The University of New South Wales

Architecture

1983 Faculty Handbook

How to use this Handbook

The information in this book has been divided into **seven parts.**

General Information (the India coloured pages) lists what you need to know about the University as a whole, introduces some of the services available and notes the most important rules and procedures. You should read this part in its entirety.

For further information about the University and its activities, see the University Calendar.

Faculty Information.

Undergraduate Study outlines the courses available in each school in the faculty.

Graduate Study is about higher degrees.

Subject Descriptions lists each subject offered by the schools in the faculty. The schools are listed numerically.

Information includes:

- Subject number, title and description
- Prerequisite, co-requisite and excluded subjects, where applicable
- Additional information about the subject such as unit values, credit hours, teaching hours per week, sessions when taught

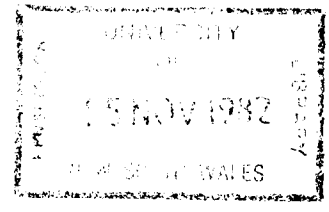
Financial Assistance to Students is a list of scholarships and prizes, available at undergraduate and graduate level in the faculty.

Staff list.

For detailed reference, see the list of **Contents.**

The University of New South Wales

Architecture



1983 Faculty Handbook

The address of the University of New South Wales is:

PO Box 1, Kensington,
New South Wales, Australia 2033

Telephone: (02) 663 0351

Telegraph: UNITECH, SYDNEY

Telex AA26054

The University of New South Wales Library has catalogued this work as follows:

UNIVERSITY OF NEW SOUTH WALES —
Faculty of Architecture
Handbook.
Annual. Kensington.

University of New South Wales — *Faculty of Architecture* — Periodicals.

Typeset in Australia by Essay Composition, 15 McCauley Street, Alexandria.
Printed in Australia by The Wentworth Press, Marrickville.

Subjects, courses and any arrangements for courses including staff allocated, as stated in the Calendar or any Handbook 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 subjects, courses, arrangements or staff allocations at any time without notice.

Information in this Handbook has been brought up to date as at 13 September 1982, but may be amended without notice by the University Council.

Contents

General Information

To obtain the maximum benefit from your studies you should make an effort to learn what facilities the University offers, to investigate the best methods of study and to discover as much as possible about the course for which you are enrolled.

This Handbook has been specially designed as a detailed source of reference for you in all matters related to your Faculty. This General Information Section is intended to help you put the Faculty into perspective with the University as a whole, to introduce you to some of the services available to students and to note some of the most important rules and procedures.

For fuller details about some aspects of the University and its activities you might need to consult the University Calendar.

Note: All phone numbers below are University extension numbers. If you are outside the University, dial 663 0351 and ask for the extension. Alternatively you may dial 662 and then the extension number. This prefix should only be used when you are certain of the extension that you require as callers using 662 cannot be transferred to any other number.

Some people who can help you

If you are experiencing difficulties in adjusting to the requirements of the University you will probably need advice. The best people to talk to on matters relating to progress in studies are your tutors and lecturers. If your problem lies outside this area there are many other people with specialized knowledge and skills who may be able to help you.

The Deputy Registrar (Student Services), Mr Peter O'Brien, and his Administrative Assistant, Mrs Anne Beaumont, are located on the first floor of the Chancellery. They will help those students who need advice and who have problems but who do not seem to be provided for by the other organizations and services mentioned. As well as dealing with general enquiries they are especially concerned with the problems of physically handicapped and disabled students. Enquire at room 148E, phone 2482.

The Assistant Registrar (Admissions and Examinations), Mr Jack Hill, is located on the ground floor of the Chancellery. General enquiries should be directed to 3715. For information regarding examinations, including examination timetables and clash of examinations, contact the Senior Administrative Officer, Mr John Grigg, phone 2143.

The **Assistant Registrar (Student Records and Scholarships – Undergraduate and Postgraduate)**, Mr Graham Mayne is located on the ground floor of the Chancellery. For particular enquiries regarding illness and other matters affecting performance in examinations and assessment, academic statements, graduation ceremonies, prizes, release of examination results and variations to enrolment programs, phone 3711.

The **Adviser for Prospective Students**, Mrs Fay Lindsay, is located in the Chancellery and is available for personal interview. For an appointment phone 3453.

The **Assistant Registrar (Careers and Employment)**, Mr Jack Foley, is located in the Chancellery. Enquiries should be directed to 3259.

The **Off-campus Housing Officer**, Mrs Judy Hay, is located in Room 148E in the Chancellery. For assistance in obtaining suitable lodgings phone 3260.

Student Loans enquiries should be directed to Mrs Judy Hay, Room 148E in the Chancellery, phone 3164.

The **Student Health Unit** is located in Hut E15b at the foot of Basser Steps. The Director is Dr Geoffrey Hansen. For medical aid phone 2679, 2678 or 2677.

The **Student Counselling and Research Unit** is located at the foot of Basser Steps. For assistance with educational or vocational problems ring 3681 or 3685 for an appointment.

The **University Librarian** is Mr Allan Horton. Library enquiries should be directed to 2048.

The **Chaplaincy Centre** is located in Hut E15a at the foot of Basser Steps. For spiritual counselling phone Anglican – 2684; Catholic – 2379; Greek Orthodox – 2683; Lutheran – 2683; Uniting Church – 2685.

The **Students' Union** is located on the second floor of Stage III of the University Union, where the SU President, Secretary-Treasurer, Education Vice-President, Welfare-Research Officer, Director of Overseas Students and a full-time solicitor employed by the Students' Union are available to discuss any problems you might have.

Cashier's Hours The University Cashier's office is open from 9.30 am to 1.00 pm and from 2.00 pm to 4.30 pm, Monday to Friday. It is open for additional periods at the beginning of Session 1. Consult noticeboards for details.

Calendar of Dates

The Academic Year

The academic year is divided into two sessions, each containing 14 weeks for teaching. There is a recess of five weeks between the two sessions and there are short recesses of one week within each of the sessions.
Session 1 commences on the first Monday of March.

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Faculties other than Medicine

Session 1 (14 weeks)	7 March to 15 May *May Recess:* 16 May to 22 May 23 May to 19 June *Midyear Recess:* 20 June to 24 July
Examinations	21 June to 6 July
Session 2 (14 weeks)	25 July to 28 August *August Recess:* 29 August to 4 September 5 September to 6 November *Study Recess:* 7 November to 13 November
Examinations	14 November to 2 December

Faculty of Medicine

First and Second Years	As for other faculties	
Third and Fourth Years	Term 1 (10 weeks)	24 January to 3 April
	Term 2 (9 weeks)	11 April to 15 May
	May Recess: 16 May to 22 May	23 May to 19 June
	Term 3 (9 weeks)	27 June to 28 August
	Term 4 (10 weeks)	5 September to 13 November
Fifth Year	Term 1 (8 weeks)	24 January to 20 March
	Term 2 (8 weeks)	28 March to 22 May
	Term 3 (8 weeks)	30 May to 24 July
	Term 4 (8 weeks)	1 August to 25 September
	Term 5 (8 weeks)	4 October to 27 November

January

Monday 3	Public Holiday
Tuesday 4	Last day for applications for review of results of *annual* examinations
Friday 14	Last day for acceptance of applications by Admissions Office for transfer to another undergraduate course within the University
Monday 31	Australia Day – Public Holiday

February

Thursday 3	Enrolment period begins for new undergraduate students and undergraduate students repeating first year
Monday 21	Enrolment period begins for second and later year undergraduate students and graduate students enrolled in formal courses
Monday 28	Last day for undergraduate students who have completed requirements for pass degrees to advise the Registrar they are proceeding to an honours degree or do not wish to take out the degree for which they have applied for any other reason

March

Monday 7	**Session 1 begins** – all courses except Medicine III, IV and V
Wednesday 9	List of graduands for April/May ceremonies and 1982 prize-winners published in *The Sydney Morning Herald*
Monday 14	Last day for notification of correction of details published in *The Sydney Morning Herald* on 9 March concerning April/May graduation ceremonies
Friday 18	Last day for acceptance of enrolment by new undergraduate students (late fee payable thereafter)
Thursday 31	Last day for acceptance of enrolment by undergraduate students re-enrolling in second and later years (late fee payable thereafter)

April

Friday 1	Good Friday – Public Holiday
Saturday 2	Easter Saturday – Public Holiday
Monday 4	Easter Monday – Public Holiday
Friday 22	Last day for undergraduate students to discontinue without failure subjects which extend over Session 1 only
Monday 25	Anzac Day – Public Holiday

May

Monday 2	*Confirmation of Enrolment* forms despatched to all students
Wednesday 11	Last day for acceptance of corrected *Confirmation of Enrolment* forms
Friday 13	Last day for undergraduate students completing requirements for degrees at the end of Session 1 to submit *Application for Admission to Degree* forms
Monday 16	**May Recess begins**
Thursday 19	Publication of provisional timetable for June/July examinations
Sunday 22	**May Recess ends**
Friday 27	Last day for students to advise of examination clashes

June

Tuesday 7	Publication of timetable for June/July examinations
Monday 13	Queen's Birthday Holiday
Sunday 19	**Session 1 ends**
Monday 20	**Midyear Recess begins**
Tuesday 21	Examinations begin

July

Wednesday 6	Examinations end
Monday 18	Examination results mailed to students
Tuesday 19	Examination results displayed on University noticeboards
Tuesday 13 to Friday 22	Students to amend enrolment programs following receipt of June examination results
Sunday 24	**Midyear Recess ends**
Monday 25	**Session 2 begins** Last day for applications for review of June assessment results

August

Thursday 4	Foundation Day – no classes held
Friday 5	Last day for students to discontinue without failure subjects which extend over the whole academic year
Monday 29	**August Recess begins**

September

Sunday 4	**August Recess ends**
Tuesday 6	Last day for undergraduate students who have completed requirements for pass degrees to advise the Registrar they are proceeding to an honours degree or do not wish to take out the degree for which they have applied for any other reason
Wednesday 7	List of graduands for October graduation ceremonies published in *The Sydney Morning Herald*
Friday 9	Last day for undergraduate students to discontinue without failure subjects which extend over Session 2 only
Monday 12	Last day for notification of correction of details published in *The Sydney Morning Herald* on 7 September concerning October graduation ceremonies
Monday 19	*Confirmation of Enrolment* forms despatched to all students
Wednesday 28	Last day for acceptance of corrected *Confirmation of Enrolment* forms
Friday 30	Last day for applications from undergraduate students completing requirements for degrees at the end of Session 2 to submit applications for *Application for Admission to Degree* forms
	Last day to apply to UCAC for transfer to another tertiary institution in New South Wales

October

Monday 3	Eight Hour Day – Public Holiday
Thursday 6	Publication of provisional examination timetable
Friday 14	Last day for students to advise of examination timetable clashes
Thursday 27	Publication of examination timetables

November

Sunday 6	**Session 2 ends**
Monday 7	**Study Recess begins**
Sunday 13	**Study Recess ends**
Monday 14	Examinations begin

December

Friday 2	Examinations end
Monday 19	Examination results mailed to students List of graduands in Medicine for February graduation ceremony published in *The Sydney Morning Herald*
Tuesday 20	Examination results displayed on University noticeboards
Sunday 25	Christmas Day
Monday 26	Boxing Day – Public Holiday
Tuesday 27	Public Holiday

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Faculties other than Medicine

Session 1 (14 weeks)	5 March to 13 May *May Recess:* 14 May to 20 May 21 May to 17 June *Midyear Recess:* 18 June to 22 July
Examinations	19 June to 5 July
Session 2 (14 weeks)	23 July to 26 August *August Recess:* 27 August to 2 September 3 September to 4 November *Study Recess:* 5 November to 11 November
Examinations	12 November to 30 November

Faculty of Medicine

First and Second Years	As for other faculties	
Third and Fourth Years	Term 1 (10 weeks)	23 January to 1 April
	Term 2 (9 weeks)	9 April to 13 May
	May Recess: 14 May to 20 May	21 May to 17 June
	Term 3 (9 weeks)	25 June to 26 August
	August Recess:	27 August to 2 September
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	Term 2 (8 weeks)	26 March to 20 May
	Term 3 (8 weeks)	28 May to 22 July
	Term 4 (8 weeks)	30 July to 23 September
	Term 5 (8 weeks)	2 October to 25 November

January

Monday 2	Public Holiday
Monday 16	Last day for applications for review of results of annual examinations
Friday 13	Last day for acceptance of applications by office of the Admissions Section for transfer to another undergraduate course within the University
Monday 30	Australia Day – Public Holiday

February

Monday 20	Enrolment period begins for second and later year undergraduate students and students enrolled in formal courses

March

Monday 5	Session 1 begins – all courses except Medicine III, IV and V

April

Friday 20 to Monday 23	Easter – Public Holiday
Wednesday 25	Anzac Day – Public Holiday

Organization of the University

Rapid development has been characteristic of the University of New South Wales since it was first incorporated by an Act of Parliament in 1949, under the name of the New South Wales University of Technology.

In 1982 the University had 19,016 students and over 3,600 staff who worked in more than eighty buildings. These figures include staff and students at Broken Hill (W.S. and L.B. Robinson University College), Duntroon (the Faculty of Military Studies) and Jervis Bay.

Arms of the University of New South Wales

The arms of the University are reproduced on the front cover of this handbook. The arms were granted by the College of Heralds in London, on 3 March 1952, and the heraldic description is as follows:

'Argent on a Cross Gules a Lion passant guardant between four Mullets of eight points Or a Chief Sable charged with an open Book proper thereon the word SCIENTIA in letters also Sable.

'The lion and the four stars of the Southern Cross on the Cross of St George have reference to the State of New South Wales which brought the University into being; the open book with SCIENTIA across its page reminds us of its original purpose. Beneath the shield is the motto 'Manu et Mente', which is the motto of the Sydney Technical College, from which the University has developed. The motto is not an integral part of the Grant of Arms and could be changed at will; but it was the opinion of the University Council that the relationship with the parent institution should in some way be recorded.'

The Council

The chief governing body of the University is the Council which has the responsibility of making all major decisions regarding its policy, conduct and welfare.

The Council consists of 44 members from the State Parliament, industry and commerce, agriculture, the trade unions, professional bodies, the staff, the students and the graduates of the University.

The Council meets six times per year and its members also serve on special committees dealing with, for example, academic matters, finance, buildings and equipment, personnel matters, student affairs and public relations.

The Chairman of the Council is the Chancellor, the Hon. Mr Justice Samuels.

The Professorial Board

The Professorial Board is one of the two chief academic bodies within the University and includes all the professors from the various faculties. It deliberates on all questions such as matriculation requirements, the content of courses, the arrangement of syllabuses, the appointment of examiners and the conditions for graduate degrees. Its recommendations on these and similar matters are presented to Council for its consideration and adoption.

The Faculties/Boards of Studies

The dean, who is also a professor, is the executive head of the faculty or board of studies. Members of each faculty or Board meet regularly to consider matters pertaining to their own areas of study and research, the result of their deliberations being then submitted to the Professorial Board.

The term 'faculty' is used in two distinct senses in the University. Sometimes it is used to refer to the group of schools comprising the faculty, and at others to the deliberative body of academic members of the Schools within the faculty.

The eleven faculties are Applied Science, Architecture, Arts, Biological Sciences, Commerce, Engineering, Law, Medicine, Military Studies, Professional Studies and Science. In addition, the Board of Studies of the Australian Graduate School of Management (AGSM) and the Board of Studies in General Education fulfil a function similar to that of the faculties. The Board of Studies in Science and Mathematics, which was established to facilitate the joint academic administration of the Science and Mathematics degree course by the faculties of Biological Sciences and Science, considers and reports to the Professorial Board on all matters relating to studies, lectures and examinations in the science and mathematics degree course.

The Schools

Once courses of study have been approved they come under the control of the individual schools (eg the School of Chemistry, the School of Mathematics). The head of the school in which you are studying is the person in this academic structure with whom you will be most directly concerned.

Executive Officers

As chief executive officer of the University, the Vice-Chancellor and Principal, Professor Michael Birt, is charged with managing and supervising the administrative, financial and other activities of the University.

He is assisted in this task by two Pro-Vice-Chancellors, Professor Ray Golding and Professor Athol Carrington, together with the Deans and the three heads of the administrative divisions.

General Administration

The administration of general matters within the University comes mainly within the province of the Registrar, Mr Ian Way, the Bursar, Mr Tom Daly, and the Property Manager Mr Peter Koller.

The Registrar's Division is concerned chiefly with academic matters such as the admission of students, and the administration of examinations as well as the various student services (health, employment, amenities, and counselling).

The Bursar's Division is concerned with the financial details of the day-to-day administration and matters to do with staff appointments, promotions, etc.

The Property Division is responsible for the building program and the 'household' services of the University, including electricity, telephones, cleaning, traffic and parking control and maintenance of buildings and grounds.

Student Representation on Council and Faculties/Boards

Three members of the University Council may be students elected by students. All students who are not full-time members of staff are eligible to stand for a two-year term of office. The students who are elected to the Council are eligible for election to the committees of Council.

Students proceeding to a degree or a graduate diploma may elect members for appointment by the Council to their faculty or board of studies. Elections are for a one-year term of office.

Open Faculty/Board Meetings

If you wish you may attend a faculty or board meeting. You should seek advice at the office of the faculty whose meeting you wish to attend, as the faculties have their own rules for the conduct of open meetings.

Award of the University Medal

The University may award a bronze medal to undergraduate students who have achieved highly distinguished merit throughout their degree course.

Identification of Subjects by Numbers

For information concerning the identifying number of each subject taught in each faculty as well as the full list of identifying numbers and subjects taught in the University, turn to the first page of the section Subject Descriptions. This list is also published in the Calendar.

Textbook Lists

Textbook lists are not published in the faculty handbooks. Separate lists are issued early in the year and are available at key points on the campus.

Students should allow quite a substantial sum for textbooks. This can vary from $250 to $600 per year depending on the course taken. These figures are based on the cost of new books. The Students' Union operates a secondhand bookshop. Information about special equipment costs, accommodation charges and cost of subsistence on excursions, field work, etc, and for hospital residence (medical students) are availabe from individual schools.

Co-operative Bookshop

Membership is open to all students, on initial payment of a fee of $10, refundable when membership is terminated.

General Studies Program

Almost all undergraduates in faculties other than Arts and Law are required to complete a General Studies program. The Department of General Studies within the Board of Studies in General Education publishes its own Handbook which is available free of charge. All enquiries about General Studies should be made to the General Studies Office, Room G56, Morven Brown Building, phone 3476.

Student Services and Activities

Accommodation

Residential Colleges

There are seven residential colleges on campus. Each college offers accommodation in a distinctive environment which varies from college to college, as do facilities and fees. A brief description of each college is given below, and further information may be obtained directly from the individual colleges. In addition to basic residence fees, most colleges make minor additional charges for such items as registration fees, caution money or power charges. Intending students should lodge applications before the end of October in the year prior to the one in which they seek admission. Most colleges require a personal interview as part of the application procedure.

The Kensington Colleges

The Kensington Colleges comprise Basser College, Goldstein College and Philip Baxter College. They house 450 men and women students, as well as tutorial and administrative staff members. Fees are payable on a session basis. Apply in writing to the Master, PO Box 24, Kensington, NSW 2033.

International House

International House accommodates 154 male and female students from Australia and up to thirty other countries. Preference is given to more senior undergraduates and graduate students. Eight residents are available to help students. Apply in writing to the Warden, International House, PO Box 1, Kensington, NSW 2033.

New College

New College is an Anglican college and it provides accommodation (with all meals) for 220 graduates and undergraduates, without regard to race, religion, or sex. The College has its own resident tutors, and sponsors a wide range of sporting and social activities. Apply to the Master, New College, Anzac Parade, Kensington 2033 (telephone 662 6066).

Shalom College

Shalom College is a Jewish residential college. It provides accommodation for 86 men and women students. Non-resident membership is available to students who wish to avail themselves of the Kosher dining room and tutorial facilities. Fees are payable on a session basis. Conferences are catered for, particularly with Kosher requirements. Rates are available on application. Apply in writing to the Master, Shalom College, the University of New South Wales, PO Box 1, Kensington, NSW 2033.

Warrane College

Warrane College provides accommodation for 200 men and is open to students of all ages, backgrounds and beliefs. The College offers a comprehensive tutorial program along with a wide range of activities, professional orientation and opportunities to meet members of the University staff informally. Non-resident membership is available to male students who wish to participate in College activities and to make use of its facilities. The general spiritual care of the College has been entrusted to the Catholic association Opus Dei. Enquiries: The Master, Warrane College, PO Box 123, Kensington 2033. Telephone (02) 662 6199.

Creston Residence

Creston Residence offers accommodation to 25 undergraduate and graduate women students. Activities and tutorials are open to non-resident students. The spiritual activities offered at Creston are entrusted to the Women's Section of Opus Dei. Enquiries: 36 High Street, Randwick 2031. Telephone (02) 398 5693.

Other Accommodation

Off-campus Accommodation

Students requiring other than College accommodation may contact the Housing Officer in the Chancellery, Room 148E for assistance in obtaining suitable accommodation in the way of rooms with cooking facilities, flats, houses, share flats etc. Extensive listings of all varieties of housing are kept up-to-date throughout the year and during vacations. Accommodation in the immediate vicinity of the University is not usually easy to find at short notice, and is expensive.

No appointment is necessary but there may be some delay in February and March. The Housing staff are always happy to discuss any aspect of accommodation.

Special pamphlets on accommodation, lists of estate agents and hints on house-hunting are available on request.

Associations, Clubs and Societies

The Sports Association

The Sports Association is a student organization within the University which caters for a variety of sports for both men

and women. In December 1952 the University Council approved the establishment of the Sports Association, which then consisted of five clubs. As the University has grown the Association has expanded, and it now includes thirty-eight clubs.

The Association office is situated on the 3rd floor, Squarehouse, E4, lower campus, and can be contacted on extension 2673. The control of the Association is vested in the General Committee which includes delegates from all the clubs.

Membership is compulsory for all registered students, and the annual fee is as set out later, in **Rules and Procedures, Enrolment Procedures and Fees Schedules**, section **15. Fees**. Membership is also open to all members of staff and graduates of the University on payment of an annual fee as prescribed in the By-laws of the Association. All members are invited to take part in any of the activities arranged by the Association, and to make use of the University's sporting and recreational facilities.

The Association is affiliated with the Australian Universities Sports Association (AUSA) which is the controlling body for sport in all Australian universities.

School and Faculty Associations

Many schools and faculties have special clubs with interests in particular subject fields. Enquire at the relevant Faculty or School Office for information.

Australian Armed Services

The University maintains links with the Royal Australian Navy, the Australian Army Reserve and the Royal Australian Air Force, and opportunities exist for student participation in their activities. See the **General Information** section of the Faculty Handbooks for details.

Chaplaincy Centre

The University Chapel

The University provides a small chapel for the use of all faiths. In its temporary housing it is located in Hut E15a near the Chemistry Building. The chapel is available for services of worship by arrangement with the full-time chaplains. At other times it is available for private meditation to all members of the University.

Chaplaincy Service

A Chaplaincy Service is available within the University of New South Wales for the benefit of students and staff.

The service offers fellowship, personal counselling and guidance, together with leadership in biblical and doctrinal studies and in worship. The chaplains maintain close liaison with student religious societies.

The chaplains are located in Hut E15a at the foot of Basser steps, which also contains the temporary chapel.

Deputy Registrar (Student Services)

The Deputy Registrar (Student Services), Mr Peter O'Brien, and his Administrative Assistant, Mrs Anne Beaumont, are located on the first floor of the Chancellery.

They will help those students who have problems and need advice but who do not seem to be provided for by the other organizations and services mentioned. As well as dealing with those enquiries, they are especially concerned with the problems of physically handicapped and disabled students.

All enquiries should be made either at room 148E or by telephoning extension 2482 (general enquiries).

Sport and Recreation Section

The Sport and Recreation Section seeks ways to encourage students and staff to include exercise as an essential part of their daily lives. It does this through Sports Clubs on a competitive basis and by offering physical recreation on a more casual basis to the University community.

The Section serves the Sports Association and its 38 constituent clubs and is responsible for the continuing management of the Physical Education and Recreation Centre at which recreational programs are available for both students and staff.

It makes bookings for use of sporting facilities including tennis courts and playing fields.The section is located on the 3rd Floor, Squarehouse, E4, lower campus. The various services may be contacted by phone on the following extensions: Recreation Program 3271; Grounds Bookings 2235; Sports Association 2673.

Physical Education and Recreation Centre

The Sport and Recreation Section provides a recreational program for students and staff at the Physical Education and Recreation Centre. The Centre consists of eight squash courts, a main building, and a 50-metre indoor heated swimming pool. The main building has a large gymnasium and practice rooms for fencing, table tennis, judo, weight-lifting, karate and jazz ballet, also a physical fitness testing room. The recreational program includes

intramurals, teaching/coaching, camping. The Centre is located on the lower campus adjacent to High Street. The Supervisor at PERC may be contacted on extension 3271.

Student Counselling and Research Unit

The Student Counselling and Research Unit provides counselling services to students, prospective students, parents and other concerned persons.

The unit is located in the huts near the foot of Basser Steps (access from College Road or Engineering Road).

Appointments are offered throughout the academic year and during recesses between 8 am to 5 pm on week days (up to 7 pm on some evenings). A 'walk-in' service for short interviews is available between 9 am and 5 pm. Appointments may be made by phoning extension 3685 or 3681 between 8.30 am and 5.30 pm.

Counsellors offer assistance in planning, decision-making, problem solving, social and emotional development, and dealing with grievances. Group programs on such topics as study, tutorial and examination skills, stress management, communicating, and self-confidence are offered each session. Brochures are available from the receptionist.

Careers and Employment Section

The Careers and Employment Section provides careers advice and assistance in finding employment.

Assistance with careers and permanent employment opportunities includes: the regular mailing of a *Job Vacancy Bulletin* to registered students and graduates, a Library, and a Campus Interview Program in which final year students have the opportunity to speak to employers regarding employment prospects.

Assistance is also provided in obtaining course-related employment during long vacations as required by undergraduates in Engineering and Applied Science.

The Section is located in Undercroft Room LG05 in the Chancellery.

For further information, telephone as follows: careers and employment assistance 3259 or 3630; long vacation industrial training 2086.

Student Health Unit

A student health clinic and first aid centre is situated within the University. The medical service although therapeutic is not intended to replace private or community health services. Thus, where chronic or continuing conditions are revealed or suspected the student may be referred to a private practitioner or to an appropriate hospital. The health service is not responsible for fees incurred in these instances. The service is confidential and students are encouraged to attend for advice on matters pertaining to health.

The service is available to all enrolled students by appointment, free of charge, between 9 am and 5 pm Mondays to Fridays. For staff members, immunizations are available, and first aid service in the case of injury or illness on the campus.

The centre is located in Hut E15b on the northern side of the campus in College Road at the foot of the Basser Steps.

Appointments may be made by calling at the centre or by telephoning extension 2679, 2678 or 2677 during the above hours.

The Family Planning Association of NSW conducts clinics at the Student Health Unit and at the adjacent Prince of Wales Hospital which are available for both staff and students. Appointments may be made for the Student Health Unit clinic by telephoning 588 2833 or for the Prince of Wales Hospital clinics by telephoning 399 0111.

The Students' Union

The Students' Union was formed in 1952 as an organization, duly recognized by the University Council, to represent the student body and to provide a central organization for the administration of student activities. In the words of its constitution 'The Students' Union is formed for the purpose of advancing the interests of University men and women, facilitating their general scientific and technical education, and fostering a University spirit among them'.

The Students' Union affords a recognized means of communication between the student body and the University administration, and represents its members in all matters affecting their interests. It aims to promote the cultural, educational and recreational life of the University and to encourage a permanent interest among graduates in the life and progress of student activities within the University. The Students' Union also makes representations to government and other bodies outside the University on behalf of its members.

Membership of the Students' Union is compulsory for all registered students of the University; the annual subscription for full-time and part-time students is set out later, in **Rules and Procedures, Enrolment Procedures and Fees Schedules**, section **15. Fees**. All Alumni of the University are eligible for Life Membership.

The Students' Union is governed by a Council consisting in the main of elected student representatives from the

various faculties of the University. There are also representatives of the University Council, Life Members, the Staff Association and the Sports Association. The Council is elected annually.

A full-time President, elected each year by popular ballot, directs the entire administration of the Students' Union and its activities, assisted by a Secretary-Treasurer.

Other officers are the Education Vice-President who works towards the implementation of Students' Union education policy; the Welfare-Research Officer concerned with helping students with problems they may encounter in the University; the Electronic Media Officer; and the Director of Overseas Students who deals with specific problems these students may encounter while in Australia.

The activities in which the Students' Union is involved include:

1. A noticeboard for casual job vacancies.
2. Organization of orientation for new students.
3. Organization of Foundation Day.
4. The University's two child care centres.
5. Publication of the student paper *Tharunka*.
6. A free legal service run by a qualified lawyer employed by the Students' Union Council.
7. A video service with access for students to equipment and advice.
8. The Nuthouse which deals in bulk and health foods.
9. Secondhand Bookshop for cheap texts.
10. CASOC (Clubs and Societies on Campus) which provides money from the SU for affiliated clubs and societies on campus.
11. Provision of a bail fund.

The SU office is located on the Second Floor, Stage III, the Union.

The University Library

The University libraries are mostly situated on the upper campus. The library buildings house the Undergraduate Library on Level 3, the Social Sciences and Humanities Library on Level 4, the Physical Sciences Library on Level 7 and the Law Library on Level 8. The Biomedical Library is in the western end of the Mathews Building and is closely associated with libraries in the teaching hospitals of the University.

For details consult **Faculty Information** in the relevant Faculty Handbook.

There are also library services at other centres:

The Water Reference Library situated at Manly Vale (telephone 948 0261) which is closely associated with the Physical Sciences Library.

The library at the Broken Hill Division in the W.S. and L.B. Robinson University College building (telephone 6022/3/4).

The library at the Royal Military College, Duntroon, ACT, serving the Faculty of Military Studies.

Each library provides reference and lending services to staff and students and each of the libraries on the Kensington campus is open throughout the year during day and evening periods. The exact hours of opening vary during the course of the academic year.

Staff and students normally use a machine-readable identification card to borrow from the University libraries.

The University Union

The University Union provides the facilities students, staff and graduates require in their daily University life and thus an opportunity for them to know and understand one another through associations outside the lecture room, the library and other places of work.

The Union is housed in three buildings near the entrance to the Kensington Campus from Anzac Parade. These are the Roundhouse, the Blockhouse and the Squarehouse. Membership of the Union is compulsory for all registered students and is open to all members of staff and graduates of the University.

The control of the Union is vested in the Board of Management whose Chief Executive Officer is the Warden.

The full range of facilities provided by the Union includes a cafeteria service and other dining facilities, a large shopping centre, (including clothing shop and delicatessen); travel service; banking, pharmaceutical, optometrical and hairdressing facilities; showers; common, games, reading, meeting, music, practice, craft and dark rooms. The Union also has shops on Campus which cater for student needs, including art materials and calculators. Photocopying, sign printing, and stencil cutting services are also available. The Union also sponsors special concerts (including lunchtime concerts) and conducts courses in many facets of the arts including weaving, photography, creative dance and yoga. Full information concerning courses is contained in a booklet obtainable from the Union's program department.

The University Union should not be confused with the Students' Union or Students' Representative Council as it is known in some other universities. This latter body has a representative function and is the instrument whereby student attitudes and opinions are crystallized and presented to the University and the community.

Financial Assistance to Students

Tertiary Education Assistance Scheme

Under this scheme, which is financed by the Commonwealth Government, assistance is available for full-time study in approved courses, to students who are not bonded and who are permanent residents of Australia, subject to a means test on a non-competitive basis. The allowances paid are unlikely to be sufficient, even at the maximum rate, for all the living expenses of a student. Family help and/or incomes from vacation or spare-time work would also be needed.

Students in the following types of university courses are eligible for assistance:

- Undergraduate and graduate bachelor degree courses
- Graduate diplomas
- Approved combined bachelor degree courses
- Master's qualifying courses (one year)

The rates of allowance and conditions for eligibility are set out in a booklet obtainable from the Commonwealth Department of Education.

Tertiary students receiving an allowance, and prospective tertiary students, will be sent application forms in January 1983. Forms are also available from the Admissions Section *or* the Careers and Employment Section, *or* from the Director, Department of Education, 59 Goulburn Street, Sydney, NSW 2000 (telephone 218 8800). Continuing students should submit applications as soon as examination results are available. New students should do so as soon as they are enrolled. All students should apply by 31 March 1983, otherwise benefits will not be paid for the earlier months of the year.

It is most important that students advise the TEAS office if at any time they change or discontinue their study programs, as their eligibility for benefits might be affected.

Other Financial Assistance

In addition to the Tertiary Education Assistance Scheme financed by the Australian Government the following forms of assistance are available:

1. *Deferment of Payment of Fees* Deferments may be granted for a short period, usually one month, without the imposition of a late fee penalty, provided the deferment is requested prior to the due date for fee payments.

2. *Short Term Cash Loans* Donations from various sources have made funds available for urgent cash loans not exceeding £100. These loans are normally repayable within one month.

3. Early in 1973 the Commonwealth Government made funds available to the University to provide loans to students in financial difficulty. The loans are to provide for living allowances and other approved expenses associated with attendance at university. Repayment usually commences after graduation or upon withdrawal from the course. Students are required to enter into a formal agreement with the University to repay the loan. The University is unable to provide from the fund amounts large enough for all or even a major part of the living expenses of a student.

From the same source students who are in extremely difficult financial circumstances may apply for assistance by way of a non-repayable grant. In order to qualify for a grant a student must generally show that the financial difficulty has arisen from exceptional misfortune. Grants are rarely made.

The University has also been the recipient of generous donations from the Arthur T. George Foundation, started by Sir Arthur George and his family, for the endowment of a student loan fund.

In all cases assistance is limited to students with reasonable academic records and whose financial circumstances warrant assistance.

Enquiries about all forms of financial assistance should be made at the office of the Deputy Registrar (Student Services), Room 148E, in the Chancellery.

Financial Assistance to Aboriginal Students

Financial assistance is available to help Aboriginal students from the Commonwealth Government's Aboriginal Study Grant Scheme. Furthermore, the University may assist Aboriginal students with loans to meet some essential living expenses.

The University has also received a generous bequest from the estate of the late Alice Brooks Gange for the education of Australian aborigines within the University. The University is engaged in consultations with groups and individuals for advice on the most effective ways of using the funds and has established a committee to advise the Vice-Chancellor in the matter.

All enquiries relating to these matters should be made at the office of the Deputy Registrar (Student Services), Room 148E, in the Chancellery.

Fund for Physically Handicapped and Disabled Students

The University has a small fund (started by a generous gift from a member of staff who wishes to remain anonymous) available for projects of benefit to handicapped and disabled students. Enquiries should be made at the office of the Deputy Registrar (Student Services), Room 148E, in the Chancellery.

Rules and Procedures

The University, in common with other large organizations, has established rules and procedures which are designed for the benefit of all members of the University. In some cases there are penalties (eg fines or exclusion from examinations) for non-compliance. Any student who, after carefully reading the rules set out in the following pages, requires further information on their application should seek further advice, in the first instance, at the Enquiry Counter in the North Wing of the Chancellery Building.

General Conduct

The University has not considered it necessary to formulate a detailed code of rules relating to the general conduct of students. Enrolment as a student of the University, however, involves an undertaking to observe the regulations, by-laws and rules of the University, and to pay due regard to any instructions given by any officer of the University.

Appeals

Section 5(c) of Chapter III of the By-laws provides that 'Any person affected by a decision of any member of the Professorial Board (other than the Vice-Chancellor) in respect of breach of discipline or misconduct may appeal to the Vice-Chancellor, and in the case of disciplinary action by the Vice-Chancellor, whether on appeal or otherwise, to the Council'.

Admission and Enrolment

The Student Enquiry Counter, located near the Cashier in the Chancellery on the upper campus, provides information for students on admission requirements, undergraduate and graduate courses and enrolment procedures. Faculty handbooks and the Calendar may be purchased from the Cashier. The Enquiry Counter is open from 9 am to 5 pm, Monday to Friday. During enrolment it is also open for some part of the evening.

Information may be obtained here about special admission, admission with advanced standing and admission on overseas qualifications. Applications are also received from students who wish to transfer from one course to another, resume their studies after an absence of twelve months or more, or seek any concession in relation to a course in which they are enrolled. It is essential that the closing dates for lodgement of applications are adhered to. For further details see the section on Enrolment Procedures and Fees.

Applications for admission to undergraduate courses from students who do not satisfy the requirements for admission (see section on Admission Requirements) are referred by the Admissions Section to the Admissions Committee of the Professorial Board.

Students wishing to enrol as higher degree candidates should first consult the Head of the School in which they wish to study. An application is then lodged on a standard form and the Postgraduate Section, after obtaining a recommendation from the Head of School, refers the application to the appropriate Faculty or Board of Studies Higher Degree Committee.

Details of the procedure to be followed by students seeking entry to first year undergraduate degree courses at the University may be obtained from the Student Enquiry Counter or the Universities and Colleges Admissions Centre.

An Adviser for Prospective Students, Mrs Fay Lindsay, is located in the Chancellery, and is available for personal interview with those who require additional information about the University.

First Year Entry

Those seeking entry to first year courses in one or more of eighteen institutions in the state including the three universities in the Sydney Metropolitan area (Macquarie University, the University of New South Wales and the University of Sydney) are required to lodge a single application form with the Universities and Colleges Admissions Centre, Challis House, 10 Martin Place, Sydney 2000 (GPO Box 7049, Sydney 2001). On the application form provision is made for applicants to indicate preferences for courses available in any one of the three universities and fifteen other tertiary institutions. Students are notified individually of the result of their applications and provided with information regarding the procedures to be followed in order to accept the offer of a place at this university. Enrolment is completed at the Enrolment Bureau, Unisearch House, 221 Anzac Parade, Kensington.

Deferment of First Year Enrolment

Students proceeding directly from school to University who have received an offer of a place may request deferment of enrolment for one year and will usually receive permission providing they do not enrol at another tertiary institution in that year.

Enrolment Procedures and Fees Schedules 1983

1. Introduction

All students, except those enrolling in graduate research degree courses (see sections **5.** and **6.** below), must lodge an authorized enrolment form with the Cashier either on the day the enrolling officer signs the form or on the day any required General Studies electives are approved.

All students, except those enrolling in graduate research degree courses and those exempted as set out in section **17.** below, should on that day also either pay the required fees or lodge an enrolment voucher or other appropriate authority.

Such vouchers and authorities are generally issued by the NSW Department of Education and the NSW Public Service. They are not always issued in time and students who expect to receive an enrolment voucher or other appropriate authority but have not done so should pay the student activities fees and arrange a refund later. Such vouchers and authorities are not the responsibility of the University and their late receipt is not to be assumed as automatically exempting a student from the requirements of enrolling and paying fees.

If a student is unable to pay the fees the enrolment form must still be lodged with the Cashier and the student will be issued with a 'nil' receipt. The student is then indebted to the University and must pay the fees by the end of the second week of the session for which enrolment is being effected.

Penalties apply if fees are paid after the time allowed (see section **16.** below) unless the student has obtained an extension of time in which to pay fees from the office of the Deputy Registrar (Student Services) (Room 148E, the Chancellery). Such an application must be made before the fee is due. Payment may be made through the mail, in which case it is important that the student registration number be given accurately. Cash should not be sent through the mail.

2. New Undergraduate Enrolments

Persons who are applying for entry in 1983 must lodge an application for selection with the Universities and Colleges Admissions Centre, GPO Box 7049, Sydney 2001, by 1 October 1982.

Those who are selected will be required to complete enrolment at a specified time before the start of Session 1. Compulsory student activities fees should be paid on the day.

In special circumstances, however, and provided class places are still available, students may be allowed to complete enrolment after the prescribed time.

Application forms and details of the application procedures may be obtained from the Student Enquiries Counter, Ground Floor, North Wing of the Chancellery Building.

3. Re-enrolment

See also sections 4., 6. and 7. below.

Students who are continuing courses (or returning after approved leave of absence) should enrol through the appropriate school in accordance with the procedures set out in the current *Enrolment Procedures* booklet, available from the Student Enquiries Counter in the Chancellery and from School offices. Those who have completed part of a course and have been absent without leave need to apply for entry through the Universities and Colleges Admissions Centre, GPO Box 7049, Sydney 2001, by 1 October 1982.

4. Restrictions Upon Re-enrolling

Students who in 1982 have infringed the rules governing re-enrolment should not attempt to re-enrol in 1983 but should follow the written instructions they will receive from the Registrar.

5. New Research Students

Students enrolling for the first time in graduate research degree courses will receive an enrolment form by post. They have two weeks from the date of offer of registration in which to lodge the enrolment form with the Cashier. Completion of enrolment after this time will incur a penalty (see section **16.** below).

6. Re-enrolling Research Students

Students undertaking purely research degree programs (course codes 0–2999) will be re-enrolled automatically each year and sent an account for any fees due.

7. Submission of Project Report

Students registered for formal masters degree programs (course codes 8000–9999) who at the commencement of Session 1 have completed all the work for a degree or diploma except for the submission of the relevant thesis or project report are required to re-enrol by the end of the second week of Session 1. Completion of enrolment after then will incur a penalty (see section **16.** below).

Information about possible student activities fees exemption is set out in section **17.** (10) below.

8. Enrolments by Miscellaneous Students

Enrolments by miscellaneous students are governed by the following rules:

(1) Enrolment in a particular subject or subjects as a miscellaneous student – ie as a student not proceeding to a degree or diploma – may be permitted provided that in every case the Head of School offering the subject considers that the student will benefit from the enrolment and provided also that accommodation is available and that the enrolment does not prevent a place in that subject being available to a student proceeding to a degree or diploma.

(2) A student who is under exclusion from any subject in the University may not be permitted to be enrolled as a miscellaneous student in that subject.

(3) A student who is under exclusion from any course in the University may not be permitted to enrol in any subject which forms a compulsory component of the course from which the student is excluded.

(4) A student who is subsequently admitted to a course of the University for which any subjects completed as a miscellaneous student form a part may receive standing for those subjects.

9. Final Dates for Completion of Enrolment

No enrolments for courses extending over the whole year or for Session 1 only will be accepted from new students after the end of the second week of Session 1 (18 March 1983) except with the express approval of the Deputy Registrar (Student Services) and the Heads of the Schools concerned; no later year enrolments for courses extending over the whole year or for Session 1 only will be accepted after the end of the fourth week of Session 1 (1 April 1983) except with the express approval of the Deputy Registrar (Student Services) and the Heads of the Schools concerned. No enrolments for courses in Session 2 only will be accepted after the end of the second week of Session 2 (5 August 1983) except with the express approval of the Deputy Registrar (Student Services) and the Heads of the Schools concerned.

10. University of New South Wales and University Union Membership Card

All students enrolled in degree or diploma courses or as miscellaneous students, except those exempt from University Union fees under provisions of section **17.** below, are issued with a University of New South Wales and University Union Membership Card. This card must be carried during attendance at the University and shown on official request.

The number appearing on the front of the card above the student's name is the student registration number used in the University's records. This number should be quoted in all correspondence.

The card must be presented when borrowing from the University libraries, when applying for travel concessions, and when notifying a change of address. It must also be presented when paying fees on re-enrolment each year when it will be made valid for the year and returned. Failure to present the card could result in inconvenience in completing re-enrolment.

Life members of the University Union and those exempt from payment of University Union fees, if enrolled in degree or diploma courses or miscellaneous students use the University's fees receipt in place of the card when applying for travel concessions and when notifying a change of address. The University Library issues a library borrowing card on production of the fees receipt.

A student who loses a card must notify the University Union as soon as possible.

New students are issued with cards on enrolment if eligible.

New graduate students should complete an application for a card when they enrol unless they already possess one from previous study at the University. The card can be collected from the second floor of the University Union Blockhouse approximately three weeks after enrolment. The fees receipt may be used as necessary until the card is available.

11. Payment of Fees

The fees and charges which are payable include those charges raised to finance the expenses incurred in operating activities such as the University Union, the Students' Union, the Sports Association, and the Physical Education and Recreation Centre. Penalty payments are also incurred if a student fails to complete procedures as required. Charges may also be payable, sometimes in the form of a deposit, for the hiring of kits of equipment in certain subjects. Accommodation charges, costs of subsistence on excursions, field work, etc, and for hospital residence (medical students) are payable in appropriate circumstances.

12. Assisted Students

Scholarship holders and sponsored students who have not received an enrolment voucher or appropriate letter of authority from their sponsor at the time when they are enrolling should complete their enrolment by paying their own fees.

A refund of fees will be made when the enrolment voucher or letter of authority is subsequently lodged with the Cashier.

Those unable to pay their own fees in these circumstances can apply to the office of the Deputy Registrar (Student Services) (Room 148E, the Chancellery) for an extension of time in which to pay. Such an application must be made before the fees are due.

13. Extension of Time

Students who are unable to pay fees by the due date may apply to the office of the Deputy Registrar (Student Services) (Room 148E, the Chancellery) for an extension of time, which may be granted in extenuating circumstances. Such applications must be made before the due date.

14. Failure to Pay Fees and Other Debts

Students who fail to pay prescribed fees or charges or are otherwise indebted to the University and who fail either to make a satisfactory settlement of indebtedness upon receipt of due notice or to receive a special exemption ceases to be entitled to the use of University facilities. Such students are not permitted to register for a further session, to attend classes or examinations, or to be granted any official credentials. In the case of students enrolled for Session 1 only or for both Sessions 1 and 2 this disbarment applies if any portion of fees is outstanding after the end of the eighth week of Session 1 (29 April 1983). In the case of students enrolled for Session 2 only this disbarment applies if any portion of fees is outstanding after the end of the sixth week of Session 2 (2 September 1983).

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

15. Fees

Fees and penalties quoted are current at the time of publication but may be amended by the University without notice.

University Union Entrance Fee

Payable on first enrolment $28

Students enrolling for only one session must pay the full University Union entrance fee.

Student Activities Fees

All students (with the exceptions set out in section **17.** below) are required to pay the following fees if enrolling for a program involving two sessions. Those enrolling for only one session will pay the full University Union Entrance Fee, if applicable, and one half of any other fees due.

Students who consider themselves eligible for life membership of the University Union, the Sports Association, or the Students' Union, should make enquiries about the matter at the offices of those bodies.

Students often seek exemption from some or all of the student activities fees for reasons other than those set out in section **17.** below. It is stressed that the fees charged are a contribution by students towards services and amenities for the University community (both now and in the future) and exemption from them cannot be claimed because a student is unable or unwilling to make use of some of those services or amenities.

Student Activities Fees are adjusted annually by a system of indexation and those set out below are current in 1982 and are therefore subject to an increase in 1983.

University Union annual subscription	$80
Sports Association annual subscription	$17
Students' Union Annual Subscription	
Students enrolling in full-time courses	$22
Students enrolling in part-time courses or as miscellaneous students	$17
Miscellaneous Fund annual fee	$28

This fee is used to finance expenses generally of a capital nature relating to student activities and amenities. Funds are allocated for projects recommended by the Student Affairs Committee and approved by the University Council.

Special Examination Fees

Examinations conducted in special circumstances for each subject	$11
Review of examination results for each subject	$11

Other Charges

In addition to the fees outlined above and depending on the subject being taken, students may be required to make a payment for equipment; money so paid is, in general, refunded if the equipment is returned in satisfactory condition.

16. Penalties

(1) Failure to lodge enrolment form according to enrolment procedure	$20
(2) Payment of fees after end of second week of session	$20
(3) Payment of fees after end of fourth week of session	$40

Penalties (1) and (2) or (1) and (3) may accumulate.

17. Exemptions – Fees

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

(1) Life members of the University Union, the Sports Association, and Students' Union are exempt from the relevant fee or fees*.

(2) Students enrolled in courses classified as *External* are exempt from all Student Activities Fees and the University Union Entrance Fee.

(3) Students enrolled in courses at the W. S. and L. B. Robinson University College and in the Faculty of Military Studies are exempt from the student activities fees and the University Union Entrance Fee in section **15.** above but shall pay such other fees and charges as the Council may from time to time determine.

(4) University Union fees and subscriptions may be waived by the Deputy Registrar (Student Services) for students enrolled in graduate courses in which the formal academic requirements are undertaken at a part of the University away from the Kensington campus.

(5) Students who while enrolled at and attending another university (or other tertiary institution as approved by the Vice-Chancellor) in a degree or diploma course are given approval to enrol at the University of New South Wales but only as miscellaneous students for subjects to be credited towards the degrees or diplomas for which they are enrolled elsewhere are exempt from all Student Activities Fees and the University Union Entrance Fee†.

(6) Undergraduate students of a recognized university outside Australia who attend the University of New South Wales with the permission of the dean of the appropriate faculty and of the head of the appropriate school or department to take part as miscellaneous students in an academic program relevant to their regular studies and approved by the authorities of their own institution are exempt from all Student Activities Fees and the University Union Entrance Fee.

*Students who consider themselves eligible for life membership of the University Union, the Sports Association, or the Students' Union, should make enquiries about the matter at the offices of those bodies, not at the office of the Deputy Registrar (Student Services) or at the Cashier's office.

†Institutions approved are: Australian Film and Television School, New South Wales Institute of Technology, Sydney College of Advanced Education and Sydney College of Chiropractic.

(7) Graduate students not in attendance at the University and who are enrolling in a project only other than for the first time, are exempt from all Student Activities Fees.

(8) Graduate students resubmitting a thesis or project only are exempt from all Student Activities Fees.

(9) All Student Activities Fees, for one or more sessions, may be waived by the Deputy Registrar (Student Services) for students who are given formal permission to pursue their studies at another institution for one or more sessions.

(10) Graduate students who have completed all the work for a qualification at the commencement of Session 1, except for the submission of the relevant thesis or project report, may be exempted from the payment of Student Activities Fees by the Deputy Registrar (Student Services) on production of an appropriate statement signed by the relevant Supervisor or Head of School.

(11) Students enrolled in a session or sessions devoted entirely to training or experience away from the campus and its associated laboratories, hospitals, centres, institutes, and field stations are exempt from all Student Activities Fees for that session or sessions.

(12) Students whose registration is cancelled or suspended by the University shall receive refunds of fees paid in accordance with the provisions of section **18.** (5) below except that a refund of one half of the fees shall be made if such cancellation or suspension takes place between the end of the fourth week of Session 1 and the end of the fourth week of Session 2.

18. Variations in Enrolment (including Withdrawal)

(1) Students wishing to vary an enrolment program must make application on the form available from the appropriate Course Authority.

(2) Students withdrawing from courses (and see also information about withdrawal from subjects below) are required to notify the Registrar in writing. In some cases such students will be entitled to fee refunds (see below).

(3) Enrolment in additional subjects

Applications for enrolment in additional subjects must be submitted by:

31 March 1983 for Session 1 only and whole year subjects;

19 August 1983 for Session 2 only subjects.

(4) Withdrawal from subjects

Applications to withdraw from subjects may be submitted throughout the year but applications lodged after the following dates will result in students being regarded as having failed the subjects concerned, except in special circumstances:

(a) for one session subjects, the end of the seventh week of that session (22 April or 9 September)

(b) for whole year subjects, the end of the second week of Session 2 (5 August).

(5) Withdrawal from Course – Refunds – Student Activities Fees

Whether or not a student's withdrawal entails academic penalties (covered in item (4) above) there are rules governing possible student activities fee refunds in the case of complete withdrawal from a course.

Details of the refunds which may be available may be obtained from the Student Enquiry Counter, the Chancellery.

(6) Acknowledgements

The Student Records and Scholarships Office will acknowledge each application for a variation in enrolment (including withdrawals from subjects) as follows:

(a) variations lodged before the Friday of the seventh week of each session (22 April or 9 September) will be incorporated in the *Confirmation of Enrolment Program* notice forwarded to students on 2 May or 20 September as appropriate

(b) variations lodged after those dates will be acknowledged by letter

(c) withdrawals from a course are acknowledged individually whenever they are lodged.

(7) It is emphasized that failure to attend for any assessment procedure, or to lodge any material stipulated as part of an assessment procedure, in any subject in which a student is enrolled will be regarded as failure in that assessment procedure unless written approval to withdraw from the subject without failure has been obtained from the Student Records and Scholarships Office.

19. Exemption – Membership

The Registrar is empowered to grant exemption from membership of any or all of the University Union, the Students' Union and the Sports Association to students who have a genuine conscientious objection to such membership, subject to payment of the prescribed fees to the Miscellaneous Fund.

Private Overseas Students

Private overseas students should visit the Commonwealth Department of Education immediately on first arrival in Australia. The address is Sydney Plaza Building, 59 Goulburn Street, Sydney.

Private overseas students continuing their studies should confirm their enrolment with the Commonwealth Department of Education as early as possible each year in order to ensure that arrangements for the extension of their temporary entry permits can be made.

All private overseas students must advise the Department if they change their term residential address during the year. Telephone enquiries should be directed to (02) 218 8979, and country students may reverse the charge for the call.

Leave of Absence

Leave of absence from an undergraduate course of study may be granted to students other than those in the first year of a course. Leave of absence has generally been restricted to one year but in special circumstances two years have been granted.

To apply for such leave of absence, a letter should be submitted to the Registrar immediately following the release of annual examination results and must include the student's full name, registration number, the course and stage in which enrolled in the previous year and, most important, the reason *why* leave is being sought. The letter advising the result of the application will provide details about how to re-enrol.

Students who withdraw from the first year of their course *are not* granted leave of absence and must again apply for a place through the Universities and Colleges Admissions Centre.

Course Transfers

Students wishing to transfer from one course to another must complete and submit an application form, obtainable from the office of the Admissions Section, the Chancellery, by Friday 14 January 1983.

Students whose applications to transfer are successful, and who are *transferring from one school to another* are required to comply with the enrolment procedure laid down for new students with advanced standing. *Students transferring* from one course to another *within the same school* are required to attend the appropriate enrolment session for the course to which they have approval to transfer.

Students must present the approval to transfer to the enrolling officer, and those who have not received advice regarding their application to transfer before the date on which they are required to enrol should check with the office of the Admissions Section.

Students should also advise the enrolling officer in the school in which they were enrolled in 1982 of their intention to transfer.

Admission with Advanced Standing

Any person who makes application to register as a candidate for any degree or other award granted by the University may be admitted to the course of study leading to such degree or award with such standing on the basis of previous attainments as may be determined by the Professorial Board provided that:

1. the Board shall not grant such standing under these rules as is inconsistent with the rules governing progression to such degree or award as are operative at the time the application is determined;

2. where a student transfers from another university such student shall not in general be granted standing in this University which is superior to what he has in the University from which he transfers;

3. the standing granted by the Board in the case of any application based on any degree/s or other awards already held by the applicant, shall not be such as will permit the applicant to qualify for the degree or award for which he seeks to register without completing the courses of instruction and passing the examinations in at least those subjects comprising the latter half of the course, save that where such a program of studies would involve the applicant repeating courses of instruction in which the Board deems the applicant to have already qualified, the Board may prescribe an alternative program of studies in lieu thereof;

4. the standing granted by the Board in the case of any application based on partial completion of the requirements for any degree or other award of another institution shall not be such as will permit the applicant to qualify for

the degree or award for which he seeks to register by satisfactory completion of a program of study deemed by the Board to be less than that required of a student in full-time attendance in the final year of the course in which the applicant seeks to register;

5. the standing granted by the Board in the case of any application based on the partial completion of the requirements for any degree or other award of the University may be such as to give full credit in the course to which the applicant seeks to transfer for work done in the course from which the student transfers.

Where the identity between the requirements for any award of the University already held and that of any other award of the University is such that the requirements outstanding for the second award are less than half the requirements of that award, then a student who merely completes such outstanding requirements shall not thereby be entitled to receive the second award but shall be entitled to receive a statement over the hand of the Registrar in appropriate terms.

Resumption of Courses

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

If students have not obtained leave of absence from their course and have not been enrolled in the course over the past twelve months or more, they should apply for admission to the course through the Universities and Colleges Admissions Centre before 1 October in the year preceding that in which they wish to resume studies.

Examinations

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

Provisional timetables indicating the dates and times of examinations are posted on the University noticeboards.

Students must advise the Examinations Section (the Chancellery) of any clash in examinations. Final timetables indicating the dates, times, locations, and authorized aids are available for students two weeks before the end of each session.

Misreading of the timetable is not an acceptable excuse for failure to attend an examination.

Assessment of Course Progress

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

Examination Results

Grading of Passes

Passes will be graded as follows:

High Distinction	an outstanding performance
Distinction	a superior performance
Credit	a good performance
Pass	an acceptable level of performance
Satisfactory	satisfactory completion of a subject for which graded passes are not available

Pass Conceded

A pass conceded may be granted to a student whose overall performance warrants consideration in a subject where the mark obtained is slightly below the standard required for a pass.

A pass conceded in a subject will normally allow progression to another subject for which the former subject is a prerequisite. In a particular subject, however, a subject authority may specify that a pass conceded is insufficient to meet a particular subject prerequisite. Such information is recorded in the appropriate faculty handbooks.

Availability of Results

Final examination results will be posted to a student's term address, or vacation address if requested. Forms requesting that results be posted to a vacation address are included in the examination timetable and change of address forms are obtainable at the Student Enquiry Counter, the Chancellery. Both forms can be accepted up to Friday 24 June for Session 1 results and Friday 25 November for Session 2 and whole year results. Results are also posted on School noticeboards and in the University Library. Results on noticeboards are listed *by Student Registration Number.*

No examination results are given by telephone.

Review of Results

A student may make application to the Registrar for the review of a result. The application form, accompanied by an appropriate fee, must be submitted not later than fifteen working days after the date of issue of the *Notification of Result of Assessment* form.

In reviewing a result, the subject authorities shall ensure that all components of the assessment have been assessed and a mark assigned.

A review of a result is not a detailed reassessment of a student's standard of knowledge and understanding of, and skills in, the subject. It is rather a search for arithmetic error in arriving at the composite mark and for gross and obvious error in assignment of marks in components of the final composite mark.

When a change in grade is recommended, the application fee will be refunded by the Registrar.

Special Consideration

Students who believe that their performance in a subject, either during session or in an examination, has been adversely affected by sickness or any other reason should inform the Registrar and ask for special consideration in the determination of their standing.

Such requests should be made as soon as practicable after the occurrence. Applications made more than seven days after the final examination in a subject will only be considered in exceptional circumstances.

When submitting a request for special consideration students should provide all possible supporting evidence (eg medical certificates) together with their registration number and enrolment details.

Physical Disabilities

Students suffering from a physical disability which puts them at a disadvantage in written examinations should advise Student Records (Ground Floor, the Chancellery) immediately their disability is known. If necessary, special arrangements will be made to meet the student's requirements.

Students who are permanently disabled and need the Examinations Section to make special arrangements for their examinations, should contact Student Records as soon as the final timetable becomes available.

Use of Electronic Calculators

Where the use of electronic calculators has been approved by a faculty or school, examiners may permit their use in examinations. Authorized electronic calculators are battery operated with the minimum operations of addition, subtraction, multiplication and division and are of a type in common use by university students. They are not provided by the University, although some schools may make them available in special circumstances.

Examinations Held Away from the Campus

Except in the case of students enrolled in external courses, examinations will not be permitted away from the campus unless the candidate is engaged on *compulsory industrial training*. Candidates must advise the Officer-in-charge, Examinations Section, immediately the details of the industrial training are known. Special forms for this purpose are available at the Student Enquiry Counter in the north wing of the Chancellery.

Arrival at Examinations

Examination Rooms will be open to students twenty-five minutes before the commencement of the examination. Candidates are requested to be in their places at least fifteen minutes before the commencement to hear announcements. The examination paper will be available for reading ten minutes before commencement.

Use of Linguistic Dictionaries

The answers in all examinations and in all work submitted must be in English unless otherwise directed. Students may apply for permission to use standard linguistic dictionaries in the presentation of written work for assessment. Such applications should be made in writing to the Examinations Section not later than 14 days prior to the need to use the linguistic dictionary.

Academic Misconduct

Students are reminded that the University regards academic misconduct as a very serious matter. Students found guilty of academic misconduct are usually excluded from the University for two years. Because of the circumstances in individual cases the period of exclusion can range from one session to permanent exclusion from the University.

The following are some of the actions which have resulted in students being found guilty of academic misconduct in recent years: use of unauthorized aids in an examination; submitting work for assessment knowing it to be the work of another person; improperly obtaining prior knowledge of an examination paper and using that knowledge in the examination; failing to acknowledge the source of material in an assignment.

Conduct of Examinations

Examinations are conducted in accordance with the following rules and procedure:

1. Candidates are required to obey any instruction given by an examination supervisor for the proper conduct of the examination.

2. Candidates are required to be in their places in the examination room not less than fifteen minutes before the time for commencement.

3. No bag, writing paper, blotting paper, manuscript or book, other than a specified aid, is to be brought into the examination room.

4. Candidates shall not be admitted to an examination after thirty minutes from the time of commencement of the examination.

5. Candidates shall not be permitted to leave the examination room before the expiry of thirty minutes from the time the examination commences.

6. Candidates shall not be re-admitted to the examination room after they have left it unless, during the full period of their absence, they have been under approved supervision.

7. Candidates shall not by any improper means obtain, or endeavour to obtain, assistance in their work, give, or endeavour to give, assistance to any other candidate, or commit any breach of good order.

8. All answers must be in English unless otherwise stated. Foreign students who have the written approval of the Registrar may use standard linguistic dictionaries.

9. Smoking is not permitted during the course of examinations.

10. A candidate who commits any infringement of the rules governing examinations is liable to disqualification at the particular examination, to immediate expulsion from the examination room and to such further penalty as may be determined in accordance with the By-Laws.

Acknowledgement of Sources

Students are expected to acknowledge the source of ideas and expressions used in submitted work. To provide adequate documentation is not only an indication of academic honesty but also a courtesy enabling the marker to consult sources with ease. Failure to do so may constitute plagiarism, which is subject to a charge of academic misconduct.

Further Assessment

In special circumstances further assessment including assessment or further assessment on medical or compassionate grounds may be granted.

Further assessment may be given by the subject authority at his or her discretion at any time prior to the meeting of the relevant faculty assessment committee (normally the fourth week of the Midyear Recess and the second week of December). Further assessment may also be awarded at the faculty assessment committee and students affected may need to be free to undertake that further assessment in the last week in the Midyear Recess and in the period up to the end of the second week in January; students should consult their subject authority for details of further assessment immediately their results are known.

Restrictions upon Students Re-enrolling

The University Council has adopted the following rules governing re-enrolment with the object of requiring students with a record of failure to show cause why they should be allowed to re-enrol and retain valuable class places.

First Year Rule

1. Students enrolled in the first year of any undergraduate course of study in the University shall be required to show cause why they should be allowed to continue the course if they do not pass the minimum number of subjects, units or credits prescribed for this purpose by the relevant faculty or board of studies.

The prescribed minimum for each undergraduate course may be found in **Schedule A*** below; the schedule may be varied from time to time by the Professorial Board.

Repeated Failure Rule

2. Students shall be required to show cause why they should be allowed to repeat a subject which they have failed more than once. Where the subject is prescribed as part of the course they shall also be required to show cause why they should be allowed to continue that course.

General Rule

3. (1) Students shall be required to show cause why they should be allowed to repeat a subject they have failed if the assessment committee of the faculty or board of studies so decides on the basis of previous failures in that subject or in a related subject. Where the subject is prescribed as part of the course they shall also be required to show cause why they should be allowed to continue their course.

(2) Students shall be required to show cause why they should be allowed to continue their course if the assessment committee of the faculty or board of studies so decides on the basis of their academic record.

The Session-Unit System

4. (1) Students who infringe the provisions of Rules **1.** or **2.** at the end of Session 1 of any year will be allowed to repeat the subject(s) (if offered) and/or continue the course in Session 2 of that year, subject to the rules of progression in the course.

(2) Such students will be required to *show cause* at the end of the year, except that students who infringe Rule **2.** at the end of Session 1, and repeat the subjects in question in Session 2, and pass them, will not be required to *show cause* on account of any such subjects.

Exemption from Rules by Faculties

5. (1) A faculty or board of studies examinations committee may, in special circumstances, exempt students from some or all of the provisions of Rules **1.** and **2.**

(2) Such students will not be required to *show cause* under such provisions and will be notified accordingly by the Registrar.

Showing Cause

6. (1) Students wishing to *show cause* must apply for special permission to re-enrol. Application should be made on the form available from the Registrar and must be lodged with the Registrar by the dates published annually by the Registrar. A late application may be accepted at the discretion of the University.

(2) Each application shall be considered by the Admissions and Re-enrolment Committee of the relevant faculty or board of studies which shall determine whether the cause shown is adequate to justify the granting of permission to re-enrol.

*See Schedule A immediately below.

Appeal

7. (1) Students who are excluded by the Admissions and Re-enrolment Committee from a course and/or subject under the provisions of the Rules will have their applications to re-enrol reconsidered automatically by the Re-enrolment Committee of the Professorial Board.

(2) Students whose exclusion is upheld by the Re-enrolment Committee may appeal to an Appeal Committee constituted by Council for this purpose with the following membership:

A Pro-Vice-Chancellor, nominated by the Vice-Chancellor who shall be Chairman.

The Chairman of the Professorial Board, or if its chairman is unable to serve, a member of the Professorial Board, nominated by the Chairman of the Professorial Board, or when the Chairman of the Professorial Board is unable to make a nomination, nominated by the Vice-Chairman.

One of the category of members of the Council elected by the graduates of the University, nominated by the Vice-Chancellor.

The decision of the Committee shall be final.

(3) The notification to students of a decision which has been upheld by the Re-enrolment Committee of the Professorial Board to exclude them from re-enrolling in a course and/or subject shall indicate that they may appeal against that decision to the Appeal Committee. The appeal must be lodged with the Registrar within fourteen days of the date of notification of exclusion; in special circumstances a late appeal may be accepted at the discretion of the Chairman of the Appeal Committee. In lodging such an appeal with the Registrar students should provide a complete statement of all grounds on which the appeal is based.

(4) The Appeal Committee shall determine appeals after consideration of each appellant's academic record, application for special permission to re-enrol, and stated grounds of appeal. In particular circumstances, the Appeal Committee may require students to appear in person.

Exclusion

8. (1) Students who are required to *show cause* under the provisions of Rules **1.** or **3.** and either do not attempt to *show cause* or do not receive special permission to re-enrol from the Admissions and Re-enrolment Committee (or the Re-enrolment Committee on appeal) shall be excluded, for a period not in excess of two years, from re-enrolling in the subjects and courses on account of which they were required to *show cause*. Where the subjects failed are prescribed as part of any other course (or courses) they shall not be allowed to enrol in any such course.

(2) Students required to *show cause* under the provisions of Rule **2.** who either do not attempt to *show cause* or do not receive special permission to re-enrol from the Admissions and Re-enrolment Committee (or the Re-enrolment Committee on appeal) shall be excluded, for a period not in excess of two years, from re-enrolling in any subject they have failed twice. Where the subjects failed are prescribed as part of a course they shall also be excluded from that course. Where the subjects failed are prescribed as part of any other course (or courses) they shall not be allowed to enrol in any such course.

Re-admission after Exclusion

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

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

(b) Applications for re-admission to a subject should be made to the Registrar before 30 November in the year prior to that in which re-admission is sought. Such applications will be considered by the relevant subject authority.

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

(4) Students whose applications for re-admission to a course or subject that are unsuccessful (see **9.** (2) (a), (b) respectively) will be invited to appeal to the Re-Enrolment Committee of the Professorial Board. The decision of the Re-Enrolment Committee will be final.

10. Students who fail a subject at the examinations in any year or session and re-enrol in the same course in the following year or session must include in their programs of studies for that year or session the subject which they failed. This requirement will not be applicable if the subject is not offered the following year or session, is not a compulsory component of a particular course, or if there is some other cause which is acceptable to the Professorial Board for not immediately repeating the failed subject.

Restrictions and Definitions

11. (1) These rules do not apply to students enrolled in programs leading to a higher degree or graduate diploma.

(2) A subject is defined as a unit of instruction identified by a distinctive subject number.

Schedule A

(See First Year Rule **1.** above)

Where the minimum requirement is half the program, this is defined as half the sum of the unit values of all the subjects in the program where the unit value for each subject in a course is defined as follows:

Faculty/Board of Studies	Minimum Requirement	Course	Unit Values (UV)
Applied Science	Half the program	3000-3220 4190-4220	One-session subjects: UV 1 Two-session subjects: UV 2
Architecture	Half the program	3270, 3330	Elective subjects: UV 0 All other subjects: appropriate UV corresponding to credit points*
		3320 3360, 3380	Elective subjects: UV 0 All other subjects: UV equal to the allocated hours*
Arts	18 first-level credit points	3400, 3410	
Biological Sciences	2 subjects (or their Science unit or Arts credit-point equivalent)	3430	
Commerce	Three subjects	3490-3595 FT in both sessions	
	Two subjects	3490-3595 PT in either session	
Engineering	Half the program	3600-3750	One-session subjects: UV 1 Two-session subjects: UV 2
Law	Half the program	4710-4790	One-session subjects: UV 1 Two-session subjects: UV 2
Medicine	Half the program	3800	80.010: UV 3 81.001: UV 3 81.002: UV 6 70.001: UV 4 General Studies: UV 1
Military Studies	Half the program	BA, BSc	All subjects: UV 1
		BE	All subjects: appropriate weighted mark*
Professional Studies	Half the program	4030, 4040	All subjects: UV 1
		4070-4080	One-session subjects: UV 1 Two-session subjects: UV 2
Science	Half the program	3910, 3950	All subjects: appropriate UV* General Studies: UV 1
Science and Mathematics	Half the program	3970	All subjects: appropriate UV* General Studies: UV 1

Admission to Degree or Diploma

Students whose current program will enable them to complete all requirements for the degree or diploma, including industrial training where necessary, should lodge with the Registrar the form *Application for Admission to Degree/Diploma* and return it to the Registrar by the second Monday in May for the October ceremonies, and the first Tuesday in October for all other ceremonies. The forms are available from the Student Enquiry Counter in the north wing of the Chancellery.

Students who have indicated on their enrolment form that they are potential graduands are forwarded an application form with their Enrolment Details form in September (or, in the case of students who expect to satisfy requirements at the end of Session 1, with the form issued in April). Students who do not complete an application form will not graduate; students who do not return their application form by the due date will graduate at a later series of ceremonies.

Students enrolled in courses 3400, 3910 and 3970 who have completed an application form to graduate at the pass level and who then decide to proceed to an honours year should advise the Registrar, in writing before 1 September for those completing requirements at the end of Session 1, or before 28 February for those completing requirements at the end of Session 2.

A list of graduands in Medicine who have applied for their degree is published in *The Sydney Morning Herald* in December.

A list of graduands other than Medicine who have applied for their degree/diploma and who expect to graduate in October is published in *The Sydney Morning Herald* on the second Wednesday in September.

A list of graduands other than Medicine who have applied for their degree/diploma and who expect to graduate in April/May the following year is published in *The Sydney Morning Herald* on the second Wednesday in March.

Students who are potential graduands and who wish to notify the Registrar of a change of address should submit

*For details see the appropriate Faculty Handbook.

an additional form *Final Year Students' Graduation: Change of Address*.

Attendance at Classes

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

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

Absence from Classes

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

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

Student Records

Confirmation of Enrolment Program notices are sent to all students on 2 May and 19 September. It is not necessary to return these forms unless any of the information recorded is incorrect. Amended forms must be returned to the Student Records and Scholarships Office within fourteen days. Amendments notified after the closing date will not be accepted unless exceptional circumstances exist and approval is obtained from the Registrar. Amended forms returned to the Registrar will be acknowledged in writing within fourteen days.

Release of Information to Third Parties

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

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

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

Change of Address

The Student Records and Scholarships Office of the Registrar's Division should be notified as soon as possible of any change of address. Failure to do this could lead to important correspondence (including results of assessment) going astray. The University cannot accept responsibility if official communications fail to reach students who have not given notice of their change of address. *Change of Address Advice* forms are available at Faculty and School offices and from the Student Enquiry Counter in the north wing of the Chancellery.

All communications from the University will be sent to the Session or Term address except when arrangements are made otherwise in the case of results of assessment (see **Examinations: Availability of Results**, earlier in this section). *Change of Address Advice* forms will be accepted up to Friday 25 November, except for final-year students wishing to change their *Application for Admission for Degree/Diploma* form. Changes to this form will be accepted up to a date four weeks before the student's graduation ceremony.

Ownership of Students' Work

The University reserves the right to retain at its own discretion the original or one copy of any drawings, models, designs, plans and specifications, essays, theses or other work executed by students as part of their courses, or submitted for any award or competition conducted by the University.

Notices

Official University notices are displayed on the noticeboards and students are expected to be acquainted with

the notices which concern them. These boards are in the Biological Sciences Building, the Mathews Building, the Chancellery (lower ground floor), Central Lecture Block, Dalton Building (Chemistry), Main Building (Physics and Mining) and in the Western Grounds Area.

Parking within the University Grounds

A limited amount of parking is available on campus. Copies of the University's parking rules may be obtained on application to Room 240, the Chancellery.

Academic Dress

Information about the University's academic dress requirements may be obtained from the Alumni and Ceremonials Section, Room 148E, the Chancellery (phone extension 2998).

Further Information

Lost Property

All enquiries concerning lost property should be made to the Superintendent on extension 3892 or to the Lost Property Office at the Union.

The Calendar

Please consult the Calendar for a more detailed account of the information contained in this section.

Vice-Chancellor's Official Welcome to New Students

All students initially enrolling in the University are officially welcomed by the Vice-Chancellor and Principal at the following times:

Full-time Students

In the Faculties of Architecture, Arts, Biological Sciences, Commerce, Law:

Thursday 3 March 1983
11 am in the Clancy Auditorium

In the Faculties of Applied Science, Engineering, Medicine, Professional Studies, Science, and the Board of Studies in Science and Mathematics:

Friday 4 March 1983
10 am in the Clancy Auditorium

Part-time Students

All courses:

Tuesday 8 March 1983
7.00 pm in the Clancy Auditorium

Meeting for Parents of New Students

Friday 4 March 1983
7.30 pm in the Clancy Auditorium

Foreword

Since the beginning of recorded history man has sought to endow his environment with physical and spiritual qualities appropriate to his way of life. He has developed the materials and techniques available to him to adapt the natural environment to his own purposes, and in so doing has endeavoured to create buildings of enduring beauty. In each great culture of the past this search produced characteristic architecture which reflected the aspirations and the capabilities of its age.

To-day all of those concerned with the quality of our physical environment are faced with problems of increasing difficulty, resulting from the complexity of modern requirements and the range and diversity of the new materials and techniques available to them. For the first time in history material progress threatens to outstrip man's visionary and creative powers and to overwhelm his capacity for assimilation.

The professions working in the field of the built environment will be called upon to provide new solutions to problems resulting from the accelerating rate of population growth and from man's impact on the environment. They will have to strive to create a built environment worthy of the opportunities which science and technology are placing at their disposal.

The courses offered by the Faculty are designed to combine education in the specific professional field selected by the student with a broad general education in the environmental fields. The undergraduate courses aim to prepare the student for the vocation of his choice, and opportunities for further study and research at graduate level are available for those who seek to enrol for higher degrees.

Faculty Information

Who to Contact

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

Mr Paul Johnson, Executive Assistant to the Dean, Faculty of Architecture
Room 502, Architecture Building. Extension 3608.

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

Professor Eric Daniels, School of Architecture
Room 100, Architecture Building. Extension 3454.

Professor Richard Clough, School of Landscape Architecture
Room 208, Old Main Building. Extension 3425.

Ms Diana Kazemi, School of Building
Room 407A, Architecture Building. Extension 3607.

Professor Hans Westerman, School of Town Planning
Room 205, Old Main Building. Extension 2307.

Dr Bill Lawson, Department of Industrial Arts
Room 101, Hut 34, Western Campus. Extension 2496.

Professor John Haskell, Graduate School of the Built Environment
Room 212, Sir Robert Webster Building. Extension 2301.

Faculty of Architecture Enrolment Procedures

Architecture Degree Course

All students re-enrolling in Architecture courses in 1983 should obtain a copy of the free booklet *Architecture Enrolment Procedures 1983* available from the School Office. This booklet provides detailed information on enrolment procedure and enrolment timetable.

Town Planning Degree Course

Before proceeding on practical experience, Town Planning students are required to obtain instruction relating to enrolment procedure from the School of Town Planning office. This particularly applies to Third and Fourth year students.

Bachelor of Building Degree Course

The Building course is offered on a Credit Point Semester System basis and students are required to enrol for the full year (two semesters) on the dates and at the times shown in the booklet *Building Enrolment Procedures 1983*.

Building students who elect to take their industrial semester in Session 1 in any year are required to enrol at the beginning of that year.

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

Rules for Progression

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

In addition, in the School of Town Planning and School of Landscape Architecture, where the academic record of students is not of a satisfactory standard, the Head of School may recommend a restricted program.

Library Facilities

Although any of the university libraries may meet specific needs, the staff and students of the Faculty of Architecture are served mainly by the Physical Sciences Library and the Studio Collection housed in the Faculty of Architecture. There is also some material still contained in the Undergraduate Library.

The Physical Sciences Library

This library, which is situated on Levels 6 and 7 of the Library tower, caters for the information needs of staff, graduate students and senior undergraduate students in the areas of pure and applied science, engineering and architecture. The library's collection of books, serials and microfilms bears the prefix 'P' and details of each item are included in the central monograph and serials catalogues. In addition, there is a map collection on Level 6. Journals with the prefix 'PJ' may not be borrowed.

Trained staff are available at all times to assist readers with their enquiries.

The Studio Collection contains a small collection of reference, course-related and general interest material. This material is not for loan but in the majority of cases loan copies are held in the Physical Sciences or Undergraduate Libraries. The Studio Collection is open from 8.30am to 6.00pm during session and from 9.00am to 5.00pm during vacation, and a librarian is available to provide reference services and assist with readers' enquiries for several hours each day.

Students may also wish to use the Undergraduate Library for associated reading.

Physical Sciences Librarian **Marian Bate**

The Undergraduate Library

This library caters for the library needs of first and second year students and other groups where large numbers require mass teaching.

The Undergraduate Library provides a reader education program and reader assistance service aimed at teaching students the basic principles of finding information.

Services of particular interest to undergraduates and academic staff are:

- **The Open Reserve Section,** housing books and other material which are required reading.
- **The Audio-Visual Section,** containing cassette tapes mainly lectures and other spoken word material. The Audio-Visual Section has wired study carrels and cassette players for student use.

Undergraduate Librarian **Pat Howard**

Faculty Laboratories

Research Laboratories

The Faculty controls Research Laboratories situated on campus at Kensington and at the University of New South Wales Research Station, King Street, Randwick. The laboratories have sections equipped for work on environment and climate, materials, model testing, services, lighting and acoustics. Extensive testing and research equipment and workshop facilities are available, including a wind-rain machine, a weatherometer, an artificial sky and sun, a structural modelling facility, a structural testing bay and a controlled atmosphere chamber. The equipment and facilities of the Laboratory are continually being expanded. Research work and testing programs carried out in the Laboratories include:

Efficiency of tiled roofs of various pitch, under extreme weather conditions.

Study of the performance of bricks and brickwork.

Condensation behaviour of double-glazed windows.

Abrasion properties of floor materials.

Transfer of heat and moisture through wall elements.

Vibration characteristics of large prestressed concrete structures.

Applications of motor-mesh (ferro-cimento) structures in building.

Penetration of moisture into and through concrete.

Development of methods of extending the use of solar energy and prefabrication techniques in domestic architecture.

Development of form-finding techniques and fabrication methods for folded-surface structures.

Development of techniques for earth-wall construction. Study of noise transmission in buildings.

Investigation of traffic noise measurement, analysis and prediction.

The effectiveness of artificial luminous environments.

Computing Facilities Laboratory

The Faculty has established a laboratory for research and teaching of computing methods, with particular emphasis on the use of computer graphics. The Laboratory, situated in the Architecture Building, has the following major equipment: PDP 11/40 computer with maximum configuration in memory and disc; Tektronix storage tube graphics terminals with hard copy and digitizing capability; a refresh screen computer-based graphics terminal with light pen; card reader, printer plotter, and several interactive terminals.

The above equipment is optionally connected by data link to the University's central computing system. Active research is under way in the following areas:

The use of computing techniques and graphics in architectural design.

Rational computer-based documentation methods in building. The development of management information systems for building organizations.

Analysis and development of rational approaches to landscape design and planning.

Various projects in the general areas of environmental and building science.

Student Clubs and Societies

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

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

Industrial Arts Society

The Industrial Arts Society aims at providing opportunities for students to meet staff and fellow students through both social functions and educational activities such as films, lectures, seminars and visits to promote awareness of the opportunities available in the field of Industrial Arts.

Membership is open to all students of the Department of Industrial Arts including graduate students. The Annual General Meeting is held in March. Further details regarding membership and activities may be obtained by contacting the Secretary of the Society, c/- Department of Industrial Arts, Western Grounds Area.

Undergraduate Study

The Faculty of Architecture consists of the School of Architecture including the Department of Industrial Arts, the School of Building, the School of Landscape Architecture, the School of Town Planning and the Graduate School of the Built Environment. These Schools and this Department conduct undergraduate courses in the fields of architecture, industrial arts, building, landscape architecture and town planning. The courses provide education and training in the arts and sciences involved in the design and construction of buildings, in the development of cities, in landscape and in industrial arts. In addition to professional and vocational training the courses include general studies subjects to provide graduates with a broad understanding of the humanities and the social sciences.

School of Architecture

Head of School
Professor Eric C. Daniels
Senior Administrative Officer
Mr R. Watkins

Architecture is concerned with the design and construction of buildings. Today the process of design and construction reflects the increasingly technological age in which we live, and contemporary architects require a wide range of knowledge and skills if they are to fulfil their important role in society. Foremost amongst the architect's skills is the ability to design, for it is as designers that architects make their greatest contribution to society. But the practice of architecture involves knowledge in such diverse fields as economics, technology and law, and an understanding of broad social and environmental factors. Architecture is a synthesis of art and science, and, while it is essential for the courses offered by the School to reflect the advances in science and technology on the one hand and the changing needs of society on the other, it is also important that they encourage students to develop their own interests and creative abilities within the framework of the undergraduate courses offered by the School.

The courses in Architecture currently offered are the:
Bachelor of Architecture Course (3270/3280)
and the
Bachelor of Science (Architecture) Course (3270/3290).

These courses replace the previously offered Bachelor of Science (Architecture) course **(3370)** and Bachelor of Architecture course **(3300).**

Courses **3270, 3280** and **3290** were offered to students who commenced their studies in 1978; in 1979 they were offered to all students in the School except those who were enrolling in Year 3 of Course **3300.**

Bachelor of Science (Architecture) and Bachelor of Architecture Degree Courses

These undergraduate courses lead to the award of the BSc(Arch) pass degree, the BSc(Arch) degree with honours, and the BArch degree for which honours may be awarded based on performance throughout the course.

The subjects in these courses are offered on a semester-unit credit-point basis. Credit points generally correspond to class hours per week per semester, and it is expected that students

take a program of 26 credit points per semester. The minimum time, and the credit points required to complete the degree courses offered by the School are as follows:

	Minumum time (semesters)	Credit points
BSc(Arch) pass degree	6	156
BSc(Arch) degree with Honours	8	208
BArch degree	10	240
BSc(Arch) and BArch degrees	11	266

Students commencing their studies in architecture enrol in the BSc(Arch)/BArch program (Course **3270**) and undertake a mandatory program of study in the first two semesters. Thereafter students may, with the approval of the Head of School, take subjects in the order best suited to their individual preferences, subject to prerequisite requirements and provided the subjects are being offered in the appropriate semester. On acquiring 130 credit points, and after the completion of at least five semesters of study, students proceeding to the award of the BArch degree transfer into the BArch program (Course **3280**) and students proceeding to the award of the BSc(Arch) degree transfer into the BSc(Arch) program (Course **3290**).

Students may, with the approval of the Head of School, transfer from the BArch program to the BSc(Arch) program or from the BSc(Arch) to the BArch program. It should be noted that credit points gained in the BSc(Arch) program (Course **3290**) cannot be credited towards the award of the BArch degree, and that credit points gained in the BArch program (Course **3280**) cannot be credited towards the award of the BSc(Arch) degree.

Subjects are offered in accordance with a program to be approved annually. The program of study for students in the BSc(Arch) degree course requires that not less than 70 per cent of the subjects taken be offered by the Faculty of Architecture, and not more than 30 per cent of the subjects taken be offered by universities and approved institutions, other than the Faculty of Architecture, and approved by the Head of School. The program of study for students in the BArch degree course seeking professional qualification provides for 60 per cent of study time being devoted to mandatory core subjects and 40 per cent to elective subjects. Normally core subjects are offered in alternate semesters and elective subjects according to demand and the availability of staff and resources.

3290
Bachelor of Science (Architecture)
Course — Pass

Bachelor of Science (Architecture)
BSc(Arch)

This course, leading to the award of the Bachelor of Science(Architecture) degree, aims to provide students with the opportunity to specialize in a particular field of architectural study in accordance with an approved program. A wide range of elective subjects in areas of study including history, the science of buildings, management, technology and design are provided. The course may be completed in a minimum of six semesters of full-time study and with the gaining of 156 credit points. The program of study is as follows:

Mandatory Subjects

	Credit points
First semester	25
Second semester	24
Graduation semester (including 11.4701 Graduation Project of 8 credit points)	26

Elective Subjects

Minimum credit points which must be taken from subjects offered by the Department of General Studies	6
Minimum credit points which must be taken from subjects offered by the Faculty of Architecture. These may be either core or elective subjects	34
Maximum credit points which may be taken from subjects offered by universities and approved institutions, other than the Faculty of Architecture, and approved by the Head of School.	41
	156

The 26 credit points gained in the graduation semester may only be credited to the BSc(Arch) degree program.

3290
Bachelor of Science (Architecture)
Course — Honours

Bachelor of Science (Architecture)
BSc(Arch)

Enrolment in this course normally follows completion of the BSc(Arch) course and, accordingly, is based upon performance in the BSc(Arch) pass course and on the standard achieved in the Graduation Project. It involves a minimum of two semesters of full-time study of an approved program. To qualify for this degree the program of study is as follows:

	Credit points
BSc(Arch) Pass Degree to be obtained in accordance with the program set out above	156
Honours Semester I	26
11.4705 Honours Project	26
	208

The 52 credit points gained in the Honours Semester may be credited only to the BSc(Arch) degree with Honours. Honours for this degree are awarded on the performance in the honours program.

3280
Bachelor of Architecture Course
Bachelor of Architecture
BArch

This course provides the academic education and training necessary to obtain professional qualifications in architecture. It aims to provide students with both practical and theoretical training, and to develop the skills and techniques involved in the design and construction of buildings and also contains a balance of building technology, science, history, practice, management and architectural design. The following program of study offers a range of elective subjects which enables students to major in areas of study of their choice:

Mandatory Subjects

	Credit points
First semester	25
Second semester	24
The core subjects listed in the schedule of subjects	92

Elective Subjects

Minimum credit points which must be taken from subjects offered by the Department of General Studies	12
Minimum credit points which must be taken from subjects offered by the Faculty of Architecture	48
Maximum credit points which may be taken from subjects offered by universities and approved institutions, other than the Faculty of Architecture, and approved by the Head of School	21
Thesis	12
Practical Experience	
Approved practical experience	6
	240

Students are required to obtain six months' practical experience in an architect's office. The arrangements for this experience are to be approved by the School, and students are required to provide evidence of the scope and nature of the practical experience obtained. Students may not normally enrol in other subjects while obtaining approved practical experience.

Honours for this degree may be awarded based on performance throughout the course.

The course has been arranged in the following five subject areas:

	Credit points for core subjects
1. Architectural Design	
General	14
Specific	36
2. Architectural Environment	29
3. Technology	34
4. Practice	11
5. Communication	17
	141

The arrangement of the course in five subject areas identifies the main fields of study. The study of architecture involves the synthesis of these areas of study and, in the program leading to the award of the BArch degree, the synthesis is achieved in the studio through the design projects included in the syllabus for *Architectural Design—Specific*, as set out in the schedule of subjects (see following pages).

Mandatory Subjects of the First Two Semesters

Students commencing their studies in architecture enrol in the BSc(Arch)/BArch program (Course **3270**) and undertake the following program of mandatory subjects in the first two semesters:

First Semester

		Credit points
11.4101	Principles of Design	4
11.4301	Context of Architecture	5
11.4401	Principles of Construction	6
11.4402	Structures and Materials	4
11.4601	Introduction to Communication	6
		25

Second Semester

11.4201	Living Unit	4
11.4303	Introduction to Architectural Science	4
11.4307	World Architecture	3
11.4403	Principles of Structures	4
11.4501	Practice and Management I	2
11.4602	Introduction to Computing	2
11.4603	Graphic Communication	5
		24

In addition students may, in the Second Semester, take elective subjects up to the value of 3 credit points.

Progression and Re-Enrolment

Re-enrolment is subject to normal University regulations which are set out in the Calendar. Subjects which have prerequisites may not be attempted until the appropriate prerequisite has been passed. In particular circumstances prerequisite requirements may be waived by the Head of School.

Honours

The Bachelor of Science (Architecture) degree may be awarded with Honours after completion of the BSc(Arch) Honours program, in accordance with current Faculty regulations. Honours are Class I *or* Class II Division I *or* Class II Division II.

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

Registration and Professional Recognition

In accordance with normal practice when courses are revised, the School of Architecture follows the procedures necessary to ensure that the revised Bachelor of Architecture degree is recognized by the Board of Architects of New South Wales for the purpose of legal registration.

It is anticipated that the introduction of the revised BSc(Arch) and BArch courses will not lead to any change to the conditions for '**Registration and Professional Recognition**' as set out later in this section.

Courses 3270, 3280 and 3290: Schedule of Subjects

No	Subject Name	Credit Points	Prerequisites
Architectural Design — General			
Core Subjects			
11.4101	Principles of Design	4	nil
11.4102	Design Theory I	5	11.4101, 11.4201
11.4103	Design Theory II	5	11.4102
Elective Subjects			
11.4120	Design Theory III	4	11.4103
11.4121	Theory of Form	4	11.4103
11.4122	Theory of Architecture I	4	11.4103
11.4123	Theory of Architecture II	4	11.4122
11.4124	Geometry & Design	4	11.4103
11.4125	Interior Design I	4	nil
11.4126	Interior Design II	4	11.4125
11.4127	Design for Conservation	4	11.4328
11.4128	Computer-Aided Design	6	11.4632
11.4129	Research & Survey Methods	4	11.4103
11.4130	Criticism & Evaluation	4	11.4103
11.4131	Principles of Dwellings	3	11.4102, 11.4201
Architectural Design — Specific			
Core Subject			
11.4201	Living Unit	4	nil
Group A			
one *subject compulsory. A student who has passed a Group A subject may take another Group A as an elective before proceeding to Group B*			
11.4211	Cultural Facilities I		
11.4212	Commercial Facilities I		
11.4213	Health and Welfare Facilities I	6	11.4102, 11.4303, 11.4401, 11.4403
11.4214	Educational Facilities I		

Courses 3270, 3280 and 3290: Schedule of Subjects (continued)

No	Subject Name	Credit Points	Prerequisites
Architectural Design — Specific (continued)			
Group B			
one *subject compulsory, the others may be taken as electives except by students who have passed subjects in* **both** *Groups C and D*			
11.4221	Detached Houses	6	**one** from Group A, 11.4404 *plus* 11.4304 for 11.4223
11.4222	Group Dwellings		
11.4223	Housing in Tropical, Sub-tropical and Arid Zones		
Group C			
one *subject compulsory, the others may be taken as electives*			
11.4230	Community Facilities II*	12	
11.4231	Commercial Facilities II	6	**one** from Group B, 11.4103, 11.4408
11.4232	Industrial Facilities		
11.4233	Health and Welfare Facilities II		
11.4234	Government Facilities I		
Group D			
one *subject compulsory, the others may be taken as electives*			
11.4240	Residential Facilities II**	12	**one** from Group B, 11.4103, 11.4405, 11.4407
11.4241	Urban Housing		
11.4242	Low-Cost Housing	6	
11.4243	Tourist Facilities		
Group E			
one *subject compulsory, the others may be taken as electives*			
11.4250	Community Facilities III***	16	**one** from Group D *and* **one** from Group C, *each* at credit grade or better, 11.4406
11.4251	Educational Facilities II	8	**one** from Group D, **one** from Group C, 11.4406 plus 11.4345 *or* 36.411 for 11.4254 *and* 11.4256 *and* 11.4123 for 11.4257
11.4252	Government Facilities II		
11.4253	Cultural Facilities II		
11.4254	Urban Development		
11.4255	Recreational Facilities		
11.4256	Transport Buildings		
11.4257	Ecclesiastical Architecture		

*A student who has not previously passed any subject in Group C is, on passing 11.4230, awarded 6 core credit points and 6 elective credit points. A student who has previously passed one or more subjects in Group C is, on passing 11.4230, awarded 12 elective credit points.

**A student who has not previously passed any subject in Group D is, on passing 11.4240, awarded 6 core credit points and 6 elective credit points. A student who has previously passed one or more subjects in Group D is, on passing 11.4240, awarded 12 elective credit points.

***A student who has not previously passed any subject in Group E is, on passing 11.4250, awarded 8 core credit points and 8 elective credit points. A student who has previously passed one or more subjects in Group E is, on passing 11.4250, awarded 16 elective credit points.

Courses 3270, 3280 and 3290: Schedule of Subjects (continued)

No.	Subject Name	Credit Points	Prerequisites

Architectural Environment

Core Subjects

11.4301	Context of Architecture	5	nil
11.4303	Introduction to Architectural Science	4	nil
11.4304	Thermal Design of Buildings	3	11.4303
11.4305	Lighting of Buildings	3	11.4303
11.4306	Acoustics of Buildings	3	11.4303
11.4307	World Architecture	3	nil
11.4308	Western Architecture	3	11.4307
11.4309	Australian Architecture	3	11.4308
36.411	Town Planning	2	11.4309

Elective Subjects

11.4320	Geometry	3	nil
11.4321	Physics	4	nil
11.4322	Solar Energy	2	11.4304, 11.4407
11.4323	Room Acoustics	2	11.4306
11.4324	Lighting Design	2	11.4305
11.4325	Tropical Architecture	2	11.4303
11.4326	Acoustics Studies	4	11.4323
11.4327	Lighting Research	4	11.4324
11.4328	Appropriate Technology	2	11.4301, 11.4303
11.4330	Modern Architecture	2	11.4308
11.4331	The Australian House since 1900	2	11.4309
11.4332	Historical Research A	3	11.4309, 145 credit points
11.4333	Historical Research B	3	11.4309, 145 credit points
11.4334	Historical Research C	3	11.4309, 145 credit points
11.4335	Eastern Architecture	2	11.4307
11.4336	Measured Studies of Historic Structures	3	11.4308, 11.4603
11.4339	Introduction to Building Conservation	5	11.4309, 11.4404
11.4340	Cognition & Behaviour A	3	11.4301
11.4341	Cognition & Behaviour B	3	11.4340
11.4342	Transport Systems	4	36.411
11.4343	Urban Planning	4	36.411
11.4344	Landscape Planning	4	11.4303
11.4345	Urbanism	2	11.4309
11.4346	Australian House (Measured Drawing)	2	11.4331
11.4347	Australian House (Report)	2	11.4331

Technology

Core Subjects

11.4401	Principles of Construction	6	nil
11.4402	Structures & Materials	4	nil
11.4403	Principles of Structures	4	nil
11.4407	Services A	3	11.4303, 11.4404
11.4408	Services B	3	11.4304, 11.4404, 11.4405
11.4414	Construction A	5	11.4401, 11.4402
11.4415	Construction B	5	11.4414
11.4416	Structures	4	11.4402, 11.4403

Courses 3270, 3280 and 3290: Schedule of Subjects (continued)

No	Subject Name	Credit Points	Prerequisites

Technology (continued)

Elective Subjects

11.4420	Technology for Low-rise Buildings	5	11.4404
11.4421	Technology for High-rise Buildings	5	11.4406
11.4422	Technology for Low-cost Housing	5	11.4406
11.4423	Rationalized Building Systems	5	11.4406
11.4424	Const. Planning & Management	3	11.4405, 11.4407, 11.4408
11.4425	Earth Construction A	3	11.4402, 11.4303
11.4426	Earth Construction B	3	11.4425
11.4430	Integration of Services	4	11.4407, 11.4408
11.4440	Building Materials A	2	11.4402
11.4441	Building Materials B	5	11.4402, 11.4405
11.4450	Advanced Structural Analysis	4	11.4404, 11.4405, 11.4602
11.4451	Advanced Structural Design	4	11.4404, 11.4405, 11.4602
11.4452	Models Analysis & Form-finding	3	11.4403
11.4453	Surface & Spatial Structures A	5	11.4320, 11.4404, 11.4405
11.4454	Surface & Spatial Structures B	5	11.4453
11.4455	Technology Research A	5	156 credit points *and* 11.4405 or 11.4406
11.4456	Technology Research B	5	11.4455

Practice

Core Subjects

11.4510	Practice and Management	2	nil
11.4511	Building Economics and Specifications	3	11.4414, 11.4510
11.4512	Contract Administration A	2	11.4414, 11.4510
11.4513	Contract Administration B	2	11.4512
11.4514	Management for Architects	2	11.4513

Elective Subjects

11.4520	Management Systems & Finance	2	11.4514
11.4521	Documentation	3	11.4511
11.4522	Building Economics & Development	3	11.4511
11.4524	The Architect and the Law	2	11.4513
11.4525	Project Management	3	11.4513
11.4526	Industrial Relations	2	11.4512

Communication

Core Subjects

11.4601	Introduction to Communication	6	nil
11.4602	Introduction to Computing	2	nil
11.4603	Graphic Communication	5	nil
11.4604	Graphic Communication Theory	4	11.4601

Courses 3270, 3280 and 3290: Schedule of Subjects (continued)

No	Subject Name	Credit Points	Prerequisites

Communication (Continued)

Elective Subjects

11.4620	Presentation Graphics	3	11.4603, 11.4604
11.4621	Oral & Written Communication	2	11.4601
11.4622	Spatial Communication	2	nil
11.4623	Models & Materials	3	nil
11.4624	Architectural Photography	3	nil
11.4625	Constructional Geometry	3	11.4603, **one** from Design Specific, Group A
11.4626	Architectural Ceramics & Sculpt.	3	nil
11.4627	Computer Graphics	4	11.4632
11.4628	Contemporary Styles in Art	4	11.4629
11.4629	Graphic Art	4	11.4604
11.4630	Drawing & Painting	4	11.4601
11.4631	Advanced Graphic Concepts	4	11.4629 *or* 11.4620
11.4632	Computer Programming and Graphics	6	11.4602 *and* 100 credit points Excluded 11.4627 (1982 or earlier)
11.4633	Architectural Drawing and Rendering	4	11.4603, **one** from Design Specific, Group A

Other Required Studies

BSc(Arch) Degree Course

11.4701	Graduation Project	8	130 credit points
	General Studies Subjects	6	

BSc(Arch) Degree Course at Honours Level

11.4705	Honours Project	26	156 credit points

BArch Degree Course

11.4702	Thesis	12	156 credit points
11.4703	Practical Experience	6	130 credit points
	General Studies Subjects	12	

Other Elective Studies

11.4704	Architectural Research	4	156 credit points
11.4706	Architecture Graduation Project	20	208 credit points. Selection on merit

Registration and Professional Recognition

Students enrolled in the Bachelor of Science (Architecture) and Bachelor of Architecture degree courses are eligible to become Student Members of the Royal Australian Institute of Architects.

The degree of Bachelor of Science (Architecture) is not recognized by the Board of Architects of NSW for registration for practice as an architect but is recognized by the Royal Australian Institute of Architects as an eligible qualification for an Affiliate membership provided the candidate produces evidence of two years' approved practical experience, at least one of which has been subsequent to successful completion of the course.

The degree of Bachelor of Architecture of the University of New South Wales is recognized by the Board of Architects of New South Wales for the purposes of legal registration provided the candidate can satisfy the following requirements:

1. produce evidence of two years' approved practical experience, at least one of which has been subsequent to successful completion of the course; and

2. pass a special examination in Architectural Practice.

Graduates with two years' approved practical experience, at least one of which is subsequent to completion of the course, are eligible for Associate Membership of the Royal Australian Institute of Architects.

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

Department of Industrial Arts

Acting Head of Department
Dr W. R. Lawson

The Department of Industrial Arts offers a BSc(IndArts) DipEd course **(3320)** available through full-time study in the general field of Industrial Arts. The subjects required to qualify for the degree are set out below. At the graduate level, the Department offers Master of Science and Doctor of Philosophy degrees by research as well as a course in Industrial Design leading to the award of a Graduate Diploma.

The Subject Matter of Industrial Arts

Through the ages, man has used his intellect, imagination and skill to create useful things. The term 'industrial arts' has come to be used to describe these activities.

Man-made objects form a large part of the human environment: shelter, furniture, fabrics, vessels, tools, machines, vehicles and labour-saving devices of many kinds. Although these objects are designed and made primarily for some practical purpose, each individually makes some contribution to the total quality of the environment. Well-designed, well-made things of the practical kind may be considered 'works of art', thus the best products, whether handmade or factory-produced are evidence of the industrial arts.

Before the growth of modern industrial society, it was possible to identify the industrial arts with certain skilled occupations, for example, gold and silversmithing, weaving, metalworking, woodworking and pottery. Industrial methods and mass production have changed the forms of intellect, imagination and skill required for the creation of useful objects. Products are now seldom the result of the activity of single individuals, rather they reflect the skills of many people applied through an industrial organization. The study basic to Industrial Arts is the relationship between man and his material environment. The important elements in this study are man himself, the materials of his environment, the objects he produces and the processes he uses for production.

Such studies can be concerned as much with the useful objects of antiquity as with those of contemporary industrial civilization. Thus the research activities of the Department of Industrial Arts range from investigations into the traditional technologies of ancient cultures to an analysis of the problems of industrial design in contemporary technological society.

The Industrial Arts Course

The course offered by the Department of Industrial Arts is intended to provide a broad understanding of the man-product relationship with studies in depth of the most relevant areas of knowledge drawn from natural science, technology, social science and other fields. Of central importance is the subject Industrial Arts. The core study in this subject is Design. Design is the process whereby materials, functional requirements, appearance, mechanical factors, cost etc are related and integrated into products which satisfy human needs. The design strand is supported by parallel studies in graphics, materials, education. Graphics—the 'visual language' of design—includes a variety of methods of drawing as well as other methods of visual representation, communication and analysis. The other subjects provide specialized information which is needed for the study and teaching of design, in particular, and of industrial arts generally.

Also included are First Year Engineering and Science Units and elective studies in the sciences and general studies.

The Industrial Arts course covers the major subject areas included in both the secondary and senior secondary school curricula. After completion of the degree, graduates will be eligible to become certificated by the Department of Education as four-year trained teachers.

The undergraduate degree also provides a sound basic education for people intending to seek employment in the design field.

In general, the Industrial Arts course provides a broad education which embraces the sciences, technological studies, the humanities, social sciences, and the arts. Education of this type is becoming increasingly important for employment in semi-technical fields such as technical sales, engineering administration, work study, technical writing, information services and personnel management.

3310
Industrial Arts Course — Full-time

Bachelor of Science
BSc

This course is being discontinued from 1977 and no new students may be enrolled. Students already enrolled in the course may continue with their studies until completion of the degree.

3320
Industrial Arts Course — Full-time

Bachelor of Science (Industrial Arts)/ Diploma in Education
BSc(IndArts) DipEd

Students commencing studies in 1981 and subsequent years enrol in the first year of the revised concurrent course. The course is normally of four years' duration but may extend over five years if Honours in Education is undertaken.

		Hours per session S1	S2
Year 1			
1.001	Physics I *or*		
1.011	Higher Physics I *or*	6	6
1.021	Introductory Physics		
2.121	Chemistry IA	6	
2.131	Chemistry IB		6
5.010	Engineering A	6	
5.030	Engineering C		6
21.3111	Workshop Practice	2½	
21.3112	Introduction to Design Methods		1
21.3113	Basic Design		2
21.3114	Introduction to Graphics	2½	
21.3115	History of Industrial Arts	1	
21.3116	Research Methods		1
Year 2			
4.911	Materials Science	1½	1½
12.001	Psychology I	5	5
21.3121	Traditional Technology I	4 *or*	4
21.3122	Craft IA	4 *or*	4
21.3123	Industrial Design I	4 *or*	4
21.3124	Graphics I	4 *or*	4
21.3125	Industrial and Social Organization I	1	1
21.3126	Project	2	2
21.3127	History of Art and Design	1	1
58.702	Theory of Education I	0	1½
58.722	Industrial Arts Curriculum and Instruction I	4	4
58.612	Teaching Practice I	10 days	
	General Studies Elective	2	2
Year 3			
4.951	Materials Technology	4	4
12.052	Basic Psychological Processes	4	
12.062	Complex Psychological Processes		4
12.152	Research Methods	3	3
21.3131	Traditional Technology II*	4	3
21.3132	Craft IIA*	4	3
21.3133	Industrial Design II*	4	3
21.3134	Graphics II*	4	3
21.3135	Industrial and Social Organization II		2
58.703	Theory of Education II	2½	2
58.723	Industrial Arts Curriculum and Instruction II	3	3
58.713	Teaching Practice II	15 days	
Year 4*			
	Psychology III**	8	8
21.3141	Traditional Technology III***	5	5
21.3142	Craft IIIA***	5	5
21.3143	Industrial Design III***	5	5
21.3144	Graphics III***	5	5
21.3145	Industrial and Social Organization III	1	1
21.3146	Advanced Project	3	3
21.3147	Appropriate Technology	1	1
58.704	Theory of Education III	1½	3
58.724	Industrial Arts Curriculum and Instruction III	4	4
58.714	Teaching Practice III	15 days	

Honours in Education

Year	Subject	Hours per week
3	58.793	1½
4****	58.794	1
5****	58.795	4
	58.799	

****Students in Years 4 and 5 in 1983 should refer to the 1982 Architecture Handbook since minor modifications introduced in 1983 only apply to students in Years 2 and 3

Industrial Arts Course — Part-time

Bachelor of Science (Technology)
BSc

This course is being progressively discontinued. Students should consult pages B319-B320 in the 1972 Calendar for the course outline.

*Two units to be chosen from 21.3131, 21.3132, 21.3133 and 21.3134
**Psychology III comprises four units selected in consultation with the School of Psychology
***One unit only to be chosen from 21.3141, 21.3142, 21.3143 and 21.3144

School of Building

Head of School
Professor A. R. Toakley
Undergraduate Course Co-ordinator
Mr J. F. Mooney
Administrative Assistant
Diana Kazemi

Building Degree Course BBuild

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

General Description of the Course

The course is offered on a semester basis. Students are required to complete a minimum of eight semesters (sessions) including one semester of appropriate industry experience. The course leads to the award of the degree of Bachelor of Building (BBuild).

Credit Points

To qualify for a Bachelor of Building degree a student must have obtained a minimum of 192 credit points (including 131 credit points from compulsory subjects offered by the School of Building and 10 credit points of General Studies subjects). Credit points are allocated to all compulsory and elective subjects.

Students, provided that they can satisfy the prerequisite requirements for subjects to be attempted, may choose that pattern and order of subjects which best suits individual requirements. Credit points generally correspond to work load in subjects.

Attention is drawn to the fact that Physics and Mathematics are included among the compulsory subjects. It is highly desirable that intending students have successfully completed these subjects at HSC level.

Practical Experience

Students are required to be in employment related to their course during at least six months of their program. In this period they must be formally enrolled in 35.910 Industry Semester. The proposal for employment must be submitted to the Professor of Building for approval. See **Subject Descriptions** for details.

Award of Honours

Honours are awarded on the basis of the quality of student performance in accordance with current Faculty regulations.

Professional Recognition

The award of the degree, Bachelor of Building, is recognized for admission to membership by the Australian Institute of Building and the Australian Institute of Quantity Surveyors.

3330 Building Course

Bachelor of Building BBuild

Note: The timetabling of subjects depends on the number of enrolments and on the number of students wishing to specialize in particular areas. While the intention is to offer each subject in every alternate semester, students should realize that the full range may not be offered in any one year.

Schedule of Subjects

Construction Studies Stream

Compulsory Subjects

		Credit Points	Prerequisites
29.411	Surveying for Architects and Builders	2	nil
35.500	Building Graphics	6	nil
35.501	Construction I (Domestic Buildings)	5	nil

		Credit Points	Prerequisites
35.502	Construction II (Building Practice)	5	nil
35.503	Construction III (Low-rise Buildings)	5	35.501
35.504	Construction IV (Factory Buildings)	5	35.503
35.505	Construction V (High-rise Buildings)	5	35.504
35.551	Structures I	5	nil
35.552	Structures II	5	35.551
35.553	Structures III	5	35.552
35.581	Hist. Devel. of Building	2	nil
35.202	Soil Mechanics for Building	2	nil

Elective Subjects

35.506	Construction VI (Techniques)	4	35.505, 35.703
35.507	Construction VII (Building Systems)	4	35.505, 35.703
35.508	Construction VIII (Industrialization)	4	35.505, 35.704
35.554	Structures IV	4	35.553
35.571	Built Environment	2	nil
35.580	Building Design Analysis	3	35.505, 35.704
36.411	Town Planning	3	35.503

Building Science Stream

Compulsory Subjects

1.931	Physics I (Building)	4	nil
35.670	Mathematics for Builders	4	nil
35.601	Building Science I (Materials)	4	nil
35.602	Building Science II (Energy)	5	1.931
35.603	Building Science III (Computing)	5	nil
35.651	Services I (Hydraulics)	3	nil
35.652	Services II (Environmental)	3	35.602

Elective Subjects

35.604	Building Science IV (Plastics)	3	35.601
35.605	Building Science V (Concrete)	3	35.601
35.606	Building Science VI (Metals)	3	35.601
35.607	Building Science VII (Thermal)	3	35.602
35.608	Building Science VIII (Systems)	4	35.603
35.609	Building Science IX (Timber)	3	35.601
35.653	Services III (High Rise)	4	35.651, 35.652

Management Studies Stream

Compulsory Subjects

		Credit Points	Prerequisites
35.701	Management I (Management Principles)	4	nil
35.702	Management II (Professional Practice)	4	35.701
35.703	Management III (Planning)	4	35.702, 35.501, 35.502
35.704	Management IV (Contracts, Site Admin.)	4	35.703
35.721	Law for Builders I	2	nil
35.722	Law for Builders II	2	35.721

Elective Subjects

35.705	Management V (Project Management)	4	35.704
35.706	Management VI (Personnel Management)	4	35.704
35.707	Management VII (Corporate Strategy)	4	35.704, 35.842, 35.866, 14.002
35.708	Management VIII (Marketing & Finance)	4	35.704, 35.842, 35.866, 14.002
35.710	Building Information Systems	4	14.001, 35.603
35.720	Commercial Arbitration	4	35.704
35.723	Law for Builders III	4	35.722

Building Economics Stream

Compulsory Subjects

35.801	Quantity Surveying I	4	35.503
35.840	Building Economics I	3	14.002
35.865	Estimating I	3	35.503
35.870	Building Specifications	2	35.503
35.890	Property Valuation	2	35.503
14.001	Intro. to Accounting A	2	nil
14.002	Intro. to Accounting B	2	14.001

Elective Subjects

35.802	Quantity Surveying II	4	35.504, 35.870
35.803	Quantity Surveying III	2	35.802
35.842	Building Economics II	3	35.840
35.853	Building Economics III	5	35.842, 35.866
35.866	Estimating II	2	35.865
35.880	Development Project	4	35.504, 35.890

Others

Compulsory Subjects

		Credit Points	Prerequisites
35.900	Thesis	10	100 credit points
35.910	Industry Semester*	3	35.503, 35.702
	General Studies	10	nil

*This subject must not be taken in final semester. It must be taken at a stage which will enable students to subsequently complete a minimum of 12 credit points, apart from any credit points obtained for 35.900 Thesis

General Studies subjects totalling 10 credit points are compulsory. Two credit points are awarded for Half Electives (28 hours) and four credit points are awarded for Electives (56 hours). The subjects are to be selected from the list of General Studies electives available in the General Studies handbook.

School of Landscape Architecture

Head of School
Professor R. Clough

Landscape Architecture Degree Course BLArch

Landscape Architecture is a professional discipline which is based on an understanding of the natural sciences. Graduates will be able to share in mankind's responsibility towards the environment.

Landscape in its broadest sense encompasses all external spaces comprising natural topography and vegetation as well as modified environments constructed for man's enjoyment or comfort. Opportunities for graduates to contribute professional advice vary in scale through the design of domestic gardens, urban plazas and thoroughfares, regional parks and new cities to national considerations of land use and environmental policies. Creative design ability, based on an appreciation of natural systems and man's requirements can bring about management plans for natural areas or the planned modification of areas to provide external spaces which are both practical and enjoyable.

The course is designed to introduce students to landscape architecture through an understanding of the components and processes at work in primitive environments, and of the philosophies and techniques which have been developed by man in his continuous efforts to improve this environment. In the later years of the course emphasis is given to creative design work of a kind appropriate to Australian conditions. Programs are related to the subject matter of concurrent lectures, and culminate in an examination of landscape problems of regional and national significance.

General Description of the Course

The course requires full-time attendances of approximately 21 hours per week over at least four years.

The majority of subjects are specific, however contact with the students of other Schools within the Faculty and of other Faculties within the University is assured by the inclusion of subjects from the Schools of Botany, Geography and Town Planning, and the Department of General Studies.

Practical Experience

Students of the undergraduate course must obtain a total of four months' practical experience prior to graduation, of which a minimum of two months must be in a design office and a minimum of two months must be in outdoor work. This normally takes the form of employment during long vacations under a landscape architect, landscape contractor or nurseryman. Each student entering upon practical experience must obtain prior approval of the Professor of Landscape Architecture or his nominee. Each student must obtain from the employer a statement of experience gained, maintain an accurate record in log-book form and submit a written report describing the work undertaken during the various practical experience components. This practical experience must be obtained prior to enrolling in 37.6588 Professional Practice IV.

Honours

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

Professional Recognition

The course is recognized by the Australian Institute of Landscape Architects and graduates holding the BLArch degree will qualify for corporate membership after a specified period of graduate experience and formal examination.

3380
Landscape Architecture Course
Bachelor of Landscape Architecture
BLArch

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

A student may be enrolled concurrently in the subjects of only two consecutive years, but this will not apply to students entering with advanced standing in their first year of attendance or to modifications of the course structure which are initiated by the School.

Schedule of Subjects

No.	Subject Name	Hours Per Week	Prerequisites
Year 1			
Session 1			
27.801	Introduction to Physical Geography*	4½	nil
37.6041	Landscape Graphics I	5	nil
37.7011	Landscape Graphics (Art) I	3	nil
37.7101	Theory of Landscape Architecture	2	nil
43.202	Plant Structure & Function*	5	nil
General Studies Elective		2	
		21½	
Session 2			
37.6042	Landscape Graphics II	5	37.6041
37.6352	Plants & Planting Methods I	3	43.202
37.7012	Landscape Graphics (Art) II	3	37.7011
37.7101	Theory of Landscape Architecture	2	nil
37.9112	Prehistory of Landscape and Man	1	nil
37.9192	Environment and the Landscape*	6	27.801, 43.202
General Studies Elective		2	
		22	

Students may be required to participate in a practical construction program outside the metropolitan area, involving a field exercise of approximately one week duration.

* The course in Plant Structure and Function, Introduction to Physical Geography as well as Environment and the Landscape include a number of lectures and field trips for the purpose of practical observation. Field trips range from local trips within the metropolitan area to points as far afield as Moss Vale, Glenbrook and Gosford. The Faculty provides transport wherever possible, but in the majority of cases, students are expected to make their own transport arrangements for these trips.

Schedule of Subjects (continued)

No	Subject Name	Hours Per Week	Prerequisites
Year 2			
Session 1			
37.3013	Man in His Environment	3	37.9112
37.6043	Landscape Graphics III	3	37.6042, 37.7012
37.6203	Landscape Technology I	3	27.801, 37.6042, 37.9192
37.6353	Plants & Planting Methods II	3	37.6352, 37.9192
37.7013	Landscape Graphics (Art) III	3	37.7012
37.7133	Landscape Design I	4	37.6042, 37.7012, 37.9192
37.9013	History of Landscape Architecture	1½	37.9112
General Studies Elective		2	nil
		22½	
Session 2			
37.0014	Introduction to Computer Applications	2	nil
37.6044	Landscape Graphics IV	3	37.6043
37.6204	Landscape Technology II	4	37.6203
37.7014	Landscape Graphics (Art) IV	3	37.7013
37.7134	Landscape Design II	8	37.7133
General Studies Elective		2	nil
		22	
Year 3			
Session 1			
36.411	Town Planning	2	nil
37.6235	Landscape Engineering I	4	27.801, 37.6204
37.6585	Professional Practice I	1½	37.7134, 37.6204
37.7135	Landscape Design III	8	37.6044, 37.6204, 37.7134
37.7145	Landscape Planning I	4	37.3013
General Studies Elective		2	
		21½	
Session 2			
37.5816	Land Systems	3	37.6353
37.6246	Landscape Engineering II	2	37.6235
37.6586	Professional Practice II	1½	37.6585
37.7136	Landscape Design IV	8	37.7135
37.7146	Landscape Planning II	4	37.7145
37.8086	Research Methods	1	nil
General Studies Elective		2	
		21½	

Schedule of Subjects (continued)

No	Subject Name	Hours Per Week	Prerequisites
Year 4			
Session 1			
37.5817	Land Management	2	37.5816
37.6587	Professional Practice III	1½	37.6586
37.7137	Landscape Design V	8	37.7136
37.7147	Landscape Planning III	4	37.7146
37.8087	Landscape Thesis	6	37.8086, 37.7136
		21½	
Session 2			
37.6588	Professional Practice IV	1½	37.6587, four months practical experience
37.7138	Landscape Design VI	12	37.7137
37.7148	Landscape Planning IV	4	37.7147
37.8087	Landscape Thesis	4	See Session 1
		21½	

School of Town Planning

Head of School
Professor H. L. Westerman

Town Planning Degree Course BTP

Town planning is concerned with the existing and future environment, ranging from small local precincts, neighbourhoods, centres, districts and towns to metropolitan areas and regions. The town planner's task in this regard is to integrate and co-ordinate the aims and actions of a large number of Government and private organizations and individuals. This involves collecting and analysing information, identifying needs, making forecasts, preparing policies, plans and programs for consultation, decision and implementation, exercising development control, and evaluating development proposals.

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

General Description of the Course

The course is of five years' duration and requires full-time attendance throughout Years 1, 2 and 5. Students are required to attend the University on a full-time basis for the first session of Year 3 and for the second session of Year 4, the intervening period being devoted to practical experience.

The course leads to the award of the degree of Bachelor of Town Planning (BTP).

Practical Experience

For the period covered by Session 2 of Year 3 and Session 1 of Year 4 the students must be engaged in approved employment related to the course: for example, in government planning and housing authorities, in municipal and shire councils preparing or implementing town and country planning schemes, in private development companies or with planning consultants. The type of employment proposed must be submitted to the Professor of Town Planning for approval.

Honours

Honours are awarded in the Bachelor of Town Planning degree course on the basis of quality of performance throughout the whole course and in accordance with current Faculty regulations.

For the purpose of calculating honours at graduation, the honours value of each subject is indicated by the credit points associated with that subject. Credit points generally reflect the workload required of students in subjects in which grades are awarded.

Professional Recognition

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

3360
Town Planning Course
Bachelor of Town Planning
BTP

Schedule of Subjects

Note: A major planning subject is shown in each session in bolder type. Each of these subjects must be passed before a student may progress to the next year's major planning subjects.

Year 1

		Hours per week	Credit Points for honours
Session 1			
36.211	**Introduction to Planning**	**10**	**12**
11.134	Graphic Communication for Town Planners I	3	3
27.801	Introduction to Physical Geography	4	5
29.901	Introduction to Mapping	1½	2
35.242	Building Techniques — Town Planning	1	1
	General Studies Elective	4	4
		23½	27
Session 2			
36.212	**Planning Studies**	**8**	**10**
36.131	Communication Techniques	3	—
36.222	Introduction to Computers and Information Systems	2	3
36.232	Environmental Science I	2	3
36.242	Land Economy	2	3
36.461	Engineering	4	5
		21	24

Year 2

		Hpw	Credit Points for honours
Session 1			
36.213	**Local Planning**	**12**	**14**
11.135	Graphic Communication for Town Planners II	3	3
36.233	Environmental Science II	2	3
	General Studies Elective	4	4
		21	24
Session 2			
36.214	**Development Planning I**	**12**	**14**
37.224	Landscape Architecture	2	3
36.451	History of Town Planning	3	4
		17	21

Year 3

Session 1			
36.215	**Statutory Planning I**	**10**	**12**
36.225	Public Policy and Urban Government	2	3
36.234	Urban Design	3	4
36.235	Urban Sociology	2	3
	General Studies Elective	4	4
		21	26
Session 2			
36.503	Practical Experience	3	—

Year 4

Session 1

		Hours per week	Credit Points for honours
36.503	Practical Experience	3	—

Session 2

36.218	**Metropolitan Planning I**	**14**	**16**
36.228	Transportation Planning	2	3
	Planning Elective*	3	4
15.901	Economics for Town Planners	2	3
		21	26

Year 5

Session 1

36.219	**Regional Planning I**	**15**	**17**
36.437	Regional Survey Camp	2	—
36.491	Thesis	3	—
		20	17

Session 2

36.491	**Thesis**	**16**	**26**
36.210	Professional Practice	1	2
	Planning Elective*	3	4
		20	32

*The following planning electives are offered subject to demand and availability:

		Hours per week	Credit Points
36.301	Third World Planning	3	4
36.302	Urban Conservation	3	4
36.303	Subdivision Design	3	4
36.304	Development Planning II	3	4
36.305	Urban Studies	3	4
36.306	Statutory Planning II	3	4
36.307	Metropolitan Planning II	3	4
36.308	Metropolitan Planning III	3	4
36.309	Regional Planning II	3	4
36.310	Social Planning	3	4
36.311	Environmental Psychology	3	4
36.312	Impact Assessment and Evaluation	3	4
36.440	Planning (Special Subject)	3	4

A minimum of two electives must be selected. They can be taken during Year 4 Session 2, Year 5 Session 1 and Session 2, depending on availability of staff.

Note: Due to the revision of the course, there is a transition period during which some subjects may be taught in different sessions than those indicated above. Students should obtain details of scheduling from the Head of the School before enrolling.

For students who commenced the course prior to 1981, some subjects of the previous course program are being continued while others are being replaced by subjects from the revised course. Details will be provided prior to enrolment.

Graduate Study

Faculty of Architecture Graduate Enrolment Procedures

All students enrolling in graduate courses should obtain a copy of the free booklet *Enrolment Procedures 1983* available from School Offices and the Admissions Office. This booklet provides detailed information on enrolment procedures and fees, enrolment timetables by Faculty and course, enrolment in miscellaneous subjects, locations and hours of Cashiers and late enrolments.

Higher Degrees — Research

Following the award of a first degree in Architecture, Building, Landscape Architecture or Town Planning of the University of New South Wales or other approved university, graduates may apply to register for the study leading to the award of the degree of Master of Architecture, Master of Building, Master of Landscape Architecture or Master of Town Planning. Facilities are also available in each School for research towards the degree of Doctor of Philosophy. For details concerning this degree see **Conditions for the Award of Higher Degrees** later in this Handbook or write to the Dean.

Summary of the Conditions for the Award of a Masters Degree

1. Every candidate for the degree shall be required to carry out a program of advanced study, to take such examinations, and to perform such other work as may be prescribed by the Faculty. The program shall include the preparation and submission of a thesis embodying the results of an original investigation or design relative to architecture, building, industrial design, landscape architecture or town planning. The candidate may also submit any work published, whether or not such work is related to the thesis.

2. No candidate shall be considered for the award of the degree until the lapse of four complete sessions from the date from which the registration becomes effective, save that in the case of a candidate who has obtained the degree of Bachelor with Honours or who has had previous research experience, this period may, with the approval of the Faculty, be reduced by not more than two sessions.

3. For each candidate there shall be two examiners appointed by the Professorial Board, one of whom shall, if possible, be an external examiner.

4. Every candidate shall submit three copies of the thesis as specified in the University Calendar, and it shall be understood that the University retains three copies of the thesis and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act 1968, the University may issue the thesis in whole or in part in photostat or microfilm or other copying medium.

Graduate Courses

In addition to the facilities available for the pursuit of higher degrees by research, formal courses are offered as follows:
1. Master of Science (Acoustics)
2. Master of Science (Building)
3. Master of Science (Industrial Design)
4. Master of the Built Environment (Building Conservation)
5. Master of Architectural Design
6. Master of Industrial Design
7. Graduate Diploma in Housing and Neighbourhood Planning
8. Graduate Diploma in Landscape Design

Duration

Each course is programmed over two years of part-time study in the University, involving attendance on two or three evenings per week. In the case of Housing and Neighbourhood Planning a one year full-time program may be offered subject to demand.

Graduate School of the Built Environment

Head of School
Professor J. C. Haskell

This School was established in July 1978 to:
1. provide opportunities for teaching, investigation, study and research at the post-professional level in those multidisciplinary and interdisciplinary areas concerned with the creating and managing of the built environment;
2. carry out and disseminate the results of research bearing on the quality of the built environment;
3. undertake either alone or in co-operation with other bodies relevant environmental work in the community generally.

While the main work of the School is in the fields of research and higher degree research training at both Masters and Doctoral levels, it also offers some formal course work and short mid-career courses and is in the process of developing others.*

Research

The School currently has active research units working under its aegis in the areas of acoustics, architectural history, architectural lighting, lightweight structures, solar energy, health facilities design and industrial design.

Research Degrees

The School makes available to research students a resource facility covering a wide spectrum of relevant disciplines in which students can follow a largely self-determined program of study, research and practice.

The School tailors individual programs to student needs at both Masters and Doctoral levels. In doing so it is able to call on its own research units and on many resources from within every Faculty of the University.

Research may be undertaken towards the award of Doctor of Philosophy (PhD), Master of Architecture (MArch) and Master of the Built Environment (MBEnv).

Eligibility for Enrolment

The School welcomes professional level graduates in any discipline whose further studies are to be in the area of the built environment and does not restrict its intake to graduates in architecture, building, town planning, landscape architecture or industrial design.

1120
Doctor of Philosophy

Doctor of Philosophy
PhD

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

1121
Doctor of Philosophy

Doctor of Philosophy
PhD

This degree provides for research work of a specialized and restricted nature. Students individually follow a self-determined program of study and research.

In addition to the general conditions governing the award of the degree of Doctor of Philosophy, the School offers an alternative study program to students already holding the degree of Master in an appropriate discipline.

Course Structure

The program is normally taken over four full-time sessions (two academic years). In special circumstances where the research project can be properly served and with the concurrence of the

*For further information contact the Head of School, Professor J C Haskell Phone 662 2301

Professorial Board, some of this time may be fulfilled on an equivalent part-time basis, but in no case will students spend less than two consecutive sessions full-time in the course.

The program consists of:

1. A compulsory core containing:

(1) 39.301G	New Development Studies	2 credit points
(2) 39.302G	Research Studies	2 credit points
(3) 39.303G	Directed Studies	3 credit points

(4) Preparation and structuring of a doctoral research topic

This part must normally be completed by the end of the first session of studies.

2. Electives selected from a wide range of relevant subjects offered by faculties throughout the University (12 credit points).

Elective Studies commence at the beginning of the first session of studies and must normally be completed by the end of the second session of studies.

3. Supervised research of a doctoral research topic approved by the Higher Degree Committee of the Faculty of Architecture and the preparation of a thesis. This work can be undertaken only on satisfactory completion of Part 1.

Student progression is evaluated at the end of first session (preliminary evaluation) and at the end of second session (confirmation evaluation). The thesis examination and its procedures conform to the normal University examination practice with regard to doctoral theses.

2201
Master of Architecture

Master of Architecture
MArch

Graduates holding the degree of Bachelor of Architecture of the University of New South Wales or other approved university may apply to register for the degree of Master of Architecture by research. General conditions governing registration as a candidate for this degree are given later in this handbook.

2240
Master of the Built Environment

Master of the Built Environment
MBEnv

This degree provides for research work of an interdisciplinary nature relevant to the built environment. Graduates holding a minimum four year degree of Bachelor of the University of New South Wales or other approved university in any appropriate discipline may apply to register for the degree of Master of the Built Environment by research. General conditions governing registration for this degree are given later in this handbook.

8100
Master of Science (Acoustics) Course

Master of Science (Acoustics)
MSc(Acoustics)

This course provides for graduate study and research in several important aspects of acoustics, such as community noise control, noise control in industry and in buildings, auditorium design and physical acoustics. It is designed primarily for graduates in engineering, architecture, science or building who wish to specialize in acoustics and it is suitable for those who wish to find employment with noise control authorities, or in industry, to practice as consultants, to undertake research or to become part of a multi-disciplinary team in an architectural or engineering practice.

Admission Requirements

General conditions governing registration as a candidate for the degree of Master of Science (Acoustics) are given in the Calendar, but the attention of applicants is directed to the following admission requirements.

An applicant for registration for the degree course of Master of Science (Acoustics) shall have been admitted to the degree of Bachelor of Science (Architecture) at honours level, Bachelor of Architecture, Bachelor of Building, Bachelor of Science at honours level, or Bachelor of Engineering at the University of New South Wales, or an equivalent degree from another university or tertiary institution. In exceptional cases an applicant may be registered as a candidate for the degree if he submits evidence of such academic and professional attainment as may be approved by the Higher Degree Committee of the Faculty of Architecture.

Notwithstanding any other provisions of these conditions the Higher Degree Committee of the Faculty of Architecture may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Higher Degree Committee of the Faculty of Architecture may determine. Candidates with BSc(Arch) (at honours level), BArch or BBuild degrees are strongly advised to take refresher courses in mathematics and physics before entry to the course. Candidates with BSc (at honours level) or BE degrees who wish to specialize in noise control in buildings and auditorium acoustics are also strongly advised to study an introductory construction subject.

Course Structure

The course is normally taken over four part-time sessions (two academic years) and a student must obtain 34 credit points to graduate. Fifteen credit points must be obtained by satisfactorily completing a project report in an approved topic. Eight

credit points must be obtained by completing four compulsory core subjects and the remaining 11 credit points are obtained by the satisfactory completion of formal subjects, which may be chosen to emphasize a particular field of acoustics. Up to 8 credit points may be obtained by completing other subjects offered by the University of New South Wales, subject to the approval of the Head of the Graduate School of the Built Environment. The subjects offered in any session will depend on student numbers and interests.

Course Subjects

		Credit Points	Core/ Elective	Usual Session Offered
1.927G	Acoustic Theory	2	Core	S1
1.937G	Acoustic Measuring Systems and Electroacoustics	2	Core	S1
1.947G	Advanced Physical Acoustics	4	Elective	S3
1.957G	Acoustic Laboratory and Signal Analysis	3	Elective	S2
39.651G	Mechanical Shock and Vibration	2	Core	S1
39.652G	Noise Control in Industry	4	Elective	S3
39.993G	The Ear, Hearing and Hearing Conservation	2	Core	S1
39.995G	Community Noise	4	Elective	S2
39.994G	Graduate Project A (prerequisite 10 credit points)	5	Compulsory	S3
39.996G	Project Report (prerequisite 39.994G)	10	Compulsory	S4
39.997G	Auditorium Acoustics	3	Elective	S3
39.998G	Noise Control in Buildings	4	Elective	S2

In addition to these subjects, a total of up to 8 credit points may be obtained by completing other subjects offered by the University of New South Wales, subject to the approval of the Head of the Graduate School of the Built Environment.

8130
Master of the Built Environment (Building Conservation) Course

Master of the Built Environment (Building Conservation)
MBEnv

This course consists of graduate work in the major areas of building conservation. It is designed for graduates who wish to specialize in the conservation of the built environment by working actively in the preservation, restoration, reconstruction, adaptation or related treatments of existing structures.

Admission Requirements

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

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

Course Structure

The minimum duration of the course is two sessions of full-time study or four sessions of part-time study. The availability of the full-time and part-time programs of study will depend upon student demand and the University's resources at that time.

The course comprises 36 credit points, each credit point representing class contact of approximately fourteen hours.

Full-time study normally requires an attendance of 18 hours per week while part-time study normally requires attendance of an average of 9 hours per week for the duration of the course.

Most of the work is done in the School, but approved practical experience forms an important component of the course. The program is so arranged that eminent visitors as well as guest lecturers may participate.

Normally, subjects are timetabled on one afternoon and evening, and one other evening each week. In addition to timetabled commitments, students may occasionally be required to attend for site visits and building inspections.

The requirements for this course include a period of at least eight weeks of approved practical experience.

Course Subject Areas

	Total Contact Hours	Credit Points
Contextual Studies	14	1
Architectural History	42	3
Conservation Management	42	3
Analysis and Documentation	84	6
Conservation Technology	210	15
Project Report	112	8
	504	36

Typical Pattern of Full-time Study

		S1		S2	
		Hrs	Credits	Hrs	Credits
39.101G	Contextual Studies	14	1		
39.102G	Architectural History	42	3		
39.103G	Conservation Management			42	3
39.104G	Analysis and Documentation A	56	4		
39.105G	Analysis and Documentation B			28	2
39.106G	Conservation Technology A	28	2		
39.107G	Conservation Technology B			70	5
39.108G	Conservation Technology C	56	4		
39.109G	Conservation Technology D			56	4
39.110G	Project Report	56	—	56	—
				Upon completion	8
		252	14	252	22

Typical Pattern of Part-time Study

		S1		S2		S3		S4	
		Hrs	Credits	Hrs	Credits	Hrs	Credits	Hrs	Credits
39.101G	Contextual Studies	14	1						
39.102G	Architectural History	42	3						
39.103G	Conservation Management							42	3
39.104G	Analysis and Documentation A	56	4						
39.105G	Analysis and Documentation B			28	2				
39.106G	Conservation Technology A	28	2						
39.107G	Conservation Technology B			70	5				
39.108G	Conservation Technology C					56	4		
39.109G	Conservation Technology D							56	4
39.110G	Project Report			28	—	56	—	28	—
								Upon completion	8
		140	10	126	7	112	4	126	15

8145
Master of Industrial Design Course

Master of Industrial Design
MID

8146
Master of Science (Industrial Design) Course

Master of Science (Industrial Design)
MSc(IndDes)

These courses of graduate study have a common core of subjects in the major areas of industrial design. They are designed for graduates in industrial and environmental design, architecture, engineering, and marketing and business studies who wish to make careers in industrial design or to be involved in industrial design as a part of their career activity, eg, mechanical engineering with industrial design.

The MID degree course is intended for holders of four year industrial design degrees who wish to specialize and develop expertise in particular areas of industrial design. In addition to the common core of subjects, MID degree students are also required to submit a major Project Report, a Design Theory Report and have a greater choice of electives related to their field of specialization.

The MSc(IndDes) degree course is intended for graduates from design fields related to industrial design, such as architecture or engineering, or for graduates from non design areas, such as marketing, who have satisfactorily completed preparatory studies. The course is designed to adapt and apply the students' existing design knowledge and experience to the methodology and practice of industrial design. The project work is less specialized and covers a broad range of industrial design problems. The students are required to submit a minor Project Report. There are additional compulsory

subjects in this course, with a more restricted range of electives, closely related to industrial design.

Admission Requirements

The conditions governing registration as a candidate for the MSc(IndDes) degree course are given later in this handbook: see below under **Conditions for the Award of Higher Degrees.** In summary, admission is open to applicants who have been admitted to an appropriate degree of at least four years' full-time duration, or its equivalent. For the MID degree course, admission is restricted to applicants who have been admitted to a degree with a 'major' in industrial design of at least four years' full-time duration, or its equivalent. Candidates who have completed part or all of the requirements for the award of the degree of the MSc(IndDes) course may elect to apply for admission to the MID degree course, subject to the recommendation of the School and the approval of the Higher Degree Committee of the Faculty of Architecture.

In certain cases, particularly for applicants from non-design undergraduate courses, it is necessary to complete a qualifying program of preparatory units in industrial design, as prescribed by the Higher Degree Committee of the Faculty. These units are selected from appropriate undergraduate courses. The Committee's decision is influenced by the academic and professional experience of each applicant.

Course Structure

The minimum duration of both courses is two sessions of full-time study or four sessions of part-time study. The availability of the full-time and part-time programs of study depends upon student demand and the University's resources at that time.

The MID degree course comprises 38 credit points. The MSc(IndDes) degree course comprises 36-38 credit points. One credit point is normally equivalent to one hour per week for one session. Full-time study normally requires an attendance of approximately 18 hours per week, while part-time study normally requires approximately 9 hours per week for the duration of the course.

The project work for both degrees, part and full-time, is run simultaneously and is staffed according to the requirements of each project.

Most of the work is undertaken within the School, but industrial visits and experience forms an important component of the course.

The program is so arranged that eminent visitors as well as guest lecturers and designers may participate.

To avoid duplication of classes for full-time and part-time students, subjects are timetabled wherever possible on afternoons and evenings. In addition to timetabled commitments, the studios and laboratories are available during normal University hours for industrial design project work. Occasionally students are required to attend professional and industrial visits and lectures at other institutions.

The requirements for the course include an equivalent period of at least four weeks of approved professional or industrial experience. Part-time students with approved employment are exempt from this requirement.

Course Subjects

		Credit Points	Usual Session Offered
Common Core			
39.501G	Industrial Design Studies	2	S1 S2
39.511G	Ergonomics for Industrial Designers	2	S1
39.521G	Business Studies for Industrial Designers	2	S1
39.531G	Manufacturing Technology	2	S1 S2
39.541G	Industrial Experience*	2	*
		10	
MID only			
39.502G	Project Report (MID)	14	S1 S2
39.512G	Design Theory	4	S1 S2
39.522G	Industrial Design	4	S1
	Approved Electives**	6	
		28	
MSc(IndDes) only			
39.503G	Design Media and Communication	2	S1
39.513G	Visual Thinking***	2	S1
39.523G	Industrial Design A	6	S1
39.533G	Industrial Design B	6	S1 S2
39.543G	Project Report (MSc(IndDes))	8	S2
	Approved Electives**	4	
		28	

*4 week block during recesses. Part-time students in approved employment are exempt.

**Approved electives may be taken from subjects offered in other Schools of the University of New South Wales, subject to the approval of the Heads of the Graduate School of the Built Environment and the School offering the subject.
MID electives may be chosen to increase specialist knowledge relevant to the students' theory studies, project report or planned career activities. At least six credits must be taken of which up to four credits may be taken in undergraduate units at half their point value.
MSc(IndDes) electives are taken in approved subjects directly related to the development of the students' industrial design knowledge and skill. At least four credits must be taken of which up to two credits may be taken in undergraduate units at half their point value.

***Graduates of visually orientated courses, eg architecture, are normally exempt.

The School will propose electives in the areas of design ideologies, history of artefact design, product analysis, health and rehabilitation design, ethnotechnology and ceramics. These will be run depending upon student demand, course requirements and Faculty resources.

Depending upon course requirements, the availability of University staff and Faculty resources, it may be possible to substitute some existing graduate or undergraduate courses in other faculties for certain subjects of the course. This development would be subject to the approval of the Higher Degree Committee of the Faculty of Architecture and the Heads of the Schools offering the courses.

Typical Full-time Study Patterns for MID and MSc(IndDes)

		Hours per week S1	S2
Common Core			
39.501G	Industrial Design Studies	1	1
39.511G	Ergonomics for Industrial Designers	2	
39.521G	Business Studies for Industrial Designers	2	
39.531G	Manufacturing Technology	1	1
39.541G	Industrial Experience*		
MID only			
39.502G	Project Report (MID)	3**	12**
39.512G	Design Theory	1	3
39.522G	Industrial Design	4	
	Approved Electives	4	2
Total hours per week MID		18	19
MSc(IndDes) only			
39.503G	Design Media and Communication	2	
39.513G	Visual Thinking***	2	
39.523G	Industrial Design A	6	
39.533G	Industrial Design B	2	4
39.543G	Project Report (MSc(IndDes))		8**
	Approved Electives		4
Total hours per week MSc(IndDes)		18	18

Typical Part-time Study Patterns for MID and MSc(IndDes)

		Hours per week S1	S2	S3	S4
Common Core					
39.501G	Industrial Design Studies	1	1		
39.511G	Ergonomics for Industrial Designers	2			
39.521G	Business Studies for Industrial Designers			2	
39.531G	Manufacturing Technology	1	1		
39.541G	Industrial Experience*				
MID only					
39.502G	Project Report (MID)		3**	3**	9**
39.512G	Design Theory		2	2	
39.522G	Industrial Design	4			
	Approved Electives		2	3	1
Total hours per week MID		8	9	10	10
MSc(IndDes) only					
39.503G	Design Media and Communication	2			
39.513G	Visual Thinking***	2			
39.523G	Industrial Design A		6		
39.533G	Industrial Design B			6	
39.543G	Project Report (MSc(IndDes))				8**
	Approved Electives	1	1	1	1
Total hours per week MSc(IndDes)		9	9	9	9

*A four week period during the recess. Part-time students in approved employment are normally exempt.
**Nominal hours
***Graduates of visually orientated courses, eg architecture, are normally exempt.

School of Architecture

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

The School also offers a course leading to the award of Master of Architectural Design (MArchDes). Details of the entrance requirements and course content are given later in this handbook.

1130
Doctor of Philosophy

Doctor of Philosophy
PhD

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

2200
Master of Architecture

Master of Architecture
MArch

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

8140
Master of Architectural Design Course

Master of Architectural Design
MArchDes

The course is centred on the essential architectural activity, the conceptual design-synthesis of buildings to masterly accomplishment.

It aims at an embracing and thorough synthesis of all relevant influences arising from the inanimate (physical) and animate (human) context into which the building is to be placed. These subjects establish the nature of the course as a whole: they involve theory, research and studio practice crystallized into a *project* which is assessed at the conclusion of each semester.

The central project is supported by elective subjects.

Admission Requirements

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

1. The standard of admission is the BArch degree with Honours of the University of New South Wales or any other approved university followed by at least one year professional practice.

2. Graduates with a pass BArch degree may be admitted only on the recommendation of the Head of School and the confirmation of the faculty.

3. In special circumstances a person may be permitted to register as a candidate for the dégree if he submits evidence of such academic and professional attainments as may be approved by the faculty on the recommendation of its Higher Degree Committee.

4. Admission is selective for the places available based on the applicant's academic record and the quality and extent of his professional practice.

Course Structure

The course is structured on a two-semester credit-point system. It is offered in two full-time semesters — (each one of a duration of 14 weeks), to be taken either in a single academic year or in two consecutive academic years — the first semester's work in the first session of Year 1, the second semester's work in the second session of Year 2.

Full-time study is the normal pattern for this type of course, however, in particular circumstances the first full-time semester may be replaced by two part-time semesters with the approval of the Head of School.

Each semester's work is equivalent to a minimum of 15 credit points totalling to a minimum of 30 credits for the award of the degree. Each credit point is approximately equivalent to 1 hour/week/semester attendance of the course.

Each student's program is to consist of the compulsory *core* subject equivalent to 67 per cent of the total credit points in the course, and of a selection of elective subjects equivalent to the other 33 per cent.

Course Program

	Credit points 1st	Full-time semesters 2nd
Architectural Synthesis I and II (core)	9	11
Electives	6	4
	15	15
Course Award		30

Core Subjects

		Credit points
11.901G	Architectural Synthesis I	9
11.902G	Architectural Synthesis II	11

Electives

11.930G	Architectural Theory	2
11.931G	Ideologies of Modern Architecture	2
11.932G	Architectural Impact Studies	2
11.933G	Cultural Influences in Civic Design	2
11.934G	Structure and Architectural Space	2
11.935G	Design for Industrialized Buildings	2
11.936G	Resources for Buildings	2
35.296G	Construction Techniques	3
35.297G	Developments in Building Materials	2
35.426G	Building Services	3
35.390G	Co-ordination of Structures and Services	2
35.360G	Computer Techniques and Applications	3
35.361G	Computer Techniques and Applications II	2
35.355G	Computer Graphics	2
35.381G	Building Physics	2
35.382G	Building Psychophysics	2
35.330G	Cost Planning and Analysis	2
35.460G	Applied Building Economics	2
35.470G	Analysis and Valuation of Property	2
36.924G	Urban Sociology	2
39.997G	Auditorium Acoustics	3

Subject to approval of the appropriate Head of School and the Head of School of Architecture, students may enrol in other graduate subjects offered by the faculty: subject to the same conditions, students may also enrol in undergraduate subjects offered in the University but only to the maximum contributing total of 4 credit units calculated at half their value as an undergraduate subject.

Department of Industrial Arts

At graduate level the Department of Industrial Arts offers a Master of Science degree by research as well as a course in Industrial Design leading to a Graduate Diploma. In addition the degree of Doctor of Philosophy may be taken following periods of full-time or part-time research in the Department.

1170
Doctor of Philosophy

Doctor of Philosophy
PhD

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

2205
Master of Science (by Research)

Master of Science
MSc

The conditions governing the award of the degree of Master of Science by research are set out in the next section.

School of Building

The School of Building has an active program of research and welcomes enquiries from students who wish to pursue programs for the degrees of Master of Building (MBuild) or Doctor of Philosophy (PhD). Graduates enrolled in these courses need not necessarily be building graduates. Prospective students should consult the Head of School to discuss their research interests prior to making a formal application.

The School also offers each year a series of short non-credit mid-career courses* which are designed to provide practical on-going education for experienced members of the building industry.

*For further information, contact Mr M. Marosszeky, Continuing Education Co-ordinator in the School of Building.

1140
Doctor of Philosophy

Doctor of Philosophy
PhD

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

2210
Master of Building

Master of Building
MBuild

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

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

2. Graduates with a Bachelor of Engineering who have worked in the building industry may be admitted to the preparatory year or to the course proper depending on the individual case.

3. BSc(Arch) graduates are required to complete a program of preparatory subjects set out by the Higher Degree Committee of the Faculty of Architecture.

4. Eligible applicants other than those under **1., 2.** & **3.** may be required to complete a program of preparatory subjects set out by the Higher Degree Committee of the Faculty of Architecture, whose decision will be influenced by the education and experience of each applicant.

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

8110
Master of Science (Building) Course

Master of Science (Building)
MSc(Building)

Course Co-ordinator
Mr G. E. Levido

This four-session part-time course has been designed to provide opportunities for advanced study in management, economics, construction and building science. It allows a certain amount of specialization in four interrelated areas:

1. planning and management aspects of a design or construction organization, including programming, evaluation, costing, performance feedback, feasibility and the valuation and management of properties;

2. operations and control aspects of a design or construction organization, concentrating on estimating and cost analysis, contract or design administration and construction techniques;

3. problems concerned with thermal conditions, illumination, noise, humidity and air purity; the interrelation of the building envelope and structure with the services and the performance of the building as a whole;

4. development and research aspect of construction with relevance to design, construction, product manufacture or research.

The course aims at attracting the practising qualified architect, engineer or builder who wishes to widen his/her knowledge and understanding of construction planning, operation and development.

Admission Requirements

The general conditions governing registration as a candidate for the degree Master of Science (Building) are given later in this Handbook but the attention of intending applicants is directed to the following specific requirements:

Course Structure

The Master of Science (Building) is a formal four semester part-time course comprising 39 credit points. Each credit point consists of class contact of one hour for one semester, except for the Project Report which is rated at 10 credit points.

The subject program comprises studies in computations, environmental requirements, building economics, operations planning, contract law and documentation and the interaction of the architecture, the structure and the services.

The Project Report is compulsory and students must be enrolled in this subject in all sessions of the course. All other subjects are *electives*. Students may choose elective subjects from the list below to make up a minimum of 39 credit points including a Project Report of 10 credit points.

Subject to the approval of the appropriate Head of School, students may enrol in graduate subjects in other schools and faculties of the University to a maximum contributing total of 9 credit points.

With the approval of the Head of the School of Building, students may also enrol in undergraduate subjects. Undergraduate subjects are counted at half credit points to a maximum contributing total of 9 credit points. Qualifying or preparatory subjects cannot contribute towards the total.

Course Program

Subjects are offered on a four-semester cycle, but when there is sufficient demand, they may be offered more often. While the intention is to offer as many subjects as possible, the full range may not be offered in any one year. A subject may not be offered if enrolment in that subject is less than eight students. Subjects are normally timetabled on four evenings per week.

		Credit Points per Semester			
		Even Yrs		Odd Yrs	
Management Studies		S1	S2	S3	S4
35.212G	Pre-Construction Management	2			
35.213G	Building Contract Management		2		
35.231G	Operations Planning			4	
35.254G	Personnel Management		3		
35.275G	Property Management		2		
Construction and Building Services					
35.296G	Construction Techniques	3			
35.297G	Developments in Building Materials	2			
35.426G	Building Services				3
35.390G	Co-ordination of Structures and Services				2
Building Science and Computations					
35.360G	Computer Techniques and Applications I			3	
35.361G	Computer Techniques and Applications II				2
35.355G	Computer Graphics		2		
35.370G	Experimental Techniques				2
35.232G	Systems Modelling		2		
35.381G	Building Physics			2	
35.382G	Building Psychophysics	2			
Building Economics					
35.330G	Cost Planning and Analysis	2			
35.400G	Economics of Services				2
35.460G	Applied Building Economics		2		
35.470G	Analysis and Valuation of Property			2	
35.480G	Managerial Economics in Building				2
35.242G	Project Report (Compulsory)	10 points on completion			

School of Landscape Architecture

1160
Doctor of Philosophy

Doctor of Philosophy
PhD

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

2220
Master of Landscape Architecture

Master of Landscape Architecture
MLArch

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

5210
Landscape Design Graduate Diploma Course

Graduate Diploma
GradDip

Not offered in 1983.

School of Town Planning

1150
Doctor of Philosophy

Doctor of Philosophy
PhD

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

2230
Master of Town Planning (by Research)

Master of Town Planning
MTP

The Master of Town Planning degree is a research degree awarded on the basis of a thesis embodying the results of an

original investigation. The research is to be undertaken over four sessions, but the period may be reduced in certain circumstances. The conditions governing the award of the degree are set out later in this Handbook.

Professional Recognition

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

Course Work

Candidates with a primary degree in a subject other than that of town planning may be required to complete an additional program of study. The actual program is determined by the Higher Degree Committee of the Faculty of Architecture on the recommendation of the Head of the School of Town Planning. Candidates should contact the Head of the School about the guidelines used in formulating such a program.

5200
Housing and Neighbourhood Planning
Graduate Diploma Course†

Graduate Diploma
GradDip

This course provides for graduate study in the design and layout of residential areas. It is concerned with the study of the physical structure and form of new and old residential neighbourhoods; and of the elements of the neighbourhood including dwellings, open spaces, shopping and community centres. In addition to design considerations, specific study will be made of social and economic factors in the provision of public and private housing.

Admission Requirements

An applicant for admission to the Housing and Neighbourhood Planning course shall be:

1. a graduate in Architecture of the University of New South Wales; or

2. a person with such other qualifications as may be approved by Faculty.

Part-time

Year 1

		Hours per week S1	S2
36.930G	Theory of Neighbourhood Planning I	1	
36.931G	Theory of Neighbourhood Planning II		1
36.940G	Practice of Neighbourhood Planning I	3	
36.941G	Practice of Neighbourhood Planning II		3
36.923G	Land and Housing Economics	0	2
36.924G	Urban Sociology	2	0
		6	6

Year 2

36.942G	Practice of Neighbourhood Planning II	4	
36.943G	Practice of Neighbourhood Planning IV		4
36.922G	Communications and Public Utilities	0	2
36.925G	Housing Law and Administration	2	
		0	
		6	6

†This course is under review, and intending applicants are advised to contact the School at the first opportunity to obtain further information.

Graduate Study

Conditions for the Award of Higher Degrees

First Degrees

Rules, regulations and conditions for the award of first degrees are set out in the appropriate Faculty Handbooks.

For the list of undergraduate courses and degrees offered see **Disciplines of the University: Faculty Table (Undergraduate Study)** in the Calendar.

Higher Degrees

The following is the list of higher degrees and graduate diplomas of the University, together with the publication in which the conditons for the award appear.

For the list of graduate degrees by research and course work, arranged in faculty order, see **Disciplines of the University: Table of Courses (by faculty): Graduate Study** in the Calendar.

For the statements **Preparations and Submissions of Project Reports and Theses for Higher Degrees** and **Policy with respect to the Use of Higher Degree Theses** see the Calendar.

Higher Degrees

Title	Abbreviation	Calendar/Handbook
Doctor of Science	DSc	Calendar
Doctor of Letters	DLitt	Calendar
Doctor of Laws	LLD	Calendar
Doctor of Medicine	MD	Calendar Medicine
Doctor of Philosophy	**PhD**	**Calendar and all Handbooks**
Master of Applied Science	MAppSc	Applied Science
Master of Architecture	**MArch**	**Architecture**
Master of Architectural Design	**MArchDes**	**Architecture**
Master of Archives Administration	MArchivAdmin	Professional Studies
Master of Arts	MA(Hons)	Arts Military Studies
	MA	Arts

Higher Degrees (continued)

Title	Abbreviation	Calendar/Handbook
Master of Biomedical Engineering	MBiomedE	Engineering
Master of Building	**MBuild**	**Architecture**
Master of the Built Environment	**MBEnv**	**Architecture**
Master of the Built Environment (Building Conservation)		
Master of Business Administration	MBA	AGSM
Master of Chemistry	MChem	Sciences*
Master of Commerce (Honours)	MCom(Hons)	Commerce
Master of Commerce	MCom	Commerce
Master of Education	MEd	Professional Studies
Master of Educational Administration	MEdAdmin	Professional Studies
Master of Engineering	ME	Applied Science
Master of Engineering *without supervision*		Engineering
		Military Studies
Master of Engineering Science	MEngSc	Engineering
		Military Studies
Master of Environmental Studies	MEnvStudies	Applied Science
Master of General Studies	MGenStud	General Studies
Master of Health Administration	MHA	Professional Studies
Master of Health Personnel Education	MHPEd	Calendar†
Master of Health Planning	MHP	Professional Studies
Master of Industrial Design	**MID**	**Architecture**
Master of Landscape Architecture	**MLArch**	**Architecture**
Master of Laws by Research	LLM	Law
Master of Librarianship	MLib	Professional Studies
Master of Mathematics	MMath	Sciences*
Master of Nursing Administration	MNA	Professional Studies
Master of Optometry	MOptom	Sciences*
Master of Paediatrics	MPaed	Medicine
Master of Physics	MPhysics	Sciences*
Master of Psychology	MPsychol	Sciences‡
Master of Public Administration	MPA	AGSM
Master of Safety Science	MSafetySc	Engineering
Master of Science	**MSc**	Applied Science
Master of Science *without supervision*		**Architecture**
		Engineering
		Medicine
		Military Studies
		Sciences*‡
Master of Science (Acoustics)	**MSc(Acoustics)**	**Architecture**
Master of Science and Society	MScSoc	Sciences*
Master of Science (Biotechnology)	MSc(Biotech)	Sciences‡
Master of Science (Building)	**MSc(Building)**	**Architecture**
Master of Science (Industrial Design)	**MSc(IndDes)**	**Architecture**
Master of Science (Psychology)	MSc(Psychol)	Biological Sciences
Master of Social Work	MSW	Professional Studies
Master of Statistics	MStats	Sciences*
Master of Surgery	MS	Medicine
Master of Surveying	MSurv	Engineering
Master of Surveying *without supervision*		
Master of Surveying Science	MSurvSc	Engineering
Master of Town Planning	**MTP**	**Architecture**

Graduate Diplomas

Title	Abbreviation	Calendar/Handbook
Graduate Diploma	GradDip	Applied Science
		Architecture
		Engineering
		Sciences‡
	DipFDA	Sciences*
	DipEd	Professional Studies
	DiplM-ArchivAdmin	
	DiplM-Lib	

*Faculty of Science
†Professorial Board
‡Faculty of Biological Sciences

Doctor of Philosophy (PhD)

1. The degree of Doctor of Philosophy may be granted by the Council on the recommendation of the Professorial Board to a candidate who has made an original and significant contribution to knowledge and who has satisfied the following requirements:

Qualifications

2. A candidate for registration for the degree of Doctor of Philosophy shall:

(1) hold an honours degree from the University of New South Wales; or

(2) hold an honours degree of equivalent standing from another approved university; or

(3) if the candidate holds a degree without honours from the University of New South Wales or other approved university, have achieved by subsequent work and study a standard recognized by the Higher Degree Committee of the appropriate Faculty or Board of Studies (hereinafter referred to as the Committee) as equivalent to honours; or

(4) in exceptional cases, submit such other evidence of general and professional qualifications as may be approved by the Professorial Board on the recommendation of the Committee.

3. When the Committee is not satisfied with the qualifications submitted by a candidate, the Committee may require the candidate, before being permitted to register, to undergo such examination or carry out such work as the Committee may prescribe.

Registration

4. A candidate for registration for a course of study leading to the degree of Doctor of Philosophy shall apply to the Registrar on the prescribed form at least one calendar month before the commencement of the session in which registration is to begin.

5. Subsequent to registration the candidate shall pursue a program of advanced study and research for at least six academic sessions, save that:

(1) a candidate fully engaged in advanced study and research for the degree, who before registration was engaged upon research to the satisfaction of the Committee, may be exempted from not more than two academic sessions;

(2) in special circumstances the Committee may grant permission for the candidate to spend not more than one calendar year of the program in advanced study and research at another institution provided that the work can be supervised in a manner satisfactory to the Committee;

(3) in exceptional cases, the Professorial Board on the recommendation of the Committee may grant permission for a candidate to be exempted from not more than two academic sessions.

6. A candidate who is fully engaged in research for the degree shall present for examination not later than ten academic sessions from the date of registration. A candidate not fully engaged in research shall present for examination not later than twelve academic sessions from the date of registration. In special cases an extension of these times may be granted by the Committee.

7. The candidate shall be fully engaged in advanced study and research, save that:

(1) the Committee may permit a candidate to undertake a limited amount of University teaching or outside work which in its judgement will not interfere with the continuous pursuit of the proposed course of advanced study and research;

(2) a member of the full-time staff of the University may be accepted as a part-time candidate for the degree, in which case the Committee shall prescribe a minimum period for the duration of the program;

(3) in special circumstances, the Committee may, with the concurrence of the Professorial Board, accept as a part-time candidate for the degree a person who is not a member of the full-time staff of the University and is engaged in an occupation which, in its opinion, leaves the candidate substantially free to pursue a program in a school* of the University. In such a case the Committee shall prescribe for the duration of the program a minimum period which, in its opinion, having regard to the proportion of the time which the candidate is able to devote to the program in the appropriate University school* is equivalent to the six sessions ordinarily required.

8. Every candidate shall pursue a program under the direction of a supervisor appointed by the Committee from the full-time members of the University staff. The work, other than field work, shall be carried out in a school* of the University save that in special cases the Committee may permit a candidate to conduct the work at other places where special facilities not possessed by the University may be available. Such permission will be granted only if the direction of the work remains wholly under the control of the supervisor.

9. Not later than two academic sessions after registration the candidate shall submit the topic of research for approval by the Committee. After the topic has been approved it may not be changed except with the permission of the Committee.

10. A candidate may be required by the Committee to attend a formal course of appropriate study.

Thesis

11. On completing the course of study every candidate must submit a thesis which complies with the following requirements:

(1) the greater proportion of the work described must have been completed subsequent to registration for the PhD degree;

(2) it must be an original and significant contribution to the knowledge of the subject;

(3) it must be written in English except that a candidate in the Faculty of Arts may be required by the Faculty on the recommendation of the supervisor to write the thesis in an appropriate foreign language;

(4) it must reach a satisfactory standard of expression and presentation.

12. The thesis must present the candidate's own account of the research. In special cases work done conjointly with other persons may be accepted, provided the Committee is satisfied on the candidate's part in the joint research.

13. Every candidate shall be required to submit with the thesis a short abstract of the thesis comprising not more than 350 words.

The abstract shall indicate:

(1) the problem investigated;

(2) the procedures followed;

(3) the general results obtained;

(4) the major conclusions reached;

but shall not contain any illustrative matter, such as tables, graphs or charts.

14. A candidate may not submit as the main content of the thesis any work or material which has previously been submitted for a university degree or other similar award.

*Or department where a department is not within a School.

Entry for Examination

15. The candidate shall give in writing two months' notice of intention to submit the thesis.

16. Four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. The candidate may also submit any work previously published whether or not such work is related to the thesis.

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

18. There shall normally be three examiners of the thesis, appointed by the Professorial Board on the recommendation of the Committee, at least two of whom shall be external to the University.

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

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

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

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

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

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

20. If the performance at the further examination recommended under Rule **19.** (3) is not to the satisfaction of the Committee the Committee may permit the candidate to re-present the same thesis and submit to a further oral, practical or written examination within a period specified by them but not exceeding eighteen months.

21. The Committee shall, after consideration of the examiners' reports and the reports of any oral or written or practical examination, recommend whether or not the candidate may be admitted to the degree.

Fees

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

Master of Architecture (MArch)

1. The degree of Master of Architecture may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

*Or department where a department is not within a School.

Qualifications

2. (1) An applicant for registration shall have been admitted to the degree of Bachelor of Architecture in the University of New South Wales, or other approved university, at a standard acceptable to the Committee.

(2) In special circumstances a person may be permitted to register as a candidate for the degree if the person submits evidence of such academic and professional attainments as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one full calendar month before the commencement of the session in which the candidate desires to register.

(2) In every case, before permitting an applicant to register as a candidate, the Committee shall be satisfied that adequate supervision and facilities are available.

(3) An approved applicant shall register in one of the following categories:

(a) student in full-time attendance at the University;

(b) student in part-time attendance at the University;

(c) student working externally to the University

(4) Every candidate for the degree shall be required to carry out a program of advanced study, to take such examinations, and to perform such other work as may be prescribed by the Committee which shall include the preparation and submission of a thesis embodying the results of an original investigation or design relative to Architecture. The work shall be carried out under the direction of a supervisor appointed by the Committee or under such conditions as the Committee may determine.

(5) No candidate shall be considered for the award of the degree until the lapse of four complete sessions from the date from which registration becomes effective, save that in the case of a candidate who obtains the degree of Bachelor with Honours, or who has had previous research experience this period may, with the approval of the Committee be reduced by up to two sessions.

Thesis

4. (1) A candidate for the degree shall be required to submit three copies of the thesis referred to in paragraph **3.**(4) above which shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. The candidate may submit also for examination any work the candidate has published, whether or not such work is related to the thesis.

(2) For each candidate there shall be at least two examiners appointed by the Professorial Board on the recommendation of the Committee, one of whom shall, if possible, be an external examiner.

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

Recommendation for Admission to Degree

5. Having considered the examiners' reports the Committee shall recommend whether or not the candidate should be admitted to the degree.

Fees

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

Master of Architectural Design (MArchDes)

1. The degree of Master of Architectural Design by formal course work may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed an approved program of advanced study.

Qualifications

2. (1) An applicant for registration for the degree shall:

(a) have been admitted to the Bachelor of Architecture degree with honours in the University of New South Wales, or other approved university; and,

(b) have spent at least one year in professional practice subsequent to completion of the Bachelor's degree.

(2) An applicant for registration with a Bachelor of Architecture pass degree may be admitted only on the recommendation of the Head of School and with the confirmation of the Committee.

(3) In exceptional cases an applicant may be registered as a candidate for the degree by submitting evidence of such academic and professional attainment as may be approved by the Committee.

(4) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two months before the commencement of the course. The Committee shall determine the date of registration.

(2) A candidate for the degree shall be required to undertake such course of formal study, pass such examinations as may be prescribed, and undertake specified projects, the satisfactory completion of which shall be regarded as part of the examinations.

(3) No candidate shall be considered for the award of the degree until the lapse of two sessions in the case of a full-time candidate or three sessions in the case of a part-time candidate from the date of registration.

(4) The progress of a candidate shall be reviewed annually by the Committee on the recommendation of the Head of the School and as a result of its review the Committee may cancel registration or take such other action as it considers appropriate.

Recommendation for Admission to Degree

4. Having considered the candidate's results in the prescribed course of study including projects, the Committee shall recommend whether the candidate may be admitted to the degree.

Fees

5. An approved candidate shall pay such fees as may be determined from time to time by the Council.

Master of Building (MBuild)

1. The degree of Master of Building may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Qualifications

2. (1) An applicant for registration for the degree shall have been admitted to the degree of Bachelor in the University of New South Wales, or other approved university, in an appropriate school, and at a standard acceptable to the Committee.

(2) In special circumstances a person may be permitted to register as a candidate for the degree by submitting evidence of such academic and professional attainments as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one full calendar month before the commencement of the session in which the candidate desires to register.

(2) In every case, before permitting an applicant to register as a candidate, the Committee shall be satisfied that adequate supervision and facilities are available.

(3) An approved applicant shall register in one of the following categories:

(a) student in full-time attendance at the University;

(b) student in part-time attendance at the University;

(c) student working externally to the University.

(4) Every candidate for the degree shall be required to carry out a program of advanced study, to take such examinations, and to perform such other work as may be prescribed by the Committee which shall include the preparation and submission of a thesis embodying the results of an original investigation or design relative to building. The work shall be carried out under the direction of a supervisor appointed by the Committee or under such conditions as the Committee may determine.

(5) No candidate shall be considered for the award of the degree until the lapse of four complete sessions from the date from which registration becomes effective, save that in the case of a candidate who obtains the degree of Bachelor with Honours, or who has had previous research experience, this period may, with the approval of the Committee be reduced by up to two sessions.

Thesis

4. (1) A candidate for the degree shall be required to submit three copies of the thesis referred to in paragraph **3.**(4) which shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. The candidate may submit also for examination any work he has published, whether or not such work is related to the thesis.

(2) For each candidate there shall be at least two examiners appointed by the Professorial Board on the recommendation of the Committee, one of whom shall, if possible, be an external examiner.

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

Recommendation for Admission to Degree

5. Having considered the examiners' report the Committee shall recommend whether or not the candidate should be admitted to the degree.

Fees

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

Master of the Built Environment (MBEnv) (by research)

1. The degree of Master of the Built Environment may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Qualifications

2. (1) An applicant for registration for the degree shall have been admitted to a minimum four year degree of Bachelor in the University of New South Wales, or other approved University, after a course of study of not less than four full-time years and at a standard acceptable to the Committee.

(2) In special circumstances a person may be permitted to register as a candidate for the degree by submitting evidence of such academic and professional attainments as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one full calendar month before the commencement of the session in which the candidate desires to register.

(2) In every case, before permitting an applicant to register as a candidate, the Committee shall be satisfied that adequate supervision and facilities are available.

(3) An approved applicant shall register in one of the following categories:

(a) student in full-time attendance at the University;

(b) student in part-time attendance at the University;

(c) student working externally to the University.

(4) Every candidate for the degree shall be required to carry out a program of advanced study, to take such examinations, and to perform such other work as may be prescribed by the Committee which shall include the preparation and submission of a thesis embodying the results of an original investigation or design in the field of the built environment. The work shall be carried out under the direction of a supervisor appointed by the Committee or under such conditions as the Committee shall determine.

(5) No candidate shall be considered for the award of the degree until the lapse of four complete sessions from the date from which registration becomes effective, save that in the case of a candidate who obtains the degree of Bachelor with Honours, or who has had previous research experience this period may, with the approval of the Committee be reduced by up to two sessions.

Thesis

4. (1) A candidate for the degree shall be required to submit three copies of the thesis referred to in paragraph **3.** (4) above which shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. The candidate may submit also for examination any published work whether or not such work is related to the thesis.

(2) For each candidate there shall be at least two examiners appointed by the Professorial Board on the recommendation of the Committee, one of whom shall, if possible, be an external examiner.

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

Recommendation for Admission to Degree

5. Having considered the examiners' reports the Committee shall recommend whether or not the candidate should be admitted to the degree.

Fees

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

Master of the Built Environment (Building Conservation) (MBEnv)

1. The degree of Master of the Built Environment (Building Conservation) by formal course work may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed an approved program of advanced study.

Qualifications

2. (1) An applicant for registration for the degree shall normally be a graduate from an appropriate four-year, full-time undergraduate course in the University of New South Wales, or other approved university or tertiary institute, at a standard acceptable to the Committee.

(2) In exceptional cases an applicant may be registered as a candidate for the degree by submitting evidence of such academic and professional attainment as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two months before the commencement of the course.

(2) A candidate for the degree shall be required to undertake such course of formal study, pass such examinations and submit a project report as prescribed by the Committee.

(3) No candidate shall be considered for the award of the degree until the lapse of two sessions in the case of a full-time candidate or four sessions in the case of a part-time candidate.

(4) The progress of a candidate shall be reviewed annually by the Committee on the recommendation of the Head of School in which the candidate is registered and as a result of such review the Committee may terminate the candidature.

Project

4. (1) A project report approved by the Committee may be submitted at the completion of the formal section of the course, but in any case shall be submitted not later than one year after the completion of the course.

(2) The format of the report shall accord with the instructions of the Head of School and shall comply with the requirements of the Committee for the submission of project reports.

(3) (a) The report shall be examined by two examiners appointed by the Professorial Board on the recommendation of the Committee.

(b) A candidate may be required to attend for an oral or written examination.

Recommendation for Admission to Degree

5. Having considered the examiners' reports, and the candidate's other results in the prescribed course of study, the Committee shall recommend whether the candidate may be admitted to the degree.

Fees

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

Master of Industrial Design (MID)

1. The degree of Master of Industrial Design by formal coursework may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed an approved program of advanced study.

Qualifications

2. (1) An applicant for registration for the degree shall have been admitted to a professional degree in industrial design, (not less than four years' full-time duration or its equivalent) at an approved university or tertiary institute, at a standard acceptable to the Committee.

(2) In exceptional cases an applicant may be registered as a candidate for the degree by submitting evidence of such academic and professional attainment as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by submission of a portfolio, carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two months before the commencement of the course.

(2) A candidate for the degree shall be required to undertake such course of formal study, pass such examinations and submit a project report as prescribed by the Committee.

(3) No candidate shall be considered for the award of the degree until the lapse of two sessions in the case of a full-time candidate or four sessions in the case of a part-time candidate.

(4) The progress of a candidate shall be reviewed annually by the Committee on the recommendation of the Head of School. As a result of such review the Committee may terminate the candidature.

Graduate Project

4. (1) A project report approved by the Committee may be submitted at the completion of the formal section of the course but in any case shall be submitted not later than one year after the completion of the course.

(2) The format of the report shall accord with the instructions of the Head of the School and shall comply with the requirements of the Committee for the submission of project reports.

(3) (a) The report shall be examined by two examiners appointed by the Professorial Board on the recommendation of the Committee.

(b) A candidate may be required to attend for an oral or written examination.

Fees

5. An approved candidate shall pay such fees as may be determined from time to time by the Council.

Master of Landscape Architecture (MLArch)

1. The degree of Master of Landscape Architecture may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Qualifications

2. (1) An applicant for registration for the degree shall have been admitted to the degree of Bachelor of Landscape Architecture in the University of New South Wales, or other approved university, at a standard acceptable to the Committee.

(2) In special circumstances a person may be permitted to register as a candidate for the degree by submitting evidence of such academic and professional attainments as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An applicant to register for the degree shall apply on the prescribed form which shall be lodged with the Registrar at least one full calendar month before the commencement of the session in which the candidate desires to register.

(2) In every case, before permitting an applicant to register as a candidate, the Committee shall be satisfied that adequate supervision and facilities are available.

(3) An approved applicant shall register in one of the following categories:

(a) student in full-time attendance at the University;

(b) student in part-time attendance at the University;

(c) student working externally to the University.

(4) Every candiate for the degree shall be required to carry out a program of advanced study, to take such examinations, and to perform such other work as may be prescribed by the Committee which shall include the preparation and submission of a thesis embodying the results of an original investigation or design relative to Landscape Architecture. The work shall be carried out under the direction of a supervisor appointed by the Committee or under such conditions as the Committee may determine.

(5) No candidate shall be considered for the award of the degree until the lapse of four complete sessions from the date from which registration becomes effective, save that in the case of a candidate who obtains the degree of Bachelor with Honours or who has had previous research experience, this period may, with the approval of the Committee be reduced by up to two sessions.

Thesis

4. (1) A candidate for the degree shall be required to submit three copies of the thesis referred to in paragraph **3.**(4) which shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. The candidate may submit also for examination any work the candidate has published, whether or not such work is related to the thesis.

(2) For each candidate there shall be at least two examiners appointed by the Professorial Board on the recommendation of the Committee, one of whom shall, if possible, be an external examiner.

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

Recommendation for Admission to Degree

5. Having considered the examiners' reports the Committee shall recommend whether or not the candidate should be admitted to the degree.

Fees

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

Master of Science (MSc)

1. The degree of Master of Science may be awarded by the Council on the recommendation of the Higher Degree Committee of the appropriate Faculty or Board of Studies (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

Qualifications

2. (1) An applicant for registration for the degree shall have been admitted to the degree of Bachelor in the University of New South Wales, or other approved University in an appropriate School or Department, and at a standard acceptable to the Committee.

(2) In exceptional cases a person may be permitted to register as a candidate for the degree if the person submits evidence of such academic and professional attainments as may be approved by the Professorial Board on the recommendation of the appropriate Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree of Master of Science shall be made on the prescribed form which shall be lodged with the Registrar at least one full calendar month before the commencement of the session in which the candidate desires to register.

(2) In every case before permitting an applicant to register as a candidate the Committee shall be satisfied that adequate supervision and facilities are available.

(3) An approved applicant shall register in one of the following categories:

(a) student in full-time attendance at the University
(b) student in part-time attendance at the University
(c) student working externally to the University

(4) Every candidate for the degree shall be required to submit three copies of a thesis embodying the results of an original investigation or design, to take such examinations and to perform such other work as may be prescribed by the Committee. This work shall be carried out under the direction of a supervisor appointed by the Committee or under such conditions as the Committee may determine.

(5) At least once a year and at any other time that the Committee sees fit the candidate's supervisor shall present to the Head of School or Department in which the candidate is registered a report on the progress of the candidate. The Committee shall review the report and may if it decides as a result of its review that the progress of a candidate is unsatisfactory, cancel registration or take such other action as it considers appropriate.

(6) Unless otherwise recommended by the Committee, no candidate shall be awarded the degree until the lapse of four complete sessions from the date of registration, save that the case of a candidate who obtained the degree of Bachelor with Honours or who has had previous research experience, this period may be reduced by up to two sessions with approval of the Committee. A candidate who is fully engaged in research for the degree shall present for examination not later than six academic sessions from the date of registration. A candidate not fully engaged in research shall present for examination not later than twelve academic sessions from the date of registration. In special cases an extension of these times may be granted by the Committee.

Thesis

4. (1) A candidate shall give two months' notice in writing to the Registrar of intention to submit a thesis.

(2) A candidate for the degree shall be required to submit three copies of the thesis referred to in paragraph **3.**(4) which shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. The candidate may submit also for examination any work the candidate has published whether or not such work is related to the thesis.

(3) For each candidate there shall be at least two examiners, appointed by the Professorial Board on the recommendation of the Committee, one of whom, if possible, shall be external to the University.

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

Recommendation for Admission to Degree

5. Having considered the examiners' reports the Committee shall recommend whether or not the candidate should be admitted to the degree.

Fees

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

Master of Science (Acoustics) (MSc(Acoustics))

1. The degree of Master of Science (Acoustics) by formal course work may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed an approved program of advanced study.

Qualifications

2. (1) An applicant for registration for the degree shall have been admitted to an appropriate degree (not less than four years duration) of the University of New South Wales or an equivalent degree of another approved university or tertiary institution, and at a standard acceptable to the Committee.

(2) In exceptional cases an applicant may be registered as a candidate for the degree by submitting evidence of such academic and professional attainment as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two months before the commencement of the course.

(2) A candidate for the degree shall be required to undertake such course of formal study, pass such examinations and submit a project report as prescribed by the Committee.

(3) No candidate shall be considered for the award of the degree until the lapse of two sessions in the case of a full-time candidate or four sessions in the case of a part-time candidate.

(4) The progress of a candidate shall be reviewed annually by the Committee on the recommendation of the Head of the School in which the candidate is registered and as a result of such review the Committee may terminate the candidature.

Project

4. (1) A project report approved by the Committee may be submitted at the completion of the formal section of the course, but in any case shall be submitted not later than one year after the completion of the course.

(2) The format of the report shall accord with the instructions of the Head of the School and shall comply with the requirements of the Committee for the submission of project reports.

(3) (a) The report shall be examined by two examiners appointed by the Professorial Board on the recommendation of the Committee.

(b) A candidate may be required to attend for an oral or written examination.

Recommendation for Admission to Degree

5. Having considered the examiners' reports, and the candidate's other results in the prescribed course of study, the Committee shall recommend whether the candidate may be admitted to the degree.

Fees

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

Master of Science (Building) (MSc(Building))

1. The degree of Master of Science (Building) by formal course work may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed an approved program of advanced study.

Qualifications

2. (1) An applicant for registration for the degree shall have been admitted to an appropriate degree in the University of New South Wales or other approved university at a level approved by the Committee.

(2) In exceptional cases an applicant may be registered as a candidate for the degree if he submits evidence of such academic and professional attainments as may be approved by the Committee.

(3) Notwithstanding any other provisions of these condtions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two months before the commencement of the course.

(2) A candidate for the degree, shall be required to undertake such course of formal study, pass such examinations and, where specified, submit a project report, as prescribed by the Committee.

(3) No candidate shall be considered for the award of the degree until the lapse of four sessions from the date from which registration becomes effective.

(4) The progress of a candidate shall be reviewed annually by the Committee on the recommendation of the Head of School in which the candidate is registered and as a result of such review the Committee may terminate the candidature.

Project

4. (1) A project report approved by the Committee shall be submitted at the completion of the formal section of the course, not later than one year after the completion of the course.

(2) The format of the report shall accord with the instructions of the Head of School and shall comply with the requirements of the Committee for the submission of project reports.

(3) (a) The report shall be examined by two examiners appointed by the Professorial Board on the recommendation of the Committee.

(b) A candidate may be required to attend for an oral or written examination.

Recommendation for Admission to Degree

5. Having considered the examiners' reports where appropriate and the candidate's other results in the prescribed course of study, the Committee shall recommend whether the candidate may be admitted to the degree.

Fees

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

Master of Science (Industrial Design) MSc(IndDes)

1. The degree of Master of Science (Industrial Design) by formal course work may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has satisfactorily completed an approved program of advanced study.

Qualifications

2. (1) An applicant for registration for the degree shall have been admitted to an appropriate degree (not less than four years' full-time duration or its equivalent) of the University of New South Wales or other approved university or tertiary institute, at a standard acceptable to the Committee.

(2) In special cases an applicant may be registered as a candidate for the degree if the applicant submits evidence of such academic and professional attainment as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by submission of a portfolio, carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least two months before the commencement of the course.

(2) A candidate for the degree shall be required to undertake such course of formal study, pass such examinations and submit a project report as prescribed by the Committee.

(3) No candidate shall be considered for the award of the degree until the lapse of two sessions in the case of a full-time candidate or four sessions in the case of a part-time candidate.

(4) The progress of a candidate shall be reviewed annually by the Committee on the recommendation of the Head of School. As a result of such review the Committee may terminate the candidature.

Graduate Project

4. (1) A project report approved by the Committee may be submitted at the completion of the formal section of the course, but in any case shall be submitted not later than one year after the completion of the course.

(2) The format of the report shall accord with the instructions of the Head of the School and shall comply with the requirements of the Committee for the submission of project reports.

(3) (a) The report shall be examined by two examiners appointed by the Professorial Board on the recommendation of the Committee.

(b) A candidate may be required to attend for an oral or written examination.

Fees

5. An approved candidate shall pay such fees as may be determined from time to time by the Council.

Master of Town Planning (MTP)

1. The degree of Master of Town Planning may be awarded by the Council on the recommendation of the Higher Degree Committee of the Faculty of Architecture (hereinafter referred to as the Committee) to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation or design.

Qualifications

2. (1) An applicant for registration shall have been admitted to the Degree of Bachelor of Town Planning in the University of New South Wales, or to a Bachelor's degree in Town or Regional Planning of an approved university, and at a standard acceptable to the Committee.

(2) In special circumstances a person may be permitted to register as a candidate for the degree if he submits evidence of such academic and professional attainments as may be approved by the Committee.

(3) Notwithstanding any other provisions of these conditions the Committee may require an applicant to demonstrate fitness for registration by carrying out such work and sitting for such examinations as the Committee may determine.

Registration

3. (1) An application to register as a candidate for the degree shall be made on the prescribed form which shall be lodged with the Registrar at least one full calendar month before the commencement of the session in which the candidate desires to register.

(2) In every case, before permitting an applicant to register as a candidate, the Committee shall be satisfied that adequate supervision and facilities are available.

(3) An approved applicant shall register in one of the following categories:

(a) student in full-time attendance at the University;

(b) student in part-time attendance at the University;

(c) student working externally to the University.

(4) Every candidate for the degree shall be required to carry out a program of advanced study, to take such examinations, and to perform such other work as may be prescribed by the Committee which shall include the preparation and submission of a thesis embodying the results of an original investigation or design relative to Town or Regional Planning. The work shall be carried out under the direction of a supervisor appointed by the Committee or under such conditions as the Committee may determine.

(5) No candidate shall be considered for the award of the degree until the lapse of four complete sessions from the date from which registration becomes effective, save that in the case of a candidate who obtains the degree of Bachelor with Honours or who has had previous research experience, this period may, with the approval of the Committee be reduced by up to two sessions.

Thesis

4. (1) A candidate for the degree shall be required to submit three copies of the thesis referred to in paragraph **3.**(4) which shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. The candidate may submit also for examination any work he has published, whether or not such work is related to the thesis.

(2) For each candidate there shall be at least two examiners appointed by the Professorial Board on the recommendation of the Committee one of whom shall, if possible be an external examiner.

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

Recommendation for Admission to Degree

5. Having considered the examiners' reports the Committee shall recommend whether or not the candidate should be admitted to the degree.

Fees

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

Graduate Diploma (GradDip)

1. An application for admission to a graduate diploma course shall be made on the presribed form which should be lodged with the Registrar at least two full calendar months before the commencement of the course.

2. An applicant for admission to a graduate diploma course shall be:

(1) a graduate of the University of New South Wales or other approved university,

(2) a person with other qualifications as may be approved by Faculty.

3. Notwithstanding clause **2.** above, Faculty may require an applicant to take such other prerequisite or concurrent studies and/or examinations as it may prescribe.

4. Every candidate for a graduate diploma shall be required to undertake the appropriate course of study, to pass any prescribed examinations, and if so laid down in the course, to complete a project or assignment specified by the Head of the School. The format of the report on such project or assignment shall accord with the instructions laid down by the Head of the School.

5. An approved applicant shall be required to pay the fee for the course in which he desires to register. Fees shall be paid in advance.

Subject Descriptions

Identification of Subjects by Number

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

Each approved subject of the University is identifiable both by number and by name as this is a check against nomination of subject other than the one intended.

Subject numbers are allocated by the Registrar and the system of allocation is based on the following guidelines:

1. The authority offering the subject, normally a School of the University, is indicated by the number before the decimal point.

2. Each subject number is unique and is not used for more than one subject title.

3. Subject numbers which have not been used for some time are not used for new subject titles.

4. Graduate subjects are indicated by a suffix 'G' to a number with three digits after the decimal point. In other subjects three or four digits are used after the decimal point.

Subjects taught are listed in full in the handbook of the faculty or board of studies responsible for the particular course within which the subjects are taken. Subject descriptions are contained in the appropriate section of the handbooks.

The **identifying numerical prefixes** for each subject authority are set out on the following page.

Servicing Subjects are those taught by a School or Department outside its own faculty, and are listed at the end of **Undergraduate Study** or **Graduate Study** of the relevant subject. Their subject descriptions are published in the handbook of the faculty in which the subject is taught.

The following pages contain descriptions for most of the subjects offered for the courses described in this book, the exception being the General Studies subjects. For General Studies subjects see the **General Studies Handbook** which is available free of charge.

Information Key

The following is the key to the information supplied about each subject listed below: S1 (Session 1); S2 (Session 2); F (Full year ie Session 1 *plus* Session 2); S1 or S2 (Session 1 *or* Session 2, ie choice of either session); SS (Single Session, ie which session taught not known at time of publication); L (Lecture, followed by hours per week); T (Laboratory/ Tutorial, followed by hours per week).

HSC Exam Prerequisites

Subjects which require prerequisites for enrolment in terms of the HSC Examination percentile range refer to the **1978 and subsequent Examinations.**

Candidates for enrolment who obtained the HSC in previous years or hold other high school matriculation should check with the appropriate School on what matriculation status is required for admission to a subject.

	School, Department etc *Subjects also offered for courses in this Handbook	Faculty	Page
1	School of Physics*	Science	79
2	School of Chemistry*	Science	80
4	School of Metallurgy*	Applied Science	81
5	School of Mechanical and Industrial Engineering*	Engineering	81
6	School of Electrical Engineering and Computer Science	Engineering	
7	School of Mining Engineering	Applied Science	
8	School of Civil Engineering	Engineering	
9	School of Wool and Pastoral Sciences	Applied Science	
10	School of Mathematics	Science	
11	**School of Architecture**	**Architecture**	**82**
12	School of Psychology*	Biological Sciences	95
13	School of Textile Technology	Applied Science	
14	School of Accountancy*	Commerce	95
15	School of Economics*	Commerce	96
16	School of Health Administration	Professional Studies	
17	Biological Sciences	Biological Sciences	
18	School of Mechanical and Industrial Engineering (Industrial Engineering)	Engineering	
21	**Department of Industrial Arts**	**Architecture**	**96**
23	School of Nuclear Engineering	Engineering	
25	School of Applied Geology	Applied Science	
26	Department of General Studies	Board of Studies in General Education	
27	School of Geography*	Applied Science	100
28	School of Marketing	Commerce	
29	School of Surveying*	Engineering	100
30	Department of Organizational Behaviour	Commerce	
31	School of Optometry	Science	
32	Centre for Biomedical Engineering	Engineering	
35	**School of Building**	**Architecture**	**100**
36	**School of Town Planning**	**Architecture**	**108**
37	**School of Landscape Architecture**	**Architecture**	**113**
38	School of Food Technology	Applied Science	
39	**Graduate School of the Built Environment**	**Architecture**	**117**
40	Professorial Board		
41	School of Biochemistry	Biological Sciences	
42	School of Biotechnology	Biological Sciences	
43	School of Botany*	Biological Sciences	120
44	School of Microbiology	Biological Sciences	
45	School of Zoology	Biological Sciences	
46	Faculty of Applied Science	Applied Science	
47	Faculty of Engineering	Engineering	
48	School of Chemical Engineering and Industrial Chemistry	Applied Science	
50	School of English	Arts	
51	School of History	Arts	
52	School of Philosophy	Arts	
53	School of Sociology*	Arts	120
54	School of Political Science	Arts	
55	School of Librarianship	Professional Studies	
56	School of French	Arts	
57	School of Drama	Arts	
58	School of Education*	Professional Studies	120
59	School of Russian	Arts	
60	Faculty of Arts		
62	School of History and Philosophy of Science	Arts	
63	School of Social Work	Professional Studies	
64	School of German Studies	Arts	
65	School of Spanish and Latin American Studies	Arts	
66	Subjects Available from Other Universities		
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70	School of Anatomy	Medicine	
71	School of Medicine	Medicine	
72	School of Pathology	Medicine	
73	School of Physiology and Pharmacology	Medicine	
74	School of Surgery	Medicine	
75	School of Obstetrics and Gynaecology	Medicine	
76	School of Paediatrics	Medicine	
77	School of Psychiatry	Medicine	
79	School of Community Medicine	Medicine	
80	Faculty of Medicine	Medicine	
81	Medicine/Science/Biological Sciences	Medicine	
85	Australian Graduate School of Management	AGSM	
90	Faculty of Law	Law	
97	Division of Postgraduate Extension Studies		

School of Physics

Undergraduate Study

1.001 Physics I — F L3T3

Prerequisites:

	HSC Exam Percentile Range Required
2 unit Mathematics	*71-100*
or	
3 unit Mathematics	*21-100*
or	
4 unit Mathematics	*1-100*
and	
2 unit Science (incl. Physics and/or Chem.)	*31-100*
or	
4 unit Science (multistrand)	*31-100*

Co-requisites: 10.021C or 10.001 or 10.011.

Aims and nature of physics and the study of motion of particles under the influence of mechanical, electrical, magnetic and gravitational forces. Concepts of force, inertial mass, energy, momentum, charge, potential, fields. Application of the conservation principles to solution of problems involving charge, energy and momentum. Electrical circuit theory, application of Kirchhoff's Laws to AC and DC circuits. Uniform circular motion. Kepler's Laws and rotational mechanics.

Properties of matter: solids, liquids, gases. The wave theories of physics, transfer of energy by waves, properties of waves. Application of wave theories to optical and acoustical phenomena such as interference, diffraction and polarization.

1.011 Higher Physics I — F L3T3

Prerequisites: As for 1.001. Co-requisite: 10.001 or 10.011.

For students of all Faculties except Medicine who have a good secondary school record and who wish to do a more challenging course. Entry to this course requires permission from the Head of the School of Physics.

Vector algebra, kinematics, uniform circular motion, coriolis acceleration, dynamics of particles, motion in a resistive medium, work and energy, gravitation, rotational motion of rigid bodies about fixed axis, rotational motion about a fixed point, Lagrange and Hamilton equations, harmonic motions, waves in elastic media, sound waves, physical optics, polarization and double refraction.

Electric charge, electric intensity, electric flux, Gauss' Law, electric potential, capacity, dielectric materials, electric current and resistance, DC circuits, magnetic field, field due to a current, electromagnetic induction, inductance, magnetic materials, transients, AC circuits, electronics, diode, rectifier circuit, simple power supplies, electronic amplifier systems, single loop feedback systems, signal processing circuits using operational amplifiers.

1.021 Introductory Physics (For Health and Life Scientists) — F L3T3

Co-requisites: 10.021A and 10.021B or 10.021B and 10.021C, or 10.001 or 10.011.

An introductory subject in physics designed principally for students majoring in the life and health science disciplines. Discusses the following topics at an introductory level: methods of physics, describing motion, the dynamics of a particle, conservation of energy, kinetic theory of gases, properties of liquids, vibrations and waves, electricity and conduction in solids, ions and ionic conduction, magnetism and electromagnetic induction, alternating current, atomic nature of matter, X-rays, the nucleus and radioactivity, electronics, geometrical optics, optical instruments, wave optics, microscopes and their uses.

1.931 Physics I (Building)

4 credit points; compulsory. Prerequisites: nil

Mechanics of solids: kinematics. Newton's Law of motion, work and energy. Atomistic description of mechanical properties of matter. Atomic structure of matter. Elasticity. Plasticity: dislocations, fracture, viscosity. Electrostatics, electromagnetism and DC circuits: Coulomb's Law. Electric field. Electric potential. Capacitance. Electrical energy sources. Conductors. Resistivity. Atomic view of conduction. EMF. Kirchoff's Laws. Magnetic induction. Torque on a coil in magnetic field. Moving coil meter. Wheatstone's bridge. Potentiometer. Faraday's Law. Transient circuits.

Wave motion, heat light and sound: simple harmonic motion. Wave motion. Interference. Doppler effect. Energy transfer. Heat, heat capacity. Joule's equivalent. Thermometry. Convection. Conduction. Radiation. Black body. Emittance. Absorptance. Light. Electro-magnetic spectrum. Huygens' Principle. Curved mirrors. Lenses. Dispersion. Interference. Polarization. Photometry. Colorimetry. Sound. Longitudinal waves. Overtones. Intensity levels. Decibels. Quality of sound.

Graduate Study

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

1.927G Acoustic Theory — S1 L1½T½

2 credit points.

Free field propagation in fluids; interference and diffraction; absorption; boundary effects; reflection and transmission at fluid/fluid and fluid/solid interfaces; fluid wave guides; solid wave guides; room acoustics; ultrasonic transducers and measurement methods; Fourier analysis; statistical methods; impulse measurement.

1.937G Acoustic Measuring Systems — S1 L1

1 credit point.

Transducers; microphones; amplifiers, loudspeakers; filters, recorders, pick-ups; noise generators; acoustic measuring instruments.

1.947G Advanced Physical Acoustics — S1 L3T1

Vibrating systems: coupled oscillators, beams, membranes, plates, resonators, acoustic filters; analogs, analogue computer simulation of vibrating systems; transfer of energy from one system to another. Reflection and transmission at walls, rigid walls, flexible walls, multiple walls, impulsive excitation. Sound absorbers: porous absorbers, perforated panel absorbers, sonic and ultrasonic measurement techniques, relation to properties of materials.

1.957G Acoustic Laboratory and Signal Analysis — S2 L1T2

Theory and practice of digital methods of analysis in the time and frequency domain. Practical experiments related to the subject matter of 1.927G.

1.977G Electro-Acoustics — S1 L1T0

1 credit point.

Sound reinforcement systems; ambiophony; assisted resonance. Special requirements for translation, language laboratories.

School of Chemistry

Undergraduate Study

2.111 Introductory Chemistry† — S1 L2T4

Prerequisites: nil.

Classification of matter and the language of chemistry. The gas laws and the Ideal Gas Equation, gas mixtures and partial pressure. The structure of atoms, cations and anions, chemical bonding, properties of ionic and covalent compounds. The Periodic classification of elements, oxides, hydrides, halides and selected elements. Acids, bases, salts, neutralization. Stoichiometry, the mole concept. Electron transfer reactions. Qualitative treatment of reversibility and chemical equilibrium, the pH scale. Introduction to the diversity of carbon compounds.

2.121 Chemistry 1A† — S1 or S2 L2T4

Prerequisites:

	HSC Exam Percentile Range Required
2 unit Mathematics	*71-100*
or	
3 unit Mathematics	*21-100*
or	
4 unit Mathematics	*1-100*
and	
2 unit Science (Physics or Chem.)	*31-100*
or	
4 unit Science (multistrand)	*31-100*
or	
2 unit Science (other than Physics or Chem.)	*51-100*
or	
2.111	

Stoichiometry and solution stoichiometry. Structure of matter, solids, liquids, gases. Thermochemistry. Equilibria and equilibrium constants, entropy changes, free energy changes, the relationship between equilibrium and standard free energy changes. Ideal solutions, colligative properties. Equilibrium in electrolyte solutions, acid-base equilibria, solubility equilibria and redox equilibria. The rate of a chemical change and chemical kinetics.

2.131 Chemistry IB — S1 or S2 L2T4

Prerequisites: 2.111 or 2.121.

Relative stability of oxidation states. Electronic structure of atoms in terms of the quantum mechanical model. Structure of the Periodic Table and its relationship to electronic configuration. Chemical bonding, hybridization. Properties of compounds of selected elements, acid-base character of oxides and hydroxy compounds. Chemistry of carbon compounds, stereoisomerism, reactions of aliphatic and aromatic hydrocarbons, alcohols, phenols, ethers, alkyl halides, aldehydes, ketones, carboxylic acids and their derivatives, esters, acyl halides, anhydrides, amides, amines.

2.141 Chemistry 1M† — F L2T4

Prerequisites:

	HSC Exam Percentile Range Required
2 unit Mathematics	*71-100*
or	
3 unit Mathematics	*21-100*
or	

†Students who have passed 2.121 may not subsequently enrol in 2.111 or 2.141. Students meeting the 2.121 or 2.141 prerequisite are not permitted to enrol in 2.111 without the permission of the Head of Chemistry. Students who enrol in 2.111 must pass 2.111 before they can proceed to 2.121 or 2.131 or 2.141.

4 unit Mathematics	*1-100*
and	
2 unit Science (Physics or Chem.)	*51-100*
or	
4 unit Science (multistrand)	*51-100*
or	
2 unit Science (other than Physics or Chem.)	*51-100*
or	
2.111	

The syllabus is an integrated one of 2.121 and 2.131.

School of Metallurgy

Undergraduate Study

4.911 Materials Science — L1T½

The atomic structure of metals; the grain structure of metals; origin, modification. Structure of alloys: theory. Structure, properties and heat treatment of commercially important alloys based on aluminium, copper and iron in particular. Corrosion. Control of structure and properties, commercial alloys, materials selection.

4.951 Materials Technology — L2T2

Materials selection, based on structure and properties. Equilibrium and kinetics in metallic systems. The structure of ceramics with particular reference to silicates. Structural changes. Electroplating processes considered from a theoretical and practical standpoint. Structure and testing of electrodeposits; electrochemical protection. The structure, properties and technology of wood.

School of Mechanical and Industrial Engineering

Undergraduate Study

5.010 Engineering A — SS L4T2

Prerequisites:	*HSC Exam Percentile Range Required*
Either	
2 unit Science (Physics)	*31-100*
or	
4 unit Science (multistrand)	*11-100*
or	
2 unit Industrial Arts	*31-100*
or	
3 unit Industrial Arts	*11-100*

Students who wish to enrol in this subject can make up for the lack of the prerequisite by work taken in Physics in the first half of first year.

Statics: composition and resolution of forces, laws of equilibrium. Friction. Statics of rigid bars, pin jointed frames and beams. Simple states of stress. Statics of fluids. *Introduction to Engineering Design*: engineering method, problem identification, creative thinking, mathematical modelling. Computer aided design, materials and processes, communication of ideas, the place of engineering in society. *Introduction to Materials Science*: the structure and properties of the main types of engineering materials, with emphasis on the way in which properties may be controlled by controlling structure.

5.030 Engineering C — SS L/T6

Engineering Drawing: graphic communication first and third angle orthographic projection and isometric projection. Descriptive geometry fundamentals and their application to engineering problems with special emphasis on visualization of problems and development of methods for their solution. Australian standard engineering drawing practice. Applications involving detail and assembly drawings, functional dimensioning and tolerancing.

And one of the following options (determined by the course of study).

1. *Production Technology*
(Mechanical, Industrial and Aeronautical Engineering and Naval Architecture students must take this option.) Description and appraisal of the processes classified as: forming from liquid or solid, material removal, material joining. Machines. Analysis of the primary functions of the machine tools and an appraisal of their limitations. Principles of operation of common machine tools and illustrations of their use.

2. *Introduction to Chemical Industry*
(Chemical Engineering and Industrial Chemistry students must take this option.) The chemical industry in Australia. The role of professional societies. Special topics on the engineering and chemical aspects of the industry, ie pollution control, energy sources, food and biochemicals and polymers, mineral processing, safety, etc. A visit to a factory in the Sydney area and the preparation of a short report after an introduction to information retrieval by university librarians.

3. *Introduction to Metallurgical Engineering*
(Metallurgy students must take this option.) History and significance of the exploitation of metals. Ores, mineral economics, mineral processing, and metal extraction and processing methods illustrated by reference to the Australian mineral and metal industries. Properties, uses and applications of metallic materials. The role of the megallurgist in industry and in processing and materials research, and in relation to conservation and the environment.

4. *Introduction to Mining Engineering*
(Mining Engineering students must take this option.) Mineral deposits; metalllic, non-metallic and fuels. Elements of prospecting and exploration. Basic mining techniques. Mining phases: development, exploitation, beneficiation and withdrawal. Mining and the environment. Mining services. Relevance of basic science and engineering subjects to mining design and operations.

5. *Introduction to Ceramic Engineering*
(Ceramic Engineering students take this option.) The classification of materials. The nature of ceramics. The materials science approach. The scope of the ceramic industry. The origin, classification, physical properties and uses of clay minerals and other non-clay raw materials. Principal unit operations used in the ceramic industry. Drying and firing of ceramics, melt forming, pot forming and other forming procedures.

School of Architecture

Undergraduate Study

Architectural Design — General

11.4101 Principles of Design

4 credit points. Prerequisites: nil.

The meaning of design as the process of designation for a purpose. Selection, making, art. The origin and cause of human aims in general. Motivations: need, desire, aspiration. Motivations affecting the field of architecture on the physical, mental and spiritual level. Introduction to aim-possibility-act-fulfilment, the four cornerstones of the design process. The meaning and role of analysis in the understanding and exploration of the above. The relationship between possibility and act: the principle of successive limitation. The design process and the physical and human context in which it is destined to fit. Practical studio projects in problem-solving exercises in two and three dimensions taken from all the disciplines of the built environment.

11.4102 Design Theory I

5 credit points. Prerequisites: 11.4101, 11.4201.

Introduction to methodology, especially design methodology. Development of methodical analysis and research applied to the comprehension of design aims, possibilities and acts. Introduction to complete design methods in general and study of simple models followed by contemporary architects. Practical studio projects to apply design methods in problem-solving exercises leading to simple architectural synthesis.

11.4103 Design Theory II

5 credit points. Prerequisite: 11.4102.

Development of systematic design processes: identification of different methods and their influences. Investigation and comparison of various tools and techniques, their respective limitations and suitability for problem types. Investigation of human sciences techniques and their application to the design process. Introduction to computer-aided design and more complex design systems. Introduction to problems of anticipation, user-participation, evaluation, survey methods. Consideration of principles of composition and means of architectural expression. Practical studio projects to apply various design processes to projects leading to architectural synthesis.

11.4120 Design Theory III

4 credit points. Prerequisite: 11.4103.

Advanced and specialized design-methods. Criteria of various decision theories. Cybernetics. Statistical methods. Linear and cyclic models of the process of synthesis, their evaluation and suitability to specific architectural tasks. Practical application centres on selected case studies.

11.4121 Theory of Form

4 credit points. Prerequisite: 11.4103.

The ontological basis and the antinomical qualities of form in the causal sense, reflected in nature, art and architecture. Practical investigation

of the antinomical qualities of form with special emphasis on the brief and on the built fabric of contemporary architecture, and practical attempts to identify shortcomings and develop corrective measures.

11.4122 Theory of Architecture I

4 credit points. Prerequisite: 11.4103.

Theory of architectural synthesis: the sources of synthesis, the centre and field; the central 'idea' as the cause of the order of priorities and connections between the elements of the synthesis. Discussion on the 'name-form, -idea, -shape' sequence. The concepts of prototypes, synergy, conflict-balance, limitation and economy in architectural synthesis. Introduction to ethics and aesthetics. Practical seminars and projects focus on selected case studies and specific themes.

11.4123 Theory of Architecture II

4 credit points. Prerequisite: 11.4122.

The relationship between the cosmic order and architecture. The order of space and time. Introduction to traditional symbolism and sacred architecture. The meaning of numbers, geometry, direction, enclosure, relation and proportion. Sacred architecture examined in detail in the Christian, Hindu, Buddhist and Islamic tradition. Practical seminars and projects focus on selected case studies and specific themes.

11.4124 Geometry and Design

4 credit points. Prerequisite: 11.4103.

Geometrical principles determining spatial order and their application to architecture. Practical study is given to various geometrical systems ranging from simple pragmatic to complex cultural considerations.

11.4125 Interior Design I

4 credit points. Prerequisites: nil.

The elements of the built environment in most immediate contact. The components of interiors: light, sound, colour, texture, shape. Perception. Anthropometrics and ergonomics. Tools and machines. Industrial design and manufacture of furniture, fabrics and appliances.

11.4126 Interior Design II

4 credit points. Prerequisite: 11.4125.

The nature of the 'inside'. History of interior design. Perception of space; physical, mental and spiritual. The meaning of colour and shape. Colour psychology. Investigation of current interior design practice. Design studies applying current practice to a range of interior design situations.

11.4127 Design for Conservation

4 credit points. Prerequisite: 11.4328.

The development of the design of buildings and building types incorporating technological means of energy conservation and generation, recycling of waste, use of energy-efficient materials, maintaining ecological balance and developing suitable structural techniques.

11.4128 Computed-Aided Design

6 credit points. Prerequisite: 11.4632.

Advanced study of the application of computers to architectural design problems; review and further development of techniques for modelling buildings in computer memory; outline of mathematical optimization techniques and how these may be applied to architectural problem-solving; experience in the development of computer-based architectural design-aid tools.

11.4129 Research and Survey Methods

4 credit points. Prerequisite: 11.4103.

Understanding the needs of users of buildings as well as those of the client. Regional and historical perspectives. Prognosis of future 'users'. Survey methods applied to user-research before and after the erection of the building. Practical exercises in user-research and survey.

11.4130 Criticism and Evaluation

4 credit points. Prerequisite: 11.4103.

The nature, function and value of criticism. Subjective and objective criticism. A short history of architectural criticism, architectural critics, past and present. Discrimination and values in a changing society; fashion, the influence of mass opinion, communication media, advertising, propaganda. Collection of data; establishment and application of critical criteria; effective communication of conclusions, recommendations and feedback. The use of criticism and evaluation during and after the design process. Practical evaluation of examples of architectural criticism, past and present. Criticism of contemporary buildings and projects. Criticism of current work by self and others.

11.4131 Principles of Dwellings

3 credit points. Prerequisites: 11.4102, 11.4201.

Examination of the different dwelling types and locational characteristics in the context of social, economic, political and legislative issues; the psycho-social aspects of dwelling types with reference to Australian traditions and experience; review of current practice and trends; demographic implications of socio-economic models; theoretical framework for the development of housing concepts; case studies and design exercises.

Architectural Design — Specific

11.4201 Living Unit

4 credit points. Prerequisites: nil.

Analysis of the immediate built environment, to develop an awareness of man's need for shelter, and a deeper understanding of his functions, activities and requirements. Development of design skills through a series of studio exercises.

11.4211 Cultural Facilities I

6 credit points. Prerequisites: 11.4102, 11.4303, 11.4401, 11.4403.

Cultural attitudes in recent and contemporary Western Society. Cultural experience at participatory level in present-day society, and environmental requirements for small groups; overlaps with education and recreation in broadest sense. Includes design of studios, workshops and craft centres, small libraries, facilities for performance to small audiences; small galleries and exhibition spaces.

11.4212 Commercial Facilities I

6 credit points. Prerequisites: 11.4102, 11.4303, 11.4401, 11.4403.

The principles and nature of all aspects of commercial activity. Features common to all commercial buildings, as appropriate to specific commercial buildings. Determining factors, psychological motivations, and market operations. Economic, technological and urban requirements; people, goods and services. The principles and design of small-scale commercial activity in a rural or suburban context.

11.4213 Health and Welfare Facilities I

6 credit points. Prerequisites: 11.4102, 11.4303, 11.4401, 11.4403.

Public health and welfare, social theory and practice; function of buildings for health and welfare of infants, children, adults and aged, including the afflicted, sick and handicapped. Social security, funding and legislation. Simple institutions in the suburban context with emphasis on special anthropometrics, site selection and social interaction.

11.4214 Educational Facilities I

6 credit points. Prerequisites: 11.4102, 11.4303, 11.4401, 11.4403.

The meaning of education; educational philosophies and their physical and architectural requirements. Child psychology and psychology of play and learning. Case studies on child-minding centres, pre-school kindergartens, infant and primary schools, open and special schools.

11.4221 Detached Houses

6 credit points. Prerequisites: **one** *from Group A, 11.4404.*

Comprehensive awareness of family housing needs and relation to natural environment, culminating in design of a family house to meet these needs. Historical development. Social, climatic, topographic and technological aspects; local and regional influences and international context. Case studies of significant examples of good design. Site and functional planning requirements; anthropometric, acoustic and visual parameters; community and privacy; development of brief between client/user/designer; growth, change and flexibility, construction, structure and services.

11.4222 Group Dwellings

6 credit points. Prerequisites: **one** *from Group A, 11.4404.*

Basic concepts of group housing, and analysis of user needs; advantages and disadvantages. Housing associations and community purposes. Case studies of selected examples. Design studies of simple groups in suburban and urban locations.

11.4223 Housing in Tropical, Sub-tropical and Arid Zones

6 credit points. Prerequisites: **one** *from Group A, 11.4304, 11.4404.*

Historical development of housing in tropical, sub-tropical and arid-zone conditions; traditional methods; indigenous forms; use of mechanical systems versus special design methods to combat heat, moisture, wind, etc; building materials and construction methods; structural systems and servicing. Case studies and design projects.

11.4230 Community Facilities II

12 credit points. Prerequisites: 11.4103, 11.4408, **one** *from Group B.*

An extension of **one,** or a combination of **two** or more, of the subjects 11.4231, 11.4232, 11.4233 and 11.4234. Case studies and two design projects, or one project taken to an advanced stage of development.

11.4231 Commercial Facilities II

6 credit points. Prerequisites: 11.4103, 11.4408, **one** *from Group B.*

The principles and nature of all aspects of commercial activity. Features common to all commercial buildings, and those appropriate to specific commercial buildings. Determining factors, psychological motivations, and market operations. Economic, technological and urban requirements; people, goods and services. Larger scale commercial activity in the urban context.

11.4232 Industrial Facilities

6 credit points. Prerequisites: 11.4103, 11.4408, **one** *from Group B.*

The principles and characteristics of industrial building design. History of the development of industrial building, current technology and design, and possible future developments. Planning of industrial estates. Design studies in development of industrial building types, ranging from simple projects to complex plants.

11.4233 Health and Welfare Facilities II

6 credit points. Prerequisites: 11.4103, 11.4408, **one** *from Group B.*

Public health and welfare; social theory and practice, function of buildings for health and welfare of infants, children, adults and aged, including the afflicted, sick and handicapped. Social security, funding and legislation. More complex institutions in the urban context including housing for the aged, clinics and special facilities for the handicapped.

11.4234 Government Facilities I

6 credit points. Prerequisites: 11.4103, 11.4408, **one** *from Group B.*

Design of public buildings by or for government agencies. Client/user/architect relationship in development of brief. Public facilities, institutions, government office buildings, public services of quasi-industrial type etc for federal, state and municipal government, statutory bodies and government undertakings. Case studies and design projects. This series deals with single buildings and groups.

11.4240 Residential Facilities II

12 credit points. Prerequisites: 11.4103, 11.4405, 11.4407, **one** *from Group B.*

The implications for housing of different densities and purposes; government policies; life styles and traditions; social, technological, physical and cultural environmental requirements, cost analysis. Case studies and two design projects, or one project taken to an advanced stage of development.

11.4241 Urban Housing

6 credit points. Prerequisites: 11.4103, 11.4405, 11.4407, **one** *from Group B.*

The implications for urban housing of differing densities; advantages and disadvantages; characteristics common to medium- and high-density living. Determining factors: life styles and traditions, psychological motivations, economic, technological and urban requirements. Functional factors: constructional solutions, cost analysis, funding and staging, servicing, alternative housing types, overseas developments and future trends. Practical studies of urban housing design in the context of density, economics, social mix, amenity, urban planning, etc.

11.4242 Low-Cost Housing

6 credit points. Prerequisites: 11.4103, 11.4405, 11.4407, **one** *from Group B.*

History, sociology, economics and government policies for low-cost housing, in Australia and overseas, with special reference to developing countries, physical and cultural environment, local materials, labour, methods, skills, transport, etc.

11.4243 Tourist Facilities

6 credit points. Prerequisites: 11.4103, 11.4405, 11.4407, **one** *from Group B.*

Development of the tourist industry, and trends in tourism; hotels and motels; recreational centres, and fitness camps; holiday camps and marinas; tourist facilities and accommodation in national parks, etc. Case studies and design projects.

11.4250 Community Facilities III

16 credit points. Prerequisites: 11.4406, Credit grade or better in **both** **one** *from Group C and* **one** *from Group D.*

An extension of **one**, or a combination of **two** or more, of the subjects 11.4251, 11.4252, 11.4253 and 11.4255. Case studies and two design projects, or one project taken to full design resolution.

11.4251 Educational Facilities II

8 credit points. Prerequisites: 11.4406, **one** *from Group C and* **one** *from Group D.*

The meaning of education; educational philosophies and their physical and architectural requirements. Child psychology, and psychology of play and learning. Case studies on secondary and tertiary educational institutions, universities, colleges of advanced education, technical, private and specialist colleges, and adult education centres.

11.4252 Government Facilities II

8 credit points. Prerequisites: 11.4406, **one** *from Group C and* **one** *from Group D.*

Design of public buildings by or for government agencies. Client/user/architect relationship in development of brief. Public facilities, institutions, government office buildings, public services of quasi-industrial type etc for Federal, State and Municipal government, statutory bodies and government undertakings. Case studies and design projects. Highly organized and complex building programs.

11.4253 Cultural Facilities II

8 credit points. Prerequisites: 11.4406, **one** *from Group C and* **one** *from Group D.*

Cultural attitudes in recent and contemporary Western Society. Cultural experience at participatory level in present-day society, and environmental requirements for small groups; overlaps with education and recreation in broadest sense. Includes consideration of cultural activities at the regional, national and international levels. Culture, State and Society. Wider aspects of culture, and concerns for quality, display, conservation and performance. Design studies includes auditoria for the performing arts; libraries and museums; art galleries, integrated educational and recreational facilities; exhibition complexes and conference centres.

11.4254 Urban Development

8 credit points. Prerequisites: 11.4406, **one** *from Group C and* **one** *from Group D, 11.4345 or 36.411.*

The development of urban spaces and the resolution, by means of design studies, of diverse building requirements in an urban context, with reference to architectural and civic design, urban planning, transport, infrastructure, staging and implementation.

11.4255 Recreational Facilities

8 credit points. Prerequisites: 11.4406, **one** *from Group C and* **one** *from Group D.*

Range of sporting codes and requirements for building facilities; stadia; swimming pools; athletic tracks; squash courts; golf clubs and other sporting clubs; recreational accommodation; ancillary buildings; landscaping; playing fields and sportsgrounds; structural and constructional systems. Case studies and design projects.

11.4256 Transport Buildings

8 credit points. Prerequisites: 11.4406, **one** *from Group C and* **one** *from Group D, 11.4345 or 36.411.*

Characteristics of multi-modal transport systems in urban centres; development of transport technology; design standards; building requirements. Evaluation of transport interchange centres in the context of the total urban transport plan. Detailed planning requirements, vehicle criteria and environment constraints; case studies and projects to develop alternative strategies and design solutions for simple dual mode interchanges (bus/car, car/rail, bus/pedestrian) and for complex multi-mode interchanges in central urban areas (bus/rail/ferry, air/bus/rail, etc).

11.4257 Ecclesiastical Architecture

8 credit points. Prerequisites: 11.4406, 11.4123, **one** *from Group C and* **one** *from Group D.*

The history, meaning and symbolism of Christian architecture as the image of Christian doctrine. The denominational differences in the emphasis of architectural layout. Ritual, functional and social requirements. Religious communities, their ideals, history, variety and pattern of life, with special emphasis on their architectural requirements. Practical application in designing churches, ecclesiastical precincts and buildings for religious communities.

Architectural Environment

11.4301 Context of Architecture

5 credit points. Prerequisites: nil.

Introduction to spiritual, mental, physical, social and cultural needs of man: subjective understanding as a basis for rationalized design. The Earth and man's influence upon it. Man's needs individually and in groups. Resources of energy and materials and their utilization. Context of architecture and the built environment professions. Seminars and projects.

11.4303 Introduction to Architectural Science

4 credit points. Prerequisites: nil.

Environmental design methods for total human comfort; climate and its effects in and around buildings; geometry of sunlight, sun control; introduction to thermal, lighting and acoustical design: basic concepts, subjective appraisals and measurement. Laboratory work and projects.

11.4304 Thermal Design of Buildings

3 credit points. Prerequisite: 11.4303

Thermal comfort, comfort indices; steady state heat transfer, solar heat gain; air movements; thermal storage effects; condensation and vapour barriers; heating and cooling of buildings. Laboratory work and projects.

11.4305 Lighting of Buildings

3 credit points. Prerequisite: 11.4303.

Daylighting: application to lighting of buildings; design principles; daylight factor and its components; simplified method of calculation; methods of evaluating daylighting. Artificial lighting: light sources and their applications; light control, luminaire design; calculation of illuminance; qualitative lighting design and appraisal; supplementary lighting of interiors. Experimental work and projects.

11.4306 Acoustics of Buildings

3 credit points. Prerequisite: 11.4303.

Basic theory of sound propagation in and around buildings; criteria for design; subjective and objective assessment of the aural environment; methods for noise control; introduction to room acoustics. Laboratory work and projects.

11.4307 World Architecture

3 credit points. Prerequisites: nil.

General treatment of the history of architecture from earliest times to the present; architecture as the built environment and the relationship of man and nature; influences of religion, society, culture, climate and technology. Seminars and projects.

11.4308 Western Architecture

3 credit points. Prerequisite: 11.4307.

History of western architecture from middle ages to beginning of 20th century; planning and architectural space as a response to human needs; technological influences; the evolution of form, proportion and detail of the architecture. Seminars and projects.

11.4309 Australian Architecture

3 credit points. Prerequisite: 11.4308.

History of Australian architecture; historical, human and environmental context of Australian architecture, particularly from the foundation of the colony to World War I, and generally to the present. Seminars, visits and projects.

11.4320 Geometry

3 credit points. Prerequisites: nil.

Plane curves; conics and surfaces of revolution; quadric surfaces; ruled and warped surfaces; convex bodies; spherical trigonometry; projective configurations. Tutorials and project.

11.4321 Physics

4 credit points. Prerequisites: nil.

1. Wave motion: simple harmonic motion, wave motion, interference, Doppler effect, energy transfer. **2.** Sound: longitudinal waves, overtones, intensity levels, decibels, quality of sound. **3.** Light: e.m.

spectrum, Huyghens' Principle, curved mirrors, lenses, dispersion, interference, polarization, photometry, colorimetry. **4.** Heat: capacity, Joule's equivalent thermometry, connection, conduction, radiation, black body, emittance, absorbtivity. **5.** Laboratory work.

11.4322 Solar Energy

2 credit points. Prerequisites: 11.4304, 11.4407.

1. Energy conversion and storage: collection for use in buildings; active and passive systems. **2.** Energy balance: heat loss/gain analysis. **3.** Design for solar energy. **4.** Case studies and projects.

11.4323 Room Acoustics

2 credit points. Prerequisite: 11.4306.

1. Subjective and objective criteria for design: speech, music. **2.** Sound reflectors and absorbers. **3.** Sound reinforcement system. **4.** Design methods and reverberation theory: computerized ray tracing; models. **5.** Noise control in auditoria. **6.** Case studies.

11.4324 Lighting Design

2 credit points. Prerequisite: 11.4305.

1. Major factors influencing design; current research in vision and visual conditions. **2.** Lamps and lighting equipment. **3.** Methodology in interior and exterior lighting design. **4.** Colour and photometry. **5.** Case studies.

11.4325 Tropical Architecture

2 credit points. Prerequisite: 11.4303.

Outline of factors affecting design in the tropics. **1.** People and their psychological comfort needs. **2.** Materials and construction: climate, sun control, thermal movement, humidity, ventilation; special glasses, roofs, stabilized earth construction. **3.** Architecture in tropical Australian and other tropical climates. **4.** Case studies and projects.

11.4326 Acoustics Studies

4 credit points. Prerequisite: 11.4323.

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

11.4327 Lighting Research

4 credit points. Prerequisite: 11.4324.

Experimental investigation and research in an elected aspect of lighting design. Seminars: discussion of methodology of results, development of techniques of application. Laboratory work.

11.4328 Appropriate Technology

2 credit points. Prerequisites: 11.4301, 11.4303.

1. Resource depletion. **2.** Energy shortage. **3.** Environmental considerations. **4.** Reduction in resource consumption. **5.** Ambient energy sources. **6.** On-site, non-polluting materials. **7.** Autonomy. **8.** Seminars and project.

11.4330 Modern Architecture

2 credit points. Prerequisite: 11.4308.

1. Western 20th century architectural trends, attitudes, dependencies. **2.** Social, economic, technological, ideological, climatic factors. **3.** Functional problems. **4.** Structural developments. **5.** Spatial limitations. **6.** Aesthetic attitudes and aims. **7.** Seminars.

11.4331 The Australian House since 1900

2 credit points. Prerequisite: 11.4309.

20th century domestic Australian architecture. **1.** Historical development: at turn of century, emergence of bungalow; climatic, social and stylistic influences. **2.** American influences: California bungalow, Spanish Mission. **3.** Domestic architecture after World War II in Sydney and Melbourne. **4.** Architects and their works; project houses. **5.** Visits, seminars and projects.

11.4332 Historical Research A

3 credit points. Prerequisites: 11.4309 and 145 credit points.

11.4333 Historical Research B

3 credit points. Prerequisites: 11.4309 and 145 credit points.

11.4334 Historical Research C

3 credit points. Prerequisites: 11.4309 and 145 credit points.

Research in the field of Australian architectural history. **1.** Purpose of research: appreciation, sources of materials, use of sources. **2.** Techniques of recording and cataloguing. **3.** Critical assessment, evaluation and integration, interpretation. **4.** Presentation.

All three electives must be taken to gain credit *and desirably* the three electives should be taken concurrently with 11.4702 Thesis.

11.4335 Eastern Architecture

2 credit points. Prerequisite: 11.4307.

Introduction to eastern culture; distinctions between eastern and western mentality reflected in architectural attitudes. An overview of the salient architectural characteristics of the Near-, Middle- and Far-East in an historical context, followed by a deeper study of architecture in any one of the following regions: North Africa, Asia Minor, Persia and Pakistan; India and Nepal; South-East Asia; Indonesia and New Guinea; China and Japan.

11.4336 Measured Studies of Historic Structures

3 credit points. Prerequisites: 11.4308, 11.4603.

The Australian context of historic buildings. Criteria for selection and evaluation. Techniques for field studies and systems of recording. Field

notes. Measured drawings, their context, media and format. Freehand studies. Photography and photogrammetry. Written reports and measured study.

It is particularly appropriate if this elective is taken in conjunction with 11.4309 Australian Architecture, to which it is a natural complement.

11.4339 Introduction to Building Conservation

5 credit points. Prerequisites: 11.4309, 11.4404.

Attitudes towards building conservation and introduction to guidelines and techniques for the treatment of old buildings, both heritage and common building stock, with regard to their preservation, restoration, reconstruction, adaptation for re-use, and repair. Preparation of conservation proposals and plans.

11.4340 Cognition and Behaviour A

3 credit points. Prerequisite: 11.4301.

Growth and cognitive awareness of man coming to terms with his micro-environment; perception; spatial awareness, privacy, proxemics; case studies.

11.4341 Cognition and Behaviour B

3 credit points. Prerequisite: 11.4340.

Man and his relationship to the macro-environment; social behaviour patterns; cognitive mapping; crowding propinquity; the aged; case studies.

11.4342 Transport Systems

4 credit points. Prerequisite: 36.411.

1. Transport modes: road, rail, water, air. **2.** Evaluation of past and present transport systems. **3.** Circulation of large groups of people, baggage control. **4.** Case studies.

11.4343 Urban Planning

4 credit points. Prerequisite: 36.411.

1. Origins of settlements and development of towns: prehistory, Classical, Medieval, Renaissance and Baroque, Industrial Revolution, present. **2.** Theories of planning: concepts, attitudes, growth and change. **3.** Activity and locational theory: population and employment. **4.** Dynamics of cities: transport. **5.** Metropolis and megalopolis. **6.** Seminars and case studies.

11.4344 Landscape Planning

4 credit points. Prerequisite: 11.4303.

1. Analysis and systems developed to use natural science data for landscape planning. **2.** Techniques for land-use planning based upon an analysis of natural phenomena and resources. **3.** Case studies.

11.4345 Urbanism

2 credit points. Prerequisite: 11.4309.

The development of urban form and the role of architecture in urban design; civic architecture; growth and change; planning and design methodology. Case studies.

11.4346 Australian House (Measured Drawing)

2 credit points. Prerequisite. 11.4331.

The production of a measured drawing of an existing house built during the period covered by 11.4331. The Australian House since 1900. Plans, elevations, section and a selection of details. Format and medium are to comply with established standards.

11.4347 Australian House (Report)

2 credit points. Prerequisite: 11.4331.

The production of a report on a house built during the period covered by 11.4331 The Australian House since 1900. History, planning, construction, materials, stylistic characteristics and aesthetic qualities.

Technology

11.4401 Principles of Construction

6 credit points. Prerequisites: nil.

Analysis of the principles of construction with particular reference to small-scale building. The site—selection, analysis, measurement. Components and elements of buildings. Materials and construction detailing. Practical construction project.

11.4402 Structures and Materials

4 credit points. Prerequisites: nil.

Introduction to structures. History and morphology, loads and structural requirements, structural elements and systems, basic structural form, basic states of stress. Introduction to materials science, the relationship between the properties and structure of materials. The properties and uses of common building materials: metals, ceramics and polymers. Tutorials and laboratory work.

11.4403 Principles of Structures

4 credit points. Prerequisites: nil.

Statics: forces in equilibrium; components, resultants, reactions, moments; graphical and analytical methods. Flexure: bending moment and shear force; analysis of beams and simple frames; theory of bending. Stability and rigidity of structures: loading systems; bracing systems; buckling; instability; deflection. Case studies, laboratory work and tutorials.

11.4407 Services A

3 credit points. Prerequisites: 11.4303, 11.4404.

Sources and distribution of water, wastes and energy supplies. Application of electric power, hydraulics, vertical transport and fire protection in buildings. Equipment selection and space allocation. Projects and seminars.

11.4408 Services B

3 credit points. Prerequisites: 11.4304, 11.4404, 11.4405.

Air conditioning, heating and ventilating of buildings. Design of systems. Selection of equipment and allocation of space. Projects and seminars.

11.4414 Construction A

5 credit points. Prerequisites: 11.4401, 11.4402.

Timber and masonry construction for small scale, low-rise buildings. Materials, elements, constructional systems, associated building fabric and detailing. Dimensional co-ordination, constructional drawings and uses of resource materials. Case studies. Tutorial projects.

11.4415 Construction B

5 credit points. Prerequisite: 11.4414.

Steel and concrete construction for low and medium rise buildings. Materials, elements, constructional systems, associated building fabric and detailing. Dimensional co-ordination, constructional drawings and uses of resource materials. Case studies. Tutorial projects.

11.4416 Structures

4 credit points. Prerequisites: 11.4402, 11.4403.

Structural systems, stability, loadpaths, gravity and wind loads. Behaviour of multi-span continuous structures. Design of beams in timber and steel frames for bending, shear, and deflection, and design of columns. Structural behaviour and design of joints within these frames. Introduction to concrete technology, reinforced concrete, prestressed concrete and structural behaviour of masonry. Design of reinforced concrete beams, columns, frames, and floor systems.

11.4420 Technology of Low-rise Buildings

5 credit points. Prerequisite: 11.4404.

Structural, constructional and services systems for low-rise buildings. A detailed study of interrelationships both within and between the various systems, together with an overview of the influence of technologically-based decisions on the other aspects of architectural design. The design of these technological systems for an existing low-rise building. Project.

11.4421 Technology of High-rise Buildings

5 credit points. Prerequisite: 11.4406.

Structural, constructional and services systems for high-rise buildings. A detailed study of interrelationships both within and between the various systems, together with an overview of the influence of technologically-based decisions on the other aspects of architectural design. The design of these technological systems for an existing high-rise building. Project.

11.4422 Technology of Low-cost Housing

5 credit points. Prerequisite: 11.4406.

An analysis of low-cost housing, the market and industry, government policies. Structural, constructional and service systems and review of projection, methods and resource utilization related to non co-ordinated and dimensionally co-ordinated systems. Cost analysis of various systems and building forms. The detailed study of those technological systems as applied to a housing complex. Project.

11.4423 Rationalized Building Systems

5 credit points. Prerequisite: 11.4406.

Systems building—philosophy and economics, systems theory craft, prefabrication and industrialization as Methods Dimensional Co-ordination. The interrelationships of structure, services and finishes and the influences of technologically-based decisions on the other aspects of architectural design. A review of existing and developing building systems. Case studies.

11.4424 Construction Planning and Management

3 credit points. Prerequisites: 11.4405, 11.4407, 11.4408.

Pre-planning considerations and building technology design for improved performance and management in the building construction process. Constructional and structural engineering trends, a building's services and equipment, design criteria, methods used in erection of the construction process, influence on design of the building, co-ordination in the building process. Various case studies. Building economics, evaluation and cost planning, construction management. Report on the construction process of a major building.

11.4425 Earth Construction A

3 credit points. Prerequisites: 11.4402, 11.4303.

Soil selection, suitability and analysis. Adobe, pise and stabilized earth. Performance, strength, durability, erosion, thermal stabilizers, reinforcement, internal and external finishes. Constructional and structural characteristics and design requirements. Environmental and social implications. Laboratory classes to support the above, including the manufacture and testing of earth blocks, the construction of short walls, the application and evaluation of finishes.

11.4426 Earth Construction B

3 credit points. Prerequisite: 11.4425.

The design and construction of a small structure using earth as a major material and the monitoring of environmental conditions in similar structures.

11.4430 Integration of Services

4 credit points. Prerequisites: 11.4407, 11.4408.

The incorporation of plant and accessories in the building fabric. Economic routing; noise; identification; incompatibility; outlets. Project.

11.4440 Building Materials A

2 credit points. Prerequisite: 11.4402.

Structure and classification of materials. Relationship between crystal structure and properties; slip systems. Multiphase materials equilibrium diagrams. Ceramic structure. Organic polymers. Thermal, optical, acoustical properties in relation to structure. Project.

11.4441 Building Materials B

5 credit points. Prerequisites: 11.4402, 11.4405

The properties and application of building materials. An advanced study of detailing and constructional aspects of materials, related to their properties. Project.

11.4450 Advanced Structural Analysis

4 credit points. Prerequisites: 11.4404, 11.4405, 11.4602.

Computer-based methods of analysis for linear structures. Tutorials and project.

11.4451 Advanced Structural Design

4 credit points. Prerequisites: 11.4404, 11.4405, 11.4602.

Detailed structural design for common engineering materials. Tutorials and project.

11.4452 Models Analysis and Form-finding

3 credit points. Prerequisite: 11.4403.

Principles of model analysis: types of models and their application, methods of stress and displacement analysis, model materials, apparatus, planning and the conduct of experiments. Form-finding: experimental methods of form-finding for surface and spatial structures. Laboratory work and project.

11.4453 Surface and Spatial Structures A

5 credit points. Prerequisites: 11.4320, 11.4404, 11.4405.

Selected areas of surface and spatial structures: reticulated structures, cable structures, tensegrity structures, folded surface structures, shell structures, stressed skin structures, tent and pneumatic structures. Seminars, laboratory work and project.

11.4454 Surface and Spatial Structures B

5 credit points. Prerequisite: 11.4453.

Design application of *11.4453 Surface and Spatial Structures A*, individual or group work.

11.4455 Technology Research A

5 credit points. Prerequisites: 156 credit points and 11.4405 or 11.4406.

Supervised individual or group research at advanced level in a particular field of technology, such as lightweight structures, structural materials and methods, system building, alternative technology.

11.4456 Technology Research B

5 credit points. Prerequisite: 11.4455.

Additional supervised individual or group research at advanced level in a particular field of technology, such as lightweight structures, structural materials and methods, system building, alternative technology.

Practice

11.4510 Practice and Management

2 credit points.

1. The Architects' Registration Act and registration. **2.** Code of professional conduct. **3.** The other design consultants. **4.** The client, the brief, forms of agreement and fees. **5.** Regulations and codes controlling buildings. **6.** Legal implications of architectural practice.

11.4511 Building Economics and Specifications

3 credit points. Prerequisites: 11.4414, 11.4510.

1. Estimating, cost planning, bills of quantities. **2.** Specification writing techniques. **3.** The relationship between the specification, other contract documents and contract administration. **4.** Case studies. **5.** Seminars and assignments.

11.4512 Contract Administration A

2 credit points. Prerequisites: 11.4414, 11.4510.

1. The selection of a builder, nominated subcontractor and suppliers. **2.** The administration by an architect of a selected standard form of building contract from the signing of the contract to the issue of the final certificate; responsibilities and liabilities of the architect, consultants, proprietor and the builder. **3.** Post-contract activities. **4.** Case studies. **5.** Seminars and assignments.

11.4513 Contract Administration B

2 credit points. Prerequisite: 11.4512.

1. A detailed comparison of the various forms of building contract in current use. **2.** Responsibilities and liabilities of architect, consultants, proprietor and builder. **3.** Professional defensive measures. **4.** Case studies. **5.** Assignments.

11.4514 Management for Architects

2 credit points. Prerequisite: 11.4513.

1. Introduction to management theory. **2.** The structure and organization of an architectural office, aspects of company and partnership law and insurance. **3.** Business principles and management procedures relevant to an architectural office. **4.** Assignments.

11.4520 Management Systems and Finance

2 credit points. Prerequisite: 11.4514.

1. Systems employed in the architect's management functions. **2.** Systems thinking, PERT, C.P.M., multi-activity charting, time/cost relationships, budgeting and other resources allocation systems. **3.** Management of the design and documentation processes; computer applications in architectural management. **4.** Introduction to building finance, feasibility, discounting, acquisition of finance, interest rates, long-term and short-term money, capital cost, operational costs, maintenance costs, the effects of these considerations on 'design' decision-making. **5.** Development applications, procedures and appeals; building applications, procedures and appeals. **6.** Tendering or negotiating for the contract sum. **7.** Seminars and assignments.

11.4521 Documentation

3 credit points. Prerequisite: 11.4511.

1. Communication theory, communication in practice: verbal, written and graphic. **2.** Documentation and Law. Rationalized methods for contract documentation, drawings, specifications, schedules, Bills of Quantities, specified Bills of Quantities. **3.** Standards and codes of practice for documentation. **4.** Computer applications. **5.** Seminars.

11.4522 Building Economics and Development

3 credit points. Prerequisite: 11.4511.

1. The Economy: structure of the economy. History and development of modern economics. **2.** Investment: investigation in buildings, property (public and private), large scale, small scale. **3.** Valuation: statutory valuations, market value, unimproved and improved land depreciation and obsolescence, valuation of improvements, valuation law, land laws. **4.** Feasibility: economic models, optimization, feasibility studies on small-, medium-, large-scale development and subdivisions. **5.** Rationalized Building: dimensional control, component technology, building systems, cost planning. **6.** Seminars.

11.4524 The Architect and the Law

2 credit points. Prerequisite: 11.4513.

1. Arbitration and litigation. **2.** Appeals to the Land and Environment Court. **3.** Environment law. **4.** Industrial Law. **5.** Case studies.

11.4525 Project Management

3 credit points. Prerequisite: 11.4513.

1. Principles of scientific management and organization, individual group behaviour, management functions, planning, organizing, staffing, directing, co-ordinating, monitoring, appraisals and evaluation. **2.** Operations research techniques; network analysis, multi-activity charting. **3.** Decision theory and procedures. **4.** Contract and contract documents. **5.** Industrial relations, employment. **6.** Industrial organization. **7.** Seminars.

11.4526 Industrial Relations

2 credit points. Prerequisite: 11.4512.

1. An introduction and review of the history, methodology and emphasis of the basic behavioural disciplines; the biological basis of human behaviour, the significance of socio-cultural influences and determinants, need satisfaction; the origins, nature and meanings of motivation and emotional processes. The dynamics of conflict and frustration. **2.** The implications of these issues and theories in the problems of industrial relations on the management of the site, office and work force. **3.** Seminars.

Communication

11.4601 Introduction to Communication

6 credit points. Prerequisites: nil.

Introduction to communication theory, its principles and history. Practice in clear, critical thinking; elementary problem-solving; logical development and presentation of arguments orally and in writing. Introduction to

techniques and conventions of draughting and the use of instruments. Elementary plane and solid geometry and surface development. Objective depiction in graphic terms. Observation, analysis and graphic statement of aspects of form, indoor and outdoor. Characteristics of illumination systems. Elementary perspective. Emphasis on direct drawing in a variety of media involving methods and techniques employed, from sketches to graphic studies in both traditional and contemporary styles.

11.4602 Introduction to Computing

2 credit points. Prerequisites: nil.

Introduction to the computer as a problem-solving tool with emphasis on its application to architecture; description of computing hardware including peripheral devices of interest to the architect; opportunity to gain experience in the use of computing facilities; development of basic programming skills.

11.4603 Graphic Communication

5 credit points. Prerequisites: nil.

Development of techniques and skills in architectural drawing and rendering. Parallel projections; descriptive, plane and solid geometry; measured drawings; lettering; perspective theory and application; shadow projection and curvilinear construction in perspective; colour theory and practice using transparent and opaque media; principles of composition in architectural drawing; studio projects.

11.4604 Graphic Communication Theory

4 credit points. Prerequisite: 11.4601.

Graphic expression, language and theory of graphic communication applying sense perception to the practice and study of architectural graphics, as a means of enlivening visual awareness in the structural aspects of the arts; colour, unity, space and form.

11.4620 Presentation Graphics

3 credit points. Prerequisites: 11.4603, 11.4604.

Perspective and rendering techniques, materials, media. Graphic presentation of the natural landscape, forms and vegetation. Graphic presentation of the urban scene, people, vehicles, buildings, vegetation, street furniture, etc.

11.4621 Oral and Written Communication

2 credit points. Prerequisite: 11.4601.

Development of the critical, logical and stylistic skills involved in researching, writing and presenting essays, theses, articles, papers, reports, speeches, talks, etc.

11.4622 Spatial Communication

2 credit points. Prerequisites: nil.

Awareness and understanding of space as an important creative aspect of architecture. Historical analysis of spaces, the theroetical exploration of spatial concepts and characteristics, and the practical experience of space.

11.4623 Models and Materials

3 credit points. Prerequisites: nil.

The development of awareness and practical skills for three-dimensional project presentation. Materials, colour co-ordination, mechanical aids, assembly techniques, application. Purpose, types of models, visual impact. Analysis and synthesis of design problems. Programming and planning.

11.4624 Architectural Photography

3 credit points. Prerequisites: nil.

Development of photographic skills relevant to architectural recording, understanding of design, and presentation. Black and white, colour, still and moving photography; video and animation. Developing, enlarging and mounting.

11.4625 Constructional Geometry

3 credit points. Prerequisites: 11.4603. one *from Design Specific Group A.*

Graphic study and analysis of the geometry of architectural constructions: the underlying geometric principles from which structural framing, ribbed and shell systems are derived. These include domes, hypars and other warped shapes of planes of double curvature, folded planes, etc., and the resultant effects of intersections and penetrations of multiple units. Study of applications through analysis of constructions in contemporary architecture and historical styles, studio projects.

11.4626 Architectural Ceramics and Sculpture

3 credit points. Prerequisites: nil.

Historical development of ceramics and sculpture as art, and their importance as a catalyst in the development of technology and the understanding of materials and spatial concepts. Theory and practice of ceramics manufacture and its application. Ceramics, sculpture, tiles and three-dimensional constructions applied to and integrated with architecture.

11.4627 Computer Graphics

4 credit points. Prerequisite: 11.4632.

Use of the computer for design graphics, presentation and production drawings and graphics programming.

11.4628 Contemporary Styles in Art

4 credit points. Prerequisite: 11.4629.

Interrelationships of style in the visual arts in their historical perspective. A study of the effect of contemporary art theories and aesthetics. Study of style in modern movements in art derived from stylistic innovation in the plastic arts, projects.

11.4629 Graphic Art

4 credit points. Prerequisite: 11.4604.

Graphic expression in theory and practice. Vision, perception and illusion. Perspective in the visual field. Analysis and synthesis in systems of descriptive and non-objective graphic presentation. Pictorial structure and content. Basic links with contemporary art styles.

11.4630 Drawing and Painting

4 credit points. Prerequisite: 11.4601.

Emphasis on direct drawing from sketches to graphic studies, in traditional and contemporary styles, using a variety of media and visual clues. Light and shade as pattern, positive and neutral space, dynamic relationships, surface, texture, etc. Emphasis on different painting styles and media, space depth, light and shade, colour, brightness gradient, thematic development, etc.

11.4631 Advanced Graphic Concepts

4 credit points. Prerequisites: 11.4620 or 11.4629.

Study of the definition and communication of ideas, concepts and objective themes by means of graphic expression — a related study of the history of interaction between the visual and the plastic arts. Use of media and material; development of a professional level of performance in adapting graphic techniques to contemporary needs.

11.4632 Computer Programming and Graphics

6 credit points. Prerequisites: 11.4602, 100 credit points. Excluded: 11.4627 (1982 or earlier).

Development of skills in structured computer programming with particular application to architectural problem-solving; introduction to the theory and techniques of computer graphics with particular reference to architectural applications such as draughting; development of three-dimensional computer modelling techniques; experience in computer graphics programming.

11.4633 Architectural Drawing and Rendering

4 credit points. Prerequisites: 11.4603, **one** *from Design Specific, Group A.*

Development of skills necessary for the production of formal architectural design drawings and renderings. Advanced perspective construction and shadow projection. Sheet composition assembly and presentation technique. Black-and-white, monochrome and colour rendering. Use of materials and media. Studio projects.

Other Required Studies

11.4701 Graduation Project

8 credit points. Prerequisite: 130 credit points.

This project is available to those students intending to obtain the BSc(Arch) degree, and is intended as the culminating study of that area of architectural endeavour in which the student wishes to major. The area selected would be investigated to a degree of depth not normally required by practising architects, and thus would serve as an introduction to professional or consulting expertise in one aspect of architecture. The graduation project, communicated graphically or in writing, is to integrate the student's knowledge and skill in the selected area of study and the topic is to be submitted for approval by the Head of School. The Graduation Project can be credited only towards the BSc(Arch) degree.

11.4702 Thesis

12 credit points. Prerequisite: 156 credit points.

A specialized individual study taken under staff supervision with the object of allowing the student either to gain knowledge in some aspect of architecture which is not covered in the course or to increase knowledge in some aspect which has been covered. As such the thesis is essential evidence of this individual study. The study does not require original experimental research for the purpose of discovering new facts or the testing of an hypothesis; neither is it an essay permitting the student's unsupported opinion. A student who has the prerequisite of 156 credit points and who wishes to commence work on the thesis shall register his or her name with the Professor of Architecture and submit the proposed thesis topic for approval. The student should subsequently *enrol* in 11.4702 Thesis *only for the Semester during which the thesis is to be submitted for assessment.*

11.4703 Practical Experience

6 credit points. Prerequisite: 130 credit points.

Each student is normally required to obtain, **before enrolling in the graduation semester,** practical experience under a registered architect for a period of six months. The experience is to be recorded in a log book to be signed by the registered architect. Periods of engagement of less than one month are not accepted.

No other subject may be taken concurrently with 11.4703 Practical Experience.

11.4705 Honours Project

26 credit points. Prerequisite: 156 credit points.

This subject is required for students who may enrol in the BSc(Arch) degree course at honours level and represents the architectural endeavour in which the student wishes to major. The project should demonstrate a depth of knowledge of the chosen aspect of architecture that extends beyond that normally required of a practising architect. It may be a graphic and/or written presentation. It normally extends over two semesters and the proposed program is to be submitted for approval to the Professor of Architecture five weeks before the beginning of the session in which the student intends to enrol in the Honours Project.

General Studies Subjects

The student is to refer to the General Studies Handbook for details of subjects available in this area.

Other Elective Studies

11.4704 Architectural Research

4 credit points. Prerequisite: 156 credit points.

An elective designed for students wishing to pursue an independent course of study in a field of architecture not falling specifically within the domain of any existing elective. Students are required to present a detailed program of study for approval by the Professor of Architecture at the commencement of the semester preceding that in which it is intended to enrol in this elective.

11.4706 Architecture Graduation Project

20 credit points. Prerequisite: 208 credit points. Selection on merit.

This semester unit is available to students who wish to culminate their studies in a project in which a scheme is resolved in depth in selected and approved area(s) of architecture, including architectural design, urban design, interior design, construction, structure, services, acoustics, lighting or practice and management. Students are offered a project by the School, or may choose their own project to be submitted to the Head of School for approval two weeks before the commencement of the session in which the student intends to enrol.

There is an opportunity for students to combine 11.4702 Thesis with the Architecture Graduation Project by selecting a thesis topic which provides the detailed brief or technological or management aspects applicable to the Architecture Graduation Project.

Other Subjects

11.134 Graphic Communication for Town Planners I

Basic drawing techniques and their application to planning issues. Plane geometry. Solid geometry. Descriptive geometry. Pictorial projection. Orthographic projection. Lettering and graphic design.

11.135 Graphic Communication for Town Planners II

Basic illustrative techniques and planning issues. Townscape studies. Architectural sequence. Visual analysis. Presentation techniques. Graphic design of exhibitions for social and environmental issues.

Graduate Study

11.901G Architectural Synthesis I

9 credit points.

11.902G Architectural Synthesis II

11 credit points.

Theory, research and studio practice, in the form of graduate projects, applied to general architectural themes of high priority in the contemporary context. After thorough theoretical foundation and research analysis the theme is adapted to a specific and concrete situation to achieve an architectural synthesis of all relevant influences arising from the physical and human context.

11.930G Architectural Theory

2 credit points.

A general and theoretical approach to synthesis in art and architecture considering sensible and intelligible influences in the context of history and of the present age.

11.931G Ideologies of Modern Architecture

2 credit points.

A critical and analytical review of the ideologies affecting the developments of and finding expression in the various phases of modern architecture from its beginnings to our present day.

11.932G Architectural Impact Studies

2 credit points.

Examination of a number of selected buildings in the historical and in the contemporary milieu regarding their impact upon the animate and inanimate context of which they become an organic part. *Cultural context:* purpose and meaning of the building, its mode of expression, and effect upon the cultural existing pattern. *Communication context:* the effect of the building upon communication and exchange of experience and goods. *Urban context:* character, style, shape, proportion material and colour of the building and its effect upon the urban scene. *Microclimatic context:* the effect of the building upon sunshade patterns, wind, heat, noise, air, etc. *Resource context:* the effect of the building upon the material manpower, energy resources of the community and its overall economical effect.

11.933G Cultural Influences in Civic Design

2 credit points.

An integrated examination of spiritual, mental (psychological, social, political, legislative, administrative) technological, economical, geographical and climatic influences affecting the character, grouping and relationships of buildings on a civic scale. Case studies in the historical and in the contemporary context.

11.934G Structure and Architectural Space

2 credit points.

The qualitative role of structural systems in the determination of architectural mass and space. The structure affecting architectural unity, rhythm, variation, etc. The influence of loading patterns and material properties on structural shapes. Structural exhibitionism. Morphological studies of structural systems in nature. The geometrical order of structures. Studies of structural systems in historical and contemporary context with a special emphasis on their effect on architectural space. The design of structural systems for spatial articulation.

11.935G Design for Industrialized Buildings

2 credit points.

Methods of industrialization in the field of building, considered from the general and simple to the specific and complex. Equipment and capital investment needed for equipment; problems of economical return. Standardization and flexibility. Component design in homogeneous and heterogeneous materials for simple and complex applications. Design principles for industrialization. Psychological aspects of acceptance: repetition, monotony and rigidity compared to variation, rhythm and flexibility.

11.936G Resources for Buildings

2 credit points.

Sources of information on material, technological manpower and energy resources for building on a regional, national and global scale. Assessment of resources of a given regional and national economy. Infrastructure. Pattern of change and future forecasts. The energy-equivalents of processed building materials, of placed building components, of servicing methods. The energy equivalence and prime cost. Recycling of building components. Energy and resource conservation on a short and long-term basis. The problems of energy and conservation and resource-recovery in a given system.

School of Psychology

Undergraduate Study

12.100 Psychology I F L3T2

Excluded: 12.001.

An introduction to the content and methods of psychology as a basic science, with emphasis on the biological and social bases of behaviour, relationship to the environment and individual differences. A training in the methods of psychological enquiry and in the use of elementary statistical procedures is given.

12.200 Research Methods II F L2T1

Prerequisite: 12.001 or 12.100*. Excluded: 12.152.*

General introduction to the design and analysis of experiments; hypothesis testing, estimation, power analysis; general treatment of simple univariate procedures; correlation and regression.

12.201 Basic Psychological Processes II S1 L2T2

Prerequisite: 12.001 or 12.100*. Excluded: 12.052.*

The basic phenomena of behaviour and experience in a biological context.

12.202 Complex Psychological Processes II S2 L2T2

Prequisite: 12.001 or 12.100*. Excluded: 12.062.*

Information processing and cognitive functioning, and social bases of behaviour and personality.

Psychology III

Comprises four Level III units selected in consultation with the School of Psychology. Subject descriptions for Psychology Level III units are in the Combined Sciences Handbook.

School of Accountancy

Undergraduate Study

14.001 Introduction to Accounting A

2 credit points; compulsory for BBuild degree course students. Prerequisites: nil.

An introduction for non-commerce students to the nature, purpose and conceptual foundation of accounting. Information systems including accounting applications. Analysis and use of accounting reports.

14.002 Introduction to Accounting B

2 credit points; compulsory for BBuild degree course students. Prerequisite: 14.001.

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

*A Pass Conceded result is not acceptable as a prerequisite.

School of Economics

Undergraduate Study

15.901 Economics for Town Planners

Economic influences on land values. Economics of residential location. Intra-urban location decision of firms. Models of urban structure. Urban spatial dynamics. Urban growth theory. Externalities in a market economy. Economics of city size. Economics of housing. Input-output analysis. Cost-benefit analysis and planning balance sheet.

Department of Industrial Arts

Undergraduate Study

21.311 Industrial Arts I

An introduction to the subject area of industrial arts. The central theme is the interrelationship between people and artefacts. The course comprises the following six compulsory units.

21.3111 Workshop Practice

Safe working practices using selected woodworking and metalworking machines.

21.3112 Introduction to Design Methods

The need for design methodology and its application in the industrial situation, strategy planning, the methods with examples of their application, the problems of problem solving.

21.3113 Basic Design

Studio: the development of visual literacy and expression through the study and articulation of the basic aesthetic elements—colour, light, proportion, texture, mass, space, structure—and their representation in two and three dimensions.

21.3114 Introduction to Graphic Techniques

Studio: demonstrations and practical work in elementary graphic method and technique—photography, graphic layout and design, with emphasis on freehand drawing.

21.3115 History of Industrial Arts

Definitions, content and philosophy of industrial arts as an area of study. The development of methods of producing artefacts. Theoretical models of the relationship between social and technological factors.

21.3116 Research Methods

Research in the field of industrial arts. Data collection and reduction. The action-research model and its implications.

21.903 Project

21.312 Industrial Arts II,

21.313 Industrial Arts III and

21.314 Industrial Arts IV

These subjects are divided into the following nineteen units.

See **Course Outlines** for choice of units.

Traditional Technology

Traditional technology is the study of the way in which a particular society designs and produces its artefacts. As well as making a study of materials, tools and techniques, the historical, economic and sociological aspects of artefact production are examined.

The theoretical areas of traditional technology include: **1.** the methodology and techniques of ethnographic enquiry; **2.** a systematic examination of the material culture and artefact production in the societies of Asia; **3.** an examination of traditional technology in Eastern Australia and **4.** an investigation of the industrial archaeology of Eastern Australia.

The laboratory and fieldwork areas include group and individual projects involving: **1.** experimental laboratory work on the examination and production of artefacts using established techniques, and **2.** fieldwork examining a wide range of traditional technologies and industrial archaeological sites using ethnographic and surveying techniques.

21.3121 Traditional Technology I

Prerequisite: 21.3116 or equivalent.

The relationship between traditional technology, ethnography and archaeology. The methodologies of the social and physical sciences

and their application to traditional technology. The methods and techniques to be used in measuring and defining buildings and structures and recording small scale traditional technologies. Introduction to traditional design. *Laboratory and fieldwork:* Various techniques used by traditional craftsmen in the production of artefacts. An analysis of selected buildings and sites.

21.3131 Traditional Technology II

Prerequisite: 21.3121 or equivalent.

Social, technological and design aspects of traditional technology. The philosophies encompassing the etic and emic approaches to fieldwork. Methodologies of ethnographic reporting. The development of early Australian crafts and technologies with special reference to traditional building technologies. *Laboratory and fieldwork:* Selected methods of artefact production. The investigation of the Australian traditional technologies of gold-mining and refining, timbermilling, brick-making and building, their background and development.

21.3141 Traditional Technology III

Prerequisite: 21.3131.

The application of theoretical models to ethnotechnology. The study of socio-cultural systems with special reference to their material cultures. An advanced study of traditional Australian technology. *Laboratory:* Materials, techniques, tools and processes used by selected cultures in the production of artefacts. Advanced field research into the traditional Australian technologies with emphasis on traditional building technologies.

Craft

The craft units are intended to develop appreciation of craft activities and integrate aesthetic experience with technological knowledge. While it is intended that students should be able to experience several crafts, such as ceramics, textiles and glassworking, at present only ceramics can be offered.

21.3122 Craft IA (Ceramics)

The characteristics of earthenware, stoneware and porcelain. Glazes, kilns and forming methods. An introduction to the geology of ceramic materials and their properties. Practical experience in hand building methods, introductory throwing and design in pottery.

21.3132 Craft IIA (Ceramics)

Prerequisite: 21.3122.

The history of pottery focusing on China and its relationship to other countries. The emergence of a ceramic industry in Europe. Body formulation, glaze chemistry and calculations. Further practical experience with emphasis on throwing and design skills.

21.3142 Craft IIIA (Ceramics)

Prerequisite: 21.3132.

Present day craft and industrial practice. Kilns and firing techniques. Setting up and running a craft pottery. Further practical experience with emphasis on throwing and design skills.

Industrial Design

The Industrial Design units are made up of lectures, demonstrations, group discussions and criticism, with design projects as the subject core.

The theoretical aspects are concerned with:

1. the historic, social, psychological and economic aspects of industrial design and **2.** the methodology and techniques of industrial design.

The design projects are set in many differing industrial and social frameworks, and give the student an opportunity to solve problems across the whole spectrum of Industrial Design. The understanding of the problem solving process and the individual student's own experience of it is considered to be of as much importance as the final solution. The brief for each project details the production and marketing situation, the criteria for design, the academic aims of the project, background information, a time schedule and the requirements for presentation of the student's analysis and final solution.

Visits to industrial organizations and design offices are undertaken in conjunction with other units of the Industrial Arts course.

21.3123 Industrial Design I

Prerequisites: 21.3112, 21.3113, 21.3114 or equivalents.

The emergence and development of the industrial design profession from 1850 to the present day. Modelmaking techniques, a series of demonstrations of clay, plaster, timber, polystyrene, polyurethane, glass reinforced plastics and epoxy resin modelmaking. *Studio:* Elementary design project work applying industrial design criteria and method to the solving of design problems. The solutions to be evaluated by means of prototypes, drawings and reports.

21.3133 Industrial Design II

Prerequisites: 21.3123 and 21.3144 or equivalents.

A study of industrial design case histories in Australia, Europe and USA. Local cases are examined in conjunction with the Industrial Design Council of Australia. Design and materials. An examination of the design potential of selected materials from an industrial design viewpoint. *Studio:* Advanced design project work involving the reconciliation of multi-faceted industrial design problems, in a variety of materials. The solution to be evaluated by means of models, prototypes, graphics and reports.

21.3143 Industrial Design III

Prerequisite: 21.3133.

An international survey of design education from 1850 with particular reference to the contemporary situation. Theories of Industrial Design with emphasis on the contemporary situation. The nature of 'good' design, the ethics of design, styling and design, design and the multi-nationals, design and the developing countries. *Studio:* A major and minor design project to the student's own choice. The major project to be undertaken in conjunction with an external industrial organization or design office.

Graphics

The graphics units are concerned with two-dimensional means of analysis, abstraction, synthesis and communication, of two and three dimensional design problems and concepts. Initially the units are concerned with the application of graphic method to the industrial design, traditional technology and craft units, as well as to the solution of two-dimensional design problems. The course develops into the study and practice of graphic design. The units are made up of lectures, demonstrations, group discussions and criticism, with design projects as the subject core.

The theoretical aspects are concerned with: **1.** the historic, social, economic, and psychological aspects of two-dimensional communication and graphic design. **2.** the methodology and techniques of graphic design.

The design projects are set in many different media, and give the student an opportunity to solve problems over the whole spectrum of graphic design. Visits to the office of a consultant designer and a company design team are undertaken in conjunction with other units of the Industrial Arts course.

21.3124 Graphics I

Prerequisites: 21.3112, 21.3113, 21.3114 or equivalents.

The history and background of contemporary graphic design. Detailed study of graphic method and techniques—perspective, geometric projections, typography, photography, descriptive geometry, graphic design and layout, printing and photomechanical reproduction. *Studio:* Project work using the above techniques to solve two-dimensional design problems, and to externalize, abstract, synthesize and communicate three-dimensional design problems and concepts.

21.3134 Graphics II

Prerequisite: 21.3124.

Advanced studies of dynamic symmetry, analysis of geometric solids, analysis of two-dimensional pattern in nature and man made objects, symbols and symbolism, visual illusion in art and nature, graphic techniques applied to industrial design. A study of graphic design case histories. *Studio:* Analytical work in the subjects covered by the lectures and design project work applying graphic design criteria and methods to the solving of design problems.

21.3144 Graphics III

Prerequisite: 21.3134.

Social and psychological aspects and effects of graphic design, with particular reference to advertising and the ethics of graphic design. Investigations of the effectiveness of visual communications in films, television, posters, books, computer systems. Legibility of print, computer graphics, graphic visualization and representation of abstract data and ideas. Advanced photography, typography, techniques of printing and photomechanical reproduction and graphic communication. *Studio:* Project work based upon lecture course and a major project to be undertaken in association with an external organization of a design office.

Industrial and Social Organization

The units in industrial and social organization are concerned with the theory and practice of human organization in industry and society. The interrelationship between people and technology and the associated problems and their solutions provides the general framework. Teaching in these units is by way of lectures, case studies, various experiential exercises and visits to industrial organizations.

21.3125 Industrial and Social Organization I

Prerequisite: 21.3115.

The general development of twentieth century industrial organization and society. The nature of work and some important psychological, sociological and economic factors in industrial dynamics.

21.3126 Project

The project provides the opportunity for practice in research methods, teamwork, and planning, organizing and conducting study in the field of industrial arts.

21.3127 History of Art and Design

A brief chronological survey of the major art and design movements from the earliest times to the present day.

21.3135 Industrial and Social Organization II

Prerequisite: 21.3125.

The nature of management and the development of management and organization theory. The role of trade unions in social and technological change. The environment of industry.

21.3145 Industrial and Social Organization III

Prerequisite: 21.3135.

The nature of organizational behaviour; decision making, problem solving and adaptability. Organizational change. Social responsibility of industry. Present and future trends in organization and management.

21.3146 Advanced Project

The advanced project provides the opportunity to conduct in-depth study in the field of industrial arts.

21.3147 Appropriate Technology

Examination of problems in the relationship between people and technology in developed and in developing countries and at various levels of analysis. The concept of appropriate technology as a solution to such problems and the development of solutions which are evaluated on criteria of suitability, feasibility and acceptability.

Graduate Study

21.501G Industrial Design

This area of the course is drawn from the existing body of knowledge concerning industrial design. In particular, it emphasizes design principles and the main functions, skills and responsibilities of the designer for industry. The subject matter is communicated through lectures, tutorials and practical assignments, the aims of which are to give the students a broad view of design in an industrial society, an aesthetic conviction and sensibility and the skills and methods required for the practice of industrial design.

Historical, social and aesthetic bases of industrial design.

Design Methodology.

Design Principles.

Signs, Symbols and Communication.

Ergonomics.

Professional, Commercial and Industrial Practice.

Design Media.

21.511G Design Projects

A continuous series of design exercises and projects, graduated in scale and difficulty and with varying emphasis on particular aspects of design technology.

These projects form the central part of the course. The subjects chosen relate to the current lecture or case study programs, so that theory and practice can be integrated. The design projects provide an experience in which technology, design method, aesthetics and social need are synthesized and in which interrelationship must be sought and inconsistencies resolved. The student faces problems involving judgment, choice and decision, some of which can be based on objective, analytical study, whilst other studies are more subjective, intuitive and emotive.

The projects are supervised by the academic staff of the Department with assistance from an appropriate practising designer and, when necessary, academic staff from other sections of the University. Tutorials as well as discussions with individual students arise from the projects, especially during the design development phase. Opportunity is given for students to act as a member of a design team.

At the commencement of each design project the students are briefed in detail as to the intention, and object of the exercise; this brief also includes basic information, controlling factors, a time schedule and requirements for presentation.

21.501G Industrial Design

21.511G Design Projects

21.521G Seminar

In general, seminars are devoted to design theory and philosophy and to the presentation by students of papers on design problems. Seminars are closely integrated with the other sections of the course work. From time to time, such matters as general design problems, current issues in design, unusual design problems and addresses by visiting designers also constitute the topics of seminars.

21.531G Creative Art (Elective)

School of Geography

Undergraduate Study

27.801 Introduction to Physical Geography S1L2T2½

The mechanism of the physical environment with particular reference to Australia and to the Sydney region. Geologic controls of landform development; fluvial, slope and coastal processes and their landforms;

cyclic and equilibrium approaches to landform studies. Global energy and atmospheric circulation, weather and climate in Australia and the Sydney region. The hydrologic cycle; processes and factors of soil formation and soil profile development. The ecosystem; controls of vegetation in the Sydney region.

Laboratory classes include the study and use of topographic maps, geological maps, and air photographs; the use of climatic data and the weather map; soil description; basic cartographic methods. Two field tutorials, equivalent to 16 tutorial hours, are a compulsory part of the course. Students must provide basic drawing instruments.

School of Surveying

Undergraduate Study

29.411 Surveying for Architects and Builders — S1L1T1½

2 credit points; compulsory. Prerequisites: nil.

Introduction. Chaining, methods of measurement, corrections, chain surveys. Level, differential levelling, booking. Contours, volumes of earthworks. Theodolite, methods of reading angles, applications in building. Traversing, setting out.

29.901 Introduction to Mapping — S1L1T½

Mapping: map types, map reading, scale, relief, depiction of features, cartography and photogrammetry.

Remote Sensing: cameras and other sensors. Landsat images and applications.

Cadastral surveying: land titles, surveys, easements and covenants.

School of Building

Undergraduate Study

Construction Studies Stream

The construction studies stream embraces both the functional requirements and methods of constructing buildings. An understanding of structural elements and materials is fundamental. The ability to compare design alternatives and to see buildings as part of an overall environment is developed as the student progresses.

35.202 Soil Mechanics for Building — S2L1T1

2 credit points; compulsory. Prerequisites: nil.

The origins and formation of soils; clay mineralogy; classification of soils; soil as an engineering material; site investigation; boring, sampling and in-situ testing; shear strength of soils; stress distribution in earth masses; consolidation and settlement; earth pressure calculations; bearing capacity; improvement of soil properties by compaction and stabilization; introduction to foundation design; laboratory testing of soils.

35.500 Building Graphics — S1L2T4

6 credit points; compulsory. Prerequisites: nil.

The development of visual awareness and the practical skills basic to the observation, analysis and recording of appearance. An introductory survey of the visual environment of man; buildings, precincts, squares, architectural and construction aspects. Descriptive geometry.

Practical exercises in two and three dimensional composition in various media.

35.501 Construction I (Domestic Buildings) — S1L3T2

5 credit points; compulsory. Prerequisites: nil.

Functional requirements and methods of building single family dwellings: footings for various site conditions; brick, brick veneer and timber walls; flooring, ceiling and roof framing; domestic joinery; finishes; domestic plumbing, drainage and electrical services; methods of setting out and supervision.

35.502 Construction II (Building Practice) — S2L2T2

5 credit points; compulsory. Prerequisites: nil.

The major building trades and crafts including the use of tools and materials, and the on-site observation of trade practices: materials,

techniques, tools, terminology, problem areas, quality control and supervision. The construction of a dwelling through its various stages including elementary time and motion studies.

35.503 Construction III (Low-rise Buildings) S1L2T2

5 credit points; compulsory. Prerequisite: 35.501.

Small multi-storey buildings from the functional and construction operation viewpoints. Concepts from Construction I are further developed and new concepts are introduced: site work procedures; concrete as a building material; foundations and footings; types of wall construction; basement, ground floor and upper floor construction; methods of roofing, waterproofing; construction of staircases; joinery; steel as a building material; internal finishes; minor construction plant, formwork.

35.504 Construction IV (Factory Buildings) S2L2T2

5 credit points; compulsory. Prerequisite: 35.503.

Functional requirements and methods of constructing light industrial buildings: further development of structural steel, large span factory roofing, welding techniques, fire requirements, cladding methods, installation of cranes and machine footings, scaffolding, relevant builder's plant and equipment.

35.505 Construction V (High-rise Buildings) S1L2T2

5 credit points; compulsory. Prerequisite: 35.504.

Functional requirements of high-rise buildings and major building projects: structural systems, enclosure systems and environmental control systems and their inter-relation from a building standpoint; various methods and materials commonly used to solve functional demands; comparison of systems of construction; building loads and load factors; stability of structures and structural components; creep, settlement and other movement; principles of fire protection in high-rise projects; cladding in concrete, metal and glass; ceiling and partition systems; integration and co-ordination of services.

35.506 Construction VI (Techniques) S2L2T4

4 credit points. Prerequisites: 35.505, 35.703.

Building techniques employed on major projects including the use of plant, equipment and various construction systems: excavation equipment, shoring, ground anchorage, pile drivers, formwork, slip form, craneage, concrete handling. Integrated construction systems. Students undertake on-site studies. Emphasis on method of construction rather than the attributes of the finished product.

35.507 Construction VII (Building Systems) S2L2T2

4 credit points. Prerequisites: 35.505, 35.703.

Comparative studies of construction systems for the various types of buildings: industrialized housing, tilt-up, top-to-toe, progressive strength, lift slab, pneumatic structures, cable structures, pneumatic forming, foam structures, mobile buildings.

35.508 Construction VIII (Industrialization) S1L2T3

4 credit points. Prerequisites: 35.505, 35.704.

Industrialized techniques of material and component manufacture. Production planning and control. Factory layout design, materials handling, plant and equipment, automatic and semi automatic processes, numeric control. Production machines and tools. Raw materials technology, timber, metals, ceramics, plastics, etc. Storage, packaging and transportation of finished products.

35.551 Structures I S2L2T2

5 credit points; compulsory. Prerequisites: nil.

External and internal forces. Conditions of equilibrium. Stress, strain. Bending moment, shearing and axial force. Loads on structures. Simple design of beams, trusses and columns. The function of bracing. Structural properties of timber, brick, steel and concrete. Basic structure costs.

35.552 Structures II S1L2T2

5 credit points; compulsory. Prerequisite: 35.551.

Revision of forces and equilibrium: oblique forces, cranked beams, beam-columns. Basic principles of space structures. Design of beams in timber, steel and reinforced concrete.

Beams of two materials. Deflection of beams. Design of axially loaded columns. Riveted and bolted joints of timber and steel structures. Combination of axial and bending stresses. Stability of eccentrically loaded structures. Costs of elements of simple structures.

35.553 Structures III S1L2T2

5 credit points; compulsory. Prerequisite: 35.552.

Equilibrium of forces in two and three dimensions. Principles of statical determinancy. Indeterminate structures: slope deflection equations, moment distribution. Use of computer packages in designing building frames. Design of reinforced concrete elements: building frames, complex slabs, footings, retaining walls and continuous members. Principles of limit design. Composite construction. Elements of prestressed concrete beam design. Cost comparison of single-storey frame structures.

35.554 Structures IV S2L2T2

4 credit points. Prerequisite: 35.553.

Structural safety and serviceability, limit state design. Structural forms for large spans and tall structures; factors determining structural form. Multi-story, multi-bay frames in steel and concrete; comparison of efficiencies, costs. Design of composite, reinforced concrete and prestressed concrete structures. Temporary structures and construction loads; design for construction loads. Design of building foundations and temporary supports for foundation construction.

35.571 Built Environment S1 or S2L2

2 credit points. Prerequisites: nil.

The distribution of urban and regional centres in Australia. Factors which have shaped and will continue to shape the growth and quality of the built environment. Elements forming the urban environment viewed as the components of a complex system. Patterns of land-use formed by the physical structures in which people live, work and play. The interaction between land-use and transport and the effect of energy costs on land-use patterns.

Population growth and structure in an urban and regional context. The effect of population change, household formation rates and other factors on the demand for housing in urban and regional areas. Possible futures for the built environment and the demand for commercial and industrial building. The Australian building stock. Quantitative methods used in evaluating and planning the built environment.

The quality of an urban environment. Socio-economic and other indicators of amenity. Possible conflicts between the man-made and natural environments. Environmental impact statements. Efficient utilization of resources in the building process. Characteristics of the built environment in the Sydney region and its development over the last 50 years.

35.580 Building Design Analysis S1L2T1

3 credit points. Prerequisites: 35.505, 35.704.

A critical analysis and evaluation of current building designs within the study areas of: communication and documentation, information flow, appropriate construction methods, constructibility and work flow, construction economics and cost-value analysis.

35.581 Historical Development of Building S1L2

2 credit points; compulsory. Prerequisites: nil.

Background to building: the ancient world, recent history: Europe, Asia, the Americas, Australia. Development of structures, construction, building science and building economics. Rationalization and industrialization. Innovations, building research. Development of the structure of the industry and professions; laws and regulations, industrial relations, the contract document.

Building Science Stream

The underlying purpose of the building science stream is to impart to students an understanding of: the physical principles governing the behaviour of matter and the performance of building materials; the nature of the macro-environment and the parameters that control it and the principles involved in creating a suitable human environment; the mathematical tools and computer techniques necessary for the efficient design, construction, and operation of modern buildings.

35.601 Building Science I (Materials) S1L2T2

4 credit points; compulsory. Prerequisites: nil.

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

35.602 Building Science II (Energy) S1L3T3

5 credit points; compulsory. Prerequisite: 1.931.

The thermal environment: heat and comfort, heat transfer, thermal storage, thermal resistance, insulation, water vapour, condensation, vapour barriers, ventilation, environmental parameters, comfort indices, heat flow through glass, solar radiation, shading coefficient. Acoustics: the nature of sound: velocity, wavelength, frequency, intensity, sound pressure, sound power; sound analysis and subjective loudness: dBA level; assessment of noise annoyance: airborne sound transmission: sound attenuation, transmission loss, absorption coefficients, transmission class, composite partitions; recommended acoustic criteria, introduction to auditorium acoustics.

Solar control: solar position diagrams, spherical projections, shadow angles, effect of latitude, longitude, magnetic north and equation of time, shading devices, sky factor, sunlight in streets, shading by tall buildings. Daylighting: daylight factors, reflected daylight, availability of daylight, design. Artificial light: light sources, colour, luminaires, luminance design, glare, lighting quality, spatial illumination, maintenance. Fire: fire behaviour of building materials, fire behaviour of structures, systems for fire safety.

35.603 Building Science III (Computing) S2L2T4

5 credit points; compulsory.

Introduction to computer programming and applications. Anatomy of the computer; communication with computers, analysis of problems for solution by computer; elements of a computing language, programming via batch processing and time-sharing; processing of existing application programs; applications in general; applications in building, social issues.

35.604 Building Science IV (Plastics) S2L2T1

3 credit points. Prerequisite: 35.601.

Polymers in building: history and development of polymers, chemical structure, properties and applications of thermoplastics and thermosets, forming and design, reinforced plastics, fabrication techniques, building adhesives, elastomers, modified concrete.

35.605 Building Science V (Concrete) S1L2T1

3 credit points. Prerequisite: 35.601.

Concrete technology: cement aggregates, water and admixtures, properties of fresh concrete, strength considerations, durability, shrinkage and creep, special concretes, non-destructive testing, mix design.

35.606 Building Science VI (Metals) S2L1T2

3 credit points. Prerequisite: 35.601.

Metals in building; structural ferrous alloys, structural and architectural non-ferrous alloys; corrosion and protection; welding; types of failure; brittle fracture, fatigue, creep; impact resistance, tensile properties, hardness, strain hardening.

35.607 Building Science VII (Thermal) S2L1½T1½

3 credit points. Prerequisite: 35.602.

Building with climate: climate (global and local), thermal comfort factors and indices, effective temperature, principles of thermal design, thermal control, ventilation and air movement, light, daylighting, sound, noise control, shelter for various climate types, design aids.

35.608 Building Science VIII (Systems) S1L2T2

4 credit points. Prerequisite: 35.603.

Systems analysis methods. The systems approach of considering the interconnection of processes forming part of a larger whole, is introduced as a general concept applicable to biological, social and scientific disciplines. In particular, the systems analysis techniques of network analysis, mathematical programming, and simulation is studied in relation to the planning, design and construction management of building projects.

35.609 Building Science IX (Timber) S2L1½T1½

3 credit points. Prerequisite: 35.601.

The production and marketing of timber; test methods and properties; stress grading of timber, codes of practice, chemical, physical and biological attack and weathering of timber; protection and preservation; thermal, acoustic and aesthetic properties; factory techniques, plywood, particle board, hardboard, softboard, prefabricated building components, laminated beams.

35.651 Services I (Hydraulics) S2L2

3 credit points; compulsory. Prerequisites: nil.

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

35.652 Services II (Environmental) S1L2

3 credit points; compulsory. Prerequisite: 35.602.

Environmental services for small to medium size projects: fuels and heating appliances; electrical trunking, switching and wiring; package air conditioning units; garbage disposal and incinerator systems; telephone and security systems; lifts and escalators.

35.653 Services III (High Rise) S2L4

4 credit points. Prerequisites: 35.651, 35.652.

Hydraulic and environmental services pertaining to major projects such as high-rise buildings; sanitary plumbing systems suitable for multi-storey buildings, air-conditioning loads, psychometrics, central air distribution, electricity supply and distribution, systems of wiring and trunking; fire fighting services and equipment, lift control systems; escalators and moving walks; communication systems, telephone, fire alarms, intercom, pneumatic tubes and mechanical mail conveyors; planned building maintenance; pollution, disposal for special wastes and an introduction to closed ecological systems.

35.670 Mathematics for Builders S1L4T2

4 credit points, compulsory. Prerequisites: nil.

Calculus: elementary functions, and their inverses; limits and continuity; differentiation and integration; practical applications of calculus. *Linear algebra:* vectors, matrices and introduction to linear programming; systems of linear equations, applications to three dimensional geometry. *Geometry:* conics and other plane curves; three dimensional geometry; polygons and polyhedrons. *Statistics, probability and decision theory:* descriptions of sample data; probability and sets; probability distributions; use of probability in decision analysis. Application of mathematics to building industry problems.

Management Studies Stream

Building management includes management in theory and management in practice. It equips the student with well founded principles which he can apply to operational situations in the building process.

35.701 Management I (Management Principles) S1L2

4 credit points; compulsory. Prerequisites: nil.

Scientific management principles, administration and supervision; principles of organization, individual and group behaviour; technical report writing; the Australian economy and the building and development industry; introduction to scientific methods of construction planning and control; the building and development industry, building Acts and Regulations, codes, local government authority powers, fees and approvals.

35.702 Management II (Professional Practice) S2L2

4 credit points; compulsory. Prerequisite: 35.701.

The application of scientific management theory in practice with particular reference to building organizations. Business practice procedures in relation to: statutory requirements, employment, purchasing, safety and accident prevention, risks and insurance and the conduct of meetings and formal company procedures.

35.703 Management III (Planning) S1L2

4 credit points; compulsory. Prerequisites: 35.501, 35.502, 35.702.

Systems concepts and their relevance to building, planning and construction problems.

Basic decision theory, techniques and procedures. Operational research techniques with particular reference to the use of networks for planning and scheduling. Selected aspects of work study appropriate to the building industry. Technical supervision. Planning and control techniques and their application. Cost control.

35.704 Management IV (Contracts, Site Admin.) S2L2

4 credit points; compulsory. Prerequisite: 35.703.

Building contracts and contract administration. Site organisation, plant and equipment. Building methods and materials handling. Construction analysis and production methods.

35.705 Management V (Project Management) S1L1T2

4 credit points. Prerequisite: 35.704.

Project management. Theory and concept of project management. The systems approach to construction planning. Alternative organization of the building process. Application of project management in building. Management of pre-design, design and construction activities. Strategic planning, construction strategy. Planning of materials handling, repetitive work and services. Project management control. Management games.

35.706 Management VI (Personnel Management) S2L1T2

4 credit points. Prerequisite: 35.704.

People management. Human motivation, personnel management. Occupational health and safety in building. Industrial relations. Employer and employer groups. Industrial arbitration.

35.707 Management VII (Corporate Strategy) S2L2T1

4 credit points. Prerequisites: 14.002, 35.704, 35.842, 35.866.

Corporate strategy and the overall general management of an enterprise in the building and development industry, derivation of policy by top management together with planning of policy implementation. There is an integration and application of knowledge acquired in previous and concurrent courses. By using case studies students appraise the present position and future prospects of enterprises in the building industry; assess potential risks and opportunities; plan the human and physical resources and activities of the enterprises required to achieve corporate objectives.

35.708 Management VIII (Marketing & Finance) S2L2T1

4 credit points. Prerequisites: 14.002, 35.704, 35.842, 35.866.

Finance and marketing for builders and developers in the Australian and Pacific environment with particular emphasis on the marketing mix, the relationship between a marketing system and its environment, development of marketing, tactics and strategy, market segmentation and the buyer decision process together with the nature of financial management; the business environment; financial analysis; planning and control; capital investment decisions; organization of the financial structure; operating and working capital management; growth and development; and the causes and prevention of financial instability and failure.

35.710 Building Information Systems S2L2T2

4 credit points. Prerequisites: 14.001, 35.603.

The specification, development and use of computer based information systems in the management of building companies.

35.720 Commercial Arbitration S2L2T1

4 credit points. Prerequisite: 35.704.

The nature and function of arbitration in relation to building contract disputes, the parties to arbitration, the arbitrator, his duties and powers. Arbitration in contracts case studies, and moot arbitration.

35.721 Law for Builders I

2 credit points, compulsory for BBuild degree course students. Prerequisites: nil.

Law, including brief outline of sources of law in New South Wales and the system of judicial precedent. General principles of law of contracts. Contractual rights and obligations.

General principles of law of agency. Law of partnership.

35.722 Law for Builders II

2 credit points, compulsory for BBuild degree course students. Prerequisite: 35.721.

Law of negotiable instruments. General principles of insurance law. Sale of goods and a general introduction to the law of bankruptcy and company law. Law related to non-commercial succession to property.

35.723 Law for Builders III

4 credit points. Prerequisite: 35.722.

Industrial law, including references to Commonwealth and State statutory provisions dealing with conciliation and arbitration. State and Commonwealth awards. Industrial disputes.

Employers' associations. Trade unions. Real property and local government law.

Building Economics Stream

The subjects contained in the Building Economics Stream aim to provide a study of the economic aspects of building and real estate. This study is intended to develop an awareness of cost structure and characteristics from concept to demolition and necessarily embraces a variety of operations and professions. Particular attention is given to the acquisition of skills in the various techniques used to control cost in a building program.

35.801 Quantity Surveying I (Measurement) S2L3T1

4 credit points; compulsory. Prerequisite: 35.503.

Quantity surveying; historical background; functions of the quantity surveyor; the origin and development of the Australian Standard Method

of Measurement of Building Works, its importance and application; methods of recording dimensions, checking and correlating plans and specifications, principles of measurement, measuring techniques for single storey construction, billing fundamentals of item descriptions, taking off quantities from plans and specifications.

35.802 Quantity Surveying II (Billing) S1L3T1

4 credit points. Prerequisites: 35.504, 35.870

Advanced quantity surveying for the trades and hydraulic services, measuring techniques for multi-storey construction; detailed study of the Australian Standard Method of Measurement of Building Works; billing procedures for single items and complete trades; contract administration

35.803 Quantity Surveying III (Cost Planning) S2L2

2 credit points. Prerequisite: 35.802.

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

35.840 Building Economics I S2L2T1

3 credit points, compulsory. Prerequisite: 14.002.

Introduction to building economics, the interrelationship between the national economy and the building industry; demands on the construction industry; the supply of construction; case studies and field research.

35.842 Building Economics II S1L1T1

3 credit points. Prerequisite: 35.840.

Entrepreneurship in the construction industry; depreciation; taxation; operating costs; economics of building plant; materials handling and ergonomics; capital investment appraisals; case studies and field research.

35.853 Building Economics III S1L2T2

5 credit points. Prerequisites: 35.842, 35.866.

Economic advantages and disadvantages of conventional onsite construction and industrialized building components and system building. Financial controls used in the erection, management, maintenance and demolition of buildings. Cost benefit analysis; utility, costs and benefits; compensation tests and equity; social welfare functions; accounting prices; external effects and public goods; social rate of discount; formulae for project choice; risk and uncertainty; case studies.

35.865 Estimating I S2L2T1

3 credit points; compulsory. Prerequisite: 35.503.

Introduction to the techniques used by building estimators. Topics will include the analysis of costs of material, plant and labour, and the estimation of unit rates.

35.866 Estimating II S1L1T1

2 credit points. Prerequisite: 35.865.

An extension of 35.865. In addition, labour and plant scheduling; preliminary items; general and site overheads; the preliminary estimate; contract cost adjustments; competitive tendering; computer techniques applied to estimating.

35.870 Building Specifications S2L2

2 credit points, compulsory. Prerequisite: 35.503.

Principles and methods involved in the compilation of a specification for building works; objectives and purposes of a specification; the specification as a contract document; legal, tender and working aspects; relationship to bill of quantities and drawings; schedules, sources of information, references; outright and performance specifications, prime cost and provisional sums; specification sections, clauses and language, 'master' specifications; preparation, format, binding and printing; explanation of documents and general conditions.

35.880 Development Project S2L1T2

4 credit points. Prerequisites: 35.504, 35.890.

A total approach to the building process through the four stages of predesign, design, construction and post-construction. Market research, establishing client's needs, site selection and analysis, feasibility studies and financing methods. Selection and monitoring the work of the design team, preliminary designs, preparation of development applications.

Preplanning the building process, utilization of construction and management consultants. Development control during construction and in completion, tenant fit-outs and handing over to clients of the completed project.

35.890 Property Valuation S1L2

2 credit points, compulsory. Prerequisite: 35.503.

Legal background to valuation of land and property. Property inspection. Depreciation assessment. Building maintenance cycles. Time value of money and equivalence. Value as present worth of future income. Market value, comparable sales analysis. Capitalization rates. Statutory values and applications. Building investment feasibility assessment. Case studies of property valuations.

Special Requirements

35.900 Thesis (Building) S1 and/or S2

10 credit points; compulsory. Prerequisite: a total of 100 credit points.

A specialized individual study taken under staff supervision with the object of allowing the student either to gain knowledge in some aspect

of building which is not covered in the course or to increase his knowledge of some aspect which has been covered. As such, the thesis is essentially evidence of this individual study. The study does not require original experimental research for the purpose of discovering new facts or the testing of an hypothesis. Neither is it an essay permitting the student's unsupported opinion. The topic of the thesis is to be supplied by the student for the approval of the Head of School. A student may not commence the thesis until 100 credit points have been accrued and it must be submitted for examination before the close of the last semester attended by the student. Students are permitted to extend this subject over two consecutive sessions (if desired) and may commence in Session 1 or Session 2.

35.910 Industry Semester — S1 or S2

3 credit points; compulsory. Prerequisites: 35.503, 35.702.

It is desirable for students to be exposed, at the appropriate time during their course, to industrial conditions and experiences and this can best be achieved by continuous experience on a building site (or other approved situation). Students will be required to arrange approved continuous employment for a period of six months (one semester plus vacation periods). The industry semester is most beneficial if taken at about midway through the course, and must be taken at a stage which will enable students to subsequently complete a minimum of 12 credit points, apart from credit points obtained for 35.900 Thesis. During the industry semester, students are under the supervision of a staff member and are required to submit a report on an approved topic.

Servicing Subject

35.242 Building Techniques

Building types and characteristics, planning, design and construction process. Costs of building and site works. Building and environmental relationships: access, sun, light, wind, foundations.

Graduate Study

35.212G Pre-Construction Management — S1L2

2 credit points. Prerequisites: nil.

Changing roles and responsibilities; the integration of construction skills with design as a pre-contract input; the costs and benefits of such an approach; user-owner brief; total project planning, administration of contracts, progressive design input and as executed drawings.

35.213G Building Contract Management — S2L2

2 credit points. Prerequisites: nil.

Contract administration, sub-contractors, relationship and communications during construction and commissioning, case studies, analysis of areas of dispute between parties.

35.231G Operations Planning — S1L4

4 credit points. Prerequisites: nil.

Advanced planning and control systems, computer application to planning and control. Time, cost and quality trade-offs, management models, decision theory and risk analysis, construction strategy, resource scheduling.

35.232G Systems Modelling — S2L2

2 credit points. Prerequisites: nil.

Systems concepts and modelling. Applications, including the location, planning and design of buildings, and the relevance of urban energy usage to the siting of buildings. Analytical tools used in systems analysis and their application to building decision problems. Systems design allowing for non-quantifiable factors and multiple objectives. Decision theory and risk analysis.

35.242G Project Report (Compulsory) — FL1

10 credit points. Prerequisites: nil.

Each student is registered for the Project Report throughout his or her course. *Semesters 1 & 2:* Survey of the project area, preliminary submission containing an outline of the project. *Semesters 3 & 4:* consultations, group discussions and seminars on the project topics; preparation of a project report.

35.254G Personnel Management — S2L3

3 credit points. Prerequisites: nil.

Management of design and construction of personnel, motivation and personnel theory, selection and development, industrial psychology, industrial relations.

35.275G Property Management — S2L2

2 credit points. Prerequisites: nil.

Designing for better property management, maintenance, plant and equipment selection, economic, technical and tax trade-offs, obsolescence, material selection, development proposals.

35.296G Construction Techniques S1L3

3 credits points. Prerequisite: 35.505 or equivalent.

Techniques for the demolition of existing buildings and the excavation for and construction of new buildings. Determinants such as new techniques, industry cost structure, materials handling equipment and transportation costs and their effect on construction techniques. A study of recent methods through case studies undertaken. Rehabilitation of existing buildings.

35.297G Developments in Building Materials S1L2

2 credit points. Prerequisites: nil.

Current developments in the application of building materials. Technical developments and innovations affecting the utilization of building materials, case studies of recent designs and applications.

35.330G Cost Planning and Analysis S1L2

2 credit points. Prerequisites: nil.

Cost planning history, definitions, processes and applications: survey of world usage; the viewpoints of the Architect, the Manager, the Cost Planner and the Services Engineer; case studies; seminars.

35.355G Computer Graphics S2L2

2 credit points. Prerequisite: 35.360G.

Introduction to computer graphics and graphic devices: drum and flat-bed plotters; electrostatic printer/plotters; storage tube and refresh tube graphic displays; digitizers. Use of software and application packages in the following areas; building plans, perspectives, shadows, land form, quantity surveying, networks, etc.

35.360G Computer Techniques and Applications I S1L3

3 credit points. Prerequisites: nil.

Nature and use of digital computers. Components of a system. Introduction to interactive computing and terminals, elements of the Fortran language. Application of computers in various areas: scheduling; structural design; services; statistics; data reduction; information systems.

35.361G Computer Techniques and Applications II S2L2

2 credit points. Prerequisite: 35.360G.

Further development of computing concepts. Completion of the Fortran language. Assignments in some of the following areas: scheduling; operations planning; structures; statistics; simulation; linear programming.

35.370G Experimental Techniques S2L2

2 credit points. Prerequisites: nil.

Purposes of and methods used in building research, experimentation and testing. Design of experiments, method of dimensions and principles of similarity. Analysis of experimental results; regression techniques. Experimental techniques used in building science, and in assessing building materials and mechanical equipment. Methods used in socio-economic analysis; factor and component analysis. Design of subjective experiments and questionnaires.

35.381G Building Physics S1L2

2 credit points. Prerequisites: nil.

Thermal balance and energy conservation in buildings. Utilization of solar energy for heating and cooling. Effect of building components, materials and services on the internal environment: effect of walls, floors and fenestration.

35.382G Building Psychophysics S1L2

2 credit points. Prerequisites: nil.

Psychophysical analysis of parameters affecting comfort; the visual acoustical and thermal environment; human engineering.

35.390G Co-ordination of Structures and Services S2L2

2 credit points. Prerequisite: 35.426G.

A qualitative study of structural systems and their interaction with services. Integration of services and structure. Case studies of special integrated solutions, with particular reference to prefabrication and industrialized building. Co-ordination of services.

35.400G Economics of Services S2L2

2 credit points. Prerequisites: nil.

Costs in use: initial costs; running and maintenance costs; effect of interest rates and inflation; statistics. Maintenance methods and costs: methods of approach and analysis; planned maintenance; repair and renewal. Evaluation methods for building cost appraisal. Cost benefit analyses.

35.426G Building Services S2L3

3 credit points. Prerequisites: nil.

A study of thermal, electrical, hydraulic and mechanical services in buildings with regard to flexibility, space usage, long-term efficiency, design life and economy.

35.460G Applied Building Economics S2L2

2 credit points. Prerequisites: nil.

The interrelationship between the national economy and the building industry; entrepreneurship in the building industry; small-business

economics in the building industry; the economics of conventional and industrialized buildings; financial management of building contracts; economics of property development. Life cycle costs of buildings.

35.470G Analysis and Valuation of Property S1L2

2 credit points. Prerequisites: nil.

Buildings as an investment. Site value and selection; optimum site development; assessment of depreciation. Feasibility assessment, including renovation or demolition decision. Amortization of depreciating assets. Economic analysis of hypothetical development of sites. Valuation reports including case studies of building investment projects.

35.480G Managerial Economics in Building S2L2

2 credit points. Prerequisite: 35.460G.

Advanced techniques of pragmatic concern to the building economist: techniques, problems and model derivation; decision theory; planning of production, labour and inventories; design of decision systems; dynamic programming; sensitivity analysis; integrated models of the firm; econometric models of the economy. Marketing.

School of Town Planning

Undergraduate Study

Core Subjects

36.211 Introduction to Planning

The structure of towns and cities. The needs and activities of people. The various land use components related to these needs: housing, schools, shops, workplaces, open spaces, recreational and cultural areas and movement systems. The need for proper interrelationships and integration. Planning theories, aims and practices. The development of the planning profession. Constraints on the profession. Plans of various types and at various levels. Planning as a process, from the formulation of objectives to implementation and monitoring. Planning Law and Administration; Statutory Planning. Design and information gathering exercises.

36.212 Planning Studies

Lectures, seminars and projects aimed at teaching the principles of investigation and research related to the planning of the urban environment, and their application in different situations. **1.** *Role of Planning Studies:* type, purpose and scope of planning studies. Planning studies in the planning process; relationships to various contexts, objectives, decision-making situations and forms of implementation. Study design and presentation. **2.** *Research Methodology:* social science research methods. Sampling techniques, questionnaire design, data processing, use of packaged computer programs. Introducing statistical methods; application to data. Demographic methods, growth rates, population composition.

36.213 Local Planning

Prerequisites: 36.211 and 36.212.

A studio, practical exercise and lecture program focusing on the principles and practice of planning new and existing neighbourhoods and stressing the integrated nature of the skills and theory used in town planning for these activities.

At the scale being studied, the course includes civic and land surveys and their analysis; urban and natural environment conservation; social and political issues; energy considerations. It also encompasses planning for redevelopment and renewal, housing layout, basic traffic management and street design; subdivision and service layouts.

Case studies of existing and new areas. Students carry out the planning activities required to understand and practice the planning of such areas, including the preparation of environmental planning studies.

36.214 Development Planning I

Prerequisites: 36.211 and 36.212.

A studio and lecture program focusing on growth, decay and change in existing urban areas, and aimed at an understanding of growth and development patterns, particularly considered as a consequence of accessibility; structure planning of new urban settlements; new towns in Australia and overseas; studies in retail trading, the location and design of shopping centres and industrial areas.

36.215 Statutory Planning I

Prerequisites: 36.213 and 36.214.

Theory and the practice of techniques and the administrative procedures needed to transform the policies and details of planning proposals into documents which have legal effect.

The subject comprises three parts, Planning Law, Planning Administration and Land Valuation. **1.** *Planning Law:* conceptual/theoretical nature of the law, the relationship between the environmental context, the Crown, the parliament and the judiciary, the ways in which the laws are made and promulgated, the relationship between laws and regulations, the legal concept of property in land, the definition of various legal concepts of interests in land, the Australian Constitution and the legal relationship between the Commonwealth and the States, particularly in regard to matters affecting land, the place of administrative law. An historical introduction to planning law in Australia. A detailed account of the principles and practice of strategic and statutory planning in Australia. State environmental planning policies, regional environmental plans, local environmental plans, the role and function of environmental studies, statutory mapping, the development application process, the appeal process, the settlement of disputes. **2.** *Planning Administration:* administrative context within which planning operates as

a function of government, especially the role and function of statutory bodies in the planning and environment area, the administration of the planning function at national, state and local levels, the art of management, administrative theory, personnel administration, the role and responsibility of the professional planner in the public and private sector. **3.** *Land Valuation:* the principles and practice of land valuation in Australia. Definitions of value, methods of valuation, the role of the valuer, compensation and betterment.

36.218 Metropolitan Planning I

Prerequisite: 36.215

Definitions of a metropolis in terms of demography, accessibility, economics and politics. Metropolitan structure and organization: social and land use distribution; communications and access; power relationships between decision makers; gains and losses. Planning Methodology: problems of expansion, decay, deprivation; planning for growth, change, improvements at metropolitan scale; critical evaluation of planning policies and processes. Australian and overseas metropolitan centres; plans and organization, metropolitan planning in Third World Countries.

36.219 Regional Planning

Prerequisite: 36.218.

Planning theory and practice at a regional level of scale. Regional analysis including location theory, strategies of regional policy. Trends in the rural and extractive industries. Sub-regional analysis including ecological land use planning, recreation and preservation. Introduction to research techniques. Environmental impact assessment.

36.491 Thesis

A specialized individual study taken under staff supervision with the object of allowing students either to gain knowledge in some aspect of town planning which is not covered in the course or to increase their knowledge of some aspect which has been covered. As such the thesis is essentially evidence of this individual study. The study does not require original experimental research for the purpose of discovering new facts or the testing of an hypothesis; neither is it an essay permitting the student's unsupported opinion. The thesis topic is submitted by the student for the approval of the Professor of Town Planning at the end of the fourth year of the course and the completed thesis is submitted for examination towards the end of the fifth year.

Students participate in seminars on report and thesis writing during fifth year and present progress reports on their theses at the seminars.

Related Subjects

36.451 History of Town Planning

The origin of urban centres. Geographical, social, economic and political factors influencing urban settlement. Elements of Egyptian, Greek and Roman town planning. Medieval communities. The Renaissance. The Baroque city. The French and English landscape garden movements. The Agrarian and Industrial Revolutions. Nineteenth century social reforms and planning theories. Company towns. The Garden City movement. New towns. The development and growth of Sydney.

11.134 Graphic Communication for Town Planners I

Basic drawing techniques and their application to planning issues. Plane geometry, solid geometry, descriptive geometry. Pictorial projection, orthographic projection, perspective projection, lettering and graphic design.

11.135 Graphic Communication for Town Planners II

Basic illustrative techniques and planning issues. Townscape studies, architectural sequence, visual analysis, presentation techniques, graphic design of exhibitions for social and environmental issues.

29.901 Introduction to Mapping

Mapping: map types, map reading, scale, relief, depiction of features, cartography, photogrammetry. Remote Sensing: cameras and other sensors. Landsat images and applications. Cadastral surveying, land titles, surveys, easements and covenants.

36.222 Introduction to Computers and Information Systems

The use and potential use of computers by planners. Basic knowledge to make use of opportunities including time sharing, batch processing and the use of graphic output. Components of the computer and their interrelationships, data processing, file management, use of library programs, interpretation of results, basic programming. Planning information system types; application; establishment; maintenance.

36.131 Communication Techniques

Presentation and layout of information; reproduction of drawings, maps and reports, photographic processes; model making; audio-visual techniques; report and letter-writing; public speaking and oral communication.

35.242 Building Techniques

Building types and characteristics, planning, design and construction process. Costs of building and site works. Building and environmental relationships: access, sun, light, wind, foundations.

36.242 Land Economy

Land Economy is concerned with the use, management and development of land as a national resource, and with the economic, legal, sociological and technological factors which affect the individual ownership of proprietary interests in land.

Aspects of 'land' concerned with the control of land use, land management, land reforms, land development, land transaction and land valuation.

27.801 Introduction to Physical Geography

The mechanism of the physical environment with particular reference to Australia and to the Sydney region. Geologic controls of landform development; fluvial, slope and coastal processes and their landforms; cyclic and equilibrium approaches to landform studies. Global energy and atmospheric circulation; weather and climate in Australia and the Sydney region. The hydrologic cycle; processes and factors of soil formation and soil profile development. The ecosystem; controls of vegetation in the Sydney region.

Laboratory classes include the study and use of topographic maps, geological maps, and air photographs; the use of climatic data and the weather map; soil description; basic cartographic methods. Two field tutorials, equivalent to 16 tutorial hours, are a compulsory part of the course. Students must provide basic drawing instruments.

36.232 Environmental Science I

Climates and climatic elements. Design for climate. Man-environment studies. Sun control including shading devices. Shadows and shading. Daylight as planning control. Wind effects. Aspect. Sound waves and decibels, the ear and hearing, measurement and analysis of sound sources, acceptable sound levels inside and outside buildings, environmental noise sources and their control.

36.233 Environmental Science II

Influence of the ecology of the natural environment on human activities and the methods by which elements of the natural environment can be incorporated into the planning process. Topics include the evaluation of the planning techniques of McHarg, Fabos, CSIRO, Harvard University as well as the methods by which components or aspects of the natural environment — mass air movement, microclimate, air and water pollution, river systems, wetlands, conservation, etc — can be incorporated into planning practice.

36.225 Public Policy and Urban Government

Public policy and bureaucracy, including decision-making processes in general; Australian government policy making, particularly in relation to cities; freedom of information. Executive government at the state level; regional government and administration; local government structure, functions, politics; co-ordination and citizen participation; theories of urban politics.

36.235 Urban Sociology

A series of lectures and seminars on the relationship between planning and the social structure of urban areas with reference to both social theorists and empirical studies. People and their relationship to the urban environment. Relationships between groups within the context of the urban environment. The evaluation of planning objectives and outcomes.

15.901 Economics for Town Planners

Economic influences on land values. Economics of residential location. Intra-urban location decision of firms. Models of urban structure. Urban spatial dynamics. Urban growth theory. Externalities in a market economy. Economics of city size. Economics of housing. Input-output analysis. Cost-benefit analysis and planning balance sheet.

37.224 Landscape Architecture

Landscape and planting within the built environment with particular reference to functional, ecological and aesthetic considerations; the treatment of spaces between buildings and in road reservations; hard and soft landscape treatments; establishment and maintenance costs.

36.461 Engineering

The provision of public utility services: town water supplies, sewerage, drainage, flood management, electricity and gas supply, telecommunications. Transportation planning and design: road hierarchy, road geometry, arterial roads, residential streets, intersections, cross sections, road layouts in residential areas, public transport. Transport and environment: accidents and safety, noise, air pollution. Traffic engineering: characteristics of road vehicle, driver, road system.

36.228 Transportation Planning

A series of lectures/seminars on the relationship between urban planning and transportation planning with particular reference to transport needs, objectives, systems, forecasting, planning and management within an urban planning framework.

Needs: personal travel, goods and services. Objectives: accessibility, efficiency, economy, equity. Systems: roads, public transport, para transit, slow way; modal and intermodal transfer; transport technology. Forecasting: trip generation and land use, trip distribution, modal choice, trip assignment, evaluation. Planning: dynamic processes and their relationship to land use/transport decision-making. Management: traffic flow, capacity, traffic area management, parking standards and control, operational requirements of public transport.

36.234 Urban Design

Aims to increase visual awareness and sensitivity; to learn about design components; and to develop some understanding of the effects of planning controls on the appearance of cities.

Topics include the character and identity of areas as influenced by natural and man-made features, townscape elements (skyline, floorscape, wallscape, street furniture, vegetation, water and the synthesis of these), townscape in movement, the effects of light and shade and night time lighting and of wind and other climatic factors, pedestrianized urban spaces — their creation, function and appearance; the impact of new buildings; rehabilitation and reconstruction; the effects of the car and other forms of transport; varying perceptions of people; performance standards and other controls affecting appearance.
The material is to be covered by means of lectures, seminars, visual analysis exercises and urban design case studies and projects.

36.437 Regional Survey Camp

Fifth year students are required to attend a Regional Survey Camp of up to two weeks' duration. The camp is held in or near an appropriate

country centre. Students, under staff supervision, study the character and function of a regional centre, patterns of rural settlement, and rural land use classifications.

36.210 Professional Practice

Functions and organizational structures. Corporate Planning. Office Management. Elemental costing, cost planning. Client relationships, consulting, sub-consulting, briefs, responsibilities, liabilities. Formal evidence. Professional ethics.

36.503 Practical Experience

For the purpose covered by Session 2 of Year 3 and Session 1 of Year 4 the students must be engaged in approved employment related to the course; for example, in government planning and housing authorities, in municipal and shire councils preparing or implementing town and country planning schemes, in private development companies or with planning consultants. The type of employment proposed must be submitted to the Professor of Town Planning for approval.

Planning Electives

36.301 Third World Planning

Studies of planning problems in Third World Countries by way of lectures, research and seminars related to population, society, labour and incomes, rural-urban migration, infrastructure and housing.

36.302 Urban Conservation

Definitions and philosophy of urban conservation; setting objectives and formulating policy; criteria for selecting and assessing conservation areas; planning considerations to protect and enhance the urban fabric; legislation and mechanisms for urban conservation existing in NSW and elsewhere; potential; some effects of urban conservation (physical, social, economic); attitudes to urban conservation; case study of selecting and planning a conservation area.

36.303 Subdivision Design

Procedures and legal controls over land subdivision in NSW, land studies in terms of climate, terrain, vegetation, slopes, soils, drainage, etc; land development in relation to earthworks, roads, drainage and other utilities; detailed consideration of road and drainage design; subdivision design, land values and land economics. Innovatory designs.

36.304 Development Planning II

Research and design into a topic at the town scale of current concern in planning.

36.305 Urban Studies

Exploration in depth of an aspect of environmental planning of particular interest to the student. An individual research study to expand the student's experience in methodological and substantive areas beyond what is encountered elsewhere in the course.

36.306 Statutory Planning II

Aimed at increasing the student's knowledge and awareness of issues in the general areas of Planning Law, Planning Administration and Statutory Planning.

36.307 Metropolitan Planning II

The concept of the metropolis: historical development of metropolitan areas; political and social forces; metropolitan values and lifestyles; future possibilities — growth, decline, change.

36.308 Metropolitan Planning III

Planning methodology in metropolitan areas; a critical overview and a detailed examination of planning processes, policies and programs for selected areas/functions/institutions.

36.309 Regional Planning II

Original research into a regional topic of current concern in planning.

36.310 Social Planning

Planning responsibilities in equalizing resources distribution. Discussion of consensual goal definition and achievement versus social engineering. Popular participation in planning: why, where and how. Methodology and aids to social planning. Policy formulation and case studies.

Program will be presented by and with practitioners in the field and include role playing games and problem solving essay. If possible an involvement in an area project may be substituted for some of the program.

36.311 Environmental Psychology

The environment considered subjectively and objectively. Man as a social and psychological rather than a strictly economic being. The significance for decision-making, of individual and group values held on the environment (nature and man-made), from individual decision on where to live through to government decisions on policy. Forces influencing the formation of these values. The distinction between values held and actual behaviour. The emergence of different viewpoints and resultant conflicts. The role of planning in understanding, anticipating and reconciling such conflicts.

36.312 Impact Assessment and Evaluation

Impact of planning and development proposals. Environmental planning legislation. Environmental, social, economics, institutional and political impact. Evaluation of impact assessments.

36.440 Planning (Special subject)

Students have the opportunity to pursue a subject of special interest related to planning, depending on staffing resources.

Subject Offered to Other Schools

36.411 Town Planning S1 L2T1

Introduction to the purpose, scope and application of planning. The urban planning process. Objectives and means of planning cities. Levels of planning and types of plans: state environmental policies, regional environmental plans, local environmental plans. Problems in planning: equitable distribution of resources. Environment and environmental impact statements. Planning law and administration. Future of cities.

Subject of the old course to be phased out progressively

36.521 Research Methodology

Social science research methods. Sampling techniques, questionnaire design, interviewing, data processing, use of packaged computer programs. Introductory statistical methods, applications to data. Demographic methods, growth rates, population composition.

Graduate Study

36.062G Urban Planning SS L2

Context of urban planning, nature of urban growth and change, need for intervention, scope, levels and timescale of intervention. Aims and means, planning objectives and processes, interdisciplinary relationships, institutional frameworks, public involvement, statutory planning, local area planning, district planning, metropolitan planning, regional planning. Case studies.

36.922G Communications and Public Utilities

Interaction of land use and transportation. Vehicular and pedestrian circulation patterns. Traffic function and capacity of district and neighbourhood roads. Principles and practice of local road construction, water supply, sewage treatment and disposal, and drainage. Local supply of electricity, gas, telephone, and other services.

36.923G Land and Housing Economics

Outline of principles and practice of land valuation with special emphasis on valuation of residential land and buildings. Rating and taxing systems. Effect of zoning and redevelopment on land values. National income and its distribution. Goals of a modern economy. Demand and supply analysis. Economics of road transport and public utilities in urban development. The costs of urban growth. Cost-benefit analysis.

36.924G Urban Sociology

A sociological approach to the study of urban phenomena. Lectures deal with both methodological and theoretical issues relating to the study of urban social structures. Seminars provide students with the opportunity to examine critically a number of community studies. A research project is undertaken by each student.

36.925G Housing Law and Administration

Housing acts and regulations at Commonwealth, State and local levels. Related town planning acts and ordinances. Commonwealth-State Housing Agreements. The organization and administration of public housing authorities. Significant overseas housing policies.

36.930G Theory of Neighbourhood Planning I

36.931G Theory of Neighbourhood Planning II

The neighbourhood concept: its historical evolution and development. The contributions of Ebenezer Howard, Unwin and Parker, Clarence Perry, Stein and Wright and others. Neighbourhood structure, elements and form. Relationship to town and metropolitan planning.

36.934G Theory and Practice of Planning A SS L3

Structure of towns, cities and regions. Needs and activities of people. Land use, transport and service systems. Planning theories, aims and objectives. Planning at different scales and in different time frames. Planning as a process. Planning studies, information systems, statistics, research methodology, computer applications.

36.935G Theory and Practice of Planning B SS L3

Theories at the local level: neighbourhood and precinct concepts, local community structure, survey and analysis. Subdivision and housing layout, basic transportation planning and management, street design, landscaping, utilities. Practice of planning new neighbourhoods and proposals for conservation and redevelopment.

36.936G Theory and Practice of Planning C SS L3

Theories at the district/new town level. Structure, survey and analysis. Environmental and social analysis. Elements: industrial and commercial areas, transport systems, community services, open space, institutional land use. Integrated planning, alternatives, impacts, evaluation. Costing and programming. Implementation and development management.

36.937G Theory and Practice of Planning D SS L3

Theories at the metropolitan level. Accessibility, equity, economics, politics. Structure and organization, land use and transportation relationships. Forecasting, alternative futures. Incremental decision making. Integrating local and metropolitan planning.

36.938G Theory and Practice of Planning E SSL3

Theories at the regional level. Location theory, strategies of regional policy. Trends in tourist, rural and extractive industries. Ecological land use planning, recreation and conservation. Environmental impact and assessment.

36.939G Theory and Practice of Planning F SS L3

Theory and practice of statutory planning. The legal framework. The administrative framework. Environmental planning and related legislation. Techniques and procedures in transforming policies and proposals into statutory instruments. Development control. Planning appeals and the operation of the Land and Environmental Courts.

36.940G Practice of Neighbourhood Planning I

36.941G Practice of Neighbourhood Planning II

36.942G Practice of Neighbourhood Planning III

36.943G Practice of Neighbourhood Planning IV

Dwelling types. Residential densities. The design and layout of groups of dwellings, open spaces, streets and pathways in high, medium and low density housing estates. Mixed development. Subdivision patterns and standards. Community facilities including shopping and civic centres. Urban renewal is living areas. Organization of neighbourhood development.

36.945G The Organization of Town Planning

Aims, means and consequences of town planning in Australia. *Aims of planning*: organization of the environment in respect of space and time, interrelationship of functions, equity of resource distribution, human satisfaction; the nature of the planning approach. *Means of planning*: overview of the planning process, laws related to planning, planning assessment procedures, environmental management at different levels, decision-making processes — financiers', firms' and private decisions, changes in public values, public participation, political and economic constraints. *Consequences of planning*: illustrative case studies, evaluation of planning methodology and procedures.

School of Landscape Architecture

Undergraduate Study

37.0014 Introduction to Computer Applications S2 L1T1

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

37.3013 Man in His Environment S1 L2T1

An appreciation of man through behavioural studies, including territoriality and personal space identity. The understanding of the effect of environmental changes on man. Sociological techniques for understanding user requirements.

37.5816 Land Systems S2 L2T1

Ecological approach to land management. Marine, coastal, estuarine and terrestrial ecology. Conflicts with development. Statistical evaluation of human impact on undisturbed vegetation, through field work. Study of methods of management of land systems. Includes field excursions.

37.5817 Land Management S1 L1T1

An investigation of resources and their management, with reference to managed landscapes, both cultural and natural. Conservation and rehabilitation methods are studied in relation to rural and urban landscapes, including coastal processes. Rehabilitation methods are related to land use types with studies of specific examples, following investigations of human impacts and their assessment.

37.6041 Landscape Graphics I S1 L2T3

37.6042 Landscape Graphics II S2 L2T3

Basic landscape drawing with emphasis on pencil techniques, drafting conventions, layouts, lettering, instruments, drawing types, use of scales. The principles and application of orthographic, axonometric and isometric drawing, plane geometry and solid geometry. Basic use of symbols to graphically depict environmental factors.

Advanced drawing techniques including the use of media other than pencil. An investigation of perspective theory. Application of the principles of perspective to the drawing of landforms and elements in the landscape.

37.6043 Landscape Graphics III **S1 L1T2**

37.6044 Landscape Graphics IV **S2 L1T2**

Advanced perspective including multiple vanishing points. Isometric drawings of complex landforms. Shadow projection. Techniques for use in presentation drawings.

Advanced graphic presentation techniques of survey, analysis, synthesis and final design documentation. A major graphic project is integrated with Landscape Design.

37.6203 Landscape Technology I **S1 L2T1**

An introduction to the nature of materials commonly utillized in landscape construction. The properties and applications of common building and construction materials, including testing procedures.

37.6204 Landscape Technology II **S2 L2T2**

Structural elements and the basic principles of structure. Analysis of the principles of construction, as applied to landscape construction applications and techniques.

37.6235 Landscape Engineering I **S1 L2T2**

Study of the design and construction techniques related to basic civil works, including earth works, route alignment, services, urban and rural drainage. Interpretation of engineering design and development documents. Projects incorporating detail resolution of civil works.

37.6246 Landscape Engineering II **S2 L1T1**

Study of the design and construction techniques related to water control and treatment, waste disposal and sewage treatment. Overview of the principles of transportation systems including roads, railway permanent ways, airports, ports and harbours.

37.6352 Plants and Planting Methods I **S2 L2T1**

General horticultural study of propagation techniques, current nursery practice, impact of weeds, plant diseases, planting techniques and forestry practice. Plant collecting and identification.

37.6353 Plants and Planting Methods II **S1 L2T1**

Plants as design elements, management of plant designs. Planting on reclaimed sites. Plants for specific sites; water plants, indoor plants, roof gardens. Observation of existing landscape schemes.

37.6585 Professional Practice I **S1 L1½**

The landscape architect's responsibilities in law; a study of the development of law in Australia, including torts, contracts, equity and environmental legislation. Project procedure, the stages of a capital development project. Construction contracts, including tender documentation, subcontract conditions and subconsultative responsibilities.

37.6586 Professional Practice II **S2 L1½**

The specification, its function and forms. A comparative analysis of various standard contract forms including SAA documents and other performance codes. Preparation of contract documentation, including elemental and trade technical sections. Cost planning and feasibility studies.

37.6587 Professional Practice III **S1 L1½**

Contract administration and project supervision, the role of the consultant. Tender evaluation, award of contracts, site inspections, variation procedure, claims and certificate issue and general site administration. Practical completion, rectification and final certification.

The rights and duties of the proprietor and contractor, including the relationship with the consultants. Post-contract activities, maintenance manuals, appraisal of design and construction and retention of records. The Statute of Limitations.

37.6588 Professional Practice IV **S2 L1½**

Prerequisite: Four months approved experience.

Landscape architecture as a profession; obligations, liabilities and responsibilities. Professional association and registration, including a study of the Australian Institute of Landscape Architects. Office management and practice; record keeping, correspondence, insurances and taxation. Copyright and document control. Preparation of reports on practical experience gained during enrolment in the Course. A minimum requirement of four months approved experience is prerequisite to enrolment in this subject.

37.7011 Landscape Graphics (Art) I **S1 L1T2**

37.7012 Landscape Graphics (Art) II **S2 L1T2**

Practical exercises in the basic grammar of form as an element of composition.

Projects planned to develop:

1. Appreciation of the principles of composition in relation to a total graphic structure.

2. Effective graphic communication of ideas and concepts in terms of a variety of media.

3. The use of methods and techniques to effect clear graphic statements with an economy of means.

37.7013 Landscape Graphics (Art) III **S1 L1T2**

37.7014 Landscape Graphics (Art) IV **S2 L1T2**

Projects planned to develop:

1. a more complex and able employment of the graphic language;

2. an increasing ability to balance and judge the demands of pictorial content and formal structure in the graphic presentation of pictorial material or plans;

3. the potential of the individual student towards a personal expression based on increasing technical command of materials in a lucid, graphic style.

37.7101 Theory of Landscape Architecture **FL2**

An introduction to the discipline of Landscape Architecture. The design process. Landscape design, construction, maintenance and policies in both urban and rural environments. Design philosophies with recognition of ecological, social, functional and aesthetic consideration. The relationships between the various subjects offered in the landscape program and current research interests within the School. Basic techniques used in the landscape discipline which includes land management, elementary surveying, map reading, understanding of contours, grading, earthwork manipulation and general site appraisal.

37.7133 Landscape Design I **S1 L1T3**

The development of a logical design process. The understanding of aesthetic appreciation of knowledge of materials and construction applied through a range of simple landscape design exercises.

37.7134 Landscape Design II **S2 L2T6**

Practical landscape design ability is developed through more complex medium scale projects. Particular emphasis benefits arising from designed development, and the practical relationship to the cost of landscape work and its maintenance. The direction of study is towards urban needs and the effective provision of environments of real benefit in medium and high density living, working and playing areas.

37.7135 Landscape Design III **S1 L2T6**

37.7136 Landscape Design IV **S2 L2T6**

More advanced exercises wherein students find it necessary to undertake considerable research and make value judgments based upon an extensive range of factors. Projects may include the design of regional parks, and open-space systems, nature reserves, camping and caravan parks, golf courses and sports fields, highways, housing estates, shopping malls and civic squares. A number of the exercises call for group work. (Several are directed towards the solution of real design briefs.)

37.7137 Landscape Design V **S1 L2T6**

37.7138 Landscape Design VI **S2 L2T10**

Students are called upon to employ all the knowledge, skill and understanding they have gained in previous years.

Projects are few in number, but call for solutions of professional standard, supported by thorough documentation. Group work predominates.

Projects are representative of our major environmental problems, ranging from expressways to mineral extraction and from National Parks to solid and liquid waste disposal.

37.7145 Landscape Planning I **S1 L2T2**

Basic methods and techniques of resource data collection, analysis and valuation. History of landscape planning in Australia and overseas with reference to pioneering case studies. Projects include the use of maps, air photos and simple computer programs.

37.7146 Landscape Planning II **S2 L2T2**

Classification of planning methods. Study of complex methods and techniques used in recent landscape planning models. Development of land use suitability models for recreation, residential, industrial, commercial, grazing, agriculture, forestry and conservation. Projects include the use of remote sensing techniques and advanced computer programs.

37.7147 Landscape Planning III **S1 L2T2**

Visual analysis, assessment and evaluation techniques detailed in order to incorporate this important aspect into planning models. Visual resource management. Recent Australian and overseas case studies. Projects incorporate relevant visual analysis computer programs.

37.7148 Landscape Planning IV **S2 L2T2**

Major planning project in conjunction with final landscape design project. Discussions on contemporary environmental planning issues. Australian case studies.

37.8086 Research Methods **S2 L1**

Investigation of various research methods with application to study in landscape architecture. Development of the critical, logical and stylistic skills involved in researching, writing and presenting essays, theses, articles, papers and reports. Selection of topic for study in the subject *37.8087 Landscape Thesis*..

37.8087 Landscape Thesis **F**

A specialized individual study under staff supervision enabling the student to gain knowledge in some aspect of landscape architecture which has not been covered, or to extend the student's knowledge and/or understanding in one which has. As such the thesis is essentially evidence of this individual study. The study does not require original experimental research for the purpose of discovering new facts or the testing of an hypothesis. Neither is it an essay permitting the student's unsupported opinion.

The topic of the thesis must be submitted for approval of the Professor of Landscape Architecture at the close of the third year. The completed thesis must be submitted for examination at the close of the fourth year.

37.9013 History of Landscape Architecture S2 L1½

Changing patterns of land-use throughout history as a reflection of their times and an expression of man's attitude toward nature and his basic individual and social needs. Ancient Egypt, Assyria and Babylonia, Greece, Imperial Rome, the Middle Ages, Persia and Moorish Spain. The Renaissance in Europe, the English Landscape School and the Picturesque Movement. Effects of the Industrial Revolution and scientific plant exploration. The emergence of public parks.

37.9112 Prehistory of Landscape and Man S2 L1

Formation of the Australian landscape in prehistory. An overview of continental drift, orogenesis, paleoclimates and glacial cycles, plate tectonics and geomorphology. Paleo environments and the advent of *Homo sapiens*. Critical interfaces within the biosphere and the impact of prehistoric man with reference to extant 'primitive' societies.

37.9192 Environment and the Landscape S2 L2T4

Observation and interpretation of both physical and biological environment and their interrelationships. Perception and appreciation of landscape character through sensory inputs of sight, sound, smell and touch. Recording and presentation techniques associated with landscape surveys. Fundamental characteristics of biological systems, with emphasis on relationships with the physical environment. Survey of Australian plant communities and associated fauna with particular emphasis on the Sydney region.

Landscape Electives for Students of Architecture and Related Disciplines

The following landscape electives require attendance of two hours per week over a period of 14 weeks. They are offered subject to demand and availability of resources, consequently students are advised to contact the School before finalizing their program. Credit point values and prerequisites specifically refer to students of Architecture enrolled in courses 3270, 3280, or 3290.

37.100 Site Planning Elective S2 L2

2 credit points. Prerequisite: 52 credit points.

Recognition of natural processes and factors in site analysis. Opportunities and constraints with respect to potential development. Development of a logical approach to site planning.

37.300 Planting Design Elective S1 L2

2 credit points. Prerequisite: 104 credit points.

The selection and use of plant materials within the built environment with particular reference to visual and ecological considerations.

37.3015 Environmental Impact Assessment I S1 L1T1

2 credit points. Prerequisite: 156 credit points, or as otherwise approved by Subject Authority.

37.3016 Environmental Impact Assessment II S2 L1T1

2 credit points. Prerequisite: 37.3015.

The environment defined in terms of bio-physical and socio-economic factors. Introduction to the general principles of environmental survey and analysis and the assessment of impact. Specific methodologies are reviewed on a comparative basis. The importance of communication between the environmental sciences and professions and the problems of objectivity.

Emphasis upon the role that environmental impact assessment should play as part of the planning process; landscape assessment methodologies reviewed with specific reference to their adaptability for use as a 'before and after' technique for comparatively assessing impact in relation to visual/aesthetic factors.

The student undertakes a specific study of current social significance on a group basis in two phases over two consecutive sessions, in the same year. Each phase is used as a partial assessment of progress.

37.400 Urban Landscape Elective* S1 L2

2 credit points. Prerequisite: 104 credit points.

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

37.500 Recreation Planning Elective* S1 L2

2 credit points. Prerequisite: 156 credit points.

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

Subject Offered to Other Schools

37.224 Landscape Architecture S2 L2

Landscape and planting within the built environment with particular reference to functional, ecological and aesthetic considerations; the treatment of spaces between buildings and in road reservations; hard and soft landscape treatments; establishment and maintenance costs.

Graduate Study

37.910G History of Landscape Design*

Primitive cultures and their impact upon the landscape through farming, transport and settlement patterns. Social influences, aesthetic beliefs and their expression through the ages in the design of parks and gardens. The industrial revolution and resultant changes in the humanized landscape. Landscape development in America and Australia.

*Not offered in 1983.

37.912G Landscape Engineering*

1. Classification of soils, shear, compaction, consolidation and permeability. Stability of walls, embankments, cuttings and earth dams. Common causes of failure and remedial measures. **2.** Elementary hydrostatics and hydraulics.

Bernoulli's Theorem, flow through orifices, over notches, in channels and pipes. Pumps and reticulating equipment.

37.913G Theory and Practice of Landscape*

Aesthetic philosophies of landscape design—scale—texture and colour. Design, construction and maintenance in urban and rural environments, including highways, residential areas, parks and gardens. Erosion control and shore protection.

Landscape surveys and analyses. Specifications, contracts, and office procedure.

37.914G Forestry and Horticulture*

Principal commercial trees—identification—planting techniques, care and maintenance, including fire and insect pests, and felling techniques. Forest nursery practice and forest economics. Characteristics, identification and specific requirements of selected plants and shrubs. Soil requirements and cultivation. Grasses, lawn and playing field construction. Use of herbicides and selective weed killers—control of insect pests.

37.915G Landscape Design*

A series of design assignments to be executed in the studio. It is anticipated that some work will be required to be done at home.

Graduate School of the Built Environment

Graduate Study

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

39.101G Contextual Studies S1

The scope and international context of conservation. History, concepts and philosophies of the discipline. Definitions of conservation processes, including preservation, restoration, rehabilitation, reconstruction, alteration, repair, adaptation and reuse, infill, urban conservation. Conservation as a heritage consideration, including the criteria for selecting, listing and classifying structures; as a non-heritage consideration, including aspects of economics and construction; and as a planning, landscape and townscape consideration. The current legal framework. Government, semi-government and community conservation organizations and their roles.

39.102G Architectural History S1

The rationale, investigation and interpretation of architectural history. The cause-and-effect relationships, particularly social, underlying architecture. Influences upon Australia from other countries. Detailed studies of selected aspects of architectural and building history, mainly Australian. Traditional technology. Development of technology and the manifestation of style. Histories of selected building types, methods, materials and finishes.

39.103G Conservation Management S2

Environmental psychology and conservation. Individual, group and community processes and responsibilities. Public policy and public opinion. The organization of conservation treatments and processes, projects and procedures. Professional, contractual and legal roles and responsibilities. Evaluation of historic and non-historic old buildings and their sites. Feasibility and economic considerations. Revolving funds. Acts and ordinances. Labour and materials resources. Model management plans. Case studies.

39.104G Analysis and Documentation A S1

Interpretation of extant structures. Introduction to historical industrial and structural archaeology. Research methodology. Comparative analyses, typologies and surveys. Case studies.

39.105G Analysis and Documentation B S2

Preparation of documentary studies: measurement, photography, reportage. Photogrammetry and its applications.

39.106G Conservation Technology A S1

The integrity of old buildings and their environments, including planning, landscape and architectural considerations. Effects of acts and ordinances.

39.107G Conservation Technology B S2

Identification, understanding and diagnosis of deterioration in traditional structure, construction, decoration and building environments. Development of general techniques for preservation, restoration, reconstruction and adaptation. Comfort criteria and other functional considerations.

39.108G Conservation Technology C S1

Prerequisite: 39.107G.

Policies and techniques appropriate to preservation, restoration, reconstruction and adaptation of heritage structures. Integration of new services and functions. Case studies.

*Not offered in 1983.

39.109G Conservation Technology D S2

Prerequisite: 39.107G.

Policies and techniques appropriate to adaptive reuse and other treatments of non-heritage structures. Integration of new services and functions. Case studies.

39.110G Project Report F

An appropriate conservation topic from any apposite area, including such fields as historical archaeology, documentation, legislation, economics, technology, or a specific building restoration project. Conditions governing submission of the Project Report appear in the Calendar.

39.301G New Development Studies S1 T2

Seminar group study in new ideas, activities and resources which affect the future development of research, education and practice in the man-made environment.

39.302G Research Studies S1 T2

Research viewed within a framework of priorities, policies and interdependencies including case studies, resources, methodology and the preparation of research proposals.

39.303G Directed Studies S1 T2

The conduct and report of findings of a short research project in the area of the student's concentration designed to meet the individual's needs and interests and supportive to the major research topic.

39.501G Industrial Design Studies

Prerequisites: nil.

1. The objectives and methods of graduate study in industrial design: contemporary industrial design trends, the relationship between academic and practice objectives, the relationship of industrial design methodology and research techniques to those of other disciplines at the University. **2.** A diverse range of current professional and theoretical interests, design and design related activities in Australia and overseas, current ideologies and historical assessments. Seminars are given by students, theorists, and practitioners in design and design related areas.

39.502G Project Report (MID)

Co-requisite: 39.522G.

A project within the practice areas of industrial design, selected by the student subject to the approval of the School; conducted within an approved methodology. Documentation of the methodology, research strategy and techniques, monitoring of the design process, resultant design, and evaluation of the methodology, research and final design. Students should give consideration to the School's specialist areas.

39.503G Design Media and Communication

Prerequisites: nil.

The major two and three dimensional media and computer techniques are analysed and demonstrated within the context of industrial design problem solving: orthographic techniques, the Australian Engineering Drawing Standard, graphic art processes, photography, current rendering and illustration techniques, modelling in automotive clay, plastic sheet and rigid foams, timbers and metals. The current state of computer aided design as well as its potential in design and the restructuring of engineering decision-making and drafting. Particular emphasis given to each method's role in problem analysis and communication at the concept, detail and final design stages. The social and physiological aspects of communicating design in industry are also examined.

39.511G Ergonomics for Industrial Designers

Prerequisites: nil.

Objectives, methodology and research techniques of ergonomics. Man/machine, interaction, human perception and performance, anthropometrics, product evaluation, the establishment of ergonomic parameters in product design and the application of ergonomics in design, the interrelationship of ergonomics and industrial design in the product development process. Students carry out laboratory experiments related to project work and also contribute to the development of a data bank.

39.512G Design Theory

Prerequisite: 39.501G.

Research into a theory aspect of industrial design, selected by the student subject to the approval of the School, in the general area of design and design related studies. Students should give consideration to the School's specialist areas. The study make be taken in product design but should not be directly linked to studio project work being undertaken by the student.

39.513G Visual Thinking

Prerequisites: nil.

Visual language, media, problems and problem solving methods. The relationship between visual thinking and creative processes. Studies are undertaken in two and three dimensions and are developed within the context of art and design.

39.521G Business Studies for Industrial Designers

Prerequisites: nil.

The theory and practice of business and industrial management, and marketing. Its application in the product development process and the relation of the process to other business and industrial objectives. Special reference to the Australian industrial context and potential developments resulting from technological and socio-economic change. Professional practice and the management of design organizations in the general context of business and industrial management.

39.522G Industrial Design

Co-requisite: 39.501G.

Industrial design project work intended to integrate the students' previous experience and the course units in preparatory work for the Project Report. A part of the course may be undertaken on a group basis.

39.523G Industrial Design A

Co-requisite: 39.501G.

Project work designed to introduce industrial design research and studio methodologies. Studies undertaken within a broad range of product areas and related to the concurrent course work.

39.531G Manufacturing Technology

Prerequisites: nil.

Industrial processes and materials, production costing and changing production economics. Objectives and structures of the engineering professions and their integration with industrial design in the product development process. Students assist in the development of a data bank.

39.533G Industrial Design B

Co-requisite: 39.523G.

Advanced project work combining the research and practice methodologies of industrial design in product research, development and design, preparatory to undertaking the Project Report.

39.541G Industrial Experience

Prerequisite: Enrolment in one of the degrees.

A four week period of approved industrial experience undertaken by full-time students in the mid-year recess and by part-time students in either the mid-year or summer recess. The period is intended to give students first hand interaction with industrial and commercial operations. Normally students are expected to be involved in design activities, however involvement in production, engineering, management and marketing is also considered. Part-time students in approved employment are exempt.

39.543G Project Report (MSc(IndDes))

Co-requisite: 39.533G.

A project within the practice areas of industrial design, proposed by the student in consultation with the School and conducted within an approved methodology, documentation of the methodology, research strategy and techniques, monitoring of the design process, resultant design, and evaluation of the methodology, research and design.

39.651G Mechanical Shock and Vibration S1 L1T1

2 credit points. Prerequisites: nil.

Vibrating systems, strings, rods, beams, plates, shells; radiation characteristics of noise sources; random vibration; structures; fatigue; filters, isolators, attenuators, dampers; impedance.

39.652G Noise Control in Industry S1 L2T2

Prerequisites: nil.

Hearing conservation and community noise; standards and regulations, industrial noise sources, mechanical noise, electrical machinery, aerodynamic noise, jets, ventilation system noise, combustion noise; vibration; noise-reduction techniques: transmission and insertion loss; absorbers, impedance mismatch, vibration isolation; enclosures, barriers; room acoustics; practical measurement of sound power, sound pressure and directivity.

39.993G The Ear, Hearing and Hearing Conservation S1 L1T1

2 credit points. Prerequisites: nil.

Physiological and psychoacoustic factors in sound perception; discrimination, masking, loudness and annoyance; subjective scales and units, hearing threshold shift, damage risk criteria; hearing conservation programs and audiometry; standards and regulations.

39.994G Graduate Project A S1

Prerequisite: 10 credit points.

An individual research project on an approved topic in acoustics; preliminary report.

39.995G Community Noise S2 L2T2

Prerequisites: nil.

Sources of community noise; sound propagation out of doors; barrier theory, road, rail and air transportation noise, land-use zoning; measurement and assessment of community noise annoyance; standards, acts and regulations.

39.996G Project Report S2

Prerequisite: 39.994G.

An individual research project on an approved topic in acoustics; final report.

39.997G Auditorium Acoustics S2 L2T1

Prerequisites: nil.

Subjective and objective criteria for speech and music; speech intelligibility; characteristics of musical sources; reverberation theory, diffusion; steady-state and transient room response; design methods including graphical and model analysis; sound reflectors; sound absorbents.

39.998G Noise Control in Buildings **S2 L2T2**

Prerequisites: nil

Airborne and impact sound transmission theory and measurement; vibration isolation; single, multiple-leaf and composite partitions; ventilation, plumbing and services noise control; criteria, regulations and standards.

Servicing Subject

39.908G Community Noise Control **S2 L1T1**

School of Botany

Undergraduate Study

43.202 Plant Structure and Function **S1 L2T3**

How green plants function. What is known about how plants grow. Specific topics include: what happens in a plant meristem; hormone interactions and growth; transport systems in plants; water uptake and use; mineral nutrition; the role of light and leaves in photosynthesis; control of flowering process; germination and senescence. Emphasis is on the interaction between plant structure and function.

Graduate Study

43.211G Botany and Ecology

Plant anatomy and cytology — growth and reproduction — photosynthesis, transpiration and water relations. Principles of plant classification and the use of a flora. Principal soil types; chemical and physical properties; soil profiles. Composition of selected plant communities in relation to their environment. Plant succession and climax communities with special reference to Australian conditions.

School of Sociology

Undergraduate Study

53.033 Urban Sociology

A sociological approach to the study of urban phenomena. Seminars deal with both methodological and theoretical issues relating to the study of urban social structures and provide students with the opportunity to examine critically a number of community studies. A research project is undertaken by each student.

School of Education

Undergraduate Study

58.693 Advanced Education I **FL1**

Educational Psychology segment: introduction to selected aspects of on-going research activities in Educational Psychology. The area is selected following discussions with staff members. *Sociology of Education segment:* more detailed and extensive examination of central topics studied in the pass strand. Consideration of selected social theory issues, the nature of the sociological enterprise and sociological methods. A research project.

58.694 Advanced Education II **S1 L2 S2 L1**

Research in Education segment: the student is familiarized with research methodology to enable him or her to intelligently read and assess

educational research reports. Aspects include descriptive and inferential research and cover sampling, measurement, design, statistical analysis, statistical probability and interpretation of results. Emphasis on interpretation of results rather than on numerical skill in analysing data. Other topics include the nature of explanation, philosophy of probability theory, cause and effect, generalization, selection and identification of research areas, ethical issues in research procedures. *Philosophy of Education segment*: some connected issues in social and political philosophy, and their implications for educational theory and practice. Issues include: freedom, compulsion and the aims of education; neutrality of education systems, schools, teachers and courses; and justice and equality.

58.695 Advanced Education III — FL4

Enrolment is subject to approval by the Head of the School.

In their full-time honours year all students enrol in four 28-hour units of study appropriate to their research, as approved by the Head of School.

58.699 Thesis

58.702 Theory of Education I — S2 L1½

Educational Psychology: includes learning, cognition, individual differences and cognitive development; detailed classroom applications; experimental demonstration of phenomena where possible.

58.703 Theory of Education II — S1L2½ S2L2

Prerequisite: *58.702*.

Educational Psychology: extension of introductory studies of learning, cognition, individual differences, cognitive development with concentration upon child development; classroom applications emphasized and phenomena experimentally demonstrated where possible. *Philosophy of Education*: exploration of philosophical questions concerning teaching and learning with particular reference to the various subjects taught in schools; issues concerning the relationships between school subjects, a connection between knowledge and the development of mind, the value of school subjects in relation to other activities which could compose education and the social and ethical context of education. Focus on logical and epistemological questions which are internal to the various teaching subjects. Students are assigned to one of the following Philosophy of Education groups: Philosophical Issues in Mathematics and Education; Literary Appreciation and Education; History and Education; Science and Education; Curriculum and Education; Language and Education; Social Sciences and Education; Industrial Arts Education.

Sociology of Education: includes socialization, the family, the role of education in society, inequality of educational opportunity, multi-cultural education.

58.704 Theory of Education III — S1L1½ S2L3

Prerequisite: *58.703*.

Sociology of Education: includes sociology of the school and classroom, deviance, knowledge and the curriculum, sexism in schools, social trends and problems and their implications for education; technology, work and lifelong learning. *Selected Studies in Education*: two education theory options to be selected from among a number available; some deal with the separate disciplines of philosophy, psychology, sociology, others may draw from more than one. In any given year the options offered depend on the staff available and on student demand. Topics may include: computer assisted instruction, the talented child, learning disabilities, social trends and problems, sociology of the school and classroom, methodology for criticism, ethical theory and moral education, science and religion in education.

58.712 Teaching Practice I — F 10 days

A gradual introduction to teaching in the school situation.

58.713 Teaching Practice II — 15 days

Prerequisites: *58.712, 58.722 or 58.732 or 58.742 or 58.752 or 58.762*. *Co-requisites*: *58.723 or 58.733 or 58.743 or 58.753 or 58.763*.

Extensive opportunities for students to develop teaching competence; each student is placed in a high school for 15 days and works in close association with a teacher.

58.714 Teaching Practice III — 15 days

Prerequisites: *58.713, 58.723 or 58.733 or 58.743 or 58.753*. *Co-requisites*: *58.724 or 58.734 or 58.744 or 58.754 or 58.764*.

Provision for further opportunities for students to develop teaching competence; each student is placed in a high school for 15 days and works in close association with a teacher.

58.722 Industrial Arts Curriculum and Instruction I — FL2T2

Prerequisites: *21.311*. *Co-requisite*: *58.702*.

Introduction to Industrial Arts education to provide students with basic knowledge about classroom management, workshop organization and the various special methods employed in the teaching of Industrial Arts in secondary schools, encompasses a general consideration of the scope of secondary school Industrial Arts and, through a general survey of syllabus material, a preliminary consideration of aims and objectives of the various school programs including the place of personal skills development in Industrial Arts. The laboratory program provides basic workshop/laboratory methodology applicable to junior school Industrial Arts, such methodology being particularly applicable to the syllabus for Form I Craft, Technics years 7-10 (in particular those strands drawing from the broad areas of woodworking and metalworking), and Industrial Arts, years 9-10 (in relation to its workshop/laboratory aspects only).

Communication and Microteaching: techniques and problems of communication, development of teaching skills by peer-group microteaching. *Classroom Issues and Strategies*: includes mixed ability groups, streaming, individual instruction, children with special needs, (eg handicapped, talented, immigrant, Aboriginal children), language in learning, discipline and class control.

58.723 Industrial Arts Curriculum and Instruction II — FL1T2

Prerequisites: 21.312, 58.702, 58.722. Co-requisite: 58.703.

School structure and organization, the roles of teachers and administrators and the rights, responsibilities and legal obligations of teachers, methods of instruction applicable to the various aspects of secondary school Industrial Arts, with use being made of microteaching techniques to allow students the opportunity for personal development in the general area of class control and management, safety in school workshops and laboratories, particularly in relation to teacher responsibility for adequate safety instruction and supervision. The requirements of the NSW Department of Education and the Department of Labour and Industry are examined, the aim being to develop in the students desirable attitudes and practices relating to the provision of a safe working environment in the secondary school.

The laboratory component of the course is primarily directed towards workshop/laboratory methodology applicable to the wood, metal, plastic and leatherwork strands of technics. The application of design and planning is emphasized and is shown to be especially applicable to Industrial Arts years 9 and 10. Aspects of the Industrial Arts-Engineering Science Syllabus are also explored. In essence the students are involved in a problem-solving situation where both practical and intellectual skills are experienced in the context of applying these skills to programming and teaching through the junior school syllabi. *Classroom Issues and Strategies* aspects relating to classroom and community including the primary school, the teacher in the school community, teachers and parents, legal responsibilities and rights, transition, unemployment, leisure, support facilities.

58.724 Industrial Arts Curriculum and Instruction III — S1L1T3 S2L1T2

Prerequisites: 58.703, 58.713, 58.723.

Detailed examination of planning and management of curriculum from a variety of points of view. Consideration of current views in a number of specialist areas, eg slow learners, the role of syllabus committees, equipment and materials committees, regional consultants (advisers), engineering science, current innovations in Industrial Arts. The aim of this experience is to assist students to formulate their own philosophy of education and develop an understanding of the implications of Industrial Arts in secondary schools in some depth. Detailed examination of aims and objectives of specific syllabuses in made in order that appropriate programs and teaching methods may be developed. The laboratory program consists of a small number of major projects which add to and synthesize the students' previous experiences in the course. Both student self-evaluation and reporting techniques are constantly assessed. *Classroom Issues and Strategies*: aspects relating to assessment and measurement including test planning, standardized tests, marking and reporting, essay-type tests, scaling of test scores, uses and effects of assessment.

Financial Assistance to Students

The scholarships and prizes listed below are available to students whose courses appear in this handbook. Each faculty handbook contains in its **Financial Assistance to Students** section the scholarships and prizes available within that faculty. The **General Information** section of the Calendar contains a comprehensive list of scholarships and prizes offered throughout the University.

Scholarships

Undergraduate Scholarships

As well as the assistance mentioned earlier in this Handbook (see **General Information: Financial Assistance to Students**) there are a number of scholarships available to students. What follows is an outline only. Full information may be obtained from Room G20, located on the Ground Floor of the Chancellery.

Unless otherwise indicated in footnotes, applications for the following scholarships should be made to the Registrar by 14 January each year. Please note that **not** all of these awards are available every year.

Donor	Value	Year/s of Tenure	Conditions
General			
Bursary Endowment Board*	$150 pa	Minimum period of approved degree/ combined degree course	Merit in HSC and total family income not exceeding $4000.

*Apply to The Secretary, Bursary Endowment Board, PO Box 460, North Sydney 2060 immediately after sitting for HSC

Undergraduate Scholarships (continued)

Donor	Value	Years of Tenure	Conditions
General (continued)			
Sam Cracknell Memorial	Up to $3000 pa payable in fortnightly instalments	1 year	Prior completion of at least 2 years of a degree or diploma course and enrolment in a full-time course during the year of application; academic merit; participation in sport both directly and administratively; and financial need.
Girls' Realm Guild	Up to $1500 pa	1 year renewable for the duration of the course subject to satisfactory progress and continued demonstration of need	Available only to female students under 35 years of age enrolling in any year of a full-time undergraduate course on the basis of academic merit and financial need.

Graduate Scholarships

Application forms and further information are available from the Student Enquiry Counter, located on the Ground Floor of the Chancellery. Information is also available on additional scholarships which may become available from time to time, mainly from funds provided by organizations sponsoring research projects.

The following publications may also be of assistance: **1.** *Awards for Postgraduate Study in Australia* and *Awards for Postgraduate Study Overseas*, published by the Graduate Careers Council of Australia, PO Box 28, Parkville, Victoria 3052; **2.** *Study Abroad*, published by UNESCO*; **3.** *Scholarships Guide for Commonwealth Postgraduate Students*, published by the Association of Commonwealth Universities.*

General

University of New South Wales Postgraduate Scholarships	Living allowance of $4620 pa. Other allowances may also be paid.	1-2 years for a Masters and 3-4 years for a PhD degree	Applicants must be honours graduates (or equivalent). Applications to Registrar by 31 October (30 November in special circumstances).
Commonwealth Postgraduate Research Awards		1-2 years for a Masters and 3-4 years for a PhD degree	Applicants must be honours graduates (or equivalent) who will graduate with honours in current academic year, and who are domiciled in Australia.
Commonwealth Postgraduate Course Awards	Living allowance of $4620 pa. Other allowances may also be paid.	1-2 years; minimum duration of course	Preference is given to applicants with employment experience. Applicants must be graduates or scholars who will graduate in current academic year and who are permanent residents of Australia, and who have not previously held a Commonwealth Postgraduate Award. Applications to Registrar by 30 September (in special circumstances applications will be accepted 30 November).

*Available for reference in the University Library.

Graduate Scholarships (continued)

Donor	Value	Years of Tenure	Conditions
General (continued)			
Australian American Educational Foundation Travel Grant (Fulbright)*			Applicants must be graduates, senior scholars or post-doctoral Fellows. Applications close 30 September.
Australian Federation of University Women	Amount varies depending on award	Up to 1 year	Applicants must be female graduates who are members of the Australian Federation of University Women.
The Caltex Woman Graduate of the Year	$16000 over 2 years for further studies in USA, UK, Northern Europe or in special cases Australia. There are no special allowances for travel or accommodation for married graduates.	2 years	Applicants must be female graduates who have completed a University degree or diploma this year and who are Australian citizens or have resided in Australia for at least seven years. Selection is based on scholastic and literary achievements, demonstrable qualities of character, and accomplishments in cultural and/or sporting/recreational activities. Applications close 30 September.
Commonwealth Scholarship and Fellowship Plan	Varies for each country. Generally covers travel, living, tuition fees, books and equipment, approved medical expenses. Marriage allowance may be payable.	Usually 2 years, sometimes 3	Applicants must be graduates who are Commonwealth citizens or British Protected Persons, and who are not older than 35 years of age. Applications close with Registrar by 30 September.
Sam Cracknell Memorial	Up to $3000 pa		See above under **Undergraduate Scholarships, General**
The English-Speaking Union (NSW Branch)	$5000		Applicants must be residents of NSW or ACT. Awarded to young graduates to further their studies outside Australia.

*Application forms are available from The Secretary, Department of Education, AAFF Travel Grants, PO Box 826, Woden, ACT 2606

Graduate Scholarships (continued)

Donor	Value	Years of Tenure	Conditions
General (continued)			
Gowrie Scholarship Trust Fund	$3500 pa. Under special circumstances this may be increased.	2 years	Applicants must be members of the Forces or children of members of the Forces who were on active service during the 1939-45 War. Applications close with Registrar by 31 October.
Harkness Fellowships of the Commonwealth Fund of New York*	Living and travel allowances, tuition and research expenses, health insurance, book and equipment and other allowances for travel and study in the USA	Between 12 to 21 months	Candidates must be either: **1.** Members of the Australian or a State Public Service or semi-government Authority. **2.** Staff or graduate students at an Australian university. **3.** Individuals recommended for nomination by the Local Correspondents. The candidate will usually have an honours degree or equivalent, or an outstanding record of achievement, and be not more than 36 years of age. Applications close early August.
Frank Knox Memorial Fellowships at Harvard University	Stipend of $4000 pa plus tuition fees	1, sometimes 2 years	Applicants must be British subjects and Australian citizens, who are graduates or near graduates of an Australian University.
The Rhodes Scholarship†	Approximately £4000 stg pa	2 years, may be extended for a third year	Unmarried male and female Australian citizens between the ages 19 and 25 who have been domiciled in Australia at least 5 years and have completed at least 2 years of an approved university course. Applications close in early September each year.
Rothmans Fellowships Award‡	$14000 pa	1 year, renewable up to 3 years	The field of study is unrestricted. Applicants must have at least 3 years graduate experience in research. Applications close in July.

*Application forms must be obtained from the Australian representative of the Fund, Mr L. T. Hinde, Reserve Bank of Australia, Box 3947, GPO, Sydney, NSW 2001. These must be submitted to the Registrar by 24 July.

†Applications to Mr H. McCredie, Secretary of the NSW Committee, University of Sydney, NSW 2006.

‡Applications to The Secretary, Rothmans University Endowment Fund, University of Sydney, NSW 2006.

Graduate Scholarships (continued)

Donor	Value	Year/s of Tenure	Conditions
Architecture			
The Associated Hardware Manufacturers Scholarship	$1500 pa or such other amount as the Dean may determine.	1 year. Where a recipient is enrolled in a higher degree program and is making satisfactory progress the scholarship may be extended subject to the availability of funds.	Applicants shall have qualified for the degree of Bachelor of Architecture with honours or Bachelor of Building with honours at the University of New South Wales and such graduates shall be of not more than five (5) years standing at the time of taking up the scholarship. Applications to Registrar by 31 October.
Byera Hadley Travelling Scholarship*	Varies year to year	Not more than 3 years	Awarded to outstanding graduate of a school of architecture in New South Wales for a course of study or research, or other activity contributing to the advancement of architecture. Graduate must be an Australian citizen and award is eligible up to 3 years from graduation.
The Lindsay Robertson Memorial Travel Award	A maximum of $1000	1 year	Candidates should be Landscape Architecture graduates of the University of New South Wales. The award is to undertake full-time graduate study or research in landscape architecture at an approved overseas University or other approved overseas institution. Applications close 30 May.
The Master Builders' Association of NSW	$500	2 years	Applicants must be graduates who have enrolled in the Master of Science (Building) course.
Wightman/University Scholarship	$2000 pa	1 year	Best final-year student in BArch degree course proceeding to graduate study.

*Applications to the Registrar, Board of Architects of New South Wales, 196 Miller Street, North Sydney 2060, not later than 31 March each year

Prizes

Undergraduate University Prizes

Prizes which are not specific to any School are listed under **General.** All other prizes are listed under the Faculty or Schools in which they are awarded.

Information regarding the establishment of new prizes may be obtained from the Examinations Section located on the Ground Floor of the Chancellery.

Donor/Name of Prize	Value $	Awarded for
General		
Sydney Technical College Union Award	50.00 and medal	Leadership in the development of student affairs, and academic proficiency throughout the course.
University of New South Wales Alumni Association	Statuette	Achievement for community benefit—students in their final or graduating year.
School of Architecture		
Board of Architects of New South Wales	100.00	An outstanding graduand in the School of Architecture.
Byrne & Davidson Roll-A-Door	100.00	11.121 History of Architecture I.
Chamber of Manufactures of New South Wales	15.00	Subject selected by Head of School.
Frank Fox Memorial	100.00	11.8511, 11.8521 or 11.8522 Historical Research.
James Hardie & Co Pty Ltd	150.00	General proficiency throughout the Bachelor of Architecture degree course.
Frank W. Peplow	24.00	Church Architecture.
Royal Australian Institute of Architects	100.00	Architectural Design and allied subjects in last two years of Bachelor of Architecture degree course.
School of Building		
Byrne & Davidson Roll-A-Door	200.00	Bachelor of Building degree course, Year 3.
James Hardie & Co Pty Ltd	100.00	Bachelor of Building degree course, Year 1.
Master Builders' Association of New South Wales	200.00	Merit performance in the Bachelor of Building degree course.
O'Brien Glass Industries Ltd	300.00	Best undergraduate thesis in the Bachelor of Building degree course.

Undergraduate University Prizes (continued)

Donor/Name of Prize	Value $	Awarded for
School of Landscape Architecture		
Lindsay Robertson Memorial	100.00	37.7124 Landscape Design and Construction II.
School of Town Planning		
The NSW Planning and Environment Commission	150.00	Bachelor of Town Planning degree course, Year 5.
Royal Aust Planning Institute, NSW Division	150.00	Bachelor of Town Planning degree course, Year 3.
John Shaw Memorial	200.00	Best result in Thesis in the Bachelor of Town Planning degree course.

Graduate University Prizes

Donor/Name of Prize	Value $	Awarded for
School of Building		
Alex Rigby	105.00	Master of Science (Building)—Distinguished graduate.

Staff

Comprises School of Architecture, including Department of Industrial Arts; Schools of Building, Landscape Architecture, Town Planning; and Graduate School of the Built Environment.

Dean
Professor G. E. Roberts

Chairman
Professor E. C. Daniels

Executive Assistant
P. A. Johnson

Senior Administrative Officer
Brian John Newell, BCom *N.S.W.*

Professional Officers
Terrence Edward Gill, BE *N.S.W.*
Roderick Craig McGregor, BSc *N.S.W.*
Richard Rosenberger, BE *Timisoara*

School of Architecture

Professor of Architecture and Head of School
Eric Charles Daniels, MArch *N.S.W.*, ASTC, LFRAIA, Hon.MIES

Professor of Architecture
Vacant

Professor of Architecture
Gareth Edward Roberts, BArch MCD *Liv.*, FRAIA, FRAPI, MRTPI, ARIBA

Associate Professors
Richard Eric Apperly, BArch *Syd.*, MArch *N.S.W.*
Russell Callam Jack, MArch *N.S.W.*, ASTC, FRAIA, ARIBA
Laszlo Peter Kollar, MArch PhD *N.S.W.*, ASTC, FRAIA
Peter Thomas Oppenheim, BArch *Cape T.*, MArch PhD *N.S.W.*, ARIBA

Senior Administrative Officer
Randall Watkins, DipTech *N.S.W.I.T.*

Senior Lecturers
John Albyn Ballinger, BArch *Adel.*, FRAIA
Richard Hough, BSc BE *N'cle.(N.S.W.)*, MEng *Tor.*, MIEAust
Paul Alan Johnson, BArch *Syd.*, DipCD *N.S.W.*, FRAIA
Nicholas Marinoy, DipArch *Prague*, MArch *N.S.W.*, ARAIA

Peter Leggett Reynolds, BArch PhD *N.S.W.*

Nancy Claire Ruck, BArch *N.Z.*, MBdgSc *Syd.*, PhD *N.S.W.*, FIES, FRAIA, ANZIA

Clive William Stevens, MArch *N.S.W.*, MSc *Sur.*, DipTCP *Syd.*, ASTC

Barry Vivian Wollaston, BArch *Syd.*, MArch *N.S.W.*, FRAIA

Lecturers

Chris LeRoy Bell, BA(Arch) *Calif.*

Victor Martin Berk, BArch DipAdmin *N.S.W.*

Robert John Bryant, BArch *N.S.W.*, MTCP *Syd.*, ASTC, DipEnvStud *Macq.*, MRAPI, ARAIA

John Richard Cooke, BArch *Syd.*, MSc(Building) *N.S.W.*, ARAIA

Geoffrey Lindsay Dwyer, FRAIA

Richard Grantley Fitzhardinge, DipArch *Kingston on Thames Poly.*, MArch *Calif.*, ARIBA, ARAIA

John Barrie Fraser, DipArt(Ed)

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

Geoffrey Kenneth Le Sueur, BArch GradDip *N.S.W.*

Alan Ogg, BE *N.S.W.*, MArch *Penn.*

Richard Patrick Parlour, BSc *Lond.*, PhD *N.S.W.*, DipEng *Lough.*

James David Plume, MArch *Syd.*

Peter Reginald Proudfoot, BArch *Syd.*, MArch *Penn.*, PhD *N.S.W.*, Rome Scholar, ARAIA

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

Harry Anthony Stephens, BArch DipLD *N.S.W.*, ARAIA

Kwong Hon Tang, BArch *H.K.*, MArch *Melb.*, ARIBA, ARAIA

Senior Tutors

Marion Anne Burgess, BSc *Syd.*, MSc(Acoustics) *N.S.W.*, MAAS

Elizabeth Ann Howard, BArch *Syd.*, BA *Macq.*

Paul Edward Walsh, BArch *N.S.W.*

Tutors

Desley Olwyn Luscombe, BSc(Arch) BArch *N.S.W.*

Michael Charles Tawa, BArch *N.S.W.*

Department of Industrial Arts

Senior Lecturer and Acting Head of Department

William Richard Lawson, BSc PhD *N.S.W.*, MAPsS, MAIHR

Senior Lecturer

Donald McArthur Godden, MSc *N.S.W.*

School of Building

Professor of Building and Head of School

Arthur Raymond Toakley, BCE BA MEngSc *Melb.*, PhD *Manc.*, CEng, FIEAust, FAIB, FFB

Associate Professor

Roger Mark Anthony Miller, BBuild *N.S.W.*, SM CE *M.I.T.*, AAIB

Senior Lecturers

David Nevil Hume Hassall, BE MBdgSc *Syd.*, MIEAust

John Malcolm Hutcheson, MC, BE *Syd.*, BCom *Qld.*, MBA PhD *N.S.W.*, FIEAust, FID, FIArbA, AAUQ, LGE, AASA(Snr), AFAIM, AAIB, ACIS

Graham Edward Levido, BBuild MSc(Building) *N.S.W.*, AAIB

James Francis Mooney, MBuild *N.S.W.*, ASTC, FAIQS, FIArbA

Lecturers

Ojars Indulis Greste, ME *N.S.W.*, DEng *Calif.*

Bruce Hedford Hawkins, BE *W.Aust.*

Martin Marosszeky, BE *N'cle.(N.S.W.)*, MEngSc *N.S.W.*, MIEAust

Karl Goran Runeson, BA *N.S.W.*

Clyde Donald Smythe, MBuild *N.S.W.*, ASTC, AAIB

Thomas Edward Uher, BBuild MSc(Building) *N.S.W.*, AAIB

Administrative Assistant

Diana Kazemi

School of Landscape Architecture

Professor of Landscape Architecture and Head of School

Richard Clough, BArch *Syd.*, FLI, FAILA, FRAIPR

Associate Professor

Finn Christopher Thorvaldson, BArch *N.S.W.*, MLA *Mich.*, ARAIA, AAILA

Senior Lecturer

Sydney Allison Baggs, MArch DipLD PhD *N.S.W.*, ASTC, FRAIA, AAILA, ARIBA

Lecturers

Helen Beatrice Armstrong, BSc *Syd.*, GradDip *N.S.W.*

Craig Anthony Burton, BArch GradDip *N.S.W.*, MA *Syd.*, ARAIA

Douglas Crawford, BArch *Melb.*, GradDip *N.S.W.*, MRAIPR

Donald Guy Sigsby, MLA *Mich.*, AAILA

School of Town Planning

Professor of Town Planning and Head of School

Hans Leo Westerman, ME *Delft*, FRAPI, MIEAust

Associate Professor

Elias David Duek-Cohen, MA *Oxf.*, BArch *Liv.*, DipTP *Lond.*, FRAPI, MRTPI, ARIBA

Senior Lecturers

Stephen Harris, BTP *N.S.W.*, MRAPI

James Leslie King, BArch MTCP *Syd.*, FRAPI

Zula Nittim, BArch *Melb.*, DipCD PhD *N.S.W.*, FRAIA, MRAPI

Robert Bolles Zehner, BA *Amh.*, MA PhD *Mich.*

Lecturers

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

Danny Barry Wiggins, BTP PhD *N.S.W.*, MRAPI

Graduate School of the Built Environment

Professor of Architecture and Head of School

John Christopher Haskell, DipTP *Lond.*, MArch *Natal*, Rome Scholar, FRSA

Associate Professors

Anita Barbara Lawrence, MArch *N.S.W.*, FRAIA, MAAS

Kenneth James Wyatt, BE *Qld.*, MBdgSc *Syd.*, MIEAust

Senior Lecturers

Robert Charles Lewis Irving, MArch *N.S.W.*, ARMTC, FRAIA

John Kyle Redmond, MA *R.C.A.*, BA *C.S.A.D.*, FRSA, AIDIA

The University of New South Wales Kensington Campus 1983

Theatres

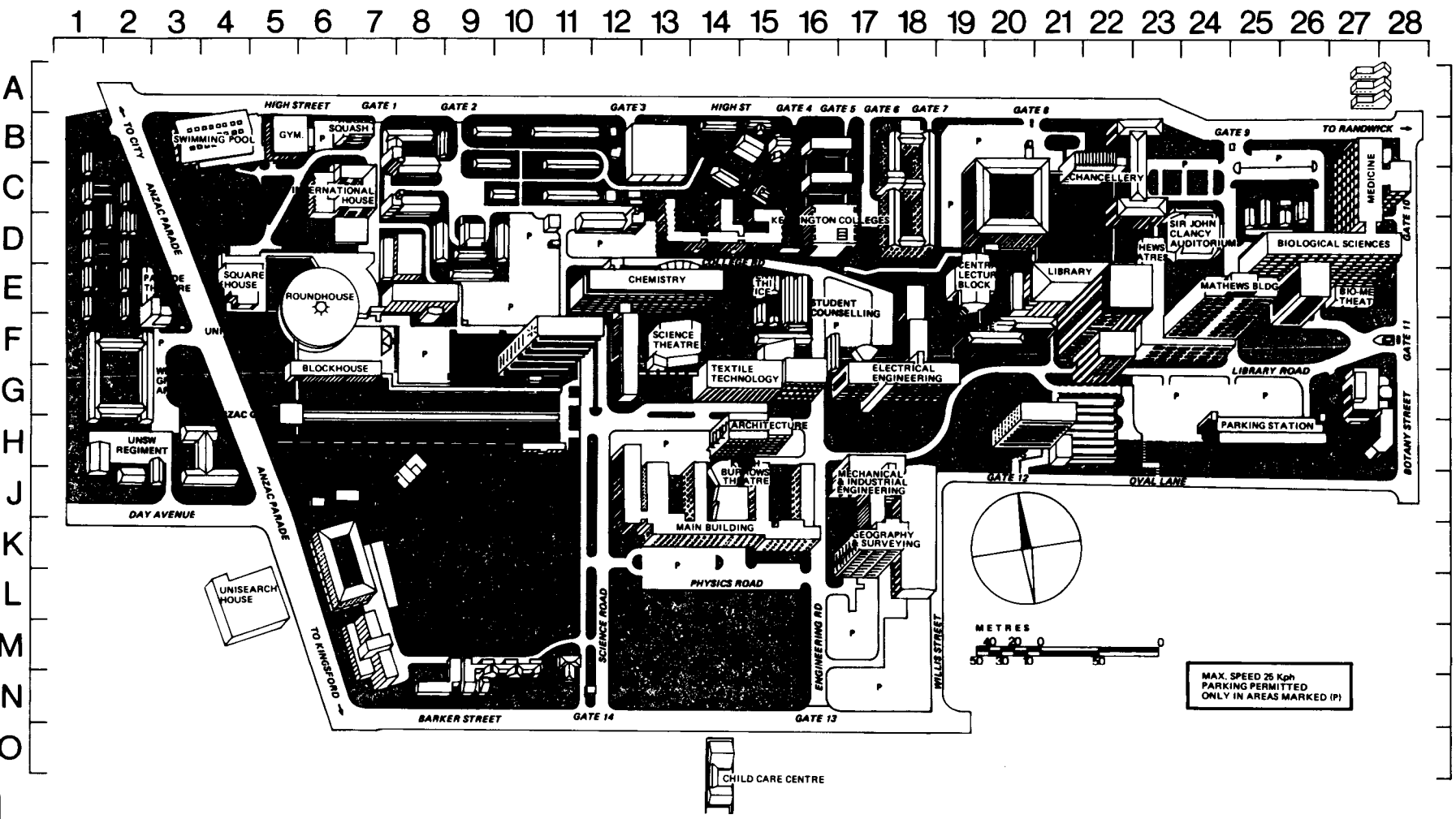
Biomedical Theatres E27
Central Lecture Block E19
Classroom Block (Western Grounds) H3
Rex Vowels Theatre F17
Keith Burrows Theatre J14
Main Building Theatrette K14
Mathews Theatres D23
Parade Theatre E3
Science Theatre F13
Sir John Clancy Auditorium C24

Buildings

Affiliated Residential Colleges
New (Anglican) L6
Shalom (Jewish) N9
Warrane M7
Applied Science F10
Architecture H14
Arts (Morven Brown) C20
Banks F22
Barker Street Gatehouse N11
Basser College C18
Biological Sciences D26
Central Store B13
Chancellery C22
Chemistry
Dalton F12
Robert Heffron E12
Civil Engineering H20
Commerce (John Goodsell) F20
Dalton (Chemistry) F12
Electrical Engineering G17
Geography and Surveying K17
Goldstein College D16
Golf House A27
Gymnasium B5
House at Pooh Corner N8
International House C6
Io Myers Studio D9
John Goodsell (Commerce) F20
Kanga's House O14
Kensington Colleges C17
Basser C18
Goldstein D16
Philip Baxter D14
Main Building K15
Maintenance Workshop B13
Mathews F23
Mechanical and
Industrial Engineering J17
Medicine (Administration) B27
Menzies Library E21
Metallurgy E8
Morven Brown (Arts) C20
New College (Anglican) L6
Newton J12
Parking Station H25
Philip Baxter College D14
Robert Heffron (Chemistry) E12
Sam Cracknell Pavilion H8
Shalom College (Jewish) N9
Sir Robert Webster
(Textile Technology) G14
Squash Courts B7
Swimming Pool B4
Unisearch House L5
University Regiment J2
University Union
(Roundhouse)—Stage I E6
University Union
(Blockhouse)—Stage II G6
University Union
(Squarehouse)—Stage III E4
Wallace Wurth School of Medicine C27
Warrane College M7
Wool and Pastoral Sciences B8

General

Academic Staff Office C22
Accountancy F20
Admissions C22
Adviser for Prospective Students C22
Alumni and Ceremonials C22
Anatomy C27
Applied Geology F10
Applied Science (Faculty Office) F10
Architecture
(including Faculty Office) H14
Arts (Faculty Office) C20
Australian Graduate
School of Management G27
Biochemistry D26
Biological Sciences (Faculty Office) D26
Biomedical Library F23
Biotechnology D26
Bookshop G17
Botany D26
Building H14
Careers and Employment C22
Cashier's Office C22
Centre for Biomedical Engineering A28
Centre for Medical Education
Research and Development C27
Centre for Remote Sensing K17
Chaplains E15a
Chemical Engineering and
Industrial Chemistry F10
Chemistry E12
Child Care Centres N8, O14
Civil Engineering H20
Closed Circuit Television Centre F20
Commerce (Faculty Office) F20
Committee in Postgraduate Medical
Education B27
Community Medicine D26
Computing Services Unit E21
Drama B10
Economics F20
Education G2
Electrical Engineering and
Computer Science G17
Energy Research, Development and
Information Centre B8b
Engineering (Faculty Office) K17
English C20
Examinations C22
Fees Office C22
Food Technology F10
French C20
General Staff Office C22
General Studies C20
Geography K17
German Studies C20
Graduate School of the Built
Environment H14
Health Administration C22
History C20
History and Philosophy of Science C20
Industrial Arts C1
Industrial Engineering J17
Institute of Languages G14
Institute of Rural Technology B8b
Japanese Economic and Management
Studies Centre G14
Kanga's House O14
Kindergarten (House at Pooh Corner) N8
Landscape Architecture H14
Law (Faculty Office) E21
Law Library E21
Librarianship F23
Library E21
Lost Property F20
Marketing F20
Mathematics F23
Mechanical Engineering J17
Medicine (Faculty Office) B27
Metallurgy E8
Microbiology D26
Mining Engineering K15
Music B11b
National Institute of Dramatic Art C15
Nuclear Engineering G17
Off-campus Housing C22
Optometry J12
Organizational Behaviour F20
Pathology C27
Patrol and Cleaning Services F20
Philosophy C20
Physics K15
Physical Education and
Recreation Centre (PERC) B5
Physiology and Pharmacology C27
Political Science C20
Postgraduate Extension Studies (Closed
Circuit Television) F20
Postgraduate Extension Studies (Radio
Station and Administration) F23
Psychology F23
Public Affairs Unit C22
Regional Teacher Training Centre C27
Russian C20
Science and Mathematics Course
Office F23
Social Work G2
Sociology C20
Spanish and Latin American Studies C20
Sport and Recreation E4
Student Counselling and Research E15c
Student Health E15b
Student Records C22
Students' Union E4
Surveying K17
Teachers' College Liaison Office F15b
Tertiary Education Research Centre E15d
Textile Technology G14
Town Planning K15
University Archives C22
University Press A28
University Union (Blockhouse) G6
Wool and Pastoral Sciences B8a
Zoology D26


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
A B C D E F G H J K L M N O
HIGH STREET
GATE 1
GATE 2
GATE 3
HIGH ST
GATE 4
GATE 5
GATE 6
GATE 7
GATE 8
GATE 9
TO RANDWICK
TO CITY
ANZAC PARADE
SWIMMING POOL
GYM.
SQUASH
INTERNATIONAL HOUSE
CHANCELLERY
MEDICINE
SIR JOHN CLANCY AUDITORIUM
BIOLOGICAL SCIENCES
GATE 10
SQUARE HOUSE
ROUNDHOUSE
CHEMISTRY
STUDENT COUNSELLING
CENTRAL LECTURE BLOCK
LIBRARY
MATHEWS BLDG
MATHEWS THEATRE
BLOCKHOUSE
SCIENCE THEATRE
TEXTILE TECHNOLOGY
ELECTRICAL ENGINEERING
GATE 11
LIBRARY ROAD
BOTANY STREET
UNSW REGIMENT
ARCHITECTURE
PARKING STATION
BURROWS THEATRE
MECHANICAL & INDUSTRIAL ENGINEERING
GATE 12
OVAL LANE
DAY AVENUE
MAIN BUILDING
GEOGRAPHY & SURVEYING
PHYSICS ROAD
UNISEARCH HOUSE
TO KINGSFORD
SCIENCE ROAD
ENGINEERING RD
WILLIS STREET
METRES
40 20 0 0
50 30 10 50
MAX. SPEED 25 Kph
PARKING PERMITTED
ONLY IN AREAS MARKED (P)
BARKER STREET
GATE 14
GATE 13
CHILD CARE CENTRE

This Handbook has been specially designed as a source of reference for you and will prove useful for consultation throughout the year.

For fuller details about the University — its organization, staff membership, description of disciplines, scholarships, prizes, and so on, you should consult the Calendar.

The Calendar and Handbooks also contain a summary list of higher degrees as well as the conditions for their award applicable to each volume.

For detailed information about courses, subjects and requirements of a particular faculty you should consult the relevant Faculty Handbook.

Separate Handbooks are published for the Faculties of Applied Science, Architecture, Arts, Commerce, Engineering, Law, Medicine, Professional Studies, Science (including Biological Sciences and the Board of Studies in Science and Mathematics), the Australian Graduate School of Management (AGSM) and the Board of Studies in General Education.

The Calendar and Handbooks are available from the Cashier's Office.

The Calendar costs $5.00 (plus postage $1.00, interstate $1.20).

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