materials: including stone masonry, brick, pise, timber, terracotta, glazed tiles, cast iron, lead, copper, corrugated iron, pressed metal.

Conservation of Finishes and Introduction of Modern Services 2 units 13911
Coordinator Mr Howells
Assessment assignment, seminar and site visits
Note: It is recommended that this course be taken with the elective course Traditional Building Methods and Conservation of Materials.

The course consists of:
Conservation of traditional finishes: including plasterwork, scagliola, paintwork, stencilling, wall-papers, embossed papers and materials, composite materials.

Introduction of modern services: including electricity, communication systems, ventilation, hydraulic installations (water, gas, other liquids, etc.), mechanical systems (lifts, elevators) and lighting.

Local Heritage in Community Development 2 units 14062
Coordinator Professor Domicelj
Assessment assignment, seminars and site visits
The course analyses the interaction between community development and heritage as perceived in popular culture. The main areas are:
The social makeup and public use of common places, residents and visitors, the arts and the creative city, local and universal cultures and the culture of marginality.
National and international claims toward the commonplace, legibility and empowerment, 'common ground', 'green bans' and other local movements toward control over place.
Urban places and information technology, historical authenticity, and technical replacement, urban upgrading for economic and/or cultural purposes, the wired city, intelligent buildings and places and local heritage.
Significance of Place in World Regions  

2 units

Coordinator Professor Domicelj
Assessment assignments and seminars

The course addresses the following main areas:

Asia: economic growth and tradition in cities, segregation or integration?; heritage and technology in urban spaces, urban conservation and national plans.

Americas: the reinterpretation of local history and national identity; the re-use of buildings and urban places; interrelations between economic and socio/cultural factors in national development.

Europe: the reinterpretation of history and the re-use of urban places; the fit between urban residents and building stock; new urban image and the protection of the collective intelligence.

Aesthetic Assessment of Heritage Landscapes  

2 units

Coordinator Dr Lamb
Assessment major project assignment, seminars and field work

The course consists of the following areas:

Principles of environmental perception: levels of aesthetic experience, perception, memory, emotion and affect; the structuring of visual experience; problems with individual difference.

Traditional methods: elite, professional and intuitive methods; ad hoc versus systematic methods; problems with the picturesque.

Psychophysical and quantitative methods: scientific and quasi-scientific methods; visual quality assessment and parametric approaches; computer technology and visual assessment; problems with consensus.

Innovative methods of particular relevance to conservation: structural and compositional analysis; the aesthetic interpretation of the past; problems with the aesthetics of ugly heritage, the vernacular and the commonplace.

History of Landscape Design post 1700  

2 units

Consult the BSc(Arch) section of this handbook for course description.

Postgraduate courses in Urban Design

Graduate Diploma in Urban Design

Master of Urban Design

The urban design postgraduate programs aim to develop the perspective, the potential, and the skills of the designers of elements of the city with a view to their creative and effective application at the urban scale. A wide range of related disciplines and viewpoints are introduced, and an understanding is fostered of the processes involved in the implementation of urban design proposals.

If the creative nature of urban design is to be understood and urban design is to be effectively implemented, many facets of the culture of our cities must first be analysed and interpreted. An understanding of people, processes and politics is essential if the physical form of the city is to be moulded for public benefit through the art of urban design.

The broad educational objectives of the M UrbDes and Grad Dip UrbDes programs are to develop abilities to:

- define and analyse design problems and opportunities;
- develop urban design concepts, principles, criteria and programs;
- evaluate the performance of design projects and policies and the processes by which they can be achieved;
- develop strategies and manage implementation of urban design projects;
- work successfully with the public and with the planning, development and design professions that shape the urban environment.

The M UrbDes program has the additional objective of developing research skills and extending knowledge in the field of urban design.

Applications for entry to the programs is open to those with first degrees in architecture, landscape architecture and other disciplines such as engineering and planning who can demonstrate through a folio of work and practical experience that they possess the necessary foundation to successfully complete the courses of study.

The program is offered on both a full- and part-time basis although students are encouraged to enrol full-time where possible. Full-time candidature requires enrolment for one academic year, with master’s degree candidates being required to complete in addition a research study which could be completed in approximately four months full-time or one year part-time.

The requirements for the Grad Dip UrbDes and M UrbDes are shown in the resolutions of the Senate and the Faculty (pages 65 to 70) and the Table of Courses (page 74).

Course outlines

Area: Urban Design Theory and Practice

History of Urban Design  

2 units

15855

The course is concerned with the evolution of ideas and principles of urban design and with the relationship between society and the formal organisation of the urban environment. It explores these ideas and principles through analysing the development of urban places and spaces from early civilisations to the present. The main consideration is upon western civilisations with some references to other cultures.

Theory and Methods in Urban Design  

3 units

15856

A survey and analysis of the principles and ideas influencing contemporary urban design theory and
practice. This course will be closely coordinated with the design studio program. Readings, seminars and assignments provide the theoretical basis for the design work to be undertaken in the parallel urban design studio courses.

The first part of the course deals with the theoretical work of European and North American origin, and analyses its philosophical and ideological bases. Specific theoretical subjects are then examined including such concepts as contextualism and place theories, typology, legibility and meaning, and a range of propositions relating to urban morphology and aesthetics. Emphasis is given to the increasingly important philosophies and practices of urban conservation. Techniques for urban formal analysis and organisation are explored, including concepts relating to the control of urban form, land use, site coverage and density, envelope and access control. The range of methods in urban design applicable to the analytical, synthesising and evaluation stages of the process are discussed, including master planning techniques.

The second part of the course deals with the areas of perception and human behaviour and techniques for interpreting and predicting behavioural patterns in response to varying urban forms.

The third part of the course is concerned with models for representing, communicating and implementing urban design projects. Organisational methods and strategies in both public and private sectors are described. Techniques and practices in visualising and representing urban form are examined, from traditional graphic techniques and physical models, to film and video, and computer graphics simulation.

**Landscape Principles and Practice**  
15857  
The principles and practice of landscape architecture and urban design are closely related in the area of the design of urban spaces. The course concentrates on landscape design and site planning in a variety of urban areas — roads and streets, urban open spaces, residential areas, industrial and town centre locations; an introduction is given to the use of landscape materials and to the principles of landscape design.

**Urban Design Studio A**  
11225  
**Urban Design Studio B**  
11226  
This is the central core of the whole program in which through intensive design work on a diverse selection of urban design problems the student demonstrates in the design and presentation of these projects the knowledge, skills and abilities which have been gained.

Contact time between lecturers and students will be one full-time day per week or the equivalent. Urban Design Studio projects will be coordinated with other coursework, with students being expected to demonstrate understanding of the supporting courses in the preparation, design and presentation of their projects.

Four stages are explored in the context of different projects:

- **Analysis:** The exploration of techniques of urban analysis including diverse approaches to analysis such as formal analysis, place analysis, morphology, typological analysis, urban spatial syntax, and density analysis and their formal implications in the design process.
- **Design:** The exploration of the methods of urban design as applied to the design of elements such as the urban block, spaces such as the urban square, and complexes in a variety of urban scales and situations including inner city development, redevelopment and conservation and rehabilitation.
- **Control:** The development and testing of the impact of controls and codes upon the physical form of the urban fabric.
- **Evaluation:** The systematic evaluation of urban design projects in terms of environmental, financial and behavioural criteria.

The studio exercises will embrace varying scales and degrees of complexity and deal with different components of the dynamic urban environment. They will be based upon current urban design issues and problems in their application to the Australian environment. But they will be open to ideas, concepts, theoretical positions, and urban traditions in the broadest sense, and the design exercises should create the intellectual ambience in which the relevance of the best international thought and experience can be explored in the Australian context. The form and structure of cities will be analysed to provide an understanding and frame of reference for the specific urban design studies.

**Area: Service Courses**  
**Urban Environmental Sciences and Services**  
17695  
Assoc. Prof. Fricke  
**Classes lectures**  
**Assessment assignment**

The course covers six important areas which are critical to an understanding of urban design and practice:

- General background in urban microclimatology.
- The criteria relating to sunlight and shade and their effect upon the urban environment; techniques for prediction and simulation.
- The impact of wind on urban spaces and current developments in prediction of the effects of wind and design for their control.
- Noise at the urban scale — sources, methods of control and design techniques for alleviation.
- Lighting design for external spaces, theory applicable to urban scale applications for safety, formal emphasis/economics and efficiency.
- Urban utility services affecting the organisation and design of urban spaces; design criteria and cost implications of alternative servicing approaches.
Physical Planning 2 units
15860

The aim of this course is to develop an understanding of the interactions between types and intensities of land use, transportation and the physical environment.

Traffic and Access 1 unit
15861
Mr Payne

The material to be offered includes concepts and ideas in transport policy and planning at the local scale, trip generation, modal choice, etc., principles of road and intersection design; generation of parking demand, policy issues relating to parking and car park design; pedestrian movement systems and requirements; an introduction to N.S.W. practice and decision-making processes using case studies. Emphasis will be given to examples of good design and models drawn from Europe and the U.S. as well as local practice.

Administrative and Legal Framework 2 units
15862
Dr Conner

An explanation of the constraints and opportunities provided by both the administrative and legal processes of government and its impact upon the practice of urban design. The course includes:
- Ideas and principles involved in environmental legislation.
- A review of the principal legislation controlling urban development, including planning, environmental impact, conservation and appeals provisions.
- Analysis of instruments specifically affecting urban design including development control codes and statutes, and their application in practice.
- A review of government structures, their roles, responsibilities and interrelationships within the field of urban design.

Development Finance 2 units
15863

An introduction to concepts and practice of property development in both the public and private sectors. The course deals with:
- Physical, economic and institutional characteristics of real property. The structure of the real estate market.
- The process of informed financial decision-making in private and professional areas. Effects of inflation and taxation.
- Assessing the cost of capital optimum financing.
- Reviewing investors' and developers' decision processes.
- Principles of real property valuation.
- The conduct of detailed feasibility studies of development projects.
- The funding and budgeting processes of urban design projects and related works by public authorities and jointly funded public-private projects.

Area: Advanced Study
Research Study or Research Project Report 8 units
15864

The research program enables the student to demonstrate knowledge and ability in the execution of independent in-depth study of a significant subject in urban design. It provides an opportunity to undertake guided research in a topic of particular interest to the student and the research supervisor. The potential fields of research are diverse. Rigorous treatment of research questions is expected as well as the application of research methods.

Either of the following emphases may be approved:

Research Study Report: A research program in a selected topic in urban design through which the student demonstrates knowledge of the particular subject as well as a command of appropriate research methods. This may include, among others, subjects such as historical research, comparative analysis, topographical analysis or computer applications in urban design.

Research Project Report: A program with a design project orientation. This is to be treated in-approach, as well as content, so that the solution will have some general significance beyond the particular project. Examples are the application of a particular design method in a complex urban design problem, or the development of an alternative approach for the generation of design alternatives.

Senate resolutions

Master's degrees, postgraduate diplomas and certificates

Master's degrees

1. A candidate for the degree of Master of Urban Design (MUrbDes), Master of Urban and Regional Planning (MURP) or Master of Heritage Conservation (MHeritCons) shall proceed by coursework, and a candidate for the degree of Master of Science (Architecture) (MSc(Arch)), Master of Urban Studies (MUrbStud) or Master of Architecture (MArch) shall proceed by research and submission of a thesis. A candidate for the degree of Master of Design Science (MDesSc) shall proceed by coursework or by research and submission of a thesis.

2. (1) A candidate for the degree of MURP or MUrbStud shall proceed to the degree in the Department of Urban and Regional Planning.
   (2) A candidate for the degree of MDesSc shall proceed to the degree in the Department of Architectural and Design Science.
   (3) A candidate for the degree of MHerit Cons shall proceed to the degree in the Department of Architecture.
   (4) A candidate for the degree of MUrbDes, MSc(Arch) or MArch shall proceed to the degree in any of the departments of the Faculty.
Graduate Diplomas

3. A candidate for the Graduate Diploma in Urban Design (GradDipUrbDes), Graduate Diploma in Design Science (GradDipDesSc), Graduate Diploma in Urban and Regional Planning (GradDipURP) or Graduate Diploma in Heritage Conservation (GradDipHeritCons) shall proceed by coursework.

4. (1) A candidate for the GradDipURP shall proceed to the diploma in the Department of Urban and Regional Planning.
(2) A candidate for the GradDipDesSc shall proceed to the diploma in the Department of Architectural and Design Science.
(3) A candidate for the GradDipUrbDes shall proceed to the diploma in any of the departments of the Faculty.
(4) A candidate for the GradDipHeritCons shall proceed to the diploma in the Department of Architecture.

Graduate Certificates

5. A candidate for the Graduate Certificate in Design Science (GradCertDesSc) shall proceed by coursework.

6. A candidate for the GradCertDesSc shall proceed to the certificate in the Department of Architectural and Design Science.

Admission to candidature

7. (1) The Faculty may admit to candidature for the degree of master or a graduate diploma or a graduate certificate in the Faculty a graduate of the University of Sydney who has completed courses acceptable to the Faculty.
(2) On the recommendation of the Faculty the Academic Board may admit to candidature in accordance with Chapter 10 of the by-laws a person who has, in the opinion of the Faculty, qualifications equivalent to those required of a graduate of the University of Sydney.
(3) The Faculty may admit to candidature for the degree of MDesSc, the GradDipDesSc or GradCertDesSc a person with:
   (a) a qualification in architecture registrable by the Board of Architects N.S.W., or
   (b) a Diploma in Engineering from the Sydney Technical College or such other similar qualification as is approved by the Faculty and the Academic Board, or
   (c) a qualification making them eligible for membership of the Institution of Engineers, Australia or the Chartered Institution of Building Services Engineers, or
   (d) for the Graduate Diploma in Design Science a person qualified for the award of the Graduate Certificate in Design Science who has achieved a weighted average mark of at least 65 in the required courses.
(4) The Faculty may admit to candidature for the GradDipURP a person with one of the following qualifications:
   (a) the Diploma in Civil Engineering or in Local Government Engineering of the Sydney Technical College or other technical college of similar standing approved by the Faculty of Architecture and the Academic Board, or
   (b) the Municipal Engineers' Certificate issued by the Department of Local Government of New South Wales or such other similar qualifications as are approved by the Faculty of Architecture and the Academic Board, or
   (c) registration in Architecture registrable by the Board of Architects of New South Wales, or
   (d) the licence or certificate of registration issued by the Board of Surveyors of New South Wales or such other similar qualifications as are approved by the Faculty of Architecture and the Academic Board.
   (e) the Associate Membership of the Australian Institute of Valuers or such other similar qualifications as are approved by the Faculty of Architecture and the Academic Board.
(5) The Faculty may admit to candidature for the GradCertDesSc a person who from evidence of recognised prior learning is considered to have the knowledge and aptitude required to undertake the courses of study.

8. The Faculty may require a person admitted to candidature to serve a period of probation of not more than one year and to complete such work as it may prescribe during the period. At the completion of the period the Faculty shall review the candidature and may confirm or terminate the candidature. If the Faculty confirms the candidature it will be deemed to have commenced at the beginning of the period of probation.

Periods of candidature

9. Except with the permission of the Faculty on the recommendation of the relevant head of department:
   (1) The minimum period of full-time candidature for a master's degree by research shall be two years except that this may be reduced to a period of not less than one year for candidates with the equivalent of first or second class honours in their qualifying bachelor's degree or for candidates who have completed a higher degree with a major research component.
   (2) The maximum period of full-time candidature for all master's degrees and diplomas in the Faculty shall be three years.
   (3) The periods of candidature for part-time students shall be twice those indicated in (1) and (2) above for full-time candidates.
   (4) The Faculty may deem time spent on another research degree of the University of Sydney as time spent on a research master's in the Faculty and may reduce the minimum and maximum periods accordingly.
The Faculty may deem time spent on another diploma of the University of Sydney as time spent on a coursework master's degree or diploma in the Faculty and may reduce the minimum and maximum periods accordingly.

Appointment of supervisor
10. The Faculty shall appoint a member of the full-time or fractional academic or research staff of the department of the Faculty in which the candidate is proceeding towards a master's degree to act as supervisor of the candidate. The Faculty may also appoint an associate supervisor or co-supervisor who may be a member of the academic or research staff of the University, an Honorary Associate or a person with appropriate qualifications in another institution or organisation.

Coursework to be completed
11. (1) A candidate progressing by coursework shall complete the courses prescribed by the Faculty for the relevant degree, diploma or certificate satisfying all requirements with regard to mandatory courses and areas of study.
(2) Coursework shall consist of lectures and seminars together with such tutorial instruction, essays, exercises, practical work and assignments as may be prescribed by the Faculty on the recommendation of the relevant head of department.
(3) A candidate who does not satisfy the coursework requirements in (2) above may be refused permission to present for examination in that coursework.
(4) Credit is granted for coursework on the basis of units being gained for successfully completing courses. One unit is equivalent to one hour of contact time per week for one semester together with any appropriate practical work.
(5) Courses are in some cases designated as background or advanced and may include prerequisites, corequisites and may be grouped to form areas of study.
(6) A candidate may, in satisfying the requirements of (1) above, receive credit for courses previously completed or may enrol in substitute courses for those prescribed. The Faculty has resolved for the various coursework degrees the limitations on credit and substitution. Where necessary, the Faculty will determine the unit value of any credits and/or substitutions.
(7) The limitations referred to in (6) above do not apply in the case of a transfer of candidature from a postgraduate program in the Faculty for which the candidate has not been awarded the qualification of the previous candidature. In this case the Faculty may, on the recommendation of the relevant head of department, grant full credit for the work previously completed.

Progress
12. (1) Candidates shall report regularly to the Faculty on their progress towards completing the requirements for the degree, diploma or certificate.
(2) The Faculty shall consider the report of the candidate and the recommendations of the supervisor and the relevant head of department and may, if the candidate has not made satisfactory progress towards completing the requirements of the degree or diploma, terminate the candidature.
(3) The Faculty may accept the candidate's results in coursework examinations in place of reports from the candidate.

Thesis requirements (master's degrees)
13. Not earlier than the minimum period of candidature, candidates proceeding by research shall:
(a) lodge with the Registrar three copies of a thesis embodying the results of an original investigation carried out by the candidate,
(b) state in the thesis, generally in the preface and specifically in the notes, the sources from which the information was derived, the extent to which the candidature has made use of the work of others and the portion of the thesis which is claimed to be original, and
(c) not lodge as the candidate's work any work previously submitted for a degree of the University of Sydney or any other university, but may incorporate such work in the thesis, provided that the candidate indicates the work so incorporated.

14. The thesis shall be accompanied by a certificate from the candidate's supervisor stating, whether in the supervisor's opinion, the form of presentation of the thesis is satisfactory.

Examination of a thesis (master's degrees)
15. The Faculty shall appoint two examiners, at least one of whom shall be external. The examiners shall report to the Faculty.
16. The Faculty shall determine the result of the candidature after it has considered:
(a) the reports of the examiners of the thesis and/or the results of examinations completed by the candidate, and
(b) the recommendation on the result of the candidature from the head of department in which the candidature is proceeding.

Award of the MDesSc, GradDipDesSc and GradCertDesSc
17. The degree of Master of Design Science, the Graduate Diploma in Design Science and the Graduate Certificate in Design Science may be awarded in the following subject areas and the testamur for the degree or diploma shall specify the subject area:
(a) building
(b) building services
(c) computing
(d) energy conservation
(e) illumination
(f) facilities management

or in the case of the Master of Design Science
(g) research

The degree of Master of Design Science, undertaken in one of the subject areas (a) to (f) above, may be awarded with honours in accordance with criteria determined by the Faculty.

Transition arrangements
18. Candidates who were enrolled prior to 1 January 1991 may apply to the Faculty for permission to transfer their candidatures with credit for courses completed:
   (a) from the Master of Building Science or the Master of Design Computing to the Master of Design Science;
   (b) from the Graduate Diploma in Building Science, Graduate Diploma in Building Science (Energy-Conservative Design), Graduate Diploma in Design Computing or Graduate Diploma in Illumination Design to the Graduate Diploma in Design Science.

Faculty resolutions

Postgraduate study (other than doctorates)
Eligibility for admission
1. In addition to the requirements of the resolutions of Senate regarding the master's degrees, diplomas and certificates of the Faculty, an applicant for admission to:
   (1) the Master of Architecture shall be a Bachelor of Architecture of the University of Sydney, or, as provided in Chapter 10, possess equivalent architectural qualifications.
   (2) the Master of Urban Design or Diploma in Urban Design shall be a Bachelor of Architecture or Bachelor of Landscape Architecture or such other degree of the University of Sydney or, as provided in Chapter 10, with a major design component.

2. A research topic which is satisfactory in terms of research interests, resources and availability of supervision within the department must be agreed upon between the applicant and the relevant head of department before candidature for a research degree is other than probationary.

3. Applicants may be required to demonstrate to the satisfaction of the Faculty a proficiency in the English language adequate to undertake the proposed candidature.

Availability
4. The number of students admitted and the programs and the courses available may be limited and will be determined by:

   (a) the availability of resources, including space, library, equipment and computing facilities,
   (b) availability of adequate and appropriate supervision, and
   (c) availability of staff resources for the conduct of courses.

Part-time candidature by research
5. (1) Candidates admitted to research degrees within the Faculty are expected to devote a minimum of 20 hours per week (or equivalent) to their candidature and are expected to spend a minimum of one day per week (or equivalent) in attendance at the University under the direction of their supervisor.

(2) The Faculty may, on the recommendation of the relevant head of department, permit part-time candidature by a person who is employed away from the University under conditions other than in (1) above provided that adequate supervision can be maintained. Such a case would be where an associate supervisor is in the same location as the candidate.

Coursework to be completed
6. A candidate proceeding by coursework or coursework and dissertation shall complete the coursework requirements set out below:
   (1) Diploma in Urban and Regional Planning: 40 units which shall include at least 16 units of courses listed as specialisations, to be selected from the Table of Postgraduate Courses of the Department of Urban and Regional Planning.
   (2) Master of Urban and Regional Planning: 48 units which shall include 8 units for a dissertation and 16 units of courses listed as specialisations, to be selected from the Table of Postgraduate Courses of the Department of Urban and Regional Planning.
   (3) Diploma in Design Science: 24 units at least 14 of which shall be advanced courses, selected from the Table of Postgraduate Courses of the Department of Architectural and Design Science. Specialisation is possible in the following areas of study, in which case the core courses indicated in the Table of Postgraduate Courses must be completed:

   - Building
   - Building Services
   - Computing
   - Energy Conservation
   - Illumination
   - Facilities Management

   (4) Master of Design Science: 36 units at least 23 of which shall be advanced courses, selected from the Table of Postgraduate Courses of the Department of Architectural and Design Science. The 36 units may consist of coursework alone or a combination of coursework and dissertation. Specialisation is possible in the following areas of study, in which case the core
courses indicated in the Table of Postgraduate Courses must be completed:

- Building
- Building Services
- Computing
- Energy Conservation
- Illumination
- Facilities Management

The Master of Design Science may be awarded at Honours level to a candidate who completes a dissertation and gains a weighted average mark of at least 65 in the degree.

(5) Graduate Certificate in Design Science: 12 units selected from the Table of Postgraduate Courses of the Department of Architectural and Design Science as indicated in the following areas of study:

- Building (at least 8 advanced units)
- Building Services (core courses)
- Computing (core courses)
- Energy Conservation (core courses)
- Illumination (core courses)
- Facilities Management (core courses)

(6) Diploma in Urban Design: 30 units selected from the Table of Postgraduate Courses for the Master of Urban Design and the Diploma in Urban Design.

(7) Master of Urban Design: 38 units, including 8 from the area Advanced Study in the Table of Postgraduate Courses for the Master of Urban Design and the Diploma in Urban Design.

(8) Master of Heritage Conservation: 26 units, including all mandatory courses in the Table of Courses for the MHeritCons and DipHeritCons.

(9) Diploma in Heritage Conservation: 20 units, including all mandatory courses except Research Report, in the Table of Courses for the MHeritCons and DipHeritCons.

Credit for coursework and substitution of courses

7. On the recommendation of the relevant head of department the Faculty has resolved that candidates may receive credit for coursework previously completed in relevant fields of study and/or may substitute courses from outside the Table of Postgraduate Courses to the limits shown in the Table of Credits and Substitutions for Postgraduate Courses.

Table of credits and substitutions for postgraduate courses

<table>
<thead>
<tr>
<th>Degree/diploma</th>
<th>Maximum credit permitted</th>
<th>Maximum substitution permitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma in Urban and Regional Planning</td>
<td>12</td>
<td>8</td>
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*Not more than 6 units of which can be credited towards the requirement for advanced course units.

Form of a thesis or dissertation

8. (1) A thesis or dissertation may be bound in either a temporary or permanent form.

(2) Temporary binding must be able to withstand ordinary handling and postage. The preferred form of binding is the 'PerfectBinding' system; spring back, ring-back or spiral binding is not permitted.

(3) The cover of a temporarily bound thesis or dissertation must have a label showing the candidate's name, name of the degree, title of the thesis and the year of submission.

(4) The requirements for permanent binding are given in the Calendar, Volume I under the statutes governing the degree of Doctor of Philosophy.

(5) Following examination and emendation if necessary, at least one copy (the Library copy) of the thesis or dissertation must be bound in a permanent form.

(6) If emendations are required, all copies of the thesis or dissertation which are to remain available within the University must be amended.

Result of candidature

9. (1) The Board of Postgraduate Studies awards or, for the PhD recommends the award of, the degree or diploma whenever:

(a) the examiners have recommended without reservation that the degree be awarded and the relevant head of department concurs; or

(b) all of the examiners have recommended the degree be awarded or awarded subject to emendations to all copies of the thesis or dissertation which are to remain available in the University and the relevant head of department concurs; or
(c) the Board unanimously accepts the recommendation of the relevant head of department that the degree be awarded subject to emendations despite reservations expressed by one or more examiners; and/or

(d) the coursework results are satisfactory and the relevant head of department recommends the award of the degree or diploma.

(2) The Board of Postgraduate Studies may permit an unsuccessful candidate to prepare for re-examination if, in its opinion, the candidate's work is of sufficient merit and the relevant head of department has so recommended.

Satisfactory progress

10. In addition to the resolutions of the Senate regarding satisfactory progress the Faculty may require a candidate proceeding by coursework:

(1) to show good cause why he or she should be allowed to re-enrol in a course which has been failed twice;

(2) to show good cause why he or she should be allowed to re-enrol in the Faculty of Architecture if in any two successive years of attendance he or she fails to gain at least 50 per cent of the units attempted.

Preliminary requirements

11. When an applicant is not qualified for admission to a master's degree by research, the Faculty may require satisfactory completion of a preliminary examination before admission to candidature can be granted. In such case a candidate may be enrolled in a master's preliminary program which shall consist of such coursework or other requirements as the Faculty may determine.

Delegation

12. (1) In these resolutions the Faculty delegates its responsibility to the Board of Postgraduate Studies.

(2) The Board of Postgraduate Studies delegates the following responsibilities to the Dean, who in turn, may delegate them to the Associate Dean (Postgraduate):

(a) approval of examiners,

(b) admission to candidature,

(c) supervisory arrangements,

(d) variations of candidature,

(e) extension of candidature,

(f) completion of candidature away from the University,

(g) supervision of candidature, and

(h) approval of continuance following receipt of annual progress reports, subject to these matters being reported to the Board.

(3) In these resolutions the Urban Design programs are interdisciplinary and references to the relevant head of department shall refer, in the case of course recommendations, to the Urban Design Committee and, in the case of administration, to the Professor of Urban Design or, in the absence of the professor, the Dean.

Master of Urban Design and Diploma in Urban Design

1. Pursuant to sections 5 (1) and 5 (2) of the resolutions of the Senate relating to the master's degrees and postgraduate diplomas, the Faculty has prescribed that an admissions committee be set up to select candidates from the applicants to enter the degree or diploma.

2. The composition of the Admissions Committee shall be the Professor of Urban Design and one representative from each of the Departments in the Faculty nominated by the Heads of Departments.

3. Selection of the candidates will be based on consideration of academic qualifications, work experience, folio of design work and other supporting material submitted and referees reports.

Master of Urban and Regional Planning and Diploma in Urban and Regional Planning

1. (1) A candidate who commenced candidature for the degree of Master of Town and Country Planning or the Diploma in Town and Country Planning before 1 January 1989 shall elect either —

   (i) to complete the requirements no later than 31 December 1993 for the degree or diploma in accordance with the resolutions of the Senate and Faculty in force at the time;

   or

   (ii) to complete the requirements for the degree or diploma in accordance with these resolutions. The Faculty on the recommendation of the Head of the Department of Urban and Regional Planning may grant credit for any courses completed towards the degree or diploma.

(2) Where a course for the degree is no longer available a candidate shall be required to complete such other course or courses as the Faculty may prescribe on the recommendation of the Head of the Department of Urban and Regional Planning.

2. A candidate who commenced candidature for the degree or diploma before 1 January 1990 shall elect either:

   (1) to complete the requirements for the degree or diploma no later than 31 December 1991 for full-time students or 31 December 1994 for part-time students in accordance with resolutions of the Senate and Faculty in force at the time of commencement, or

   or

   (2) to complete the requirements for the degree in accordance with these resolutions. The Faculty may grant credit for any courses completed towards the degree.
3. A candidate who commenced candidature for the Diploma in Urban and Regional Planning or the Diploma in Town and Country Planning before 1 January 1990 may, with the permission of the Head of the Department of Urban and Regional Planning, undertake a dissertation (8 units).

4. A candidate who commenced candidature for the degree or diploma before 1 January 1992 shall elect either:

   (1) to complete the requirements for the degree or diploma no later than 31 December 1993 for full-time students or 31 December 1996 for part-time students in accordance with by-laws and resolutions of the Senate and Faculty in force at the time of commencement, or

   (2) to complete the requirements for the degree in accordance with these resolutions. The Faculty may grant credit for any courses completed towards the degree.

Master of Urban Studies

A candidate for the degree of Master of Urban Studies may be required, on the recommendation of the Head of the Department of Urban and Regional Planning, to complete some or all of the following courses from the Table of Postgraduate Courses of the Department of Urban and Regional Planning:

- Urban Perspectives
- Planning Methods
- Housing Policy and Practice or Economic and Community Development
- Contemporary Urban Issues

Master of Design Science (Computing) and Diploma of Design Science (Computing)

A candidate who commenced candidature for the degree of Master of Design Science or the Diploma of Design Science specialising in computing before 1 January 1993 shall elect either:

1. to complete the requirements for the degree or diploma no later than 31 December 1994 for full-time students or 31 December 1997 for part-time students in accordance with resolutions of the Senate and the Faculty in force at the time of commencement, or

2. to complete the requirements for the degree in accordance with the 1993 resolutions. The Faculty may grant credit for any courses completed towards the degree or diploma.

Master of Design Science (Research)

A candidate for the degree of Master of Design Science (Research) is permitted to enrol in a maximum of 9 units of coursework.

Part-time PhD in the Faculty of Architecture

Consultation with candidate

1. The head of the department and proposed supervisor shall discuss with the candidate the advisability of carrying out the PhD program on a part-time basis, considering the candidate's research background, the nature and the topic, and the facilities and time likely to be available.

Availability of time

2. (a) The candidate should be able to spend a minimum of 20 hours per week on the candidature.

   (b) The candidate should be free to attend the University on a sufficient number of occasions, and at suitable times, to consult with the supervisor, and to attend seminars and other departmental activities including a regular seminar to outline progress in their research.

   (c) The candidate should be able to attend the University for the equivalent of one day per week. This may be achieved by satisfying (b) above and also attending for blocks of time at appropriate stages of the candidature.

   (d) There should be a reasonable expectation that the conditions described above will continue throughout the candidature.

Supervision arrangements

3. The work towards the degree shall be planned and undertaken so that the supervisor will be able to certify that the work is the candidate's own work.

Adequacy of facilities, resources and supervision

4. In recommending a candidature, the head of department shall certify that the department has, and that there is a reasonable expectation that it will continue to have throughout the period of the candidature, adequate facilities, resources and a supervisor.

Progress

5. Candidates shall be required to submit annual progress reports, and the Faculty shall be advised in any case where either the annual report is not submitted on time, or the comments of the supervisor or head of department indicate that progress is less than satisfactory.

   The Faculty shall also be informed, either by annual progress report or at other times during the year, when there is any substantive change in any of the details of the candidature or of the candidate's employment or circumstances relating to availability of time or supervision. In such cases, the Faculty may suspend or terminate the candidature if it is not satisfied that the new circumstances are adequate for its continuation.
## Table of Postgraduate Courses — Department of Urban and Regional Planning

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## Table of Postgraduate Courses — Department of Architectural and Design Science

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<td>Opt</td>
<td>Core</td>
<td>Opt</td>
<td>Opt</td>
<td>Core</td>
</tr>
</tbody>
</table>

*This course is also core for Building Services stream*

---

**Table of courses for the MUrbdes and DipUrbdes**

<table>
<thead>
<tr>
<th>Area</th>
<th>Course title</th>
<th>Unit value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban Design Theory and Practice</td>
<td>History of Urban Design</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Theory and Methods in Urban Design</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Landscape Principles and Practice</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Urban Design Studio A</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Urban Design Studio B</td>
<td>6</td>
</tr>
<tr>
<td>Service Courses</td>
<td>Urban Environmental Sciences and Services</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Physical Planning</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Traffic and Access</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Administrative and Legal Framework</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Development Finance</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>2 units selected from existing courses within the Faculty</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Sub total</td>
<td>30</td>
</tr>
<tr>
<td>Advanced Study (master's 3 only)</td>
<td>Research Study or Research Project Report</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Total units</td>
<td>38</td>
</tr>
</tbody>
</table>
## Table of courses for the MHeritCons and DipHeritCons

<table>
<thead>
<tr>
<th>Area</th>
<th>Course title</th>
<th>Unit value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory courses</td>
<td>Interpretation of Cultural Environments</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Transformation of Cultural Environments</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Principles of Conservation Management</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Conservation Methods and Practices</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Professional Placement</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Research Report (master's only)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>, Traditional Building Methods and</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>Conservation of Materials</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Conservation of Finishes and Introduction of Modern Services</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Local Heritage in Community Development.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Significance of Place in World Regions</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Aesthetic Assessment of Heritage Landscapes</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>History of Landscape Design post 1700</td>
<td>2</td>
</tr>
</tbody>
</table>
INFORMATION SPECIFIC TO THE FACULTY
Enrolment
In determining the academic direction of their degree courses, students face a complex task when enrolling as course structures allow wide choice. They must ensure that their yearly program of study not only meets their own requirements but also complies with those of the unit system, the prerequisite structure, the provisions for mandatory courses and the structure of the timetable. They must also ensure that their enrolment each year gives them a workload evenly balanced over the full academic year, bearing in mind that some courses run for one semester only and others for the full year. Staff of the Faculty will be available to assist students with the task of enrolment.

Listed below are major points that must be borne in mind during enrolment and whenever variation of enrolment is contemplated:
- completion of mandatory courses;
- completion of prerequisites for courses in which enrolment is intended;
- compliance with total unit requirements for each degree;
- completion of prerequisites for the Bachelor of Architecture degree course;
- structuring of an even workload over the two semesters of the academic year;
- avoidance of timetable clashes;
- observance of the limit of 40 units total for all courses taken in the BSc(Arch) and 34 units total in the BArch in any one year.

Photographs and registration of first year students
With the enrolment of each new group of students in first year, associating names with faces is a difficult task. To assist the staff a photograph will be taken of each student. Students will be notified of the time and place for this.

Suspension of candidature
Candidates may apply for suspension of their candidature due to work pressures, illness, transfers from Sydney, etc. Such applications should be lodged with the Faculty office as soon as possible giving full details of the reasons for suspension and the period of the suspension requested. The Faculty normally considers suspensions one year at a time. It is important that once the period of suspension is over candidates either formally re-enrol or apply for a further period of suspension.

Assessment methods and posting of results
Bachelor of Science (Architecture) and Bachelor of Architecture
A system of continuous assessment is applied in most courses. In some courses assignments are set during and at the end of the course. Assessment by examination at the end of the course is carried out for some courses.

Supplementary work may be given to provide a student with a second chance to pass a course. The opportunity to do supplementary work is granted only if the student’s original work demonstrates that he or she has potential to perform satisfactorily (or has been seriously ill or had some other misfortune).

Students may be awarded the grades of High Distinction, Distinction or Credit for achieving a high standard in a course. These grades provide the means of assessment for awarding scholarships and prizes, the selection of students who may enrol for the BSc(Arch) honours degree and the award of honours in the BArch degree.

Final results for courses are discussed by staff at a number of examiners’ meetings, where extenuating circumstances (illness, etc.) are taken into account. The general results for the year are usually posted on the university noticeboards in the Main Quadrangle during the week before Christmas. The Registrar writes to each student notifying him or her of the results in each course.

Faculty Late Submission Policy
In the interests of equity, the Faculty requires students to submit all assignments by the due dates, which are notified in the formal written information given to students for each course.

This policy applies to all undergraduate and postgraduate coursework students in the Faculty. The heads of the departments are responsible for ensuring that this policy is applied consistently by all staff to all courses (and their components).

1. Extensions
An extension to a submission date may be granted to a student in the event of illness or misadventure, or for a part-time postgraduate student because of unexpected employer demands.

To request an extension, the student must complete a student request form available from the Faculty office, as soon as practical after the illness or misadventure. A postgraduate student requesting an extension based on employer demands should do so as soon as he or she becomes aware of the change in circumstances.

The student
(a) returns the completed request form with original copies of any documentary evidence to the Faculty office
(b) contacts and provides copies of the form and evidence to each course coordinator involved.

The course coordinator will
(a) inform the student whether he/she has been
granted an extension and if so, the revised due date
(b) keep a record of all requests received for special consideration (including extensions) including the date received, and the date of and response to the student.

2. Late submissions without permission
Where a student has not received an extension to the due date, the following will apply to each late submission (includes separate components of a course's assessment, BSc(Arch) honours theses, ASRs and dissertations):

Assignments will be designated by the lecturer concerned as major or minor. Late submissions of minor assignments will not be accepted.

Submissions of major assignments will be accepted up to 14 days late with the following penalties applied.
• Up to 7 days late: the mark awarded is reduced by 10 per cent
• Up to 14 days late: the mark awarded is reduced by 30 per cent
• More than 14 days late: not accepted.

Surryville Times
The *Surryville Times* is a spontaneous four-page weekly internal news sheet published during semester within the Faculty. Contributions come from any interested student or member of staff.

Professional qualifications
Graduates who hold the degree of Bachelor of Architecture will be entitled to registration as architects under the New South Wales Architects Act 1921, as amended, subject to obtaining two years of approved practical experience, at least twelve months of which must be subsequent to graduation, and passing an architectural practice examination before registration. Application for registration may be made to the Board of Architects of New South Wales, Tusculum', 3 Manning Street, Potts Point, 2011.

Students are eligible for student membership of the Royal Australian Institute of Architects ('Tusculum', 3 Manning Street, Potts Point, 2011). Student members receive each issue of *Architecture Australia*, the New South Wales Chapter Bulletin, and the RAIA News. They may also attend Institute functions.

Admission to Associate Membership of the Royal Australian Institute of Architects is based on two years’ approved practical experience.

Mathematics Learning Centre
The Mathematics Learning Centre offers help to students who enter the University with insufficient preparation in mathematics to enable them to cope with the mathematical requirements of their course.

For the BSc(Arch) degree, a knowledge of the HSC 2 unit mathematics course is assumed. Certain postgraduate courses also have mathematics components which may be mandatory. If you are doubtful whether you are well enough prepared for any of these courses, you should contact the Mathematics Learning Centre for advice.

At the Centre staff can help you decide which topics need extra work. There are resources for individual study, with guidance from tutors, and small tutorials can be arranged for students who are having difficulties. Introductory and bridging courses are organised during the summer and throughout the year.

The Centre is located on the fourth floor of the Carslaw Building in Eastern Avenue. Any student seeking assistance should call at the Centre, or phone 351 4061.

Learning Assistance Centre
The Learning Assistance Centre offers a wide range of workshops and other activities for students to help develop the learning and language skills needed for academic study. The Centre's workshops are free to all enrolled students of the University throughout the calendar year.

You may choose to participate in a range of workshops, varying in length from 3 to 12 hours, some of them being repeated throughout the year. The purpose of the workshops is both to teach particular skills and to provide an opportunity for practising those skills in a systematic way. There are also self-directed learning resources including some specially designed resources for practising reading, writing, speaking and listening skills. Workshops are offered on topics such as essay and assignment writing, oral communication skills, studying at university, and conducting research.

For further information and to register for workshops, please telephone 351 3853, or call at the Centre which is located on level 7 of the Education Building.

Scholarships and prizes
A large number of scholarships and prizes for the Faculty of Architecture are awarded automatically by the Faculty on the basis of academic merit. The following are other awards for which application must be made. Full details of all scholarships may be obtained from the Scholarships Office in the Holme Building.
GENERAL UNIVERSITY INFORMATION

Publications
- University of Sydney Diary — giving details of the University’s organisation, examinations, assistance for disabled students, child care facilities, housing, health, counselling, financial assistance, careers advice and a range of other matters—available free from the Student Centre or from University of Sydney Union outlets.
- Map Guide, including maps of the University, off campus centres and local bus routes.
- Where to find that room—showing the location of all Main Campus rooms used for examinations, and named rooms in the Main Quadrangle area.
- Faculty Handbooks.
- Statutes and Regulations 1994-95.
- Postgraduate Studies Prospectus.
- Postgraduate Studies Handbook.

Confirmation of enrolment
All the information provided when you enrol is added to the University’s computerised student record system. This includes your degree, academic year and the subjects you are taking. It is important that this information be recorded correctly at the beginning.

<table>
<thead>
<tr>
<th>Prize or scholarship</th>
<th>Value $</th>
<th>Closing date</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robert Campbell</td>
<td>200 p.a.</td>
<td></td>
<td>Students in financial need and of sufficient merit. Applications for Year 1 students at any time.</td>
</tr>
<tr>
<td>Council of Education</td>
<td>400 p.a.</td>
<td></td>
<td>Children of teachers or officers in the Department of Education of at least three years’ standing. Certificate of eligibility required.</td>
</tr>
<tr>
<td>A.P. Elkin Fund</td>
<td>varies</td>
<td>—</td>
<td>Students of Aboriginal descent.</td>
</tr>
<tr>
<td>Freemasons’ (2)</td>
<td>300 p.a.</td>
<td>—</td>
<td>Sons of freemasons of 5 years’ standing; certificate of eligibility required.</td>
</tr>
<tr>
<td>James Robinson Orange Memorial Prize</td>
<td>700</td>
<td>—</td>
<td>Children or grandchildren of member of the Loyal Orange Institution; certificate of eligibility required.</td>
</tr>
<tr>
<td>Universities Credit Union</td>
<td>500</td>
<td>—</td>
<td>Undergraduates who are members of Universities Credit Union.</td>
</tr>
<tr>
<td>Postgraduate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Restricted to Architecture graduates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hezlet Bequest</td>
<td>9000</td>
<td>as advertised</td>
<td>BArch graduate for postgraduate study overseas in Architecture.</td>
</tr>
<tr>
<td>Mirvac</td>
<td>600</td>
<td>—</td>
<td>Postgraduate study in Urban Design.</td>
</tr>
<tr>
<td>David Noel Murray</td>
<td>13 504</td>
<td>as advertised</td>
<td>BArch graduate for higher degree in Faculty of Architecture.</td>
</tr>
<tr>
<td>Denis Winston</td>
<td>2000</td>
<td></td>
<td>Postgraduate study in Urban and Regional Planning.</td>
</tr>
<tr>
<td>Other awards open to Architecture graduates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australian Postgraduate Awards</td>
<td>14 961</td>
<td>31 October</td>
<td>Open to permanent residents of Australia enrolling for higher degree.</td>
</tr>
<tr>
<td>A.E. and F.A.Q. Stephens Postgraduate Research</td>
<td>17427</td>
<td>as advertised</td>
<td>Open to graduates of any university for higher degree study.</td>
</tr>
<tr>
<td>Travelling Scholarships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baillieu</td>
<td>500</td>
<td>31 May</td>
<td>Graduates in Medicine, Law, Economics and Architecture (travel grant).</td>
</tr>
<tr>
<td>Herbert Johnson Grants</td>
<td>up to 1000</td>
<td>31 May</td>
<td>Graduates who hold travelling scholarships.</td>
</tr>
<tr>
<td>James King of Irrawang</td>
<td>1000</td>
<td>31 May</td>
<td>Graduates in any faculty (travel grant).</td>
</tr>
<tr>
<td>University of Sydney Postgraduate Research Travelling</td>
<td>9000</td>
<td>31 October</td>
<td>Graduates in any faculty.</td>
</tr>
<tr>
<td>J.B. Watt</td>
<td>9000</td>
<td>as advertised</td>
<td>Graduates with three years’ postgraduate experience at University of Sydney.</td>
</tr>
<tr>
<td>Eleanor Sophia Wood</td>
<td>15 000</td>
<td>as advertised</td>
<td></td>
</tr>
</tbody>
</table>
of the year, and amended should a change occur in any of the details during the year. With the introduction of the Higher Education Contribution Scheme (HECS), any subject enrolment has a financial implication.

To enable you to see what enrolment data has been recorded, you will be sent a HECS assessment notice every semester. You should check this carefully. If the information is correct you should keep the notice as a record of your current enrolment. Should the notice be incorrect in any detail you should advise the Faculty office promptly to have your record amended. A new notice will then be prepared and sent to you.

If you wish (a) change a subject in which you are enrolled
(b) discontinue a subject
(c) discontinue enrolment totally
you should apply at your faculty office to obtain the appropriate approval. Your record at the University will not be correct unless you do this and in some cases you could incur a financial liability under HECS. If is not sufficient for instance to tell the lecturer or associate lecturer that you discontinued a subject.

Assessment and examinations

All faculties (except Medicine)
There are three formal examination periods in each year.

<table>
<thead>
<tr>
<th>Period</th>
<th>when held</th>
<th>approximate duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>First semester</td>
<td>June</td>
<td>2-3 weeks</td>
</tr>
<tr>
<td>Second semester</td>
<td>November</td>
<td>3-4 weeks</td>
</tr>
<tr>
<td>Supplementary</td>
<td>January</td>
<td>1 week</td>
</tr>
</tbody>
</table>

In addition individual faculties and departments may examine at other times and by various methods of assessment, such as essays, assignments, *viva voce*, practical work, etc. Some departments do not examine during the first semester.

Supplementary examinations, which are held in January, may be granted by some faculties:

(a) to candidates who have been prevented by duly certified illness or misadventure from completing an examination; or
(b) to candidates who have failed in any examination, but whose work is deemed sufficient to warrant the concession of a further test.

Supplementary examinations should be regarded as distinct privileges, not as rights.

Examination timetables. Draft timetables are displayed in the Main Quadrangle, approximately 3-4 weeks before the commencement of examinations. Notice will be given in the *News* and on departmental noticeboards. Enquiries about these may be made at the Student Centre.

Printed copies of the final timetables are available from the Student Centre, Law School, United Dental Hospital, University Farms, Economics, Nursing, Education and Engineering faculty offices and the Carslaw foyer on Level 2.

**Study vacation.** A period after lectures at the end of each semester is set aside for study and preparation.

**Notification of examination results.** The results of annual examinations are displayed on noticeboards in the Main Quadrangle and posted directly to you at the end of the year.

**Disclosure of examination marks.** Final marks will appear on your annual result notice. Marks may also be obtained from your department for the major components of assessment which make up the final marks. You are entitled to information about any details of the assessment procedures used to determine the final result.

Your examination scripts and any other assessment material may be retrieved within a reasonable time after the completion of assessment in each course. This does not apply to examination papers which involve the repeated use of the same material in successive examinations.

Examination grades. Each course taken will be allotted one of the following grades at the annual examinations:

<table>
<thead>
<tr>
<th>Grade</th>
<th>per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Distinction</td>
<td>85-100</td>
</tr>
<tr>
<td>Distinction</td>
<td>75-84</td>
</tr>
<tr>
<td>Credit</td>
<td>65-74</td>
</tr>
<tr>
<td>Pass</td>
<td>50-64</td>
</tr>
<tr>
<td>Fail</td>
<td>below 50</td>
</tr>
</tbody>
</table>

The Faculties of Agriculture, Engineering and Science also allot one or more of the following grades of Pass: Terminating, Concessional; and Terminating-Optional Supplementary.

**Award of examination grades.** It is important to note that the University does not use a set formula for determining the number of specific examination grades to be awarded in particular subjects. However there is a policy of the Academic Board on trying to achieve equity between faculties on the number of *merit* grades to be awarded in subjects. This policy is printed below.

The following proportions of merit grades to be awarded in each subject are provided to examiners as indicative only. They are certainly not to be considered as *quotas*. The proportions have been refined over the years to provide a basis for equity of examination results between faculties, particularly the 'generalist' faculties of Arts, Economics and Science. Equity of examination results is important in its own right, but is crucial when Honours students are being considered for the award of Australian Postgraduate Scholarships. Please note that the proportions are cumulative and are based on the number of students who gain a Pass or better in the particular subject.

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Distinction</td>
<td>3</td>
<td>14</td>
<td>42</td>
</tr>
<tr>
<td>Distinction</td>
<td>3</td>
<td>16</td>
<td>46</td>
</tr>
<tr>
<td>Credit</td>
<td>4</td>
<td>18</td>
<td>50</td>
</tr>
</tbody>
</table>
The proportions of merit grades may vary from course to course and from year to year, reflecting different capabilities of different groups. Any variations will be compared with previous years and the proportions will continue to be refined in the light of experience.'

**Illness or misadventure.** You may apply in writing for special consideration of your examination performance on grounds of illness or misadventure. In the case of illness a medical certificate should be provided. The minimum requirements of a medical certificate are that it:

(a) be submitted and signed by your own medical practitioner and indicate the date on which you sought attention;
(b) certify unambiguously to a specified illness or medical disability for a definite period;
(c) indicate the degree of your incapacity, and express a professional opinion as to the effect of your illness on your ability to take an examination.

Certificates in connection with annual or supplementary examinations should be submitted prior to the examinations, unless the illness or misadventure takes place during the examinations, in which case the evidence must be forwarded as soon as practicable, and in any case before the close of the examination period. There is a special form available at the Student Centre and at the University Health Service for submission with medical certificates.

For special consideration on the ground of misadventure, your application must include a full statement of circumstances and any available supporting evidence.

**The need to seek early advice.** Many students in need of advice fail to make full use of the assistance available to them. If you believe that your performance during a course, or your preparation for your examinations, has been adversely affected by medical, psychological or family circumstances, you should seek advice as early as possible. Members of the teaching staff, of the University Counselling Service, and of the University Health Service, are all available for consultation and can give advice on appropriate action to take.

**Exclusion**

**Restriction upon re-enrolment**

There are certain circumstances in which you could be asked to show good cause why you should be permitted to repeat any previously attempted study. In the Faculty of Architecture the two most common circumstances are:

(i) if you fail to maintain a weighted average mark of at least 50 per cent; and
(ii) if you fail or discontinue any course more than once.

The resolutions of the Senate restricting re-enrolment may be found in the University's Statutes and Regulations 1994-95, indexed under 'Re-enrolment'.

It is not possible to define in advance all the reasons that constitute 'good cause' but serious ill health, or misadventure properly attested, will be considered. In addition your general record, for example in other courses, would be taken into account. In particular if you were transferring from another faculty your record in your previous faculty would be considered. Not usually acceptable as good cause are such matters as demands of employers, pressure of employment, time devoted to non-university activities and so on, except as they may be relevant to any serious ill health or misadventure.

**Appeals**

Many decisions about academic and non-academic issues are made in the University each year, and in some cases the by-laws or resolutions of the Senate provide for a right of appeal against decisions. This is the case, for example, in the resolutions of the Senate relating to exclusion of students after failure. However, there are many other situations without such specific provision for appeal where you might wish to have a decision reviewed or to draw attention to additional information relevant to your case. As a general rule in these circumstances you are invited to address a request of this nature in writing, or to discuss the matter with, the relevant organisation (for example, the SRC or SUPRA) or University department (for example, Examinations, Scholarships, Financial Assistance). Advice may also be sought from the Faculiy Office.

**Participation in University government**

There is provision for the election of students, by and from the student body, to membership of the Senate, the Academic Board and the faculties and boards of studies. Student members are also to be found on other committees of the University, including faculty and departamental committees and boards.

The term of office is generally one year, from January to December, except the Senate which is from 1 December one year to 30 November the next. Elections are held by postal vote in October and notices calling for nominations are sent out in August/September. Details of the elections are placed on the noticeboards in the Science Road tunnel and published in the University of Sydney News and the Administrative Bulletin. Election announcements are also made available to Honi Soit and the Union Recorder for publication and are available from the Student Centre and faculty/college offices. Before any election the appropriate ballot papers and instructions, as well as information about the candidates, are sent to all students concerned.

The Senate is the overall governing body of the University; the Academic Board coordinates the work of the faculties and boards of studies and advises the Senate on academic matters; the faculties and boards of studies are concerned with the teaching and examining of their subjects and with research in the various departments and schools.

The important contribution that students can make to the governance of the University is recognised through student membership of its governing bodies.
As a student you are urged to take an active part in the selection of student members by nominating candidates and by voting in each election that concerns you. By participating in these elections you can become more familiar with the functioning of the University and can help ensure that your interests are taken into consideration in decisions that affect your work at the University.

Membership of the Senate is provided for in the University of Sydney Act 1989, Section 9. Membership of the Academic Board, of the faculties and boards of studies and of the school and departmental boards, is specified in Chapter 8 of the by-laws and in resolutions of the Senate following that chapter. For details see the Statutes and Regulations 1994-95.

Discrimination

The University is opposed to all forms of discrimination, including those based on sex, race, marital status, sexual preference, political or religious beliefs and physical impairment. State and Federal legislation supports this view. Discrimination can occur in various ways, including verbal and physical harassment. The Vice-Chancellor has appointed Discrimination Advisers to hear complaints from staff and students who suspect or believe that they are being discriminated against.

The Discrimination Advisers are available to discuss problems in confidence and to provide advice and assistance if the complainant wishes.

For a list of current advisers contact the Equal Employment Opportunity Unit, tel. 351 2212.