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The University of New South Wales

Architecture

1976 Faculty Handbook

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Architecture

1976 Faculty Handbook

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Contents

General Information

In order to minimize the time and effort that you will put into your study 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. The 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 the University and its activities you should consult the University Calendar.

Now, see the following sixteen pages for other general information which may be of value to you.

Some people who can help you

Note: All phone numbers below are University extension numbers. If you are outside the University, dial 663 0351 and ask for the extension or dial 662—and then the extension number.

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 P. O'Brien, and his Administrative Assistant, Mr S. Briand, are located on the first floor of the Chancellery. They will see students who need advice and who have problems and are not sure whom they should see about them. Mr Briand looks after financial assistance matters. Enquire at room 148A, phone 2482 or 3164.

The Assistant Registrar (Examinations and Student Records), Mr J. Warr, is located on the ground floor of the Chancellery. For particular enquiries regarding *Student Records* (including matters related to *illness affecting study)* contact Mr B. Newell (phone 2141), and regarding *Examinations*, Mr J. Grigg (phone 2143). This section can also advise on matters relating to *discontinuation of subjects* and *termination of courses.* General enquiries should be directed to 3711.

The Assistant Registrar (Admissions and Higher Degrees), Mr J. Hill, is located on the ground floor of the Chancellery. For particular enquiries regarding *undergraduate courses* phone Mr J. Beauchamp on 3319. General enquiries should be directed to 3711.

The Assistant Registrar (Student Employment and Scholarships), Mr J. Foley, is located on the ground floor of the Chancellery. Enquiries should be directed to 2086 (undergraduate scholarships), 2525 (graduate scholarships), and 3259 (employment).

The Housing Officer, Mrs J. Hay, is located in the Student Amenities and Recreation Unit in Hut B at the foot of Basser Steps. For assistance in obtaining *suitable lodgings* phone 3803.

The Student Health Unit is located in Hut E on College Road. The Director is Dr M. A. Napthali. For *medical aid* phone 2679.

The Student Counselling and Research Unit is located at the foot of Basser Steps. The Head is Mr G. Gray. For assistance with educational or vocational problems ring 2600-2605 for an appointment.

The University Librarian is Mr A. Horton. Central Library enquiries should be directed to 2048.

The Chaplaincy Centre is located in Hut F at the foot of Basser Steps. For spiritual aid consult Rev B. W. Wilson (Anglican)—2684; Rev Father J. King or Rev Father M. Fallon (Catholic)—2379; Pastor H. Davis (Church of Christ)—2683; Rev P. Holden (Methodist)—2683; Pastor G. Rollo (Seventh Day Adventist)—2683; Rabbi M. Kantor (Jewish)—3273.

The Students' Union is located on the second floor of Stage III of the University Union where the SU full-time President or Education Vice-President are available to discuss any problems you might have. In addition the SU offers a range of diverse services including legal advice (full-time solicitor available), clubs and societies services, second-hand bookshop (buy or sell), new records/tapes at discount, food co-op, a professional nursery/kindergarten (House at Pooh Corner), a typesetting service, electronic calculators (bulk purchasing), health insurance and AUS insurance, an information referral centre (the Infakt Bus) and publications such as Tharunka, Orientation Magazine, Concessions Book and counter-course handbooks. For information about these phone 2929.

Calendar of Dates

1976

Session 1	March 1 to May 9
(14 weeks)	*May Recess:* May 10 to May 16 May 17 to June 13 *Midyear Recess:* June 14 to July 18
Session 2	July 19 to August 22
(14 weeks)	*August Recess:* August 23 to August 29 August 30 to October 31 *Study Recess:* November 1 to November 7
January	
Thursday 1	New Year's Day—Public Holiday
Friday 9	Last day for application for review of results of *annual* examinations Last day for application for permission to re-enrol by students who infringed re-enrolment rules at *annual* examinations
Monday 12	Timetables for *deferred* examinations available
Friday 16	Last day for acceptance of applications by Admissions Office for transfer to another course within the University
Monday 26	Australia Day—Public Holiday
Tuesday 27	*Deferred* examinations begin
February	
Saturday 7	*Deferred* examinations end
Monday 16	Enrolment period begins for new students and students repeating first year
Tuesday 17	Last day for appeal against exclusion by students who infringed re-enrolment rules at *annual* examinations
Friday 20	*Deferred* examination results available
Monday 23	Enrolment period begins for second and later year students
Tuesday 24	Last day for application for review of *deferred* examination results
Friday 27	Last day for application for permission to re-enrol by students who infringed re-enrolment rules at *deferred* examinations
March	
Monday 1	**Session 1 commences**
Friday 12	Last day for acceptance of enrolments by new students (late fee payable)
Thursday 18	Last day for appeal against exclusion by students who infringed re-enrolment rules at *deferred* examinations
Thursday 25	Last day for acceptance of enrolments by students re-enrolling in second and later years (late fee payable)
Friday 26	Last day for students other than those attending the University for the first time to discontinue without failure subjects which extend over Session 1 only
Monday 29	Last day to enrol in additional subjects
April	
Friday 16 to Monday 19	Easter
Friday 23	Last day for students attending the University for the first time to discontinue without failure subjects which extend over Session 1 only
Sunday 25	Anzac Day
Monday 26	Public Holiday
May	
Tuesday 4	Publication of provisional timetable for June/July examinations
Monday 10	**May Recess begins**
Wednesday 12	Last day for acceptance of corrected enrolment details forms
Friday 14	Last day for students other than those attending the University for the first time to discontinue without failure subjects which extend over the whole academic year
Sunday 16	**May Recess ends**

Monday 17	Last day for students to advise of examination timetable clashes
June	
Tuesday 1	Publication of timetable for June/July examinations
Sunday 13	**Session 1 ends**
Monday 14	Queen's Birthday—Public Holiday **Midyear Recess begins**
Tuesday 15	Midyear examinations begin
Tuesday 29	Midyear examinations end
July	
Sunday 18	**Midyear Recess ends**
Monday 19	**Session 2 begins**
Friday 30	Foundation Day Last day for students attending the University for the first time to discontinue without failure subjects which extend over the whole academic year
August	
Friday 13	Last day for students other than those attending the University for the first time to discontinue without failure subjects which extend over Session 2 only
Monday 23	**August Recess begins** Holiday for non-academic staff
Sunday 29	**August Recess ends**
Tuesday 31	Last day for acceptance of applications for re-admission in 1977 after exclusion under the re-enrolment rules
September	
Friday 10	Last day for students attending the University for the first time to discontinue without failure subjects which extend over Session 2 only
Sunday 12	Last day for applications from students graduating in 1977 for admission to University degrees and diplomas
Tuesday 14	Last day for return of corrected enrolment details forms
Tuesday 21	Publication of provisional timetable for annual examinations
October	
Friday 1	Last day to apply to MUAC for transfer to another university in Sydney metropolitan area and Wollongong Last day for students to advise of examination timetable clashes
Monday 4	Eight Hour Day—Public Holiday
Tuesday 19	Publication of timetable for annual examinations
November	
Monday 1	**Study Recess begins**
Sunday 7	**Session 2 ends**
Monday 8	Annual examinations begin
Tuesday 30	Annual examinations end
December	
Saturday 25	Christmas Day—Public Holiday
Monday 27	Boxing Day—Public Holiday

1977

Session 1	March 7 to May 14 *May Recess:* May 16 to May 21 May 23 to June 18 *Midyear Recess:* June 20 to July 23
Session 2	July 25 to August 27 *August Recess:* August 29 to September 3 September 5 to November 5 *Study Recess:* November 7 to November 12
January	
Monday 3	Public Holiday
Friday 7	Last date for application for review of results of *annual* examinations
Monday 10	Publication of timetable for *deferred* examinations
Friday 14	Last day for acceptance of applications by Admissions Office for transfer to another course within the University
Tuesday 25	*Deferred* examinations begin
Monday 31	Australia Day—Public Holiday
February	
Saturday 5	*Deferred* examinations end
Monday 14	Enrolment period begins for new students and students repeating first year
Friday 18	Results of *deferred* examinations available
Monday 21	Enrolment period begins for second and later year students
Tuesday 22	Last day for applications for review of *deferred* examination results

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 as well as short recesses of one week within each of the sessions.

Session 1 commences on the first Monday of March.

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 1975 the University had 18,128 students and 3,984 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.

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 42 members representative of the professions, commerce and industry, the legislature, employee organizations, rural, pastoral and agricultural interests, and the academic staff of the University, its graduates and students.

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

The Chairman of the Council is the Chancellor, Sir Robert Webster, and the Deputy Chancellor is the Hon. Sir Kevin Ellis.

The Professorial Board

The Professorial Board is one of the two chief academic units 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 recommendation on these and similar matters are presented to Council for its consideration and adoption.

The Faculties

The Dean, who is also a professor, is the executive head of the Faculty. Members of each Faculty 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 in General Education fulfils a function similar to that of the faculties. The Board of Studies in Science is responsible for the academic administration of the Science 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 professorial Head of the School in which you will be studying will be 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, Professor Rupert Myers, is charged with managing and supervising the administrative, financial and other activities of the University.

He is assisted in this task by three Pro-Vice-Chancellors, Professor J. B. Thornton, Professor R. E. Vowels and Professor A. H. Willis; 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 C. G. Plowman, the Bursar, Mr T. J. Daly, and the Business Manager (Property), Mr R. K. Fletcher.

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 concerned with the maintenance of buildings and grounds and equipment, and includes the University Architect's office.

Student Representation on Council and Faculties

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 one of their number to a Faculty for each 500 registered students, with a minimum of three students per Faculty. Elections take place towards the end of the academic year for a one-year term of office.

Open Faculty Meetings

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

Identification of Subjects by Numbers

For information concerning the identifying number of each subject taught in this faculty, turn to the first page of the main section below entitled Subject Descriptions and Textbooks.

See the Calendar for the full list of identifying numbers and subjects taught in the University.

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 publishes its own Handbook which is available free of charge. All enquiries about General Studies should be made to the General Studies Office, Room G54, Morven Brown Building (663 0351 Extn. 3478).

Student Services and Activities

The University Library

The University Library is on the upper campus adjacent to the Chancellery, the Sciences Building, the Goodsell and the Morven Brown Buildings. The Biomedical Library is in the western end of the Sciences Building with a branch at Prince Henry Hospital, telephone 661 0111. The University Library buildings house the Law Library, the Physical Sciences Library, the Social Sciences and Humanities Library and the Undergraduate Library.

There are services at other centres:

Broken Hill Division: W. S. and L. B. Robinson University College Buildings, Broken Hill. Phone 6022/3/4.

Water Reference Library: Manly Vale. Phone: 948 0261. Each library provides a reference and lending service for staff and students, and is open in both Sessions 1 and 2 during day and evening periods, except the Water Reference Library which is only open during the day.

Staff and students must use a machine-readable identification card to borrow from the main University Library. Personal identification is required in the other libraries listed. For students a current Union card is acceptable. Staff must apply to the Library for a library card.

New students can collect temporary borrowing cards at the Library in Orientation Week. It is recommended that students attend the *Introduction to the Library* held during Orientation Week and the first week of Session 1. Specific library problems should be referred to the Reader Assistance Unit located in the foyer of the Library. Copies of the *Library Guide* are available on request.

Accommodation

There are seven **residential colleges** on campus which offer accommodation to male and female students. The philosophy of the management, the residence fees and facilities vary from college to college. In addition to the basic fees charged most colleges make additional minor charges such as a registration fee and a power charge. It is anticipated that the fees in most colleges will be increased for 1976. Assistance is also provided in finding **off-campus accommodation.**

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 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 over 120 students from Australia and twenty other countries. Preference is given to more senior undergraduates and graduate students. Apply in writing to the Warden, International House, PO Box 88, Kensington, NSW 2033..

New College This Church of England College is open to all students without regard to race or religion. It has accommodation for approximately 220 students and is co-educational. Enquiries should be addressed to the Master, New College, Anzac Parade, Kensington, NSW 2033.

Shalom College Shalom College 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. Apply in writing to the Master, Shalom College, The University of New South Wales, PO Box 1, Kensington, NSW 2033.

Warrane College An affiliated Roman Catholic residential college, Warrane provides accommodation for 200 men students, both graduate and undergraduate. Non-resident membership is available to male students who wish to participate in College activities and make use of its facilities. Fees are payable on a session basis. Apply in writing to the Master, Warrane College, PO Box 123, Kensington, NSW 2033.

Off-campus Housing The Student Amenities and Recreation Unit maintains an up-to-date record of different types of off-campus housing including hostels, full board, bed and breakfast, flats and houses for rent. For information and assistance apply to the Housing Officer, Hut B, at the foot of Basser Steps (extension 3260).

Student Employment

The Student Employment Unit offers assistance with career employment for final year students and graduates of the University. This service includes the mailing of regular job vacancy notices to registered students and a campus interview program for final year students.

Careers advice and assistance is also available to undergraduates. Assistance is offered in finding vacation employment which gives either course-related experience or industrial training experience, where this is a course requirement. Information and advice regarding cadetships, undergraduate and graduate scholarships is also available.

The service is located in the Chancellery on the ground floor.

Phone extension 3259 for employment and careers advice, or extension 2086 for cadetships and industrial training information.

Student Health

The Student Health Unit, staffed by qualified medical personnel, offers free medical and first-aid services to male and female students. The service is not intended to replace private or community health services and thus if chronic or continuing conditions are revealed or suspected you will be advised and referred to your own doctor or an appropriate hospital. The health service is not responsible for fees incurred in these instances. Confidential appointments can be made at Hut E at the foot of Basser Steps between 9 am and 5 pm Monday to Friday. Phone extension 2679 or 3275.

Student Counselling and Research

The Student Counselling and Research Unit provides individual and group counselling for all students—prospective, undergraduate and graduate. If you have any personal needs, worries or confusion use this free, informal, personal service to help you sort out the basic issues. If the counsellor can't help you himself he usually knows someone who can.

Counselling appointments are available during sessions and recesses between 9 am and 7 pm. Phone 663 0351 extensions 2696 and 2600 to 2605, or call during Unit office hours, 8.30 am to 5.30 pm. Urgent interviews are possible on a walk-in basis between 9 am and 5 pm. Group counselling programs are offered both day and evening between 9 am and 9 pm by special arrangement.

Student Amenities and Recreation

This Unit, working in close liaison with the Sports Association, assists various recognized clubs by arranging and providing facilities and by handling on their behalf all inquiries and applications for membership.

It also provides a recreational program for students and staff at the Physical Education and Recreation Centre; liaises with the Public Transport Commission of New South Wales on matters concerning student travel concessions; and assists students in finding suitable accommodation off the campus.

Concessional application forms for all types of travel may be obtained at the Student Amenities and Recreation Unit or at the Information Desk in the Chancellery.

The Student Amenities and Recreation Unit is located in Hut B at the foot of Basser Steps. The various services may be contacted by phone on the following extensions: Sports Association, 2235; Physical Education and Recreation Centre, 3271; Travel, 2617; Accommodation, 3260.

Physical Education and Recreation Centre

The Physical Education and Recreation Centre consists of eight squash courts and a main building. The latter has a large gymnasium and ancillary practice rooms for fencing, table tennis, judo, weight-lifting and a physical fitness testing room. The Supervisor of Physical Recreation is responsible for the Centre and provides a recreational program for both students and staff. If you would like to take part in any of the programs contact the Supervisor on extension 3271.

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 at $45 per year for all registered students and is open to all members of staff and graduates of the University.

The full range of facilities provided by the Union includes a cafeteria service and other dining facilities, a large shopping centre, cloak room, banking and hairdressing facilities, showers, a women's lounge, common, games, reading, meeting, music, practice, craft and dark rooms. 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. Exhibitions are held in the John Clark Gallery.

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.

The Students' Union

The Students' Union is run by students and represents them on and off campus. Presidential elections are by

popular vote and all students who have completed two years at the University are eligible for election.

Membership is compulsory at $10 per annum.

The activities of the Students' Union include:

1. Infakt—a student-run information referral service. If you want someone to talk to or need help of any kind see the people at Infakt located in the bus at the foot of Basser Steps.
2. A casual employment service.
3. Organization of Orientation Week.
4. Organization of Foundation Day.
5. A nursery/kindergarten, "The House at Pooh Corner".
6. Publication of the student paper "Tharunka".
7. A free legal service run by a qualified lawyer employed by the Students' Union Council.

The Students' Union is affiliated with the Australian Union of Students (AUS) which represents students on the national level.

The Students' Union is located on the second floor, Stage III, the Union.

Chaplaincy Centre

This service is provided for the benefit of students and staff by five Christian Churches and by the Jewish congregation. Chaplains are in attendance at the University at regular times. A Chapel is also available for use by all denominations. For further details, turn to page 2.

Student Clubs and Societies

CASOC All clubs and societies on campus (except sporting clubs) are loosely organized under the umbrella of CASOC, which is a committee of the Students' Union. Some of these clubs are: the Motor Cycle Club; Chess Club; Dramsoc; Opunka; Ngunnagan Club; Kite Club and the Jazz Society.

The Sports Association The Sports Association caters for a variety of competitive sports for both men and women. Membership of the Association is compulsory for all registered students and the annual subscription is $6.

Details of sporting facilities are available in the Orientation Magazine, available at the Student Amenities and Recreation Unit (Hut B at the foot of Basser Steps).

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

Other Services and Activities

University Co-operative Bookshop Limited Membership is open to all students, on payment of a fee of $5, refundable when membership is terminated. Members receive an annual rebate on purchases of books.

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 notice boards for details.

Australian Armed Forces Enquiries should be directed to:

Royal Australian Navy: Royal Australian Naval Liaison Officer, Professor J. S. Ratcliffe, Commander, R.A.N.R., at the School of Chemical Engineering. Phone extension 2406.

University of New South Wales Regiment: The Adjutant, Regimental Depot, Day Avenue (just west of Anzac Parade). Phone 663 1212.

Royal Australian Air Force: Undergraduates interested in the R.A.A.F. Undergraduate Scheme should contact The Recruiting Officer, Defence Forces Recruiting Centre, 320 Castlereagh Street, Sydney.

Financial Assistance to Students

Tertiary Education Assistance Scheme

Under this scheme, which is financed by the Australian Government, assistance is available as follows:

- for full-time study in approved courses
- subject to a means test
- on a non-competitive basis
- to students who are not bonded
- to students who are permanent residents of Australia.

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

- Undergraduate and graduate degree courses
- Graduate diplomas
- Approved combined Bachelor degree courses
- Master's qualifying courses where the course is the equivalent of an honours year and the student has not attempted an honours year.

Benefits

Means-tested Living Allowance The maximum rates of living allowances are $1,000 per annum for students living at home and $1,600 per annum for students living away from home. The maximum rates of living allowance will be paid where the adjusted family income is equal to *or* less than $7,600 per annum. The adjusted family income is assessed by subtracting from the gross income of both parents their business expenses and an amount of $450 for each dependent child other than the student.

When the adjusted family income exceeds $7,600 p.a. the amount of living allowance will be reduced by $2 for every $10 of income until the family income exceeds $15,200 per annum. After this level, the living allowance will be reduced by $3 for every $10 of income.

A concession may be made where there are other children in the family undertaking tertiary education with scholarship assistance from schemes other than the Tertiary Education Assistance Scheme of less than $600 pa.

Students qualifying for living allowance will also receive the following allowances where appropriate:

Incidentals Allowance The Incidentals Allowance of $100 is designed to help the student meet the cost of those fees which have not been abolished—the Students' Union, University Union and Sports Association fees, and other expenses associated with their studies.

Travel Allowance Students whose home is in the country may be reimbursed the cost of three return trips per year, during vacation time.

Dependants' Allowance This is made up of allowances of $15 per week for a dependent spouse and $7 per week for each child.

How to Apply If you were a 1975 Higher School Certificate candidate or a tertiary student receiving an allowance, you were sent forms last October. Other students may obtain forms from the Admissions Section *or* the Student Employment and Scholarships Unit, *or* from the Regional Director, Department of Education, Central Square, 323 Castlereagh Street, Sydney, N.S.W. 2000 (Telephone 218 8800). The administrative closing date for 1976 applications was 31 October 1975.

Scholarships, Cadetships, Prizes

1 *Undergraduate Scholarships* In addition to finance provided under the Australian Government's Tertiary Education Assistance Scheme there are a number of scholarships, cadetships, prizes and other forms of assistance available to undergraduate students. Details of procedures for application for these awards are contained in the Calendar.

There are also special scholarships not administered by the University, information about which may be obtained from the School office.

Further information and advice regarding scholarships is available from the Student Employment and Scholarships Unit in the Chancellery Building.

2 *Graduate Awards* An honours degree is generally an essential requirement for gaining one of the many graduate scholarships which are available at the University. Therefore gifted students should not neglect the opportunity to qualify for honours and thus become eligible for an award.

Details of graduate awards are contained in the University Calendar.

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 the Students' Union, the University Union and other 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 Australian 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.

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

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

Financial Assistance to Aboriginal Students

Financial assistance is available from a number of sources to help Aboriginal students. Apart from the Australian Government's Tertiary Education Assistance Scheme there is a Commonwealth Aboriginal Study Grant Scheme. Furthermore, the University may assist Aboriginal students with some essential living expenses in exceptional circumstances.

All inquiries relating to this scheme should be made at the office of the Deputy Registrar (Student Services), Room 148A, in the Chancellery.

Rules and Procedures

The University, in common with other large organizations, has some agreed ways of doing things in order to operate efficiently and equitably for the benefit of all members.

The rules and procedures listed below will affect you at some time or another. In some cases there are penalties (e.g. fines or exclusion from examinations) for failure to observe these procedures and therefore they should be read with care.

The information is arranged as answers to questions most asked by students. The first group of questions concerns admission and enrolment, the second fees and other money matters, the third examinations, and the remainder more general matters such as student conduct on campus.

Admission and Enrolment

How do I qualify for admission? In order to enter an undergraduate course you must qualify for matriculation to the University; satisfy requirements for admission to the course of subjects chosen; and be selected for admission to the faculty or course you wish to enter. Full details of matriculation and admission requirements are contained in a pamphlet obtainable at the Admissions Office and in the Calendar.

All students, except those enrolling in graduate research degrees (see below), must lodge an authorized enrolment form with the Cashier on the day the enrolling officer signs the form.

All students, except those enrolling in graduate research degrees and those exempted (see below), should on that day also either pay the required fees or lodge an enrolment voucher or other appropriate authority.

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 that time (see below). Payment may be made through the mail in which case it is important that the student registration number be given accurately.

New Undergraduate Enrolments Persons who are applying for entry in 1976 must lodge an application for selection with the Metropolitan Universities Admissions Centre, PO Box 7049, GPO, Sydney 2001, by 1 October 1975.

Those who are selected will be required to complete enrolment at a specified appointment time before the start of Session 1. Compulsory fees must be paid on the day of the appointment. In special circumstances, however, and provided class places are still available, students may be allowed to complete enrolment after the prescribed week, subject to the payment of a penalty (see below).

Application forms and details of the application procedures may be obtained from the Admissions Office.

First Year Repeat Students First year students who failed more than half the program at the 1975 Annual Examinations and who were not granted any deferred examinations should NOT follow the above procedure. They are required to *show cause* why they should be allowed to continue in the course, and should await instructions in writing from the Registrar as to the procedure.

Later Year Enrolments Students should enrol through the appropriate School in accordance with the procedures set out in the current year's booklet. *Enrolment Procedures*, available from the Admissions Office and from School offices.

New Research Students Students enrolling for the first time in graduate research degrees 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 and pay the appropriate fees. Completion of enrolment after this time will incur a penalty (see below).

Re-enrolling Research Students Students re-enrolling in research degrees should lodge the enrolment form with the Cashier as soon as possible but no later than the end of the second week of Session 1. Completion of enrolment after this date will incur a penalty (see below).

Submission of Graduate Thesis or Project Report at Commencement of Session 1 A candidate who has completed all the work for a graduate degree except for the submission of a thesis or project report is required to re-enrol and pay fees as outlined above *unless* the thesis or project report is submitted by the end of the second week of Session 1 in which case the candidate is not required to re-enrol. Those required to re-enrol may claim a refund of fees if able to withdraw (see below).

Miscellaneous Subject Enrolments Students may be permitted to enrol for miscellaneous subjects (ie as students not proceeding to a degree or diploma) provided the Head of the School offering the subject considers it will be of benefit to the student and there is accommodation available. Only in exceptional cases will subjects taken in this way count towards a degree or diploma. A student who is under exclusion may not be enrolled in miscellaneous subjects which may be counted towards any course from which he has been excluded.

Final Dates for Completion of Enrolments 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 (12 March 1976) except with the express approval of the Deputy Registrar (Student Services) and the Head of the School 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 (26 March 1976) without the express approval of the Deputy Registrar (Student Services). No enrolments for courses occupying Session 2 only will be accepted after the end of the second week of Session 2 (30 July 1976) without express approval of the Deputy Registrar (Student Services).

How do assisted students (eg scholarship holders) enrol? Scholarship holders or sponsored students who have an enrolment voucher or letter of authority from their sponsor should present it at the time of enrolment. 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 must pay the 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.

What special rules apply if I wish to be considered for admission with advanced standing? If you make application to register as a candidate for any degree or other award granted by the University you may be admitted to the course of study with such standing on the basis of previous attainments as may be determined by the Professorial Board. For complete details regarding "Admission with Advanced Standing" consult the University Calendar.

What happens if I am unable to pay fees at the time of enrolment? If you are unable to pay fees by the due date you may apply in writing to the Deputy Registrar (Student Services) for an extension of time which may be granted in extenuating circumstances.

What happens if I fail to pay the prescribed fees or charges? If you fail to pay prescribed fees or charges or become otherwise indebted to the University and you fail to make a satisfactory settlement of your indebtedness upon receipt of due notice then you cease to be entitled to the use of University facilities. You will not be permitted to register for a further session, to attend classes or examinations, or be granted any official credentials. In the case of a student enrolled for Session 1 only or for Sessions 1 and 2 this disbarment applies if any portion of fees is outstanding after the end of the eighth week of Session 1 (23 April 1976). In the case of a student 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 (27 August 1976).

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

Can I transfer from one course to another? To transfer from one course to another you must apply on an application form obtainable from the Admissions Office by 16 January. If your application is successful you are required to comply with the enrolment procedures for the year/stage of the new course and, unless otherwise instructed, you should present the letter granting transfer to the enrolling officer. You should also inform the enrolling officer of the school in which you are enrolled of your intention to transfer.

Can I change my course program? If you wish to seek approval to substitute one subject for another, add one or more subjects to your program or discontinue part or all of your program, you must make application to the Registrar through the Head of the School responsible for the course on forms available from the School office. The Registrar will inform you of the decision. Application to enrol in additional subjects must be submitted by the end of the fourth week of Session 1.

It is emphasized that failure to sit for examinations in any subject in which you are enrolled will be regarded as failure to satisfy the examiners in that subject unless written approval to withdraw without failure has been obtained from the Registrar.

Withdrawal from subjects Students are permitted to withdraw from subjects without being regarded as having failed, provided they apply by the dates indicated.

First Year Students

1. one-session subjects: the end of the eighth week of session;

2. double-session subjects: the end of the second week of Session 2.

For the purpose of this rule a first-year student is defined as one who is attending the University for the first time either on a full- or part-time basis and is enrolled in the first year or first stage of a course.

Other Students

1. one-session subjects: the end of the fourth week of session;

2. double-session subjects: the end of the May Recess.

How do I enrol after an absence of twelve months or more? If you have had a leave of absence for twelve months and wish to resume your course you should follow the instructions about re-enrolling given in the letter granting your leave of absence. If you do not fully understand or have lost these instructions, then you should contact the Admissions Office in December of the preceding year or before October in the year preceding the one in which you wish to resume your course. If you have not obtained leave of absence from your course and have not been enrolled in the course over the past twelve months or more, then you should apply for admission to the course through the Metropolitan Universities Admission Centre before 1 October in the year preceding that in which you wish to resume studies.

Are there any 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. A student enrolled for the first time in any undergraduate course in the University shall be required to

show cause why he/she should be allowed to continue the course if that student fails more than half the program in which he/she is enrolled. In order that students may calculate half their program, the weighting of subjects in each course is defined in *Schedule A*,* which may be varied from time to time by the Professorial Board.

Repeated-failure Rule

2. A student shall be required to show cause why he/she should be allowed to repeat a subject which that student has failed more than once. *Where the subject is prescribed as part of the student's course he/she shall also be required to show cause why he/she should be allowed to continue that course.* Failure in a deferred examination as well as in the initial examination counts for the purposes of this rule as one failure.

General Rule

3. The Re-enrolment Committee may, on the recommendation of the relevant faculty or board of studies, review the academic progress of any student. If that student's academic record seems to demonstrate, in the opinion of the Committee, the student's lack of fitness to pursue a subject or subjects and/or a course or courses, the Committee may require that student to show cause why he/she should be allowed to re-enrol in such subject(s) and/or course(s).

The Session-unit System

4. A A student who infringes the provisions of Rules 1 or 2 at the end of Session 1 of any year will not be required to *show cause* at that time but 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 that course.

B Such a student will be required to *show cause* at the end of the year, except that a student who has infringed Rule 2 at the end of Session 1, repeats the subject(s) in question in Session 2, and passes it/them, will not be required to *show cause* on account of any such subject.

Exemption from Rules by Faculties

5. A A faculty or board of studies examination committee may, in special circumstances, exempt a student from some or all of the provisions of Rules 1 and 2.

B Such a student will not be required to *show cause* under such provisions and will be notified accordingly by the Registrar.

'Showing Cause'

6. A A student wishing to *show cause* must apply for special permission to re-enrol. Application should be made on the form available from the Examinations and Student Records Section 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.

B Each application shall be considered by the Re-enrolment Committee which shall determine whether the cause shown is adequate to justify the granting of permission to re-enrol.

Appeal

7. A Any student who is excluded by the Re-enrolment Committee from a course and/or subject(s) under the provisions of the Rules 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 he 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.

B The notification to any student of a decision by the Re-enrolment Committee to exclude him/her from re-enrolling in a course and/or subject(s) shall indicate that the student may appeal against that decision to the Appeal Committee. In lodging such an appeal with the Registrar the student should provide a complete statement of all grounds on which the appeal is based.

C The Appeal Committee shall determine the appeal after consideration of the student's academic record, his/her application for special permission to re-enrol, and the stated grounds of appeal. In exceptional circumstances, the Appeal Committee may require the student to appear in person.

Exclusion

8. A A student who is required to *show cause* under the provisions of Rules 1 or 3 and either does not attempt to *show cause* or does not receive special permission to re-enrol from the Re-enrolment Committee (or the Appeal Committee on appeal) shall be excluded from re-enrolling in the subject(s) and course(s) on account of which he was required to *show cause*. Where the subjects failed are prescribed as part of any other course (or courses) he/she shall not be allowed to enrol in any such course.

* For details of Schedule A see University Calendar.

* It is proposed that under this arrangement, the membership of the Appeal Committee will be Pro-Vice-Chancellor J. B. Thornton (Chairman), Professor D. M. McCallum, Chairman of the Professorial Board, and a member of Council in the category of members elected by the graduates of the University, nominated by the Vice-Chancellor.

B A student who is required to *show cause* under the provisions of Rule 2 and either does not attempt to *show cause* or does not receive special permission to re-enrol from the Re-enrolment Committee (or the Appeal Committee on appeal) shall be excluded from re-enrolling in any subject he/she has failed twice. *Where the subject failed is prescribed as part of the student's course he/she shall also be excluded from that course.* Where the subject failed is prescribed as part of any other course (or courses) he/she shall not be allowed to enrol in any such course.

C A student excluded from a course or courses under the provisions of **A** or **B** may not enrol as a miscellaneous student in subjects which may be counted towards any such course.

Re-admission after Exclusion

9. A An excluded student may apply to the Re-enrolment Committee for re-admission after two academic years.

B An application for re-admission after exclusion should be made on the form available from the Examinations and Student Records Section and should be lodged with the Registrar not later than 31 August in the year prior to that for which re-admission is sought. A late application may be accepted at the discretion of the University.

C An application 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 appropriate study in the subject(s) (or the equivalent) on account of which the applicant was excluded.

Restrictions and Definitions

10. A These rules do not apply to students enrolled in programs leading to a higher degree or graduate diploma.

B A subject is defined as a unit of instruction identified by a distinctive subject number.

How do I apply for admission to degree or diploma? Applications for admission to a degree or diploma of the University must be made on the appropriate form by 12 September, in a student's final year. Forms are mailed to all final year students. Don't forget to inform the University if you subsequently change your address so that correspondence related to the ceremony will reach you without delay. Applicants should ensure that they have completed all requirements for the degree or diploma, including industrial training where necessary. Any variation such as cancelling of application in order to proceed to an honours degree or submission of an application following discontinuation of honours program, must be submitted in writing to the Registrar no later than 30 January.

Fees*

Do I have to pay fees for tuition? No. There are no fees for tuition but other fees and charges are payable.

What other fees and charges are payable? These include those charges raised to finance the expenses incurred in operating student activities such as the University Union, the Students' Union, The Sports Association and the Physical Education and Recreation Centre. Penalties 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 which are lent to students for their personal use during attendance in certain subjects. Accommodation charges, costs of subsistence on excursions, field work, etc., and for hospital residence (medical students) are payable in appropriate circumstances.

How much is my contribution to student activities and services on campus? All students (with the exceptions noted below) will be required to pay the following fees if enrolling for a program involving two sessions. Those enrolling for only one session will pay one-half of the Student Activities Fees, but the full University Union entrance fee, if applicable.

University Union entrance fee—$20 payable on first enrolment

Students' Activities Fees:

University Union—$45 annual subscription

Sports Association—$6 annual subscription

Students' Union:

Students enrolling in full-time courses—$10 annual subscription

Students enrolling in part-time courses—$8 annual subscription

Miscellaneous—$25 annual fee.

(The miscellaneous fee is used to finance expenses generally of a capital nature relating to student activities. Funds are allocated to the various student bodies for projects recommended by the Student Affairs Committee and approved by the University Council.)

Depending on the subject being taken, students may also be required to pay:

Pathology Instrument Kit—$10
(Refundable on return in satisfactory condition)

Who is exempt from payment of fees?

1. Life members of University Union, 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 Students' Activities Fees and the University Union entrance fee.

* Fees quoted are current at the time of publication and may be amended by the Council without notice.

3. University Union fees and subscriptions may be waived by the Deputy Registrar (Student Services) for students enrolled in graduate courses in which the academic requirements require either no or minimal attendance on the Kensington campus.

4. Students who while enrolled at another university in Australia in a degree or diploma course are given approval to enrol at the University of New South Wales but only in a miscellaneous subject or 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.

5. 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.

6. 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.

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

How much will textbooks and special equipment (if any) cost? You must allow quite a substantial sum for textbooks. This can vary from $200 to $600 depending on the course taken. These figures are based on the cost of new books. The Students' Union operates a second-hand bookshop. Information about special equipment costs, accommodation charges and cost of subsistence on excursions, field work, etc., and for hospital residence (medical students) are available from individual schools.

Are fees charged for examinations? Generally there are no charges associated with examinations; however, two special examination fees are applied:

Examinations conducted under special circumstances—for each subject	$11
Review of examination result—for each subject	$11

What penalties exist for late payment of fees? The following additional charges will be made in 1976 when fees are paid late:

Failure to lodge enrolment form according to enrolment procedure	$20
Payment of fees after end of second week of session	$20
Payment of fees after end of fourth week of session	$40

Will I receive any refund if I withdraw from a course?

Yes. The following rules apply:

1. If you withdraw from a course you are required to notify the Registrar in writing.

2. Where notice of withdrawal from a course is received by the Registrar before the first day of Session 1 a refund of all fees paid will be made. After that time only a partial refund will be made. See the Calendar for details.

Examinations

When are examinations held? Most annual examinations are held in November-December but examinations in many subjects are also held during the Midyear Recess.

Provisional timetables indicating the dates and times of examinations and notices of the location of examinations are posted on the central notice boards in the Biological Sciences Building, the Chancellery, Central Lecture Block, Dalton Building (Chemistry), Main Building (Mining and Physics), and in the Western Grounds Area on 4 May and 21 September. You must advise the Examinations Unit (Chancellery) of a clash in examinations by 17 May and 1 October. Final timetables are displayed and individual copies are available for students on 1 June and 19 October.

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

In the assessment of your progress in University courses, consideration is 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.

How are examination passes graded? Passes are graded: High Distinction, Distinction, Credit and Pass. A Pass Conceded may be granted to a student whose mark in a subject is slightly below the standard required for a pass but whose overall satisfactory performance warrants this concession.

A Terminating Pass may be granted where the mark for the subject is below the required standard. A terminating pass will not permit a student to progress further in the subject or to enrol in any other subject for which a pass in the subject is a co-requisite or prerequisite. A student given a terminating pass may attempt a deferred examination, if available, to improve his performance but should he fail in such attempt, the terminating pass shall stand.

When are examination results available? Final examination results will be posted to your term address (which can be altered up to 30 November) or to your vacation address (fill in a form obtainable at the Information Desk, Chancellery, also by 30 November). Results are also posted on School notice boards and in the foyer of the Sir John Clancy Auditorium. No examination results are given by telephone.

Can examination results be reviewed? Examination results may be reviewed for a fee of $11 a subject, which is refundable in the event of an error being discovered.

This review consists mainly of ensuring that all questions attempted have been marked and checking the total of the marks awarded. Applications for review must be submitted on the appropriate form to the Examinations and Student Records Section together with the necessary fee by the following dates:

Annual examinations held in November/December 1976 —Friday 7 January 1977.

Deferred examinations held in January/February 1977 —Tuesday 22 February 1977.

Are allowances made if students are sick before or during an examination? A student who through serious illness or other cause outside his control *is unable to attend an examination* is required to bring the circumstances (supported by a medical certificate or other evidence) to the notice of the Registrar *not later than seven days after the date of the examination,* and may be required to submit to medical examination.

A student who believes that his performance in a subject has been affected by serious illness *during the year* or by other cause outside his control, and who desires these circumstances to be taken into consideration in determining his standing, is required to bring the circumstances (supported by a medical certificate or other evidence) to the notice of the Registrar as soon as the circumstances are known but not later than seven days after the date of the examination.

All medical certificates should be as specific as possible concerning the severity and duration of the complaint and its effect on the student's ability to take the examinations.

A student who attempts an examination, yet claims that his performance is prejudiced by sickness *on the day of the examination* must notify the Registrar or Examination Supervisor *before, during, or immediately after the examination*, and may be required to submit to medical examination.

A student suffering from a physical disability which puts him at a disadvantage in written examinations should apply to the Registrar in writing for special provision when examinations are taken. The student should support his request with medical evidence.

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 under special circumstances.

How are examinations conducted? 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 ten 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. No candidate shall be admitted to an examination after thirty minutes from the time of commencement of the examination.

5. No candidate shall be permitted to leave the examination room before the expiry of thirty minutes from the time the examination commences.

6. No candidate shall be re-admitted to the examination room after he has left it unless during the full period of his absence he has been under approved supervision.

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

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

9. All answers must be in English unless otherwise directed. Foreign students who have the written approval of the Officer-in-Charge of Examinations may use standard translation dictionaries.

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.

Should I list my sources? Students are expected to acknowledge the sources of ideas and expressions that they use in essays. To provide adequate documentation is not only an indication of academic honesty but also a courtesy enabling the marker to consult your sources with ease. Failure to do so may constitute plagiarism which is subject to a charge of academic misconduct.

Under what circumstances are deferred examinations granted? Deferred examinations may be granted in the following cases:

1. When a student through illness or some other acceptable circumstances has been prevented from taking the annual examination or has been placed at a serious disadvantage during the annual examinations.

2. To help resolve a doubt as to whether a student has reached the required standard in a subject.

3. To allow a student by further study to reach the required standard in a subject.

4. Where a student's progression or graduation is inhibited by his failure in one subject only, a deferred examination may be granted notwithstanding his failure otherwise to qualify for this concession.

In the Faculties of Arts, Commerce and Law special circumstances apply in the granting of deferred examinations. Details in each circumstance are given in the section *Faculty Information* in the respective handbooks for these faculties, or in the Calendar.

Deferred examinations must be taken at the centre at which the student is enrolled, unless he has been sent on compulsory industrial training to a remote country centre or interstate. In this case the student must advise the Registrar, on a form available from his school or the Information Desk, the Chancellery, of relevant particulars, before leaving for his destination, in anticipation that deferred examination papers may have to be forwarded to him. Normally, the student will be directed to the nearest university for the conduct of the deferred examination.

Can I buy copies of previous examination papers? Yes—for 5c each from the Union Shop in the University Union.

Student Conduct on Campus

Is there a detailed code of rules related to the general conduct of students? No. The University has not considered it necessary to formulate a detailed code of rules relating to the general conduct of students.

However, now that you have become a member of the University you should understand that this involves an undertaking on your part to observe its rules, by-laws and other requirements, and to pay due regard to any instructions conveyed by any officer of the University.

What are the rules related to attendance at classes? You are expected to be regular and punctual in attendance at all classes in the course or subject in which you are enrolled. All applications for exemption from attendance at lectures or practical classes must be made in writing to the Registrar.

In the case of illness or of absence for some other unavoidable cause you 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.

Applications for exemption from lectures (leave of absence) should be addressed to the Registrar and, where applicable, should be accompanied by a medical certificate. If examinations have been missed, state this in your application.

If you fail a subject at the annual examinations in any year and re-enrol in the same course in the following year, you must include in your program of studies for that year the subject in which you failed. This requirement will not be applicable if the subject is not offered the following year; 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.

If you attend less than eighty per cent of your possible classes, you may be refused permission to sit for the examination in that subject.

Why is my University Union card important? All students are issued with a University Union membership card. Your card must be carried during attendance at the University and shown on request.

The number appearing on the front of the card above your name is your 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 some inconvenience in completing re-enrolment.

If you lose your Union card it is important to notify the University Union as soon as possible.

New students will be issued with University Union cards on enrolment.

Why should I inform the University if I change my address? If you change your address you should notify the Student Records Section of the Registrar's Division as soon as possible. Failure to do this could lead to important correspondence (including examination results) not reaching you. The University cannot accept responsibility if official communications fail to reach students who have not notified their change of address. Change of Address Advice Forms are available at Faculty and School offices and at the Information Counters on the Ground Floor of the Chancellery Building.

These will be accepted up to 30 November, except for final year students who may advise changes up to four weeks before their graduation ceremony.

Will the University release information to third parties without my permission? In general, no. The University treats examination results 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, there are sometimes accusations made that the University has revealed information, including addresses (especially to insurance companies). All students should be aware that students' addresses are eagerly sought by various commercial agents and that sometimes tricks are used to obtain them. For example, from time to time 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 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.

How are student records kept up to date? Enrolment details forms will be sent to all students on 26 April and 30 August. It is not necessary to return these forms unless any information recorded thereon is incorrect. Amended forms must be returned to the Examinations and Student Records Section 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.

Is there any rule related to the ownership of students' work? Yes. 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 you as part of your courses, or submitted for any award or competition conducted by the University.

Can I get a permit to park on campus? Because of the limited amount of parking space available, only the following categories of students may apply for a permit: motor cycle owners (annual fee $3.90; masters and doctoral candidates (ballotted issue, annual fee $7.80); graduate, and senior undergraduate students who have completed two or three years of a full-time or part-time course (annual fee $3.90—only a limited number of permits available for students who have completed two years). A permit will allow access to the campus between 5 pm and 11 pm on weekdays and during library hours on Saturdays, Sundays and public holidays. Enquiries should be made to the Property Section, Room 240, the Chancellery, or phone 663 0351, extension 2920. It should be noted that increasing demand for parking space may require the imposition of further restrictions and that rates may change for 1976.

Lost Property? All enquiries concerning lost property should be made to the Superintendent on extension 3580 or to the Lost Property Office at the Union.

Further Information

Where can I get further information concerning courses, admission requirements, scholarships and enrolment procedure?

General

Any student who requires information on the application of these rules or any service which the University offers, may make enquiries from the Admissions Office, the Student Counselling Unit or the Registrar.

Admissions Office

The Admissions Office provides students with information concerning courses, admission requirements and enrolment procedure.

It will receive applications from students who wish to defer or resume courses of study, to transfer from one course to another, or seek any concession in relation to a course in which they are enrolled.

These applications should, wherever possible, be lodged before the beginning of the academic year in which the concession is to apply.

Students in doubt as to whether an application is necessary to cover their own particular situation should enquire at the Admissions Office.

The Admissions Office is located in the Chancellery on the upper campus. Office hours are from 9 am to 1 pm and 2 pm to 5 pm, Monday to Friday. An evening service is provided during the enrolment period.

Notices

Official University notices are displayed on the notice boards and students are expected to be acquainted with the contents of those announcements which concern them. These boards are in the Biological Sciences Building, the Sciences Building, the Chancellery (lower ground floor), Central Lecture Block, Dalton Building (Chemistry), Electrical Engineering Building, Main Building (foyer, Mining), Main Building (Physics) and in the Western Grounds Area.

Appeals

Section 5 (c) of Chapter III of the By-laws provides: "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".

The Calendar

Please consult the Calendar if you want a more detailed account of the information contained in this section.

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 architects, landscape architects, builders and town planners 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.

Staff

Comprises Schools of Architecture, Building, and Town Planning.

Dean
Professor G. E. Roberts

Chairman
Professor J. M. Freeland

Executive Assistant
R. E. Apperly

Administrative Officer
Randall Watkins, Dip Tech *N.S.W.I.T.*, MRIPA

School of Architecture

Professor of Architecture and Head of School
Garth Edward Roberts, BArch MCD *Liv.*, FRAIA, FRAPI, MRTPI, ARIBA

Professor of Architecture
John Maxwell Freeland, DFC, MArch DTRP *Melb.*, MArch DLitt *N.S.W.* LFRAIA, FRSA

Professor of Architecture and Head of Department of Graduate Studies
John Christopher Haskell, DipTP *Lond.*, MArch *Natal*, Rome Scholar, RIBA, FRTPI, ARAIA

Professor of Architecture and Head of Department of Undergraduate Studies
Eric Charles Daniels, MArch *N.S.W.*, ASTC, FRAIA, Hon.MIES

Professor of Landscape Architecture and Head of Department
Peter Spooner, DipLD *Durh.*, ASTC, FRAIA, FILA, FAILA, ARIBA

Associate Professors
Neville Joseph Anderson, BArch *Syd.*, MArch *Liv.*, DipTP *Lond.*, FRAIA, MRTPI
Laszia Peter Kollar, MArch *N.S.W.*, ASTC, FRAIA
Anita Barbara Lawrence, MArch *N.S.W.*, FRAIA, MAAS

Senior Lecturers
Richard Eric Apperly, BArch *Syd.*, MArch *N.S.W.*, ARAIA
Ronald Douglas Chalmers, BSc(Eng) *Lond.*, MIEAust, AAIB
James Conner, DipArch (Aberd.), MArch *N.S.W.*, FRAIA, ARIBA, ARIAS
Robert Arthur Griffard Head, MSc(Building) *N.S.W.*, ASTC, FRAIA
Peter Thomas Oppenheim, BArch *Cape T.*, MArch PhD *N.S.W.*, ARIBA, ARAIA
Sidney Charles Palmer, BArch *Syd.*, MArch *N.S.W.*, FRAIA
Arthur Edgcombe Rupert Purkis, MArch *N.S.W.*, FRAIA, ARIBA
Clive William Stevens, MArch *N.S.W.*, DipTCP *Syd.*, ASTC
Kenneth James Wyatt, BE *Qld.*, MBdgSc *Syd.*, MIEAust.

Lecturers
John Albyn Ballinger, BArch *Adel.*, ARAIA
Chris LeRoy Bell, BA(Arch) *Calif.*
Robert John Bryant, BArch *N.S.W.*, MTCP *Syd.*, ASTC, MRAPI, ARAIA
Geoffrey Lindsay Dwyer, ARAIA
Richard Grantley Fitzhardinge, DipArch (Kingston on Thames Poly.), MArch *Calif.*, ARIBA, ARAIA
Peter Hale, BArch *N.S.W.*, ARAIA
Graeme Ross Hewett, ASTC, ARAIA
Richard Hough, BSc BE *N'Cle.(N.S.W.)*, MEng *Tor.*, MIEAust
Robert Charles Lewis Irving, FRAIA, ARMTC
Paul Alan Johnson, BArch *Syd.*, DipCD *N.S.W.*, ARAIA
Nicholas Marinov, DipArch *Prague*
Lorna Muir Nimmo, ASTC, FRSA
Ian Roy Patrick, ASTC, ARIBA, ARAIA
Nancy Claire Peterson, BArch *N.Z.*, MBdgSc *Syd.*, FIES, ANZIA, ARAIA
Peter Reginald Proudfoot, BArch *Syd.*, MArch *Penn.*, PhD *N.S.W.*, Rome Scholar
Peter Leggett Reynolds, BArch PhD *N.S.W.*
Warren Albert Selle, BArch *Syd.*, FRAIA
Harry Anthony Stephens, BArch DipLD *N.S.W.*, ARAIA
Kwong Hon Tang, BArch *H.K.*, MArch *Melb.*, ARIBA, ARAIA
Barry Vivian Wollaston, BArch *Syd.*, FRAIA
Brian Woodwood, DipLArch *Oxon.*, RIBA

Senior Tutors
Victor Martin Berk, BArch, DipAdmin *N.S.W.*
Marion Anne Burgess, BSc *Syd.*, MSc(Acoustics) *N.S.W.*, MAAS
Elizabeth Ann Howard, BArch *Syd.*, BA *Macq.*
Geoffrey Kenneth Le Sueur, BArch *N.S.W.*
Paul Edward Walsh, BArch *N.S.W.*

Senior Instructor
Terrence John Santry

Tutors
John Robert Kinstler, BArch *Syd.*
George Michael Rich, BArch *N.S.W.*
Richard Ralph Winterton, BA DipArch *Camb.*, RIBA

Department of Landscape Architecture

Lecturers
Sydney Allison Baggs, MArch DipLD *N.S.W.*, ASTC, FRAIA, AAILA, RIBA
Russell Colin Smith, DipLD *N.S.W.*, ASTC, FRAIA, AAILA
Finn Christopher Thorvaldson, BArch *N.S.W.*, MLArch *Mich.*, ARAIA, AAILA

School of Building

Professor of Building and Head of School
Emery Balint, MCE *Melb.*, FIEAust, FICE, FAIB, HonFAICS

Senior Lecturers
Charles Walter Anderson, MBuild *N.S.W.*, ASTC, FAIB
Allan Alexander Jack, MBuild *N.S.W.*, ASTC, AAIB
Roger Mark Anthony Miller, BBuild *N.S.W.*, SM CE *M.I.T.*

Lecturers
Ojars Indulis Greste, ME *N.S.W.*, DEng *Calif.*
David Nevil Hume Hassall, BE MBdgSc *Syd.*, MIEAust
Bruce Hadford Hawkins, BE *W.Aust.*
John Malcolm Hutcheson, MC, BE *Syd.*, BCom *Qld.*, MBA *N.S.W.*, FIE*Aust.*, FID, AAUQ, LGE, AASA(Snr), AFAIM, AAIB
Graham Edward Levido, BBuild MSc(Building) *N.S.W.*, AAIB
Martin Marosszeky, BE *N'cle. (N.S.W.)*, MEngSc *N.S.W.*, MIEAust
James Francis Mooney, ASTC, FIQSA
Clyde Donald Smythe, MBuild *N.S.W.*, ASTC, AAIB

Tutor
Carol Rose Edds, BBuild *N.S.W.*

School of Town Planning

Professor of Town Planning and Head of School
John Henry Shaw, BE DipTCP Syd., MCD *Liv.*, PhD *N.S.W.*, FRAPI, MRTPI, MIEAust

Associate Professor
Elias David Duek-Cohen, MA *Oxon.*, BArch *Liv.*, DipTP *Lond.*, FRAPI, MRTPI, ARIBA, ARAIA

Senior Lecturers
James Leslie King, BArch MTCP *Syd.*, FRAPI
Zula Nittim, BArch *Melb.*, DipCD PhD *N.S.W.*, FRAIA

Lecturers
Douglas Robert Daines, DipTCP *Syd.*, MRAPI, AVIC
Neville Thomas Schaefer, BA *N.E.*, PhD *N.S.W.*

Faculty Information

Faculty of Architecture Enrolment Procedures

Town Planning

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 Architecture Course

Students entering the first year of the BArch course are required to enrol, and will be sent enrolment instructions by mail, notwithstanding the fact that the year is devoted to practical experience.

Bachelor of Building

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 below.

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 Timetable

Students should attend the appropriate enrolment centre according to the timetable below to pick up their Enrolment Form and enrol in the approved program.

1. Architecture

BArch Year 1	Enrolment forms to be returned in person or by mail by Monday 23 February
BArch Years 2 and 3	Monday 23 February 2.00 pm to 5.00 pm
BSc(Arch) Year 3	Tuesday 24 February 2.00 pm to 5.00 pm
BSc(Arch) Year 2	Wednesday 25 February 2.00 pm to 5.00 pm
BSc(Arch) Part-time	Thursday 26 February 6.00 pm to 8.00 pm

2. Town Planning

All years except Year 4	Tuesday 24 February 9.00 am to 12.30 pm
Year 4	Enrolment forms to be returned in person or by mail by Tuesday 24 February

3. Building

Building Year 4 and Part-time Stage 7 (that is students who have completed Year 3 or Stage 6 in 1975.)	Monday 23 February 9.30 am to 12.30 pm
Students who have completed (in 1975) Building Year 2 and Part-time Stages 3, 4 and 5	Tuesday 24 February 9.30 am to 12.30 pm

Students who have completed (in 1975) Building Year 1 and Part-time Stages 1 and 2	Thursday 26 February 9.30 am to 12.30 pm

4. Landscape Architecture

BLArch Year 2 and Year 3	Wednesday 25 February 2.00 pm to 5.00 pm

5. New Students with Advanced Standing

Wednesday 25 February
2.00 pm to 6.00 pm

General Studies

Students enrolling in general studies electives after completing enrolment in their own Faculty and BEFORE GOING TO THE CASHIER, should proceed to the General Studies enrolment centre in Unisearch House where they will obtain places in electives, complete class admission cards and finalize enrolment forms.

Enrolment Centres

School of Architecture (Including Landscape Architecture)

Ground Floor Foyer
Faculty of Architecture

School of Building

4th Floor Foyer
Faculty of Architecture

School of Town Planning

Studio 222
Old Main Building

Enrolment in Miscellaneous Subjects (Students not proceeding to a degree or diploma)

Students may be accepted for enrolment in miscellaneous subjects provided the University considers that the subject/s will be of benefit to the student and there is accommodation available. Only in exceptional circumstances will subjects taken in this way count towards a degree or diploma.

Students seeking to enrol in miscellaneous subjects should obtain a letter of approval from the Head of the appropriate School or his representative permitting them to enrol in the subject concerned. The letter should be given to the enrolling officer at the time of enrolment.

Students who have obtained written permission to enrol may attend the Unisearch House enrolment centre on:

Friday 27 February
9.30 am to 12.30 pm

or they may enrol by attending the Admissions Office, Chancellery, at the times shown below.

Week Commencing 1 March	Monday to Friday 9.30 am to 1.00 pm 2.00 pm to 4.30 pm 5.30 pm to 7.00 pm
Week Commencing 8 March	Monday to Friday 9.30 am to 1.00 pm 2.00 pm to 4.30 pm Wednesday and Friday 5.30 pm to 7.00 pm

Late Enrolments

Students are strongly advised to attend for enrolment *during Enrolment Week* as those who fail to do so not only miss initial classes but disrupt lecture, tutorial and practical work programs and cause considerable inconvenience to lectures and the punctual students.
There are two late enrolment sessions:

First Late Enrolment Period

Wednesday 3 March

Second Late Enrolment Period

Wednesday 10 March

The times and locations for late enrolment are:

Faculty Office, Ground Floor,
Architecture Building
2.00 pm to 7.00 pm

General Rules for Progression where Progression is by the Year

1. A student is required to pass all subjects of any year (or its two corresponding part-time stages) before being permitted to proceed to the next year or its corresponding stages except that, subject to the specific course rules set out below, one subject only may be carried with the subjects of the next higher year or its corresponding stages.

2. A student who fails in two or more subjects of a year may be required at the discretion of the Head of School to repeat any or all the subjects of that year.

3. A student can 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.

4. In exceptional cases the general and specific rules may be varied by the Head of the School.

Specific Course Rules for Progression

1. Architecture: A student enrolled in the Bachelor of Science (Architecture) course shall not progress to any subject in second year or its part-time equivalent until he

has passed Graphic Communication I and Construction I or their part-time equivalents. A student of the Bachelor of Science (Architecture) course may not progress to any subject of a higher year or its part-time equivalent until he has passed Design and Construction in the immediately preceding year or its part-time equivalent except that this rule shall not apply to the subject of Design I.

A student enrolled in the Bachelor of Architecture course may not enrol in Architecture B until he has passed Architecture A.

2. Building

A A student may enrol in a subject only if he has completed pre-requisites for that subject.

B A student may progress to the next semester provided that he has passed in all subjects.

C Progression may also be recommended by the Head of School if the student has failed in no more than one subject and if his average mark is 50%. If the student has failed in a core (compulsory) subject, he must repeat the subject on the first occasion the subject is offered.

D If a student fails in a repeated compulsory subject, he should show cause why he should be allowed to continue in the course. If he fails a repeated elective subject, he will be asked to show cause why he should be allowed to enrol in that subject.

E Progression may not be granted to a student who fails two or more subjects in a semester. The programme of such a student should be restricted to these subjects, whenever these are available.

3. Town Planning: A student enrolled in the Town Planning course shall not progress to any subject in second year until he has passed Graphic Communication I nor shall he progress to any subject of a higher year until he has passed Town Planning Theory and Practice in the immediately preceding year.

Building Research Laboratory

The Faculty controls a Building Research Laboratory situated in the University of New South Wales Research Station, King Street, Randwick. The Laboratory which concentrates on postgraduate research and research for industry has sections equipped for work on Environment and Climate, Materials, Model Testing, Services, Lighting and Acoustics. The Laboratory has extensive testing and research equipment and workshop facilities including a wind-rain machine, a weatherometer, an artificial sky, a structural testing bay and a controlled atmosphere chamber. The equipment and facilities of the Laboratory are continually being expanded. Research work and testing programmes carried out in the Laboratory 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 pre-stressed concrete structures.

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

Penetration of moisture into and through concrete.

Undergraduate Study

The Faculty of Architecture conducts undergraduate courses in the fields of Architecture, Landscape, Architecture, Building, and Town Planning. These courses provide thorough training in the arts and sciences which today govern the design and construction of buildings and the balanced growth of cities. In addition to professional and vocational training, the courses include general studies in order to provide graduates with a broad understanding of the humanities and social sciences. The Faculty comprises the School of Architecture, School of Building and School of Town Planning. The School of Architecture comprises the Department of Graduate Studies (controlling the Bachelor of Architecture course), the Department of Undergraduate Studies (controlling the Bachelor of Science (Architecture) course), and the Department of Landscape Architecture (controlling the Bachelor of Landscape Architecture course).

School of Architecture

The Courses in Architecture—BSc(Arch) and BArch

Architects play a vital part in the nation's physical and cultural growth. Their contribution to society is primarily one of design, but includes a consideration of such practical factors as economy, efficiency and durability. Indeed architecture may be defined as a complete synthesis of art and science, and the syllabus of study has been arranged to achieve this end.

Training in architecture consists of two courses:

The course leading to the Bachelor of Science (Architecture) degree provides a fundamental training in the sciences underlying building technology. It is designed to impart the basic knowledge and information, to develop skills, techniques and working methods, and to encourage the intellectual attitudes that are necessary for the practice of architecture. It contains a balance of science and mathematics, building technology, graphics, history, humanities and creative design in projects that progress from the simple to the more complex.

The course leading to the Bachelor of Architecture degree builds upon the knowledge and experience gained in the BSc(Arch) course. Architectural design assumes major importance, for it is through this subject that students learn to integrate all the contributory training they have received. However, the common core subjects taken by all students are handled in such a manner as to allow a student to concentrate on those aspects which most interest him. In addition, a wide variety of elective subjects allows the student to choose so that he may extend his study either in breadth or depth.

The Bachelor of Science (Architecture) Course

The course leading to the Bachelor of Science (Architecture) degree normally requires three years' full-time attendance at the University. The course may be taken by part-time study; each full-time year is equivalent to two part-time stages. Students may transfer to full-time study from the second part-time year (1B) or the fourth part-time year (2B) at their successful completion of Stages 1B or 2B.

Students must apply to the Registrar to transfer from the part-time to full-time courses, or vice versa.

Students in the part-time course must be concurrently

engaged in approved practical experience (see "Practical Experience" below) for the whole of their part-time attendance.

On satisfactory completion of the course, a student is awarded the degree of Bachelor of Science (Architecture).

The holding of the degree of Bachelor of Science (Architecture), or its equivalent, is a requirement for selection into the Bachelor of Architecture course. It is also an eligible first degree for a number of other graduate courses offered by the University. (For summary see the Calendar, and for details see the appropriate Faculty Handbook.)

The Bachelor of Architecture Course

Students wishing to apply for admission to the Bachelor of Architecture course must hold the degree of Bachelor of Science (Architecture) or approved equivalent qualification. Admission to the Bachelor of Architecture course is selective and is based on the ability revealed and the performance achieved up to the awarding of the Bachelor of Science (Architecture) degree. Selection is made according to a points score determined by a formula approved by the University Council and administered by the Bachelor of Architecture Admissions Committee of the Faculty of Architecture. It should be noted that possession of a BSc(Arch) degree does not automatically ensure admission to the BArch course.

While the first year of the course requires no formal attendance at the University, students are required to enrol in the normal manner. In this period the student is required to obtain practical experience (see Practical Experience below). Students who whilst in the Bachelor of Science (Architecture) course have satisfactorily completed three years of part-time study and have obtained approved practical experience during the whole of the period of part-time attendance shall not be required to complete the first year of the Bachelor of Architecture degree course. On satisfactory completion of the course the student is awarded the degree of Bachelor of Architecture.

The second and third years of the course are available by full-time attendance only.

Practical Experience

Students who have obtained approved practical experience for the full duration of at least three years of part-time study may, subject to the approval of the Bachelor of Architecture Admissions Committee, be exempted from the first year of the Bachelor of Architecture degree course.

Honours

The Bachelor of Architecture degree may be conferred with Honours based upon the quality of performance and in accordance with the current Faculty regulations. Honours will be Class I or Class II Division 1 or Class II Division 2.

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 recognised by the Board of Architects of NSW for registration for practice as an architect but is recognised 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, and thereby of the Royal Institute of British Architects.

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

Department of Undergraduate Studies

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Bachelor of Science (Architecture) Course

Bachelor of Science (Architecture)
BSc(Arch)

Year 1

		Hours per week		
		Full-Time Prog.	Part-Time Prog.	
			Stage 1A	Stage 1B
11.111	Design I	1	1	0
11.121	History of Arch. I	1	1	0
11.131	Graphic Comm. I	9	0	0
11.1311	Graphic Comm. 1A	0	5	0
11.1312	Graphic Comm. 1B	0	0	3
11.211	Construction I	5	0	4
11.221	Structures I	3	3	0
11.271	Arch. Science I	9	0	0
11.2711	Arch. Science IA	0	3	0
11.2712	Arch. Science 1B	0	0	6
		28	13	13

First year students may be required to participate in a practical construction programme outside the metropolitan area, involving a field exercise of approximately two weeks' duration.

Year 2

			Stage 2A	Stage 2B
11.112	Design II	7	0	7
11.122	History of Arch. II	1	0	1
11.132	Graphic Comm. II	6	6	0
11.212	Construction II	6	0	6
11.222	Structures II	3½	3½	0
11.272	Arch. Science II	2	2	0
	Gen. Studies Elec.	1½	1½	0
		27	13	14

In Session 2 the subject Construction II includes 29.411, Surveying for Architects and Builders consisting of a weekly lecture of one hour and seven practical lessons of three hours.

Year 3

			Hpw	
			Stage 3A	Stage 3B
11.113	Design III	7	0	7
11.123	Hist. of Arch. III	1	0	1
11.133	Graphic Comm. III	3	3	0
11.213	Construction III	8	0	0
11.2131	Construction IIIA	0	5	0
11.2132	Construction IIIB	0	0	3
11.223	Structures III	3	3	0
11.273	Arch. Science III	2½	2½	0
11.331	Estimating and Specifications	1	0	1
	Gen. Studies Elec.	1½	0	1½
		27	13½	13½

Department of Graduate Studies

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Bachelor of Architecture Course

Bachelor of Architecture
BArch

Year 1

		Hours per week
11.500	Practical Experience*	

* Students who have obtained approved practical experience for the full duration of at least three years of part-time study shall not be required to complete the first year of the Bachelor of Architecture course.

Year 2

		Hours per week S1	S2
11.151	Architecture A	15	15
	Electives†	5½	5½
11.171A	Thesis‡	1	1
36.411	Town Planning	2	0
		23½	21½

‡ The subject of the thesis will be submitted by the student for the approval of the Head of the School at the beginning of second year and submitted for examination towards the end of the third year. Staff supervision will be available for one hour per week.

Year 3

		Hpw
11.152	Architecture B	15
11.321	Professional Practice	2
	Electives†	5½
11.171B	Thesis‡	1
		23½

† **Second year electives** to a total minimum weekly time of five and a half hours to be freely selected from the following, at least one hour being taken from either sub-section B or C.

A

		Hours per week S1	S2
11.2241	Structures A1	2	0
11.2242	Structures A2	0	2
11.226	Properties of Materials	2	0
11.227	Behaviour of Materials	0	2
11.8111	Theory of Architecture A1	2	0
11.8112	Theory of Architecture A2	0	2
11.8211	Construction A1	2	0
11.8212	Construction A2	0	2
11.8411	Acoustics A1	2	0
11.8412	Computer-aided Design A2	0	2
11.8431	Lighting Design A1	2	0
11.8432	Lighting Design A2	0	2
11.8511	Hist. Research A1 ⎫ Both must	2	0
11.8512	Hist. Research A2 ⎭ be taken	0	2
11.8711	Landscape Design A1	2	0
11.8712	Landscape Design A2	0	2
36.412	Town Planning A	0	2

Any other undergraduate or Master of Science preparatory year subject offered within the Faculty of Architecture, subject to the approval of the Head of the School of Architecture and the agreement of the professor reponsible for the subject.

B Any Arts or Commerce subjects consistent with the rules for enrolment of the Faculty concerned.

C Any Humanities subjects consistent with the rules for enrolment of the Department of General Studies.

Third year electives to a total minimum weekly time of five and a half hours to be freely selected from the following:

Third year electives to a total minimum weekly time of five and a half hours to be freely selected from sub-sections A, B and C above and from sub-section D below.

D

		Hpw S1	S2
11.2251	Structures B1 ⎫ Both must	2	0
11.2252	Structures B2 ⎭ be taken	0	2
11.8121	Theory of Architecture B1	2	0
11.8122	Theory of Architecture B2	0	2
11.8221	Construction B1	2	0

		Hpw S1	S2
11.8222	Construction B2	0	2
11.8421	Acoustics B1	2	0
11.8422	Computer-aided Design B2	0	2
11.8441	Lighting Design B1	2	0
11.8442	Lighting Design B2	0	2
11.8521	Hist. Research B1 } Both must	2	0
11.8522	Hist. Research B2 } be taken	0	2
11.8721	Landscape Elective B1— Urban Landscaping	2	0
11.8722	Landscape Elective B2— Landscape Planning	0	2

Degree Course in Landscape Architecture—BLArch

This course offers training to professional level in a discipline which is emerging as one of the principal contributors in the fields of land-use planning and environmental design. At present there are relatively few qualified landscape architects in Australia, consequently graduates will face the challenge and enjoy the opportunities associated with a rapidly growing profession.

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 will be related to the subject matter of concurrent lectures, and will culminate in an examination of landscape problems of regional and national significance.

General Description of the Course

The course is of four years' duration and requires full-time attendance of approximately 24 hours per week in each year.

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 Architecture, Botany, Geography and Town Planning, and the Department of General Studies.

Practical Experience

Students are required to obtain a minimum of six months' approved practical experience during their undergraduate training. Employment may be obtained with a landscape architect, a landscape contractor or a nurseryman, but in every case the details of proposed employment must be submitted to the Head of the Department for approval.

Professional Recognition

It is anticipated that graduates holding the BLArch degree will qualify for corporate membership of the Australian Institute of Landscape Architects after a specified period of graduate experience.

Department of Landscape Architecture

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Bachelor of Landscape Architecture Course

Bachelor of Landscape Architecture BLArch

Year 1†

		Hours per week S1	S2
11.111	Design I	1	1
11.121	History of Architecture I	1	1
11.131	Graphic Communication I	9	9
11.601	Landscape Struct. and Materials	2	2
11.511	Landscape Design I**	4	4
11.521	Landscape Construction I**	3	3
11.531	Landscape Prehistory	0	2
17.011	Biology of Mankind	6	0
43.212	Landscape Botany*	0	4
		26	26

† First year students may be required to participate in a practical construction program outside the metropolitan area, involving a field exercise of approximately two weeks' duration.

* Includes some field work.

** The courses in Landscape Design and Construction comprise a number of lectures and field trips for the purpose of practical observation. Field trips occur on alternate weeks, and 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.

Year 2

11.132	Graphic Communication II	6	6
11.512	Landscape Design II	7	7
11.522	Landscape Construction II	3	3
11.532	Hist. of Landscape Architecture	1	1
11.542	Theory of Landscape Architecture	2	2
17.012	General Ecology	3	—
27.296	Physical Geography for Landscape Architects	—	5
	General Studies Elective	1½	1½
		23½	25½

Year 3

11.513	Landscape Design III	10	10
11.523	Landscape Construction III	3	3
11.553	Plants and Planting Methods	3	3
11.563	Landscape Specs. and Estimates	2	2
11.573	Public Recreation Planning	2	2
11.583	Environmental Impact Studies	2	2
	Two General Studies Electives	3	3
		25	25

Year 4

11.514	Landscape Design IV	15	15
11.564	Landscape Professional Practice	2	2
11.574	Landscape Conserv. and Rehab.	2	2
11.594	Landscape Thesis	1	1
36.411	Town Planning	2	—
	Adv. General Studies Elective	1½	1½
		23½	21½

School of Building

Degree Course in Building—BBuild

General Description of the Course

The course is to be offered on a semester basis from 1976 with students being required to complete a minimum of eight semesters (sessions) including one semester of appropriate industry experience. A maximum of seventeen semesters may be taken to complete the course.
The course leads to 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 189 credit points (including 136 credit points from compulsory subjects). Credit points are allocated to all compulsory and elective subjects. Students, provided that they can satisfy the prerequisite and co-requisite requirements for subjects to be attempted, may choose that pattern and order of subjects which best suit individual requirements. Credit points generally correspond to class hours per week per semester.

Practical Experience

Students are required to be in employment related to their course during at least six months of their program. 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.

Course Structure

The course, as detailed below, is being fully implemented for new students in 1976. Students enrolled in the old course, as set out in the 1975 Calendar, will receive credit for subjects successfully completed in that course and will complete their studies under the new course structure. Students enrolled in Year 3 or Stage 6 in 1975 will complete the old course as set out in the 1975 Calendar.

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Building Degree 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.

No.	Subject Name	Credit Points	Prerequisites	Co-requisites
Construction Studies Stream				
Compulsory Subjects				
35.500	Building Graphics	6	nil	nil
35.501	Building Construction I	6	nil	nil
35.502	Building Construction II	6	nil	35.501
35.503	Building Construction III	6	35.501, 35.551, 35.701	35.502
35.504	Building Construction IV	6	35.501, 35.552, 35.701	35.502
35.505	Building Construction V	5	35.503 or 35.504	nil
29.411	Surveying for Architects and Builders	2	nil	nil
35.551	Building Structures I	6	nil	35.501, 35.601
35.552	Building Structures II	7	35.502	35.551
35.553	Building Structures III	6	35.551	35.505, 35.552
35.581	Hist. Devel. of Building	2	nil	nil

Building Degree Course (continued)

No.	Subject Name	Credit Points	Prerequisites	Co-requisites
Elective Subjects				
35.506	Building Construction VI	5	35.505, 35.703	nil
35.507	Building Construction VII	5	35.505, 35.703	nil
35.508	Building Construction VIII	6	35.505, 35.553, 35.704	nil
35.554	Building Structures IV	4	35.553	nil
35.202	Soil Mechanics for Building	2	nil	nil
35.570	Environmental Studies	2	nil	nil
35.580	Building Design Analysis	3	35.505, 35.852, 35.704	nil

Building Science Stream

Compulsory Subjects				
1.091	Physics for Builders	8	nil	nil
35.670	Mathematics for Builders	6	nil	nil
35.601	Building Science I	4	nil	nil
35.602	Building Science II	6	1.091	nil
35.603	Building Science III	6	35.670	nil
35.651	Building Services I	2	35.602	nil
35.652	Building Services II	2	35.602	35.651
Elective Subjects				
35.604	Building Science IV	3	35.601	nil
35.605	Building Science V	3	35.601	nil
35.606	Building Science VI	3	35.601	nil
35.607	Building Science VII	3	35.602	nil
35.608	Building Science VIII	6	35.603	nil
35.653	Building Services III	4	35.651, 35.652	nil

Management Studies Stream

Compulsory Subjects				
35.701	Building Management I	2	nil	nil
35.702	Building Management II	2	35.701	nil
35.703	Building Management III	2	35.701	35.702
35.704	Building Management IV	2	35.703, 35.504, 14.051	nil
14.051	Law for Builders I	2	nil	nil
14.052	Law for Builders II	2	14.051	nil
Elective Subjects				
35.705	Building Management V	3	35.504, 35.703	nil
35.706	Building Management VI	3	35.704	nil
35.707	Building Management VII	3	35.704	nil
35.708	Building Management VIII	3	35.704, 35.910	nil
14.053	Law for Builders III	2	14.052	nil

Building Economics Stream

Compulsory Subjects				
35.801	Quantity Surveying I	4	35.503	nil
35.851	Building Economics I	6	14.002	nil
14.001	Intro. to Accounting A	2	nil	nil
14.002	Intro. to Accounting B	2	14.001	nil
14.081	Intro. to Financial Anal.	4	14.002	nil

Building Degree Course (continued)

No.	Subject Name	Credit Points	Prerequisites	Co-requisites
Elective Subjects				
35.802	Quantity Surveying II	4	35.504, 35.870	nil
35.803	Quantity Surveying III	2	35.802	nil
35.852	Building Economics II	6	35.851	nil
35.853	Building Economics III	6	35.852	nil
35.870	Building Specifications	2	35.801	nil
35.880	Development Project	2	35.504, 35.852	nil
14.012	Accounting for Builders	2	14.002	nil
Others				
Compulsory Subjects				
35.900	Thesis	5	120 credit points	nil
35.910	Industry Semester	0	35.504, 35.703, 35.601	nil
	General Studies	3 each	nil	nil

Three General Studies subjects are compulsory and are to be selected from the list of General Studies Electives available.

School of Town Planning

Degree Course in Town Planning—BTP

The basic objective of the course is to train the "general practitioner" in town planning, that is, a graduate who is well equipped to play a significant role in the work of government and local government planning agencies.

The course places emphasis on the several steps in the planning process, from decision making through civic survey, plan preparation, plan approval, to plan implementation and review. As planning is concerned with the creation of a better urban environment, as well as with policies for determining the best use of land at national, regional and local levels, students are also trained in aesthetic and civic design principles. Further attention is given to planning methodology and urban research techniques.

General Description of the Course

The course is of five years' duration and requires full-time attendance throughout First, Second and Fifth Years. Students are required to attend the University on a full-time basis for the first session of Third Year and for the second session of Fourth Year, the intervening period being devoted to practical experience as approved by the Head of the School.

The course leads to 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, on the basis of quality of performance throughout the whole course, with particular emphasis on the later years and in accordance with current Faculty regulations.

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.

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Town Planning Degree Course

Bachelor of Town Planning
BTP

Year 1

		Hours per week S1	S2
11.111	Design I	1	1
11.121	History of Architecture I	1	1
11.131	Graphic Communication I	9	9
11.211	Construction I	5	5
36.431	Town Planning Theory and Practice I	3	3
36.271	Environmental Science	6	6
	General Studies Elective	1½	1½
		26½	26½

First year students may be required to participate in a practical construction program outside the metropolitan area, involving a field exercise of approximately two weeks' duration.

Year 2

11.132	Graphic Communication II	6	6
36.432	Town Planning Theory and Practice II	3	3
36.441	Design II for Town Planners	6	6
36.451	History of Town Planning	2	0
36.461	Civic Engineering	2	2
27.294	Physical Geog. for Town Planners	0	4
	Two General Studies Electives	3	3
		22	24

Year 3—Part-Time Program

		S1	S2
19.521	Statistical Methods and Data Processing	4	*
29.431	Surveying and Cartography	4	*
36.433	Town Planning Theory and Practice III	8	*
36.471	Planning Law and Admin.	4	*
		20	

Year 4—Part-Time Program

		Hpw	
36.434	Town Planning Theory and Practice IV	*	12
36.436	Urban Geography	*	3
53.321	Urban Sociology	*	2
36.438	Urban Government	*	3
			20

Year 5

8.017	Transportation Engineering	2	2
36.435	Town Planning Theory and Practice V	12	12
36.437	Civic Survey Camp	—	—
36.442	Civic and Landscape Design	4	4
36.481	Land Valuation and Economics	2	2
36.491	Thesis	1	1
	Advanced Gen. Studies Elective	1½	1½
		22½	22½

* Practical experience as approved by the Head of the School.

Extension Courses

The Schools within the Faculty from time to time conduct extension courses in specialist fields of study related to architecture, building and town planning. These courses are normally open to qualified members of the various land-use professions, upon payment of a fee appropriate to the length of the particular course.

Graduate Enrolment Procedures

Graduate Study

Qualifying Programs
(for admission to Higher Degree Candidature)

Students may only enrol in such programs after approval has been obtained from the relevant Higher Degree Committee.

Unless advised to the contrary successful applicants are required to attend for enrolment at the appropriate time and place as listed below. The letter offering a place must be taken to the enrolment centre.

Candidates who are continuing a qualifying program are required to attend for re-enrolment at the appropriate time and place as listed below.

Note: All qualifying students must lodge an authorised enrolment form with the Cashier on the day the enrolling officer signs the form. (See Enrolment Procedures earlier in this handbook.)

Friday 27 February
2.00 pm to 6.00 pm
Ground Floor Studio
Faculty of Architecture

Higher Degree Research Programs

New Students

Students seeking admission to Higher Degree (Research) must make application as under.

An application to register as a candidate for the degree of Master of Architecture, Master of Building, Master of Landscape Architecture or Master of Town Planning 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. The following specific conditions will apply:

Master of Architecture: An applicant for registration for the degree of Master of Architecture shall have been admitted to the Degree of Bachelor of Architecture in the University of New South Wales or in another approved University.

Master of Building: An applicant for registration for the Degree of Master of Building shall have been admitted to the Degree of Bachelor of Building in the University of New South Wales or in another approved University.

Master of Landscape Architecture: An applicant for registration for the degree of Master of Landscape Architecture shall have been admitted to the degree of Bachelor in the University of New South Wales or in another approved University, in an appropriate field.

Master of Town Planning: An applicant for registration for the Degree of Master of Town Planning shall have been admitted to the degree of Bachelor of Town Planning in the University of New South Wales or to a Bachelor Degree in Town or Regional Planning in another approved University.

Re-enrolling Students

Candidates registered for Higher Degrees (Research) are required to re-enrol at the commencement of each academic year. **Unless advised to the contrary candidates should obtain re-enrolment forms and advice on procedure and fees from the office of the appropriate School** after 1 January 1976. Each candidate must complete a re-enrolment form and submit it to the Cashier. (See Enrolment Procedures earlier in this handbook.)

A candidate who has completed all the work for a graduate degree except for the submission of a thesis is required to re-enrol as above *unless* the thesis is submitted by 13 March 1976 in which case the candidate is not required to re-enrol.

Masters and Graduate Diploma Courses

Note: All formal masters and graduate diploma students must lodge an authorised enrolment form with the Cashier on the day the enrolling officer signs the form. (See Enrolment Procedures earlier in this handbook.)

New Students

Students seeking admission to formal masters courses and graduate diploma courses are required to apply on the appropriate form and by the closing date specified for the particular course. Unless advised to the contrary successful applicants are required to attend for enrolment at the appropriate time and place as shown under "Qualifying Programs". The letter offering a place must be taken to the enrolment centre.

Re-enrolling Students

Candidates continuing formal graduate courses including those who have completed their formal examination but have not submitted their project report are required to attend for re-enrolment at the appropriate time and place as listed under "Qualified Programs".

Graduate Study

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 degree of Master of Architecture, Master of Building, Master of Landscape Architecture or Master of Town Planning. Facilities are also available for research towards the degree of Doctor of Philosophy. For details concerning this degree consult the Calendar or write to the Dean.

Summary of the Conditions for the Award of a Master's 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, 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 (Building Services)

4. Graduate Diploma in Housing and Neighbourhood Planning

5. 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.

School of Architecture

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Master of Science (Acoustics) MSc(Acoustics)

This course provides for graduate study in several important aspects of acoustics, eg noise control in buildings, community noise control, auditorium design, machine, ventilation and air conditioning noise control, and acoustical systems and structures. It is designed for graduates in architecture, engineering or science who wish to specialize in acoustics, and is suitable for those who wish to practise as consultants or to find employment in industry, research establishments or in larger architectural and engineering offices.

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.

1. A candidate for admission holding the degree of Bachelor of Science (Architecture) or Bachelor of Science (Pass Degree) of the University of New South Wales or equivalent qualification will be required to complete a preparatory year before admission to the course. Generally candidates from architecture faculties will be required to complete the qualifying subjects marked * and candidates from science faculties will be required to complete the qualifying subjects marked †.

2. A candidate for admission holding the degree of Bachelor of Architecture, Bachelor of Building, Bachelor of Engineering or Bachelor of Science (Honours) of the University of New South Wales or equivalent qualification may be required to complete certain qualifying subjects as co-requisites. Generally candidates from architecture faculties will be required to complete the qualifying subjects marked * and candidates from engineering and science faculties will be required to complete the qualifying subjects marked † unless they have already studied similar topics in their first degree courses.

Course Structure

The course has a duration of four sessions of part-time study. A credit point system has been adopted, one credit point being awarded for each hour/week timetabled. Session 1 provides 7 credit points and Session 2 9 credit points. Each student must obtain 16 credit points before being permitted to enrol in Session 3. Year 2 consists of a compulsory graduate project (6 credit points total), and electives (4 credit points each). Each student must complete at least 3 electives. Thus the minimum number of credit points for the award of the degree is (16 + 6 + 12) = 34. The number of electives offered in any session will depend on student numbers and interests.

Preparatory Year

		Hours per week L.	T.
1.281G	Vibration and Wave Theory I*	3	0
1.287G	Vibration and Wave Theory II*	0	3
11.990G	Construction, Contracts and Documentation I†	3	0
11.991G	Construction, Contracts and Documentation II†	0	3
35.360G	Computer Techniques*†	3	0
35.370G	Experimental Techniques*†	0	2

* Candidates holding the degree of BSc (Architecture) are required to complete these subjects.

† Candidates from Science Faculties are required to complete these subjects unless they have already studied similar topics in their first degree course.

Year 1

1.282G	Acoustic Theory	2	0
1.283G	Acoustic Measuring Systems	1	0
1.284G	Electro-acoustics	0	1
1.286G	Acoustic Laboratory and Analysis	0	3
11.651G	Mechanical Noise Sources	2	0
11.992G	Acoustics of Speech and Music	1	0
11.993G	The Ear and Hearing	1	0
11.994G	Hearing Conservation	0	1
11.995G	Community Noise	0	4
		7	9

Year 2*

11.996G	Graduate Project (equivalent hours)	3	3
*Electives**			
1.285G	Advanced Physical Acoustics	4	0
5.652G	Noise Suppression Techniques	4	0
11.997G	Auditorium Acoustics	4	0
11.998G	Airborne & Impact Noise Control in Buildings	0	4
11.999G	Advanced Acoustics of Speech and Music	0	4

* See *Course Structure* above.

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Landscape Design Graduate Diploma Course* GradDip

This course has been designed to extend the knowledge of architects to embrace an important environmental study closely associated with that of their own profession. It is a discipline which has so far received little attention in this country, yet may be expected to play a significant part in the future shaping of our environment.

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

Admission Requirements

An applicant for admission to the Landscape Design 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.

Year 1—Part-Time

		Hours per week S1 Lec.	S1 Prac.	S2 Lec.	S2 Prac.
11.910G	History of Landscape Design	1	0	0	0
11.912G	Landscape Engineering	2	0	0	0
27.294	Physical Geography for Town Planners	0	0	2	2
43.215G	Plant Biology	1	2	0	0
43.216G	Ecology and Systematics	0	0	1	2
		4	2	3	4

Year 2

11.913G	Theory and Practice of Landscape	1	0	1	0
11.914G	Forestry and Horticulture*	2	1	2	1
11.915G	Landscape Design	0	3	0	3
		3	4	3	4

* Practical work involves a number of Saturday excursions.

School of Building

The Degrees of Master of Science (Building) and Master of Science (Building Services)

Admission Requirements

The general conditions governing registration as a candidate for the degrees Master of Science (Building) and Master of Science (Building Services) are given in the Calendar but the attention of intending applicants is directed to the following specific requirements:

1. Applicants will have been admitted to the degree of Bachelor of Architecture or Bachelor of Building in the University of New South Wales or 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 in exceptional circumstances to the course proper.

3. Applicants who have been admitted to the degree of Bachelor of Science (Architecture) at the University of New South Wales, or another approved University, will be required to complete those preparatory subjects listed below and indicated by an asterisk.

4. Other eligible applicants will be required to complete all the preparatory subjects listed below. However, applicants may receive exemption from one or more subjects, at the discretion of the Higher Degree Committtee of the Faculty of Architecture, whose decision will be influenced by the education and experiences of each applicant. Graduate experience in the building industry is considered an advantage in the selection of candidates.

Preparatory Subjects

		Hours per semester
14.001	Introduction to Accounting A*	2
14.002	Introduction to Accounting B*	2
14.051	Law for Builders I*	2
14.052	Law for Builders II*	2
14.053	Law for Builders III*	2
35.504	Building Construction IV	6
35.506	Building Construction VI*	5
35.601	Building Science I	4
35.652	Building Services II*	4
35.704	Building Management IV	2
35.705	Building Management V	3

Course Structure

Both courses are formal four-semester part-time courses comprising 36 credit points. Each credit point consists of class contact of one hour for one semester, except for the Graduate Project which is worth 7 credit points.

The first two semesters of both courses are devoted to general studies in computations, environmental requirements, building economics, operations planning, contract law and documentation and the interaction of the architecture, the structure and the services.

In the second two semesters, Master of Science (Building) students may choose elective subjects from the list below to make up a minimum of 13 credit points.

Master of Science (Building Services) students concentrate on the more practical aspects of building engineering in the second two semesters; a more detailed study of the various services and environmental factors; cost analyses and comparisons; overall studies of building feasibility and the role played by engineering services; responsiblity of the various parties; all in all a broad view of the construction operation with some emphasis on engineering aspects.

Master of Science (Building)

This four-session part-time course has been designed to provide opportunities for advanced study in the science of construction. It allows a certain amount of specialization in three inter-related 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; and

3. development and research aspects of construction with relevance to design, construction, product manufacture or research.

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

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Master of Science (Building)
MSc(Building)

Semesters 1 and 2

		Hours per week Semester 1	Semester 2
35.210G	Building Contracts and Documentation	2	
35.220G	Building Economics and Property Valuation		2
35.230G	Operations Planning I		4
35.360G	Computer Techniques	3	
35.380G	Services and the Environment	3	
35.390G	Building Structures and Services		2
	Total	8	8

Semesters 3 and 4

35.240G	Graduate Project	1½	1½

In addition, at least 13 credit points from a selection of the following subjects, grouped according to the specializations described above.

Group A

		Hours per week for one semester
35.250G	Office and Personnel Management	2
35.260G	Architectural Programming	2
35.270G	Estate Management	2
35.280G	History of Building	2

Group B

35.290G	Advanced Construction I	4
35.300G	Advanced Construction II	4
35.310G	Advanced Equipment and Services	2

Group C

		Hpw for one sem.
35.320G	Operations Planning II	4
35.330G	Cost Planning and Analysis	2
35.340G	Computer Applications I	2
35.350G	Computer Applications II	2
35.370G	Experimental Techniques	2

The grouping is arbitrary, and the student is allowed to select subjects from any one of the three groups if they are available. Availability depends on the number of enrolments and on the numbers of students wishing to specialize in each of the groups. While the intention is to offer as many electives as possible, students should realize that the full range may not be offered in any one year.

Master of Science (Building Services)

This four-session part-time course has been designed to provide specialist study in services and environmental engineering for graduates in Architecture and Building, and for Engineering graduates who are involved in the building industry. The graduate program is directed at problems concerned with thermal conditions, illumination, noise, humidity and air purity and offers multi-disciplinary training, pointing to optimum solutions consistent with considerations of capital and maintenance costs. Special attention is given to the interrelation of the building envelope and structure with thermal, electrical and hydraulic services and the performance of the building as a whole.

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Master of Science (Building Services)
MSc(BuildServ)

Semesters 1 and 2

		Hours per week Semester 1	Semester 2
35.210G	Building Contracts and Documentation	2	
35.220G	Building Economics and Property Valuation		2
35.230G	Operations Planning I		4
35.360G	Computer Techniques	3	
35.380G	Services and the Environment	3	
35.390G	Building Structures and Services		2
	Total	8	8

Semesters 3 and 4

35.240G	Graduate Project	1½	1½
35.400G	Economics and Services		2
35.410G	Materials for Services	2	
35.420G	Thermal Services	3	
35.430G	Electrical Services		3
35.440G	Hydraulic Services		2
35.450G	Energy Balance in Buildings	1	
	Total	7½	8½

Students may choose to take additional elective subjects from the groups A, B and C above, subject to availability.

School of Town Planning

The School offers a graduate course leading to the award of a Graduate Diploma in Housing and Neighbourhood Planning (GradDip). This course is normally conducted over two years part-time, but may be offered over one year full-time, depending upon demand.

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Housing and Neighbourhood Planning Graduate Diploma Course

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

A candidate 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.

Year 1—Part-Time

		Hours per week S1	S2
36.920G	Theory of Neighbourhood Planning	1	1
36.921G	Practice of Neighbourhood Planning	3	3
36.923G	Land and Housing Economics	0	2
36.924G	Urban Sociology	2	0
		6	6

Year 2

36.921G	Practice of Neighbourhood Planning	4	4
36.922G	Communications and Public Utilities	0	2
36.925G	Housing Law and Administration	2	0
		6	6

Subject Descriptions and Textbooks

The following brief synopses are intended to outline the scope of individual subjects. The subjects are grouped under the School responsible for them, and are further subdivided, when appropriate, under classifications of Design, Construction, Structures, etc. Graduate subject descriptions follow the Undergraduate synopses in each case.

Subject synopses are followed by lists of recommended text books. In cases where no list appears students will be informed of their requirements at the beginning of the year. The Board of Studies in General Education has published a handbook in which details concerning the general studies subjects may be found. The handbook also contains information regarding general studies textbooks and 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); S1 + S2 (Session 1 *plus* Session 2, ie full year); 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).

Identification of Subjects by Numbers

Each subject provided by a School has an identifying number. The integer is the identifying number of the School and the numbers after the decimal point distinguish the subject from others conducted by that School, some of which may have the same name. For example, Physics I has several variations. The subject number 1.001 denotes Physics I and is the physics subject included in first year Applied Science, Science and Engineering course programs; 1.011 is the corresponding subject at a higher level; 1.081 is the special Physics I subject included in the first year Medicine course; and so on.

As well as providing a clear means of identifying subjects with the same or similar names, the subject number is also used in the recording of enrolment and examination information on machine data processing equipment. It is therefore emphasized that students should cite both the correct subject name, subject number and course code in all correspondence or on forms dealing with courses.

You should become familiar with the identifying numbers of the subjects listed in this handbook:

Identifying Number	School, Faculty or Department
1	School of Physics
5	School of Mechanical and Industrial Engineering
8	School of Civil Engineering
11	School of Architecture
14	School of Accountancy
17	Biological Sciences
35	School of Building
36	School of Town Planning
43	School of Botany
53	School of Sociology

See the Calendar for the full list of subjects and their identifying numbers and for summaries of the disciplines taught in each School or Department.

School of Physics

Undergraduate Study

1.091
Physics for Builders

8 credit points; compulsory. Prerequisites: nil.

Mechanics of solids: Kinematics. Newton's Laws of motion, work and energy. Atomistic description of mechanical properties of matter. Atomic structure of matter. Elasticity. Plasticity: dislocations, fracture, viscosity. Electrostatics, electromagnetism and D.C. circuits: Coulomb's Law. Electric field. Electric potential. Capacitance. Electrical energy sources. Conductors. Resistivity. Atomic view of conduction. EMF. Kirchhoff'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. Huyghens' principle. Curved mirrors. Lenses. Dispersion. Interference. Polarization. Photometry. Colorimetry. Sound. Longitudinal waves. Overtones. Intensity levels. Decibels. Quality of sound.

Textbook

Halliday D. & Resnick R. *Physics Parts 1 & 2* Combined ed Wiley

Graduate Study

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

1.281G
Vibration and Wave Theory I — S1 L2T1

For MSc(Acoustics) students.
Simple oscillator, damped oscillator, ordinary differential equations, complex numbers, forced vibrations and resonance, coupled oscillators. Plane waves, interference and diffraction.

1.282G
Acoustic Theory — S2 L1½T½

For MSc(Acoustics) students.

Sources of acoustic radiation; simple, dipole, quadrupole, plane, impulsive source, random source, aerodynamic sources. Free field propagation in fluids, interference and diffraction, absorption, shock waves. Boundary effects; reflection and transmission at fluid/fluid and fluid/solid interfaces, fluid waveguides, solid waveguides. Reception and analysis; transducers, Fourier analysis, statistical methods, impulse measurement.

1.283G
Acoustic Measuring Systems — S1 L1T0

For MSc(Acoustics) students.

Microphones, amplifiers, loudspeakers, filters, recorders, pick-ups, noise generators. Acoustic measuring instruments.

1.284G
Electro-Acoustics — S2 L1T0

For MSc(Acoustics) students.

Sound reinforcement systems; ambiophony; assisted resonance. Special requirements for translation; language laboratories.

1.285G
Advanced Physical Acoustics (Elective) — S1 L3T1

For MSc(Acoustics) students.

Vibrating systems; coupled oscillators, beams, membranes, plates, resonators, acoustic filters; analogues, 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.

1.286G
Acoustic Laboratory and Analysis — S1 L1T2

For MSc(Acoustics) students.

Practical experiments related to the subject matter of 1.282G Acoustic Theory.

Theory and practice of digital methods of analysis in the time and frequency domains.

1.287G
Vibration and Wave Theory II — S2 L2½T½

For MSc(Acoustics) students.

Fourier analysis, guided waves, electrical analogs, analysis of networks. Statistical distributions, probability, noise, correlation, sampling and digital procedures.

School of Mechanical and Industrial Engineering

Graduate Study

5.652G
Noise Suppression Techniques (Elective)

Noise reduction requirements; noise codes (industrial and community). Noise measurement methods and instruments; random noise, spectral analysis, microphone sensitivity, directivity, etc. Power determination. Ventilation system noise; excitation, propagation (cut-off, rotating modes, acoustic modes). silencing techniques (splitters, absorbers); transmission and insertion loss; measurement; radiation into rooms. Jet flow noise.

School of Civil Engineering

Undergraduate Study

8.017
Transportation Engineering

History, development and characteristics of modes of transport. Fundamentals and evaluation of transport systems—performance and output. Interaction between land use and traffic demand.

School of Architecture

Undergraduate Study

Design

The design and construction of building and environment, including the solution of functional problems, study and application of specialized building techniques, engineering services and equipment; documentation; estimating and building job organization. In all years theoretical aspects are covered in lectures and applied by the student in studio work.

The first three years give a basic understanding primarily in the functional and practical aspects of architecture; the last two years involve the student additionally in aesthetic and philosophic values.

11.111
Design I

A survey of the visual environment of man: large scale environment, natural, modified by man and man-made; man's settlements: cities, towns and villages. Urban precincts, squares, streets, parks. The "equipment" of public environment. Buildings. Architectural provisions for individual man.

(In studio work of other subjects the principles of two- and three-dimensional composition are introduced and exercises are given beginning with the simple elements including building elements and simple spaces with simple functions.)

Textbook

Rowland K. *Looking and Seeing* Parts 1 to 4 Cheshire

11.112
Design II

The design process. Design for needs of individuals and small groups based on physical factors of health, comfort, safety and convenience. Emphasis on internal environment.

Inter-relation of people within small groups. Relationship between internal and external spaces. Design of small and simple multi-cell buildings. Influence of climate, structure and materials on architecture.

11.113
Design III

Design process and its application in larger and more complex architectural problems. Larger groups of people and adequate provision for their needs. Design of buildings becoming more complex in function, form and structure.

Related buildings with simple functions and massing, and control of external spaces. Design for comfort and efficiency under diverse conditions. Design of buildings with special requirements of structure, material and/or equipment.

11.151
Architecture A

Discussion and application in the studios. The study of various theories and philosophies of architecture with the emphasis on aesthetics. The aims and responsibilities of the architect. Study of spatial relationships. Group building design and equipment of interior and exterior spaces. Landscaping.

The concept of the totality of architecture and an awareness of the inter-relation of the multiplicity of factors and influences which determine the final result. Problems in design within the concept of total architecture, involving the creation and control of the human environment, its construction and implementation in all aspects.

11.152
Architecture B

A personal philosophy of architecture with the emphasis on mental and spiritual needs. The continuation at a more detailed and complex level of the concept of "total architecture". Problems involving the mental and spiritual needs of the individual and the society. Advanced planning involving urban environmental design and the associated questions of economics and services and an awareness of developing trends in management and construction techniques in the building world.

11.511
Landscape Design I

Lecture-cum-discussion periods introducing the concept of landscape as a continuous but variable matrix surrounding and permeating the built environment. The series includes an examination of the characteristics we tend to associate with different exterior spaces—civic squares, markets, residential precincts, farmlands and wilderness, and explores the extent to which "hard" and "soft" landscaping contribute to these characteristics. As part of the subject, students undertake practical assignments in observation and environmental appreciation.

11.512
Landscape Design II

Simple design exercises chosen to exploit knowledge and understanding gained by students during their First Year studies. The majority calls for an individual solution, however group work is introduced in some of the Session II projects.

Exercises embrace elementary site analysis, ground modelling, and disposition of buildings, roads, carparks and paths with respect to a limited range of factors. Throughout these and subsequent design classes projects call for an increasingly detailed knowledge of plants and their uses. To this end students will be required to maintain and submit illustrated field books.

11.513
Landscape Design III

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.

11.514
Landscape Design IV

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.

11.542
Theory of Landscape Architecture

A series of seminars exploring the philosophies behind different landscape movements. Examples will be studies in an attempt to establish valid principles of design relative to such things as proportion, scale, rhythm, colour and texture.

Students are required to take part in the discussions and contribute papers on selected topics.

11.8111
Theory of Architecture AI (Elective)

The theory of synthesis of form. Sources of architectural form: the human context, the environmental context, materials of construction. The central core or "idea" of the architectural synthesis. Priorities of criteria. Decision theory. Models of the design-process from objective and subjective points of view.

The parameters of a problem. Conflict and limitation. Economy and waste. The theory of balanced solutions. Interrelation between the whole and the parts of the formal synthesis.

11.8112
Theory of Architecture A2 (Elective)

The speculative approach to the use of building materials, of structural elements and construction methods in relation to the mental realm. Relationship of the building to instructive, emotional, rational, intentional and intuitive needs and responses. Architectural ethics. Honesty and falsehood in architecture. The question of styles, the original and the copy.

Relation between function and truth, truth and beauty. Introduction to the philosophy of aesthetics.

11.8121
Theory of Architecture B1 (Elective)

The philosophical approach to the order and directions of space. The meaning of number and geometry in architecture.

The principle of proportion. The metaphysical basis of the spacial order in architecture. Principles of architectural symbolism and principles of sacred architecture.

11.8122
Theory of Architecture B2 (Elective)

Principles of sacred architecture in the great spiritual traditions. Elements of sacred geometry incorporated into sacred architecture in a general sense. The meaning and symbolism of the architectural elements according to the Christian, Moslem, Hindu and Buddhist doctrines. The universality of the idea of the sacrifice built into the traditional house, the tent, the temple and the cathedral in sacred architecture.

11.8711
Landscape Design A1 (Elective)

Physiography and Soils. An examination of landscape forms with reference to their origin and progressive modification through natural forces. The origin, classification and distribution of soils. Erosion and soil stabilization techniques with particular reference to the Australian continent.

11.8712
Landscape Design A2 (Elective)

Plants and Plant Selection. Elementary plant morphology and physiology with special reference to problems associated with site development and atmospheric pollution. Ecology as a basis of Landscape Design and plant selection. Distribution of major plant species in New South Wales with special reference to the coastal zone.

11.8721
Landscape Elective B1—Urban Landscaping

Urban Landscaping. A series of lectures concerned with analysis, design and techniques of the man-modified environment. The treatment of spaces between buildings; their design, purpose, function and maintenance is investigated, together with construction techniques and costing. Linkages with the total environment and open space concepts are studied.

11.8722
Landscape Elective B2—Landscape Planning

Landscape Planning. Current techniques and recent case studies of land use planning based upon an analysis of natural phenomena and features. Examples studied may include national park and recreational park policies and issues concerning agricultural lands, extractive industries and conservation.

History of Architecture

11.121
History of Architecture I

A broad and general treatment of the history of architecture from the earliest times to the present day. **1.** Introduction. A framework of reference for architectural history: A Architecture as the "built environment"; a partnership of man and nature.

B The Human and environmental influences that affect architecture throughout history. **2.** A general chronological survey: Primitive and communal architecture; the ancient world; the

classic world of Greece and Rome; the Dark Ages; Medieval architecture; Renaissance architecture. **3.** A general chronological survey: Baroque and Rococo architecture; Rationalism, Romanticism and the Industrial Revolution; the twentieth century.

11.122
History of Architecture II

A more detailed treatment of some aspects of history of architecture and their relevance today. **1.** A brief history of planning as a response to human needs and its expression as architectural space. **2.** Some important structural, constructional, technological and organizational innovations and their influences, particularly in the Middle Ages, nineteenth and twentieth centuries. **3.** The evolution of form, proportion and detail, and other related visual aspects of architecture, particularly in Classic, Renaissance and twentieth century architecture.

11.123
History of Architecture III

A history of architecture in Australia, in which the general studies of first and second years find more particular application. **1.** The historical, human and environmental context of Australian architecture. **2.** Architecture from the foundation of the colony to the end of World War I. **3.** Architecture since World War I.

Textbooks

History of Architecture I, II & III:

Fletcher Sir B. F. *A History of Architecture on the Comparative Method* 17th ed Athlone

Pevsner N. *An Outline of European Architecture* 7th ed Penguin

For History of Architecture III only:
Freeland J. M. *Architecture in Australia: A History* Cheshire

11.531
Landscape Pre-History

The history of landscape evolution with particular reference to the Australian Continent. Primitive man and the world in which he lived. Early settlement patterns in Europe and the effects of agriculture.

11.532
History of Landscape Architecture

Gardens as a reflection of their times and an expression of man's attitude toward nature. Royal parks and gardens of Ancient Egypt and Babylonia. The development of aesthetic sensitivity leading up to the "paradise" gardens of Persia.

Sacred Groves of Greece and the Villa Urbana of Imperial Rome. Medieval, Moorish and Renaissance gardens, culminating in the immense landscape of Versailles.

The English Landscape School and Picturesque movement. The classic revival.

Effects of the Industrial Revolution and scientific plant exploration—disappearance of large private estates and emergence of public parks.

Landscape Architecture in Australia—Traditional influences and the impact of harsh reality. Early settlement, land grants and clearing practices. Thomas Shepheard.

11.8511
Historical Research A1 (Elective)

11.8512
Historical Research A2 (Elective)

A basic knowledge and training in research in the field of Australian architectural history. An appreciation of the purpose of the research, familiarization with sources of materials and the way in which these are best used; proper techniques in the recording and cataloguing of material together with its critical assessment and evaluation and its integration, interpretation and presentation. Application and practice in a small but thorough research project.

11.8521
Historical Research B1 (Elective)

11.8522
Historical Research B2 (Elective)

Prerequisites: 11.8511; 11.8512.

A development of Historical Research A in which the student's endeavours are directed towards the initiation and completion of an original research project in Australian architectural history.

Graphic Communication

The development of visual awareness and the practical skills basic to the observation, analysis and recording of appearance and to the construction of visualization and co-ordination drawings

11.131
Graphic Communication I

Graphic Structure. Theory applied in technical and visual drawing. Vision and perception. Vision and illusion. Plastic elements. Symbol elements. Analysis and experiment with traditional media and grounds. Synthesis and application in the graphic design problems. The dependence of pictorial content on pictorial structure.

Technical Drawing. Plane geometry. Plane curves of loci. Conics. Parallel projections of solid figures. Sections, intersections and interpenetrations. Surface developments, Architectural drawing conventions.

Visual Drawing. Perspective projection theory, and construction methods. Expedients and mechanical aids. Sciagraphy.

Relationship to the three-dimensional illusion. Testing of theory through observation and experiment.

11.1311
Graphic Communication 1A

11.1312
Graphic Communication 1B

The syllabus of Graphic Communication I taken over two years.

11.132
Graphic Communication II

Graphic Structure. Analysis and synthesis, in theory and in practice, of a communication process. Studies in the development of symbolic and literal systems of representation. Media studies include the more sophisticated contemporary range.

Technical Drawing. Extension and development from the Stage 1 series in the context of the Architectural design and construction program.

Visual Drawing. Extension and development from the Stage 1 series in the construction of visualization and co-ordination drawings.

11.133
Graphic Communication III

Further extension of Graphic Communication II with special emphasis on analytical observation and the capacity to construct visualization and co-ordination drawings.

Textbooks

For 11.131, 11.132 and 11.133:

Biggs J. R. *The Craft of Lettering* Blandford

Center R. A. *Architectural Shadow Projection* Cassell

De Sausmarez M. *Basic Design: the Dynamics of Visual Form* Reinhold

Fairweather L. & Sliwa J. A. *A.J. Metric Handbook* 3rd ed Architectural Press

Hollis H. F. *Teach Yourself Perspective Drawing* EUP

Construction

The study of the fabric of buildings: the materials, elements, systems, procedures for erection and performance of the fabric determined by considerations of building functions, material properties, environment, climate and site: methods of communicating information. The order of study is from simple buildings for basic functions to buildings for multiple functions and complex procedures.

Theoretical lecture material reinforced by visits to factories and building works and applied and integrated with design in the studio and special projects.

11.211
Construction I

Unit shelter for simple activity: single storey: level site. **A** Single roofs: solid and framed walls: footings. Stones, bricks, tiles, slates, sheets, timber, lime and cement. **B** External doors: cavities, d.p.c.; floors, linings. Wrot timber, concrete, plasters, d.p. materials. **C** Windows, ventilators. Glass, metals. Cold water supply, waste and rain water disposal.

11.212
Construction II

Single and two-storey, multi-cell shelters: group activity shelter; sloping sites.

A Ridged roofs: partitions: storage fitments. Plywood, finishes, hardware. Plane surveys, chaining, angular measurement. The level, differential levelling, booking: contours: the theodolite. Setting out. **B** Upper timber floors, stairs: retaining walls and membranes, semi-basements, concrete floors on the ground. Fuels and power supplies; thermal insulation: condensation; vapour barriers. Hot water supply; drainage and sanitary plumbing. **C** Roof coverings; lighting. Introduction of steel and concrete as structural materials; simple trusses and connections; single span r.c. floors. Tiles, renders, paints, steel sections, concrete mixes. Ventilation, ducting, pumps. Heating and cooling appliances and plant.

11.213
Construction III

Buildings requiring structural frames: multiple activities.
A Framing systems and floors. Water and drainage services, fire protection and fire-fighting. Lifts and escalators. **B** Roofs, claddings, internal provisions. Central conditioning plant. Light fittings. Integration of services. **C** Basements, tanking, footings. Additions and alterations, adjustable and demountable structures. Procedures, economics. Communication systems.

11.2131
Construction IIIA

The same theoretical and lecture material, together with specific construction assignments as for Construction III.

11.2132
Construction IIIB

The construction assignments of Construction III taken in connection with Design III.

Textbooks

For 11.211, 11.212, 11.213.

Australia—Department of Housing & Construction *A Short Glossary of Building Terms* Latest ed The Department Canberra

Australia—Experimental Building Station, Department of Housing & Construction *Notes on the Science of Building* No. 1 to latest issue

NSW—Parliament—Statutes, Local Government Act 1919 *Ordinance No. 70* amended to date Government Printer Sydney

Standards Association of Australia, Australian Standard 1640 *Rules for Brickwork in Buildings* Australian Standard Brickwork Code. The Association Sydney

Standards Association of Australia, Australian Standard 1684 *Light Timber Framing Code* The Association Sydney

Standards Association of Australia *Metric Data for Building Designers: SAA MH 2-1975* The Association Sydney

11.521
Landscape Construction I

Basic construction methods and materials used in roofing, walling, paving and fencing with emphasis upon durability under exposed conditions. Surface and sub-surface drainage. elementary surveying, plotting and interpretation of contours.

11.522
Landscape Construction II

Introductory Soil Mechanics and Soil Physics—design of banks, revetments, earth dams and retaining walls. Erosion and erosion control with particular reference to Australian conditions. Open-channel and flood irrigation systems—Soil Conservation and cultivation.

11.523
Landscape Construction III

Earthmoving equipment and techniques. Construction of roads and vehicle parks. Sports fields, tennis courts and bowling greens. Pressurized irrigation systems. Pools and fountains. Lighting.

11.553
Plants and Planting Methods

Native and exotic plants in general use within the various climatic zones of Australia. Availability, uses and limitations.

Methods of propagation, planting, fertilizing and after-care.

Commercial Forestry. Native and exotic grasses, turf culture.

Plant pests and diseases and their control by chemical and other means.

The subject involves a number of visits to commercial plant nurseries.

11.8211
Construction A1 (Elective)

Principles of construction in relation to stability, loadings, safety and special applications of services. Topics also include principles of earthquake resistant construction, non-structural function of the building fabric, movement in buildings; plant and erection techniques.

11.8212
Construction A2 (Elective)

Methods and research into new forms of construction, modular co-ordination, standardization and tools of research. Topics include flat-plate and lift-slab construction, prefabrication, construction planning and management, computer application to communication, erection, quality and management control.

11.8221
Construction B1 (Elective)

Experimental investigation and research and interpretation of the results in an elected construction subject. Seminars for the exchange of discovered information. The topics concentrate on development methods and techniques in construction including research tools, computers and model analysis.

11.8222
Construction B2 (Elective)

Current and future trends in construction. Topics include limitation and disposal of waste, mechanical devices in building, industrialized building, construction planning and control, maintenance planning and replacement policy. Seminars discuss results of research in Construction B1.

Structures

A study of the role of structure in Architecture, with emphasis on the selection and behaviour of structural systems. Exercises in structural design and laboratory experiments supplement the lectures, which are intended to relate closely to work done in the Studios.

11.221
Structures I

Force, stress, strain. Equilibrium. Properties of sections. Bending moment and shear force for determinate beams. Bending stresses and shear stresses. Basic design of timber beams.

Loadings on structures. Bracing of buildings. Forces in determinate plane frames; polygon of forces, method of sections, resolution of forces. Laboratory work in connection with the above.

11.222
Structures II

Buckling of columns and struts related to timber, steel and concrete. Design of beams in timber, steel and concrete.

Design of reinforced concrete slabs and stairs. Three-hinged arch. Indeterminate beams. Deflection of beams. Unsymmetrical bending. Simple building systems. Materials of construction: concrete (ingredients, properties, mix design, manufacture), steel, timber and plywood, etc. Laboratory work associated with the above.

Textbooks

Cassie W. & Napper J. *Structure in Building* Architectural Press

Morgan W. & Williams D. T. *Structural Mechanics* Pitman

Standards Association of Australia:
1. *Code for Concrete in Buildings* CA2 1963. **2.** *Steel Structures Code* CA1 1972. **3.** *Dimensions of Hot-Rolled Steel Shapes and Sections for Structural Purposes* A1 1965

11.223
Structures III

Analysis of indeterminate frames. Arches, portals, multi-storey frames. Two-way slabs. Columns, retaining walls and footings in reinforced concrete. Pre-stressed concrete elements. Flat plates. Ultimate design methods. Structural sandwich panels.

Cold-rolled and tubular steel sections. Space structures. Laboratory work in connection with the above.

Textbooks

Grinter L. E. *Elementary Structural Analysis and Design* 2nd ed Macmillan

Standards Association of Australia:
1. *Code for Concrete in Buildings* CA 2. The Association Sydney 1963 (serial). 2. *Code for Welding in Buildings* CA 8 Part I. The Association Sydney 1965 (serial). 3. *Steel Structures Code* CA 1. The Association Sydney 1968 (serial).

11.2241
Structures A1 (Elective)

The mathematical analysis and design of basic architectural structures with an extension of the study into advanced and complex systems and future trends in the field. Typical topics include timber and plywood structures and stressed skin panels.

11.2242
Structures A2 (Elective)

A similar study to that of Structures A1, but encompassing large spans, space frames and shells.

Textbook

Salvadori M. & Levy M. *Structural Design in Architecture* Prentice-Hall Englewood Cliffs NJ

11.2251
Structures B1 (Elective)

11.2252
Structures B2 (Elective)

Model and physical analysis of the design of basic architectural structures with an extension of the study into advanced and complex structures.

11.226
Properties of Materials (Elective)

The physical and chemical properties relevant to the assessment of new materials and new applications for old materials.

Topics include: building material resources and use; structure of solids; elastic and inelastic behaviour; creep and fatigue; corrosion and durability; thermal effects; dimensional change; acoustic properties; fire resistance; experimental methods used in determining these properties.

11.227
Behaviour of Materials (Elective)

Lectures and demonstrations by visiting specialists on the behaviour and characteristics of a range of building materials covering in particular the aspects of corrosion, abrasion, strength, fatigue, thermal and acoustic properties. Emphasis is given to the interaction between different materials.

Architectural Science

The application of the methods and findings of science to the design and construction of buildings.

Study commences with basic physical phenomena and their mathematical description. The principles so established are applied to the analysis of the functional requirements of buildings, in terms of their ability to withstand and control the natural environment, and to satisfy human, thermal, visual and auditory requirements.

11.271
Architectural Science I

Mathematics

1. Elementary computer programming; differentiation and integration of simple functions; the definite integral. **2.** Application to curve sketching, arc lengths, areas and volumes, moments of inertia, fluid pressures. **3.** Plane curves; conics and surfaces of revolution; quadric surfaces; ruled and warped surfaces; convex bodies; spherical trigonometry; projective configurations.

Physics

1. *Mechanics and Properties of Matter:* Kinematics, Newton's Laws of Motion, work and energy. Atomistic description of mechanical properties of matter. Atomic structure of matter, elasticity, plasticity—dislocation, fracture, viscosity. **2.** *Wave, Motion, Heat, Light and Sound:* Simple harmonic motion, wave motion, interference, Doppler effect, energy transfer. Sound, longitudinal waves, overtones, intensity levels, decibels, quality of sound. Light, e.m. spectrum, Huygens Principle, curved mirrors, lenses, dispersion, interference, polarization, photometry, colorimetry. Heat, heat capacity, Joule's equivalent, thermometry, convection, conduction, radiation, black body, emittance, absorptance. *Psychophysics and Climatology:* environmental design and total comfort; psychophysical measures in the fields of heat, light and sound. Climate and its influence on building design. *Sun Control:* the sky as a sphere; map projections as representations of a spherical surface; geometry of sunlight; sun position and its representation by solar charts; design of hoods, louvres and sun control devices. *Materials Science Part I:* properties of building materials; density, porosity, elasticity and mechanical properties.

Textbook

Everett Alan. "Materials" Mitchell's Building Construction Series Batsford

Fairweather L. & Sliwa J. A. *A.J. Metric Handbook* 3rd ed Architectural Press

Halliday D. & Resnick R. *Physics Parts 1 and 2* Combined ed Wiley

Koenigsberger O. H., Ingersoll T. C., Mayhew A. & Szokolay S. V. *Manual of Tropical Housing and Building Part 1: Climatic Design* Longman

Phillips R. O. "Sunshine and Shade in Australasia" Australia —Commonwealth Experimental Building Station Bulletin No. 8 1963 (serial)

11.2711
Architectural Science IA

Mathematics

As for 11.271 Architectural Science I.

11.2712
Architectural Science IB

Physics and Architecture

As for 11.271 Architectural Science I.

11.272
Architectural Science II

Materials Science Part 2

Dimensional stability of materials; durability and weathering. Properties of common building materials. Fire in buildings; fire load, fire resistance of materials, protection of buildings, human safety.

Thermal Design Part I

Thermal properties of buildings, heat transmission and insulation. Hygrometry and condensation. Radiant energy from the sun.

Lighting Design Part I

The lighting of buildings, general requirements for good lighting, lighting appraisals, natural lighting design principles, daylight factors, evaluation of daylight levels, indirect components, simplified method of calculation for architects. Practical aids—tables, graphs; quality aspects.

Acoustic Design Part I

Noise control in buildings, transmission of air-borne and structure-born sound; methods of noise reduction and sound insulation; community noise; planning techniques, barriers.

Textbooks

Everett A. "Materials" Mitchell's Building Construction Series Batsford

Drysdale J. W. "Fire Protection in Buildings" Commonwealth Experimental Building Station Bulletin No. 9 1965

Hassall D. N. H. *Reflective Insulation and the Control of Thermal Environments* Metric ed St. Regis-ACI

Hopkinson R., Petherbridge P. & Longmore L. *Daylighting* Heineman

Parkin & Humphreys *Acoustics, Noise and Buildings* Faber

AS1055-1973 "Noise Assessment in Residential Areas" Standards Association of Australia

11.273
Architectural Science III

Thermal Design Part II

Principles of heating, cooling and natural ventilation. Application of thermal design to various buildings.

Lighting Design Part II

Artificial lighting; light sources and their spectral characteristics; quality of lighting and glare control; graphical representation of light distribution; lighting design methods and application to buildings. Supplementary artificial lighting of interiors, photometry.

Acoustic Design Part II

Auditorium design; geometrical techniques; reverberation control; sound absorbing materials and systems.

Architectural Science Research Review

Review of current research in architectural science; the role of research and testing laboratories.

Textbooks

Hassall D. N. H. *Reflective Insulation and the Control of Thermal Environment* Metric ed St. Regis-ACI

Interior Lighting Design Handbook (Metric ed) British Lighting Council

Parkin P. H. & Humphreys G. *Acoustics, Noise and Buildings* Faber

11.8411
Acoustics A1 (Elective)

Practical application of theoretical material. Principal topics include sound insulation and noise reduction in buildings and the use of acoustic models in auditoria design.

Textbook

Lawrence A. B. *Architectural Acoustics* Elsevier

11.8412
Computer-aided Design A2 (Elective)

The use of the computer and the availability of progams in architecture including computer graphics. Queues and linear programming and the techniques of information storage and retrieval. Practice in the production and application of programs.

11.8421
Acoustics B1 (Elective)

Prerequisite: 11.8411 Acoustics A1.

11.8422
Computer-aided Design B2 (Elective)

Prerequisite: 11.8412 Computer-aided Design A2.

Supervised individual or group student research into an approved topic within the respective fields.

11.8431
Lighting Design A1 (Elective)

Factors influencing the design of the visual field, the eye and vision, visual performance, apparent brightness and the concept of luminance design, light source colour and colour rendering, glare evaluation and control, modelling, scalar and vector illumination.

11.8432
Lighting Design A2 (Elective)

Practical aspects of lighting equipment and design, methods of light control, construction of fittings and auxiliaries, classification of light distribution, lighting systems including integration of light fittings, maintenance and economics, and exterior lighting design.

11.8441
Lighting Design B1 (Elective)

Prerequisite: Lighting Design A2.

Interior Lighting Design, problems of daylighting design, forms of integrated daylighting and artificial lighting, design by apparent brightness, Waldram's designed appearance method, lighting appraisals and studies of lighting design problems.

11.8442
Lighting Design B2 (Elective)

Experimental investigation and research in an elected aspect of lighting design.
Seminars for the discussion of methodology results and development of techniques in application.

Management

11.321
Professional Practice

The ethical, legal and common standards and responsibilities governing the relations between the architect, the client and the builder; office practices and procedures; financial aspects of the practice of architecture and building.

1. Historical background; professional institutions; code of ethics; conditions of engagement; scale of professional charges; specialist consultants. **2.** The Architects' Registration Act of New South Wales, Laws of contract; types of contract; articles of agreement; relationship of contracting parties and the architect; architects' responsibilities; negligence; arbitration; litigation; statutory controls; copyright. **3.** Office administration; correspondence; reports; insurance; finance; tenders; contract administration; organization of the building industry; problems of practice.

11.331
Estimating and Specifications

1. Estimating

An appreciation of:

Methods used for estimating; standard mode of measurement; examples of "building up" the elements of a unit cost for pricing a bill of quantities; typical problems in estimating costs of building works.

Measuring and methods of adjusting variation; analysis of costs for alternative methods of construction; preparation of preliminary estimates from sketch plans.

Cost planning techniques; costing a design; designing to a cost; cost analysis; cost planning; cost control procedures.

2. Specifications

The principles and methods and the changing trends involved in the compilation of a specification complementing other architectural documents.

Definition, objects and purposes of a specification; specification as a contract; relationship to Bill of Quantities and drawings; schedules; reference material; "Master" specifications; outright and performance specifications; prime cost and provisional sums; specification sections, clauses and language; preparation and format; printing, binding and distribution.

Explanation of documents; general conditions; specifications of individual "trades"; schedule of p.c. and provisional sums; specifications for alterations, additions and new work; specification assignment.

11.563
Landscape Specifications and Estimates

The principles and methods involved in compilation of landscape specifications and estimates. Outright and performance specifications together with sections, clauses and terms appropriate to each type. Unit rates for commoner landscape operations—excavation—haulage—filling—topsoiling, grassing, paving, etc. Costs of labour, materials and overheads.

11.564
Landscape Professional Practice

The relationship between landscape architect, client and contractor and the legal responsibilities of each. Code of ethics and scale of charges. Office procedures, documentation and job organization. The Australian Institute of Landscape Architects and allied professional bodies.

11.573
Public Recreation Planning

Open space capable of use for public recreation is studied as a diminishing national resource, subject to increasing demand. Various open-space classifications—primitive areas, scenic areas, native reserves, national parks, historic sites, foreshore reserves and sports arenas—are examined with respect to their individual characteristics and usage capacity.

Current open-space legislation is reviewed, together with the aims and achievements of the National Parks and Wildlife Service, and successful Australian and overseas examples of planned recreational use are studied in detail.

11.574
Landscape Conservation and Rehabilitation

The various interpretations which have been placed upon both words, of the emotionalism which has clouded numerous conservation issues. Conservation is then studied as "the rational use of the environment to achieve the highest sustainable quality of living for mankind". Following the general examination of conservation and rehabilitation principles a number of specific examples are studied, representative of landscapes threatened or adversely affected by increasing recreational use, mineral extraction, waste disposal and industrial blight. The studies include methods of control and rehabilitation.

11.583
Environmental Impact Studies

Lectures and seminars designed to familiarize students with systems of impact evaluation and develop their ability in value judgment. The series includes exercises in the use of a matrix, and examines both the policy and procedures for environmental impact studies as established by the New South Wales State Government.

A number of real cases are studied and each student is required to prepare an environmental impact statement relative to a proposed development.

Theses

11.171A and 11.171B
Thesis (Architecture)

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 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 submitted by the student for the approval of the Professor of Architecture at the beginning of the second year and the completed thesis submitted for examination towards the end of the third year.

11.594
Thesis (Landscape)

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 his 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.

Graduate Study

11.651G
Mechanical Noise Sources

Basic noise sources; relative efficiencies. Purely mechanical sources; radiation of sound from surfaces, general industrial noise, gear noise, reciprocating engine and compressor noise, electrical machinery noise. Aerodynamic noise; jet flows, fan noise (centrifugal and axial), combustion noise.

11.910G
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 humanised landscape. Landscape development in America and Australia.

11.912G
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.

11.913G
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.

11.914G
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.

11.915G
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.

11.951G
Architectural Management

Emphasizes architectural practice. *Architectural practices:* types, arrangements, partner relationships, organizational and legal responsibilities, present trends and future types of practice. *Architectural services:* retainer, partial, full and comprehensive services. *Job organization:* systems, research, systems controls, quality and time control. *Office organization:* client relations, administrative, drafting, contractual and accounting organization and control. *Insurance:* types, needs and limitations; statutory and optional insurance. Applications of contract law and insurance law in architectural practice.

11.990G and 11.991G
Construction, Contracts and Documentation I and II

Construction of single and multi-storey buildings; building services; materials; forms of building contract and sub-contract; tendering; contract documentation; specifications; supervision.

11.992G
Acoustics of Speech and Music

Acoustic characteristics of speech; speech analysis and recognition; music and musical instruments; room acoustic effects on speech and music.

11.993G
The Ear and Hearing

Physiological and psychological factors in sound perception; subjective scales and units; masking, discrimination; speech intelligibility; noise annoyance; calculation of loudness.

11.994G
Hearing Conservation

Threshold shift; impulsive and continuous noise; hearing damage risk criteria; hearing conservation programs and audiometry.

11.995G
Community Noise

Sources of community noise; sound propagation out-of-doors; land-use zoning, including siting of airports and highways; measurement and assessment of community noise annoyance; barriers.

11.996G
Graduate Project

An individual topic to be selected from one of the following fields: physical theory; machinery, duct and vibration noise; noise control in buildings; community noise; room acoustics; or electro-acoustics.

11.997G

Auditorium Acoustics (Elective)

Subjective and objective criteria for speech and music; reverberation theory; diffusion; steady state and transient room response; geometrical, physical and model analysis of auditoria; sound reflectors and sound absorbents; methods of measurement of sound absorption coefficients.

11.998G

Airborne and Impact Noise Control in Buildings (Elective)

Single multiple-leaf and sandwich partitions and floors; airborne and impact noise reduction; flanking transmission; vibration isolation; performance standards and specifications; speech privacy; methods of measuring sound transmission loss and noise reduction in the field and laboratory. Plumbing and services noise control.

11.999G

Advanced Acoustics of Speech and Music (Elective)

Speech communication; vocoders; development of new musical instruments, including electronic music.

School of Accountancy

Undergraduate Study

14.001

Introduction to Accounting A

2 credit points; compulsory. 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.

Textbook

Thacker R. J. *Introduction to Modern Accounting, with Workbook/Student Guide* 2nd ed Prentice-Hall

14.002

Introduction to Accounting B

2 credit points; compulsory. 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.

Textbook

Horngren C. I. *Accounting for Management Control: An Introduction* 3rd ed Prentice-Hall

14.012

Accounting for Builders

2 credit points. Prerequisites: 14.002.

A treatment of accounting information for management purposes. Management planning and control, including such techniques as critical path method.

Textbook

Moore C. L. & Jaedicke R. K. *Managerial Accounting* 3rd ed South-Western

14.051

Law for Builders I

2 credit points; compulsory. 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.

Textbook

Vermeesch R. B. & Lindgren K. L. *Business Law in Australia* 2nd ed Butterworths

14.052

Law for Builders II

2 credit points; compulsory. Prerequisites: 14.051.

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.

Textbook

Vermeesch R. B. & Lindgren K. L. *Business Law in Australia* 2nd ed Butterworths

14.053

Law for Builders III

2 credit points. Prerequisites: 14.052.

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.

Textbooks

Cullen C. L. & Macken J. J. *An Outline of Industrial Law* 3rd ed Law Book

O'Dea R. *Industrial Relations in Australia* 2nd ed Allen & Unwin

14.081

Introduction to Financial Analysis

4 credit points; compulsory. Prerequisites: 14.002.

Basic concepts and principles necessary to make effective financial management decisions. 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. Specific industry studies.

Biological Sciences

Undergraduate Study

17.011
Biology of Mankind

Mankind evolving; primate evolution; background of early man. Evolution of technological man—biological problems associated with communication and toolmaking; development of man as a hunting predator. Development of utilization of natural resources: development of man as a pastoralist and farmer; animal and plant domestication. Evolution of urban man, culture, society: reproductive biology and genetics of man; population growth, fluctuation, control; natural history of disease, background of medical and industrial microbiology.

Effects of modern society: biology of social stress; effect of society in contemporary environments, planning and control.

17.012
General Ecology

Evolution and environmental selection in the Australian continent: geological, paleoclimatological, biogeographical and historical background. Organizational structure of biological populations, with special reference to plants, animals and microorganisms. Functional organization of ecosystems: energy budgets, hydrological and biogeochemical cycles. Integrated structure and function of ecosystems: case studies of soil, terrestrial, aquatic and urban ecosystems. Cropping and management of natural resources. Natural history of disease and pest invasion; integrated pest control. Systems analysis and dynamic programming in resource managements and ecological problem-solving.

School of Transportation and Traffic

Undergraduate Study

19.521
Statistical Methods and Data Processing

Statistical concepts and methods for students in Town Planning Organization and analysis of data, elementary probability, introduction to the standard distributions, sampling distributions, statistical inference and regression methods. First course in computer programming.

Textbook

Guenther C. *Concepts of Statistical Inference* ISE McGraw-Hill/Kogakusha

School of Geography

Undergraduate Study

27.294
Physical Geography for Town Planners

The physical bases of landscape: landforms, geology, soil vegetation and climate. Aims and techniques of landscape appraisal. Laboratory classes to support the above, including analysis of topographical, geological and soil maps, air photo interpretation and land assessment. There is a compulsory field excursion equivalent to eight hours of tutorials.

Textbook

Strahler A. M. *An Introduction to Physical Geography* Wiley

27.296
Physical Geography for Landscape Architects

The physical bases of landscape: landforms, geology, soil, vegetation and climate. Aims and techniques of landscape appraisal. Laboratory classes to support the above, including map analysis, air photo interpretation and examination of soil properties. Each student is involved in individual project work on an approved aspect of land resource evaluation. There is the equivalent of a one-hour seminar per week.

There is a compulsory field excursion equivalent to eight hours' tutorial time.

Textbook

Strahler A. N. *An Introduction to Physical Geography* Wiley

School of Surveying

Undergraduate Study

29.411
Surveying for Architects and Builders

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.

29.431
Surveying and Cartography

Surveying and its relationship to town planning. Types of survey; methods of linear measurement, corrections, chain surveys. The level, differential levelling, contours, volumes of earthworks. The theodolite, applications in building; traversing, setting out; plotting and plan drawing; measurement of areas by planimeters. Basic concepts of land tenure, land registration and cadastral surveying; plan registration. Mapping and map projections; control surveys; photogrammetry and orthophotographs.

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

2 credit points. 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 stabilisation; introduction to foundation design; laboratory testing of soils.

Textbooks

Scott R. F. & Schonstra J. J. *Soil Mechanics and Engineering* McGraw-Hill

Bowles J. E. *Engineering Properties of Soils and their Measurement* McGraw-Hill

35.500
Building Graphics

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 considerations.

Practical exercises in two and three dimensional composition in various media.

Textbooks

Reekie A. F. *Draughtsmanship* Arnold

de Sausmarez Maurice *Basic Design—the Dynamics of Visual Form* Studio Vista

35.501
Building Construction I

6 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 services; plumbing, drainage and electrical at elementary level; methods of setting out and supervision. Practical technical drawing, descriptive geometry and use of drafting equipment.

Textbooks

Australia CEBS *Notes on the Science of Building* Progressively revised and extended.

Australia—Department of Labour and National Service—Industrial Training Division. Technical Publications on: *Bricklaying, Drainage, Gasfitting, Sanitary Plumbing and Water Supply*

McKay W. B. *Building Construction.* Vols 1 & 2. Longmans

Mitchell's Building Construction Series:

Burberry P. *Environment and Services* Batsford

Everett A. *Materials* Batsford

Foster J. S. *Structure and Fabric* Parts 1 & 2 Batsford

King H. & Everett A. *Components and Finishes* Parts 1 & 2 Batsford

NSW Parliament—Statutes, Ordinances under the Local Government Act. *Ordinance No. 70* Metric ed Govt. Printer Sydney

NSW *Standard Minimum Requirements for Home Building* Issued jointly by government lending institutions and banks

Randerson H. Y. *Australian Sanitary Engineering Practice* 8th ed A & R

Sharp W. *Australian Methods of Building Construction* 4th ed A & R

Standards Association of Australia *SAA Light Timber Framing Code* Metric ed CA 38 1971

Abbott W. *Practical Geometry and Engineering Graphics* Blackie

Sharp W. *Australian Methods of Building Construction* 1975 ed Sydney UP

35.502
Building Construction II

6 credit points; compulsory. Prerequisites: nil. Co-requisites: 35.501.

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
Building Construction III

6 credit points; compulsory. Prerequisites: 35.501, 35.551, 35.701. Co-requisites: 35.502.

Small multi-storey buildings from the functional and construction operation viewpoints. Concepts from Building 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.

Textbooks

HMSO *Principles of Modern Building* Vols 1 & 2 1973

Standards Association of Australia *1480 Concrete structures code 1250 Steel structures code 1576 Metal scaffolding code*

Taylor W. H. *Concrete Technology and Practice* A & R

35.504
Building Construction IV

6 credit points; compulsory. Prerequisites: 35.501, 35.552, 35.701. Co-requisites: 35.502.

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.

Textbooks

HMSO *Principles of Modern Building* Vols 1 & 2 1973

Standards Association of Australia *1480 Concrete structures code 1250 Steel structures code 1576 Metal scaffolding code*

Taylor W. H. *Concrete Technology and Practice* A & R

Constructional Steel Research and Development Organisation *Steel Designers' Manual* 4th ed metric Crosby Lockwood

Gorenc B. E. & Tinyou R. *Steel Designers' Handbook* 2nd ed NSW UP

35.505
Building Construction V

5 credit points, compulsory. Prerequisites: 35.503 or 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.

Textbooks

ASCE-IABSE *Planning and Design of Tall Buildings* Conference papers Lehigh Univ USA 1972

Antill J. M. & Ryan P. W. S. *Civil Engineering Construction* 4th ed A & R

35.506
Building Construction VI

5 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, curtain walls, partition and ceiling systems, integrated construction systems. Students undertake on-site studies. Emphasis on method of construction rather than the attributes of the finished product.

Textbooks

Antill J. M. & Ryan P. W. S. *Civil Engineering Construction (Metric)* A & R

American Concrete Institute *Formwork for Concrete* ACI Detroit USA 1963

Cement and Concrete Association Technical Papers, various authors

35.507
Building Construction VII

5 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
Building Construction VIII

6 credit points. Prerequisites: 35.505, 35.553, 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.

Textbooks

Industrialisation Forum Subtitle *Building Systems* 6 issues yearly. Universite de Montreal et al 1969-1975

Cement and Concrete Association of Australia *Connection details for precast prestressed concrete*

McMeekin Ivan *Raw Materials and Clay Bodies* Vol 1 NSW UP

Peter J. *Aluminium in modern architecture* Vols 1 & 2 Reinhold

Taylor W. H. *Concrete Technology and Practice* A & R

Standards Association of Australia *1538 Cold formed steel structures code MAI.1 Steel structures Pt 1 Planning*

35.551
Building Structures I

6 credit points; compulsory. Prerequisites: nil. Co-requisites: 35.501, 35.601.

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.

Textbook

Morgan W. & Williams D. T. *Structural Mechanics* Pitman

35.552
Building Structures II

7 credit points; compulsory. Prerequisites: 35.502. Co-requisites: 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.

Textbooks

Morgan W. & Williams D. T. *Structural Mechanics* Pitman

Gorenc B. E. & Tinyou R. *Steel Designers' Handbook* NSW UP

35.553
Building Structures III

6 credit points; compulsory. Prerequisites: 35.551. Co-requisites: 35.505, 35.552.

Revision: equilibrium of forces in plane and space. Principles of statical determinacy. Indeterminate structures: slopes and rotations, the three-moment equation, 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.

Textbooks

Cowan H. & Smith P. *The Design of Reinforced Concrete* A & R

Grinter L. E. *Elementary Structural Analysis and Design* McMillan

35.554
Building Structures IV

4 credit points. Prerequisites: 35.553.

Revision: equilibrium conditions, with special reference to space frames. Multi-storey, multi-bay frames: comparison of efficiencies, costs. Computer applications in structural analysis. Structural dynamics: elements of vibration analysis. Experimental techniques. Survey of research on building structures and structural materials.

Textbooks

As for 35.553 Building Structures III with additional books recommended as required.

35.570
Environmental Studies

2 credit points. Prerequisites: nil.

Some of the problems faced by those who will be building and managing future projects. A broad introduction on the physical characteristics of the Sydney Region, ie **1.** projected land-use growth factors, **2.** major transport systems, and a brief summary of the architectural history of the Region.

Undesirable impact on the environment: **1.** noise; **2.** pollution of land, air, water; **3.** wastage of resources; **4.** re-development problems: **A** client's view, **B** architect's view, **C** landscaper's view, **D** role of environmental impact studies. Public reaction to the above. Comments and discussions with resident action groups, green ban supporters, etc. Seminars to discuss building techniques and possible structural methods to satisfy both client requirements and public concern.

Textbooks

Jacobs J. *The Death and Life of Great American Cities* Random House

State Planning Authority of NSW *Sydney Region: Outline Plan —1970-2000*

35.580
Building Design Analysis

3 credit points. Prerequisites: 35.505, 35.704, 35.852.

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

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

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.

Textbook

Department of Works, Experimental Building Station. *Notes on the Science of Building*

35.602
Building Science II

6 credit points; compulsory. Prerequisites: 1.091.

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.

Textbooks

Hassall D. N. H. *Reflective Insulation and the Control of Thermal Environments* St. Regis-ACI Sydney 1973

Phillips R. O. *Sunshine and Shade in Australasia* Experimental Building Station

Durrant D. W. ed *Interior Lighting Design* Lighting Industry Federation Limited & The Electricity Council

35.603
Building Science III

6 credit points; compulsory. Prerequisites: 35.670.

Computer programming and applications. The computer is introduced as a simple manipulating device having the capability of making elementary logical decisions. The capabilities of computers in number and character processing is explored by both writing programs in the BASIC computer language and running selected existing application programs. In particular, stress is given to the modelling of probabilistic processes via computer simulation, and the study of decision making processes via game-playing programs. Emphasis is on computer processing in an interactive (ie conversational) mode.

Textbook

Kemeny J. G. & Kurtz T. E. *Basic Programming* Wiley

35.604
Building Science IV

3 credit points. Prerequisites: 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

3 credit points. Prerequisites: 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

3 credit points. Prerequisites: 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

3 credit points. Prerequisites: 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.

Textbooks

Koenigsberger O. H. *Manual of Tropical Housing Part 1: Climate Design* Longman

Hassall D. N. H. *Reflective Insulation and the Control of Thermal Environments* St. Regis-ACI

Phillips R. O. *Sunshine and Shade in Australasia* Experimental Building Station

35.608
Building Science VIII

6 credit points. Prerequisites: 35.603.

Systems analysis methods. The systems approach of considering the interconnectedness 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. Computers are utilized in implementing these analysis tools.

35.651
Building Services I

2 credit points; compulsory. Prerequisites: 35.602.

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.

Textbook

Burberry P. *Environment and Services* Mitchell's Building Construction Batsford

35.652
Building Services II

2 credit points; compulsory. Prerequisites: 35.602. Co-requisites: 35.651.

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.

Textbooks

Burberry P. *Environment and Services* Mitchell's Building Construction Batsford

Standards Association of Australia *Adequate Electrical Installations CC12 SAA*

35.653
Building Services III

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

6 credit points; compulsory. Prerequisites: nil.

Calculus: elementary functions, differentiation and integration, differential equations. Linear algebra: vectors, matrices. Systems of linear equations, applications to three dimensional geometry. Probability: revision of sets. Union and intersection of events. Conditional probability, independence, many-stage experiments. Tree diagrams. Binomial experiments. Geometry: Conic sections, generation of surfaces, topology, networks, Euler's theorem, universal paths, one-sided surfaces. Polyhedra. Projective geometry.

Textbook

Greening M. G. *First Year General Mathematics* NSW UP

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
Building Management I

2 credit points; compulsory. Prerequisites: nil.

Scientific management principles, administration and supervision; principles of organisation, 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, history, products, markets, resources, future development and career opportunities; the structure of the building and development industry, building acts and regulations, codes, local government authority powers, fees and approvals.

35.702
Building Management II

2 credit points; compulsory. Prerequisites: 35.701.

The application of scientific management theory in practice with particular reference to building organisations. 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
Building Management III

2 credit points; compulsory. Prerequisites: 35.701. Co-requisites: 35.702.

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.

35.704
Building Management IV

2 credit points; compulsory. Prerequisites: 14.051, 35.504, 35.703.

Building contracts and contract administration. Site organization, plant and equipment. Building methods and materials handling. Construction analysis and production methods.

35.705
Building Management V

3 credit points. Prerequisites: 35.504, 35.703.

Macro and micro construction planning methods. A systems approach to construction planning. CPM and PERT as applied to construction. Planning for repetitive construction. Planning materials handling. Productivity in construction. Preplanning for project financial control. Application of decision theory.

35.706
Building Management VI

3 credit points. Prerequisites: 35.704.

Business practice in relation to contract and project building. Industrial relations. Management games.

35.707
Building Management VII

3 credit points. Prerequisites: 35.704.

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
Building Management VIII

3 credit points. Prerequisites: 35.704, 35.910.

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; organisation of the financial structure; operating and working capital management; growth and development; and the causes and prevention of financial instability and failure.

Textbooks

Holloway R. J. & Hancock R. S. *Marketing in a Changing Environment* Wiley

Pierson G. & Bird R. *Business Finance* McGraw-Hill

Building Economics Stream

The subjects contained in the Building Economics Stream aim to provide a comprehensive 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 complete building program.

35.801
Quantity Surveying I (Measurement)

4 credit points; compulsory. Prerequisites: 35.503.

Quantity surveying; historical background; 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 the plans and specifications; principles of measurement; measuring techniques for single storey construction; fundamentals of item descriptions; taking off quantities from plans and specifications.

Textbook

The Australian Institute of Quantity Surveyors and the Master Builders' Federation of Australia *The Australian Standard Method of Measurement of Building Works (Metric)* 3rd ed

35.802
Quantity Surveying II (Billing)

4 credit points. Prerequisites: 35.504, 35.870.

Advanced quantity surveying, for all 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.

Textbook

The Australian Institute of Quantity Surveyors and the Master Builders' Federation *The Australian Standard Method of Measurement of Building Works (Metric)* 3rd ed

35.803
Quantity Surveying III (Cost Planning)

2 credit points. Prerequisites: 35.802.

Functions of the quantity surveyor; liaison with consultants; cost planning techniques including practical exercises; cost control and design economics.

35.851
Building Economics I

6 credit points; compulsory. Prerequisites: 14.002.

The national economy—its relation to and effect upon the building industry. Estimating techniques for building works; analyses of "all in" materials, labour and plant rates; analyses of trade unit rates; preliminary items; pricing of a bill of quantities.

Textbooks

Hillebrandt P. M. *Economic Theory and the Construction Industry* Macmillan

Thackray R. N. *Estimating* NSWUP

35.852
Building Economics II

6 credit points. Prerequisites: 35.851.

Legal background to valuation of land and property. Time value of money and equivalence. The annual cost and present worth methods. Case studies of property valuations. Estimating techniques for determining overheads, costing methods, preliminary estimates and tender preparation. Building plant; capital investment appraisals, economic life and replacement economy, depreciation and effects of taxation, operating costs.

Materials handling: ergonomics, operations research, economic case studies.

35.853
Building Economics III

6 credit points. Prerequisites: 35.852.

Economic advantages and disadvantages of conventional on-site construction and industrialised 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.

35.870
Building Specifications

2 credit points. Prerequisites: 35.801.

Principles and methods and changing trends involved in the compilation of a specification. Principles and methods involved in the compilation of a specification for building works; objects of a specification; the specification as a contract; legal, tender and working documents; 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

2 credit points. Prerequisites: 35.504, 35.852.

A total approach to the building process through the four stages of pre-design, design, construction and post-construction. Market research, establishing client's needs, site selection and analysis, feasibility studies and financing methods. 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 fitouts and handing over to clients of the completed project.

Textbooks

Pierson G. & Bird G. *Business Finance* McGraw-Hill

Weston J. F. *The Scope and Methodology of Finance* Prentice-Hall

Thesis Requirement

35.900
Thesis (Building)

5 credit points; compulsory. Prerequisites: a total of 120 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 of the testing of an hypothesis. Neither is it an essay permitting the student's unsupported opinion. The topic of the thesis is to be submitted by the student for the approval of the Head of the School. A student may not commence the thesis until 120 credit points have been accrued and it must be submitted for examination before the close of the last semester attended by the student.

35.910
Industry Semester

Nil credit points; compulsory. Prerequisites: 35.504, 35.601, 35.703.

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 employment 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 but, in any case, must be completed before attempting the final semester.

Graduate Study

35.210G
Building Contracts and Documentation

Analysis of present forms of building contract with legal aspects underlined. Relevant aspects of contract law. Forms of contract: serial tendering, negotiated contracts. The subcontract: nominated sub-contractor; co-contract. Standard methods of communication between parties to the contract. Legal foundations of documentation. Rational methods for contract documentation: specifications, bills of quantities. Standard clauses, terminological standards. Automatic data processing. Preparation of trade literature.

35.220G
Building Economics and Property Valuation

Structure of the economy; building as an investment. Feasibility, large-scale development, legal aspects. Economic models, optimization. Principles of rational building; dimensional control; system building; component technology. Statutory valuations, market value, unimproved land, valuation of improvements, depreciation and obsolescence, investment properties. Valuation law. Land laws. Feasibility studies on subdivisions.

35.230G
Operations Planning I

Operations Research Techniques. Linear programming, games theory. Critical path techniques. Queueing and congestion. Mathematical models, simulation, Monte Carlo methods. Decision and information theory.

35.240G
Graduate Project

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 graduate project.

35.250G
Office and Personnel Management

Office structure and organization; statutory and legal obligations of employment; divisions and delegation of responsibility and authority; office funds, accounting, taxation and insurance; staff evaluation, promotion, incentives, training, counselling; communications, information flow, storage and retrieval; assessment of work systems and patterns; case studies.

35.260G
Architectural Programming

The planning and supervision of an architectural project; the building process; the compilation and dissemination of the brief; personnel potential; information collection; communications and contacts; research and feasibility studies; the economic use of resources; operations and time-tabling; budgeting; forms of documentation and documentation aids; supervision of contract letting; post-contract documents; personnel confrontations and decisions; commissioning procedures; post-completion supervision and documents; public relations.

35.270G
Estate Management

The building manager. Building performance: feed-back; the "follow-on" phase. Case studies in building maintenance. Obsolescence, repair and replacement. Insurance, security, cleaning. Principles of property development.

35.280G
History of Building

Development of materials, structures, building methods. The impact of social and political conditions on building. Surveys of present techniques and review of future possibilities in development: industrialization, use of new materials, new philosophy of design.

35.290G
Advanced Construction I

35.300G
Advanced Construction II

Construction methods: plant, formwork, transport, assembly and erection. Buildings elements: foundations, floors and walls, lift slab and flat plate; industrial buildings and frame design; prestressed concrete design and construction. Construction problems of high-rise buildings. Slip forms, climbing forms. Pre-fabrication. Multi-storey load-bearing buildings. Materials of construction; timber engineering; aluminium and plastics; light-weight aggregate concrete; sandwich panels.

35.310G
Advanced Equipment and Services

Fabrication and installation of services for large building projects: lifts, air-conditioning, fire services. Refrigeration facilities. Cool houses. Large industrial service installations.

35.320G
Operations Planning II

Construction analysis; methods of estimating; use of statistical data and dissection for control functions. Cost analysis and cost control analysis of elements and activities.

35.330G
Cost Planning and Analysis
Cost planning history and background; definitions, coding; analysis; elements; costing a design; designing to a cost. Comparative cost planning, elemental cost planning; cost control. Case study for the pre-tender stage of a building program.

35.340G
Computer Applications I
Further development of computing concepts. Completion of the Fortran language. Programming assignments in some of the following areas: scheduling, operations planning, structures, statistics, simulation, linear programming.

35.350G
Computer Applications II
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
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.

35.370G
Experimental Techniques
Principles of instrumentation, metering; recording and analysing experiments. Method of dimensions, principle of similarity, testing of scale models. Experimental methods in psychology and sociology; design of subjective experiments and questionnaires.

35.380G
Services and the Environment
Parameters affecting comfort, i.e. psychophysical factors. Thermal energy balance of a building. Effect of building components, materials and services on the environment: effect of walls, floors and fenestration on the thermal, acoustic and lighting environments. Relationship of buildings to the ecology of the region.

35.390G
Building Structures and Services
A qualitative study of structural systems and their interaction with services. Integration of services and structure. Use of computer packages in structures and services. Case studies of special integrated solutions, with particular reference to prefabrication and industrialised building. Space requirements for installations.

35.400G
Economics of Services
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.

35.410G
Materials for Services
Metals: evaluation and acceptance tests, relaxation, fatigue ductility and brittle fracture, structural alloys. Timber and plastics: mechanical and physical properties. Adhesives, laminates, elastomers. Development of plastics for construction purposes.

Services: General

The study of *Thermal, Electrical* and *Hydraulic Services* involves specialist treatment at advanced level with emphasis on interaction of installations, the fabric of the building and the building environment.

35.420G
Thermal Services
A study of heating, ventilation and air-conditioning.

35.430G
Electrical Services
A study of electrical installations.

35.440G
Hydraulic Services
A study of plumbing, drainage and fire services.

35.450G
Energy Balance of Buildings
Thermal properties of the building envelope. Thermal balance and energy conservation in buildings. Utilization of solar energy for heating and cooling. Waste recycling. Choice of fuel for energy requirements: solid, oil, gas, solar and nuclear etc.

School of Town Planning

Undergraduate Study

36.271
Environmental Science
Mathematics: Elementary computer programming, numerical methods. *Physics:* Mechanics and properties of matter; wave motion, heat, light and sound. *The Environment:* Human comfort requirements; climatic factors; thermal, visual and acoustical environments. Fire protection.

Textbooks

Fairweather L. & Sliwa J. A. *A.J. Metric Handbook* 3rd ed Architectural Press

Halliday D. & Resnick R. *Physics Parts 1 and 2* Combined ed Wiley

36.411
Town Planning

The urban planning process. The industrial and urban revolution. Regional planning concepts. Housing and new towns. Civic design. Human environment. Social planning: societal values and societal organisation. Social planning: public participation, quality of life. Planning law and administration. Levels of planning and types of plans. Ecological land use planning. Uses of the Lowry Model. Metropolitan planning concepts with particular application to Sydney and Canberra. Neighbourhood planning. The future city.

36.412
Town Planning A (Elective)

Prerequisites: 36.411 Town Planning

An extension of 36.411 Town Planning with seminars and studio work in neighbourhood and town design in the Australian context.

36.431
Town Planning Theory and Practice I

Theory and practice of planning.

Definition; interaction of land use and movement; social and economic implications of planning; levels of planning; types of plans; evolution of the planning process; citizen participation in planning.

Textbook

Roberts M. *An Introduction to Town Planning Techniques* Hutchison Educational

36.432
Town Planning Theory and Practice II

The planning process: objects, civic survey, plan preparation and implementation. The nature and purpose of zoning. The elements of a residential neighbourhood. Studio and field exercises in civic survey, environmental studies, and the layout of residential areas.

36.433
Town Planning Theory and Practice III

The town—its function, elements and form. Principles and practice of replanning existing towns and planning new towns. Expanded towns. The "new towns" movement in Great Britain and its international significance. New towns overseas and in Australia. Special purpose towns such as mining towns. New national capital cities. Studio exercises in town design, townscape and urban renewal.

Textbook

Gibberd F. *Town Design* 4th ed Architectural Press

36.434
Town Planning Theory and Practice IV

The metropolis—its concept and form. Factors affecting metropolitan structure. Objectives in metropolitan planning. Types of metropolitan plan. Special purpose plans. Transportation studies. Metropolitan planning authorities, plan implementation. Metropolitan economy. Public and private sector decision making. Growth models. How effective are metropolitan plans? Studies of metropolitan plans in Australia.

36.435
Town Planning Theory and Practice V

National and regional planning concepts. National and regional planning activity overseas. Evolution of regional planning in New South Wales. Regional development committees and advisory councils. Responsibilities of Commonwealth, State and Local Governments for planning policies. Industrial development and decentralization issues. Planning strategies. Operational models. Existing and emerging techniques in the collection, analysis and projection of planning data. Urban research objectives and techniques.

36.436
Urban Geography

Nature and scope of urban geography. Rise and diffusion of urbanism, world urban patterns. Economic base studies. Functional classification of towns. Central place theory. Theories of internal urban zonation. Urban centres as market places. Industrial location. Suburban growth, urban sprawl and the rural/urban fringe. Urban transportation. Urban site and situation. Urban settlement in Australia.

Textbook

Carter H. *The Study of Urban Geography* Arnold

36.437
Civic Survey Camp

Fifth year students are required to attend a Civic 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.

36.438
Urban Government

Urban Government systems in a number of metropolitan cities are compared, and local governments are studied as participants in these systems and as political entities offering special opportunities for comparative studies. Some general political issues related to urban affairs are examined, especially in Australia. A major aim is to acquaint students with recent developments in the study of government, politics and urban affairs and to show how some of these approaches could be used in the Australian context.

Textbooks

Boaden N. *Urban Policy Making* CUP

Cities A Scientific American Book Pelican

Rose A. J. *Patterns of Cities* Nelson

Stretton H. *Ideas for Australian Cities* Published by the author, Adelaide

Wilson J. Q. *City Politics and Public Policy* Wiley

36.441
Design II for Town Planners

Studio exercises including studies of housing groups at various densities; the planning of subdivisions and neighbourhood facilities; the analysis and planning of streets, plazas and redevelopment areas.

36.442
Civic and Landscape Design

Relationship of buildings, spaces and landscape. Street architecture, street furniture. Height, floor space and building regulations; architectural controls. Design envelopes. Three dimensional redevelopment schemes. Preservation of buildings of architectural and historic interest. History and principles of landscape design. Open spaces. Trees and tree planting.

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 meaning of the Renaissance. The Baroque city. The Agrarian and Industrial Revolutions. Nineteenth century social reforms and planning theories. The Garden City movement. The City Beautiful movement. The City of Tomorrow. Colonial towns: USA and Australia.

Textbook

Mumford L. *The City in History* Secker & Warburg

36.461
Civic Engineering

Road location, design and construction. The provision of public utility services: town water supply, sewerage treatment and disposal, electricity and gas supply, telephone communications. Drainage. Ports, railways, aerodromes.

36.471
Planning Law and Administration

The purpose of town planning legislation and its evolution in the United Kingdom. The NSW Local Government Act, 1919 (and relevant Ordinances), in particular Parts XI, XII and XIIA; residential district proclamations, sub-division regulations; preparation, approval and implementation of planning schemes. Interim development control, compensation, betterment, resumption, appeals. The State Planning Authority Act, 1963. Nature of legislation in other States.

Textbooks

NSW—Parliament—Statutes *Local Government Act 1919* Govt. Printer Sydney 1966

Spann R. N. *Public Administration in Australia* NSW Govt Printer

36.481
Land Valuation and Economics

The need for land valuations. Legal background to valuation. Economic basis of land valuation. Valuations under Valuation of Land Act (NSW). Legislative schemes for the acquisition of land for public purposes. Compensation. Betterment. Interrelationships of planning, valuation and rating. Urban economics: the land market and planning, location theories, urban structure and growth, economics of externalities and economics of city size. Techniques in urban economics: input-output analysis, regional multipliers, cost benefit studies and planning balance sheet analysis.

Textbooks

NSW—Parliament—Statutes *Valuation of Land Act 1916-1961* Govt Printer

Rost R. O. & Collins H. G. *Land Valuation and Compensation in Australia* Commonwealth Institute of Valuers

36.491
Thesis

A specialized individual study taken under staff supervision with the object of allowing the student either to gain knowledge in some aspect of town planning 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 thesis 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 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.

Graduate Study

36.920G
Theory of Neighbourhood Planning

The neighbourhood concept: its historical evolution and development. The contributions of Ebenezer Howard, Unwin and Parker, Clarence Perry, Stein and Wright, Frank Lloyd Wright, Le Corbusier, Walter Burley Griffin, Frederick Gibberd. Steen Eiler Rasmussen, and others. Neighbourhood structure, elements and form. Relationship to town and metropolitan planning.

36.921G
Practice of Neighbourhood Planning

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 in living areas. Organization of neighbourhood development.

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 will 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.

School of Botany

Undergraduate Study

43.212
Landscape Botany
Ecological and morphological significance of life forms; vegetation structure and variation in relation to environmental (particularly water and nutrient) gradients; nutrient cycling; comparative morphology and structure of major plant groups; growth and morphogenesis; reproduction and variation; principles of taxonomy and classification of selected angiosperm groups.

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

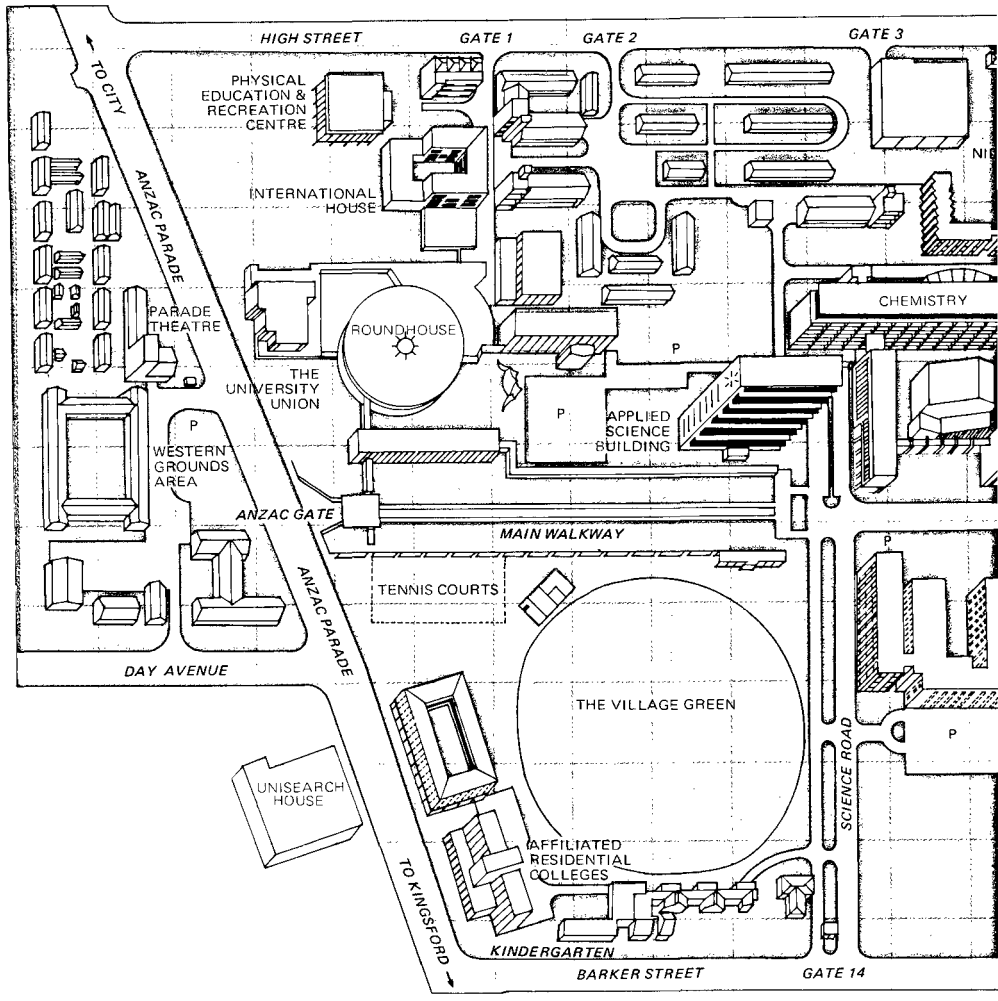
53.321
Urban Sociology
A sociological approach to the study of urban phenomena. Lectures deal with both methodological and theoretical issues relating to the study of urban social structures. Seminars provide students with the opportunity to examine critically a number of community studies. A research project is undertaken by each student.

Textbook

Reissman L. *The Urban Process* Free Press

Student's Timetable

Time	Monday		Tuesday		Wednesday		Thursday		Friday	
	Session 1	Session 2	Session 1	Session 2	Session 1	Session 2	Session 1	Session 2	Session 1	Session 2
9-10										
10-11										
11-12										
12-1										
1-2										
2-3										
3-4										
4-5										
5-6										
6-7										
7-8										
8-9										



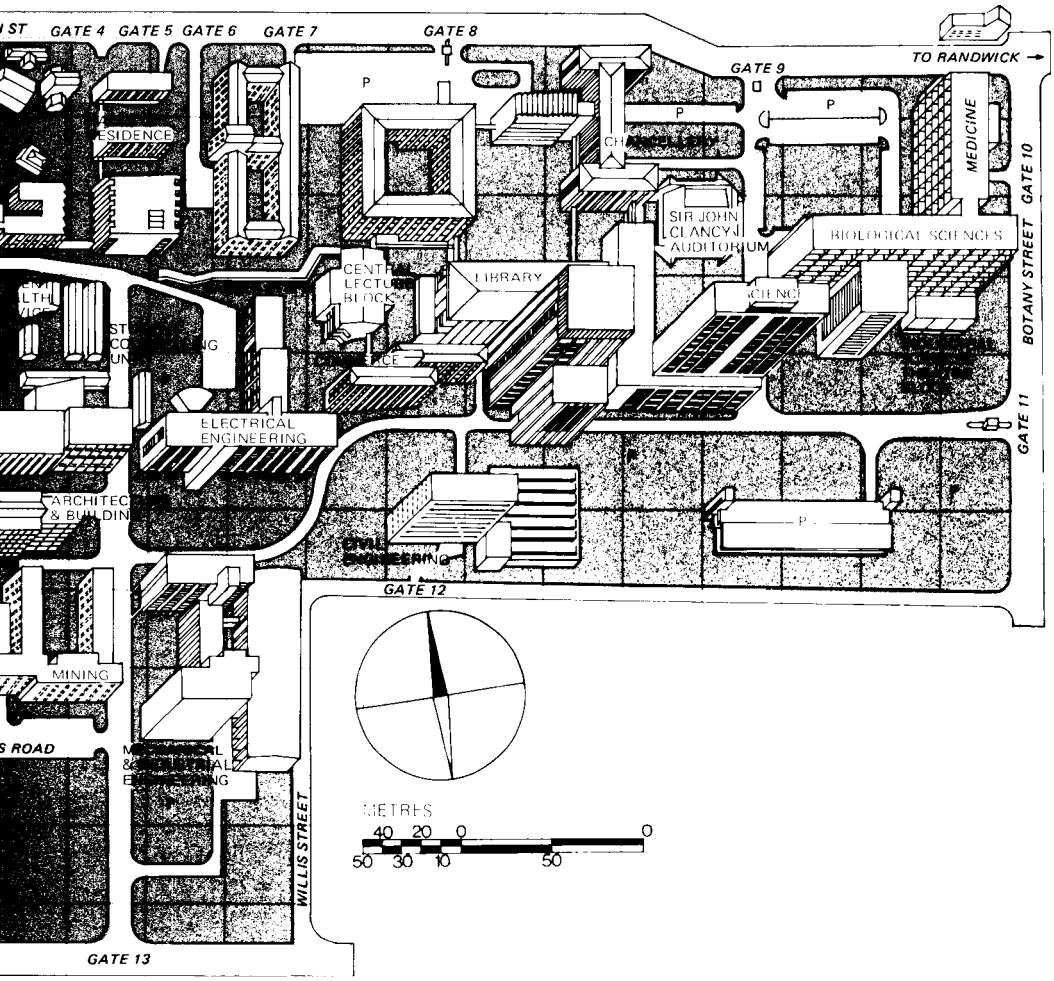
THE UNIVERSITY OF NEW SOUT

BUILDINGS

Applied Science F11
Architecture H15
Banks F22, F7
Basser College B18
Biological Sciences D26
Biological Sciences Extensions E25
Biomedical Lecture Theatres E27
Central Lecture Block E19
Central Store B13
Chancellery B/C 22
Child Minding Centre N8
Civil Engineering H20
Cracknell Sports Pavilion H8
Dalton (Chemistry) G12
Electrical Engineering G17
Electrical Engineering
Lecture Theatre F17
Goldstein College B/C/D16
International House C7
John Goodsell (Commerce) F20
Keith Burrows Lecture Theatre H14
Kensington College C15/16/17
Library — Stage 2 F21/22
Main Building J/K13/14/15/16
Maintenance Workshop B13
Mechanical Engineering H17
Medicine (Administration) B27
Menzies Library E21/22
Metallurgy E8/9
Morven Brown (Arts) C/D19/20
New College (Anglican) K/L6
Newton Building J/K12
National Institute of Dramatic Art C15
Old Main Theatrette J14
Parade Theatre and
Old Tote Theatre Company E3
Philip Baxter College D13/14/15
Physical Education and
Recreation Centre B5/6
Robert Heffron (Chemistry) E12/13
Sciences Building F23/24
Science Lecture Theatre Block D23
Science Theatre F13
Shalom College (Jewish) M9/10
Sir John Clancy Auditorium D23/24
Sir Robert Webster (Textiles) G14/15
Squash Courts B7
Union (Roundhouse) — Stage I E/F 6/7
Union (Blockhouse) — Stage II F6/7
Union (Squarehouse) — Stage III D/E5
Union (Golf House) — Subsidiary A27
Unisearch House L5
University Regiment H3
Wallace Wurth School of Medicine C26
Warrane College (Roman Catholic) M6/7
Western Campus A-J 2/3, H/J 3/4
Wool and Pastoral Sciences B8

GENERAL

Accountancy C20
Admissions Office B22
Aeronautical Engineering J/K/L18
Anatomy C26
Applied Geology F11
Applied Physics J12
Applied Science (Faculty Office) F11
Appointments Office B22
Architecture (including Faculty Office) H15
Arts (Faculty Office) D20
Biochemistry D26
Biological Sciences (Faculty Office) D26
Biological Technology D26
Biomedical Library D27
Bookshop G17
Botany D26
Building H15
Cashier's Office B22
Centre for Medical Education
Research and Development E24
Ceramic Engineering D12
Chemical Engineering F11
Chemical Technology F11
Chemistry E12/13, F/G12



WALES KENSINGTON CAMPUS

Civil Engineering H20
Clancy Auditorium D23/24
Closed Circuit Television Centre F20
Commerce (Faculty Office) F20
Community Medicine E25
Computer Centre F18
Drama D9
Economics F20
Education F2/3
Electrical Engineering G17
Engineering (Faculty Office) H17
English C20
Examinations and Student Records B22
Fees Office B22
Finance F20
Food Technology F11
French C21
Fuel Technology F11
General Studies C20
Geography F11
German C20
Graduate School of Business F20
Health Administration C23
History C20
History and Philosophy of Science C20
Human Genetics C26
Industrial Arts C2
Industrial Engineering H17
Institute of Administration G3
Institute of Languages G14
Institute of Rural Technology B9
Landscape Architecture H15
Law (Faculty Office) F23/24
Law Library F23/24
Librarianship B9/10
Library E21/22
Marketing F20
Mathematics F23/24
Mechanical Engineering H17
Medical Microbiology C26
Medicine (Faculty Office) B27
Metallurgy E8/9
Microbiology D26
Mining Engineering K16
Music B11
National Institute of Dramatic Art C15
Naval Architecture H17
Nuclear Engineering F18
Optometry J12
Pathology C26
Philosophy C20
Physics K13/14/15
Physics (Applied) J12
Physiology and Pharmacology C26
Political Science B/C19
Polymer Science C8
Postgraduate Committee in Medical Education B27
Postgraduate Extension Studies (Closed Circuit TV) F20
Postgraduate Extension Studies (Radio Station and Administration) F23/24
Psychology F23/24
Public Information C22
Russian D20
Science (Faculty Office) K14
Shalom College M9/10
Social Work F2/3
Sociology C21
Spanish and Latin American Studies D19
Student Amenities Office E16
Student Counselling Unit E16
Student Employment F15
Student Health Service E15
Students' Union E5
Superintendent (Patrol & Cleaning Services) F20
Surveying H20
Teachers' College Liaison Officer F16
Tertiary Education Assistance Centre E16
Textile Technology G14/15
Town Planning J/K16
University Union E/F6
Water Research Foundation H20
Wool and Pastoral Sciences B8
Zoology D26

Arms of
The University of New South Wales

Granted by the College of Heralds, London
3 March 1952

Heraldic Description of Arms

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.