This Volume is intended as a reference handbook for students enrolling in courses conducted by the Faculty of Architecture.

The colour band, Garnet BCC 160, on the cover is the lining colour of the hood of Bachelor of Architecture of this University.

The information in this Handbook is correct as at 1 August, 1985.
DEAN'S INTRODUCTION

The profession of architecture, like the building industry it serves, is traditionally subject to the fluctuations of the general economy. Nevertheless, in times of both expansion and recession it provides for a continuing and essential social need. In meeting that need the profession provides opportunities for a wide range of activities and skills, from the refurbishment of historic structures to the design of new facilities, and from the investigation of building materials to the management of construction programmes.

For the student of architecture, this scope is reflected in the combination of areas of knowledge and skills which the undergraduate architectural courses are designed to develop. Embracing graphic skills as well as scientific knowledge, the study of history as well as of the latest developments in computer aided design, they call into play a unique range of practical and intellectual activities, at the heart of which lies that creative generation of built form in response to human need which we call design. Although there will be many forms of practice open to a student at the completion of the university course, it is this capacity for conceiving imaginative solutions to real problems which underlies the most effective contributions which an architect can make.

We believe that the best way in which a school of architecture can help a student develop this capacity is by dealing with relevant problems in a way which integrates the various areas of skill and knowledge required. It is this approach which gives the Newcastle Faculty its particular flavour, and which is guiding the development of its courses. As a compact, single-department Faculty, with strong roots in the community of the Hunter Valley region, it is well placed to extend the standards of excellence achieved by its students in the past.

BARRY S. MAITLAND, Dean.

FACULTY STAFF

Dean
B. S. Maitland, DipArch, MA(Cambridge), PhD(Sheffield), RIBA, ARAIA

Faculty Secretary
Dianne Oughton, BA; MLitt(New England)

Department of Architecture

Professor
B. S. Maitland, DipArch, MA(Cambridge), PhD(Sheffield), RIBA, ARAIA
(Head of Department)

Associate Professor
R. M. Deamer, MArch, ASTC

Senior Lecturers
H. G. Appleby, MArch, Dip TCP (Sydney)
H. K. Banerjee, BE(Cal), MTech(ITT), PhD(Glasgow), MBA(WA), FIE(Ind), MIE(Aust)
H. C. Clarke, BArch(New Zealand), FRAIA, RIBA, ANZIA, AAIM
R. McL. Cowdroy, ASTC, BArch(New South Wales), MBldgSc(Sydney), ARAIA
J. R. Rockey, BArch(New South Wales), PhD(Angelicum, Rome), DPhil(Oxford), FRAIA

Lecturers
R. J. Donaldson, BArch.
A. J. Kingsland, BArch(Melbourne)
M. F. Park, BArch(New South Wales), ASTC

Senior Technical Officer
P. Thomas

Technical Officer
P. Muller, Assoc.Dip.Art/Craft, Phot.(NCAE), MAIPP

Laboratory Craftsman
J. Richards

Computer Programmer
R. Buchholz, BMaths(Hons)

Departmental Office Staff
Diane L. McNeil
Pam Clark
GENERAL INFORMATION

Location
The Faculty of Architecture functions in a self-contained building on the University campus where it is located across the western footbridge beyond the Library and Union over the ring road and adjacent to the Metallurgy building. The nearest general car park is north of the Metallurgy building. See the frontispiece plan for further details.
The postal address is:
Faculty of Architecture
The University of Newcastle, N.S.W. 2308
The University telephone number is 68 0401.
The Departmental Office extension number is 361.

University of Newcastle Architectural Students’ Association
Membership is open to both students and staff of the Faculty of Architecture as well as members of the architectural profession. Students of other faculties may be admitted as associate members. The Association aims at bringing together students at all levels within the Faculty and holds functions, both social and academic, including lectures by prominent members of the profession.
Announcements of the Architectural Students’ Association’s activities are posted on the Notice Board in the Architecture building.

Professional Recognition
Holders of the degree of Bachelor of Architecture of the University are eligible to be registered as architects under the New South Wales Architects Act (No. 8, 1921, as amended) and the Regulations under that Act.
An up-to-date copy of the Act and Regulations is held in the Departmental Office as is a stock of forms for application for registration as an architect.
Registered architects may apply to the New South Wales Builders Licensing Board for a license to practise as builders under the Builders Licensing Act (N.S.W. 1971).

Professional Association
Students enrolled in the Faculty of Architecture are advised to apply for student membership of the Royal Australian Institute of Architects. The Institute issues a wide range of publications and holds numerous functions both social and educational at specially reduced rates for students, all of which should be of interest and value to the student architect.

Pre-requisites for Entry to the Bachelor of Science (Architecture) Degree in 1986
There are no mandatory prerequisite HSC subjects required of students entering the course. Students are advised however that the study of architecture will call upon skills of literacy, numeracy and design. The HSC subjects English, Mathematics, Physics, Art and Industrial Arts would provide a basis for the development of these skills.

Student Representation in Faculty Affairs
Provision is made for student representatives to be elected to the Faculty Board of the Faculty. The Faculty Board has responsibility for the teaching and research activities of the Faculty.

Awards
James Hardie Scholarship
This scholarship is sponsored annually by James Hardie Pty. Ltd. and is open to holders of the Newcastle Bachelor of Architecture degree, and to post-graduate students currently enrolled in the Faculty of Architecture. Its purpose is to assist the study of a topic relating to the built environment, preferably with relevance to the Newcastle area. Applications should be made to the Head of Department by 30 August. Value $1500.

K. B. Hutcherson Architectural Research Award
The purpose of this award is to promote research in the Department of Architecture. It is sponsored by K. B. Hutcherson Pty. Ltd. and is open to any student or staff member seeking support for a recognised research project. Applications should be made to the Head of Department. Value up to $1000.

Prizes
Newcastle Gas Co. Prize
This prize, donated by the Newcastle Gas Co. Ltd, is awarded at the end of 3rd year to the outstanding student in the technology subjects or study areas of the Bachelor of Science (Architecture) degree course. Value $50.

P.G.H. Prize
The P.G.H. prize, donated by P.G.H. Industries Ltd, is awarded to the outstanding student graduating with the B.Sc.(Arch.) (3rd year). Value $250.

Board of Architects of New South Wales Prize
The Board of Architects of N.S.W. Prize is awarded for the best academic performance in the Bachelor of Architecture degree course, if of sufficient merit. Value $250.

Sydney C. Morton Prize
This prize is awarded annually to the graduating student who achieves the highest aggregate of marks in the technology subjects or study areas of the Bachelor of Science (Architecture) and Bachelor of Architecture degree courses, provided his work is of sufficient merit. Value $60.

Neville Clouten Architectural Synthesis Prize
This prize is awarded annually to the student, being enrolled in one of the design subjects or study areas of the B.Sc.(Architecture) or B.Arch degree courses, who best demonstrates the design process by a project completed during the year. The prize shall be awarded on the recommendation of the Head of the Department of Architecture. Value $60.

RAIA Annual NSW Chapter Prize
The New South Wales Chapter of the Royal Australian Institute of Architects offers a prize each year to the student whose performance in the Bachelor of Architecture degree course has been outstanding. Value $250.

N.B. Pitt - R.A.I.A. Newcastle Division Prize
A book prize awarded annually by the Newcastle Division of the Royal Australian Institute of Architects to a student at any stage in the course, for excellence in the field of architectural communication. Value $100.

Further information on prizes and awards may be obtained from University Administration.
Drafting Equipment
At the commencement of the course recommendations for drafting equipment will be given.

Academic Dress
The academic dress worn by graduates of the Faculty of Architecture of the University of Newcastle is as follows:

Gowns
(a) Degree of Bachelor
   A gown of black cloth as worn by Bachelors of Arts of the University of Cambridge.
(b) Degree of Master
   A gown of black cloth as worn by Masters of Arts of the University of Cambridge.
(c) Degree of Doctor of Philosophy
   A gown of garnet cloth faced with silver grey to a width of 4 inches.

Caps and Bonnets
(a) Degree of Bachelor and Master
   Either a black cloth trencher cap or a black Canterbury cap.
(b) Degree of Doctor of Philosophy
   A black velvet bonnet with a silver cord.

Hoods
(a) Degree of Bachelor of Science (Architecture)
   A full hood of black silk lined to a depth of 6 inches with garnet and a 1½ inch edging of silver grey.
(b) Degree of Bachelor of Architecture
   A full hood of black silk lined to a depth of 6 inches with garnet.
(c) Degree of Master of Architecture
   A full hood of black silk lined with garnet.
(d) Degree of Doctor of Philosophy
   A hood of garnet lined with silver grey.

DEGREE REGULATIONS
REGULATIONS GOVERNING BACHELOR DEGREES OFFERED IN THE FACULTY OF ARCHITECTURE

1. General
These Regulations are made in accordance with the powers vested in the Council under By-law 5.2.1 and prescribe the conditions and requirements relating to the degrees of Bachelor of Science (Architecture) and Bachelor of Architecture.

2. Definitions
   (1) In these Regulations and the Schedules thereto unless the context or subject matter otherwise indicates or requires:
      “course” means the total requirements as prescribed in the schedule to qualify a candidate for the award of the degree;
      “Dean” means the Dean of the Faculty of Architecture;
      “degree” means the degree of Bachelor of Science (Architecture) or Bachelor of Architecture as the case may be;
      “Department” means the department or departments offering a particular subject and includes any other body doing so;
      “Faculty Board” means the Faculty Board, Faculty of Architecture;
      “Schedule” means the Schedule to these Regulations relevant to the degree to which a person is enrolled or proposing to enrol;
      “subject” means any part of the course for which a result may be recorded.

3. Admission and Enrolment
   (1) An applicant for admission to candidature shall satisfy the requirements of the Regulations Governing Admission and Enrolment and such other additional requirements as may be specified in the Schedule.
   (2) In any year a candidate shall enrol only in those subjects approved by the Dean or his nominee.

4. Standing
   (1) The Faculty Board, on the recommendation of the Head of the Department concerned, may grant a candidate standing in specified subjects in recognition of work completed in this University or elsewhere, on such conditions as the Faculty Board may determine.
   (2) The standing granted under this Regulation shall not exceed the limit specified in the Schedule.

5. Prerequisites and Corequisites
   Except with the approval of the Dean, a candidate may not enrol in a subject unless he or she has passed any subject prescribed as its prerequisite and has already passed or concurrently enrolls in or is already enrolled in any subject prescribed as its corequisite.

6. Withdrawal
   (1) A candidate may withdraw from enrolment in a subject or the degree only by informing the Secretary to the University in writing and the withdrawal shall take effect from the date of receipt of such notification.
   (2) A candidate who withdraws from any subject after the relevant date shall be deemed to have failed in that subject unless granted permission by the Dean to withdraw without penalty. The relevant date shall be:
      (a) in the case of any subject offered only in the first half of the academic year, the last Monday of first term;
7. Subject Requirements
   (1) To complete a subject, a candidate shall attend such lectures, tutorials, seminars, laboratory classes and field work and submit such written or other work as the Department shall require.
   (2) To pass a subject a candidate shall complete it and pass such examinations as the Faculty Board shall require.

8. Grading of Degrees
   (1) The degree shall be conferred as an ordinary degree except that in cases where a candidate's performance in the course has reached a standard determined by the Faculty Board, the degree may be conferred with merit or with honours as provided in the Schedule.
   (2) A degree with honours shall be conferred in one of the following grades:
      (a) Class I;
      (b) Class II.

9. Admission to Degree
   To qualify for admission to the degree a candidate shall satisfy the requirements prescribed in the Schedule.

10. Exceptional Circumstances
    In order to provide for exceptional circumstances arising in a particular case, the Senate on the recommendation of the Faculty Board may relax any provision of these Regulations.

SCHEDULE 1 — BACHELOR OF SCIENCE (ARCHITECTURE)

1. To qualify for admission to the degree of Bachelor of Science (Architecture) a candidate shall pass all the subjects listed in the Appendix to this Schedule in accordance with the following conditions:
   (a) In any year a candidate shall enrol only in the Part I subject or in the Part II subject or in the Part III subjects specified in the Appendix to this Schedule, unless the Dean approves otherwise.
   (b) Electives shall be selected from the list of subjects approved for this purpose by the Faculty Board and offered by the Department of Architecture and departments outside the Faculty.

2. A candidate may be granted standing in not more than one half of the course under the provisions of Regulation 4 of these Regulations.

3. The degree of Bachelor of Science (Architecture) may be conferred with merit.

APPENDIX TO SCHEDULE 1

<table>
<thead>
<tr>
<th>Part I Subject</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part II Subject</th>
<th>Architecture I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture II</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part III Subjects</th>
<th>Architecture IIIA</th>
<th>Architecture IIIB</th>
<th>Architecture IIIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture IIIA</td>
<td>Architecture IIIB</td>
<td>Architecture IIIC</td>
<td>Architecture IIIA and Architecture IIIB</td>
</tr>
</tbody>
</table>

Elective III

SCHEDULE 2 — BACHELOR OF ARCHITECTURE

1. To be eligible for admission to candidature an applicant shall:
   (a) have satisfied the requirements for admission to the degree of Bachelor of Science (Architecture) in the University of Newcastle; or
   (b) have satisfied the requirements for admission to a degree in another university or a qualification approved by the Faculty Board as a degree or qualification equivalent to the University's degree of Bachelor of Science (Architecture); or
   (c) in exceptional circumstances hold such academic and professional qualifications as may be approved by the Faculty Board.

2. To qualify for admission to the degree of Bachelor of Architecture a candidate shall pass all the subjects listed in the Appendix to this Schedule in accordance with the following conditions:
   (a) In any year a candidate shall enrol only in the Part IV subject or in the Part V subjects specified in the Appendix of this Schedule, unless the Dean approves otherwise.
   (b) Electives shall be selected from the list of subjects approved for this purpose by the Faculty Board and offered by the Department of Architecture and departments outside the Faculty.

3. A candidate may be granted standing in not more than one half of the course under the provisions of Regulation 4 of these Regulations.

4. The degree of Bachelor of Architecture may be conferred with honours.

APPENDIX TO SCHEDULE 2

<table>
<thead>
<tr>
<th>Part IV Subject</th>
<th>Prerequisites</th>
<th>Corequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture IV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part V Subjects</th>
<th>Architecture IVA</th>
<th>Architecture IVB</th>
<th>Architecture IVC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture VA</td>
<td>Architecture IVB</td>
<td>Architecture IVC</td>
<td>Architecture VA and Architecture VB</td>
</tr>
<tr>
<td>Architecture VB</td>
<td>Architecture IVC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architecture VC</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Elective V
REGULATIONS GOVERNING THE DEGREE OF
MASTER OF ARCHITECTURE

Part I — General

1. (1) These Regulations prescribe the conditions and requirements relating to the degrees of Master of Architecture, Master of Arts, Master of Commerce, Master of Education, Master of Educational Studies, Master of Engineering, Master of Engineering Science, Master of Mathematics, Master of Psychology (Clinical), Master of Psychology (Educational), Master of Science, Master of Medical Science, Master of Scientific Studies, Master of Special Education and Master of Surveying.

(2) In these Regulations and the Schedules thereto, unless the context or subject matter otherwise indicates or requires:
   — "Faculty Board" means the Faculty Board of the Faculty responsible for the course in which a person is enrolled or is proposing to enrol;
   — "programme" means the programme of research and study prescribed in the Schedule;
   — "Schedule" means the Schedule of these Regulations pertaining to the course in which a person is enrolled or is proposing to enrol;
   — "thesis" means any thesis or dissertation submitted by a candidate.

(3) These Regulations shall not apply to degrees conferred "honoris causa.

(4) A degree of Master shall be conferred in one grade only.

2. An application for admission to candidature for a degree of Master shall be made on the prescribed form and lodged with the Secretary to the University by the prescribed date.

3. (1) To be eligible for admission to candidature an applicant shall:
   (a) (i) have satisfied the requirements for admission to a degree of Bachelor in the University of Newcastle as specified in the Schedule;
   or
   (ii) have satisfied the requirements for admission to a degree or equivalent qualification, approved for the purpose by the Faculty Board, in another tertiary institution;
   or
   (iii) have such other qualifications and experience as may be approved by the Senate on the recommendation of the Faculty Board or otherwise as may be specified in the Schedule;
   (b) have satisfied such other requirements as may be specified in the Schedule.

(2) Unless otherwise specified in the Schedule, applications for admission to candidature shall be considered by the Faculty Board which may approve or reject any application.

(3) An applicant shall not be admitted to candidature unless adequate supervision and facilities are available. Whether these are available shall be determined by the Faculty Board unless the Schedule otherwise provides.

4. To qualify for admission to a degree of Master a candidate shall enrol and satisfy the requirements of these Regulations including the Schedule.

5. The programme shall be carried out:
   (a) under the guidance of a supervisor or supervisors either appointed by the Faculty Board or as otherwise prescribed in the Schedule;
   or
   (b) as the Faculty Board may otherwise determine.

6. Upon request by a candidate the Faculty Board may grant leave of absence from the course. Such leave shall not be taken into account in calculating the period for the programme prescribed in the Schedule.

7. (1) A candidate may withdraw from a subject or course only by informing the Secretary to the University in writing and such withdrawal shall take effect from the date of receipt of such notification.

(2) A candidate who withdraws from any subject after the relevant date shall be deemed to have failed in that subject unless granted permission by the Dean to withdraw without penalty.

The relevant date shall be:
   (a) in the case of a subject offered in the first half of the academic year — the eighth Monday in first term;
   (b) in the case of a subject offered in the second half of the academic year — the second Monday in third term;
   (c) in the case of any other subject — the sixth Monday in second term.

8. (1) If the Faculty Board is of the opinion that the candidate is not making satisfactory progress towards the degree then it may terminate the candidature or place such conditions on its continuation as it deems fit.

(2) For the purpose of assessing a candidate's progress, the Faculty Board may require any candidate to submit a report or reports on his progress.

(3) A candidate against whom a decision of the Faculty Board has been made under Regulation 8(1) of these Regulations may request that the Faculty Board cause his case to be reviewed. Such request shall be made to the Dean of the Faculty within seven days from the date of posting to the candidate the advice of the Faculty Board's decision or such further period as the Dean may accept.

(4) A candidate may appeal to the Vice-Chancellor against any decision made following the review under Regulation 8(3) of these Regulations.

9. In exceptional circumstances arising in a particular case, the Senate, on the recommendation of the Faculty Board, may relax any provision of these Regulations.

Part II — Examination and Results

10. The Examination Regulations approved from time to time by the Council shall apply to all examinations with respect to a degree of Master with the exception of the examination of a thesis which shall be conducted in accordance with the provisions of Regulations 12 to 16 inclusive of these Regulations.

11. The Faculty Board shall consider the results in subjects, the reports of examiners and any other recommendations prescribed in the Schedule and shall decide:
   (a) to recommend to the Council that the candidate be admitted to the degree;
   or
   (b) in a case where a thesis has been submitted, to permit the candidate to resubmit an amended thesis within twelve months of the date on which the candidate is advised of the result of the first examination or within such longer period of time as the Faculty Board may prescribe;
   or
   (c) to require the candidate to undertake such further oral, written or practical examinations as the Faculty Board may prescribe;
   or
   (d) not to recommend that the candidate be admitted to the degree, in which case the candidature shall be terminated.

12. The eight Monday in first term — the second Monday in third term.

13
Part III — Provisions Relating to Theses

12. (1) The subject of a thesis shall be approved by the Faculty Board on the recommendation of the Head of the Department in which the candidate is carrying out his research.

(2) The thesis shall not contain as its main content any work or material which has previously been submitted by the candidate for a degree in any tertiary institution unless the Faculty Board otherwise permits.

13. The candidate shall give to the Secretary to the University three months' written notice of the date he expects to submit a thesis and such notice shall be accompanied by any prescribed fee.*

14. (1) The candidate shall comply with the following provisions concerning the presentation of a thesis:
   (a) the thesis shall contain an abstract of approximately 200 words describing its content;
   (b) the thesis shall be typed and bound in a manner prescribed by the University;
   (c) three copies of the thesis shall be submitted together with:
       (i) a certificate signed by the candidate that the main content of the thesis has not been submitted by the candidate for a degree of any other tertiary institution; and
       (ii) a certificate signed by the supervisor indicating whether the candidate has completed the programme and whether the thesis is of sufficient academic merit to warrant examination; and
       (iii) if the candidate so desires, any documents or published work of the candidate whether bearing on the subject of the thesis or not.

(2) The Faculty Board shall determine the course of action to be taken should the certificate of the supervisor indicate that in the opinion of the supervisor the thesis is not of sufficient academic merit to warrant examination.

15. The University shall be entitled to retain the submitted copies of the thesis accompanying documents and published work. The University shall be free to allow the thesis to be consulted or borrowed and, subject to the provisions of the Copyright Act, 1968 (Com), may issue it in whole or any part in photocopy or microfilm or other copying medium.

16. (1) For each candidate two examiners, at least one of whom shall be an external examiner (being a person who is not a member of the staff of the University) shall be appointed either by the Faculty Board or otherwise as prescribed in the Schedule.

(2) If the examiners' reports are such that the Faculty Board is unable to make any decision pursuant to Regulation 11 of these Regulations, a third examiner shall be appointed either by the Faculty Board or otherwise as prescribed in the Schedule.

* At present there is no fee payable.
Faculty Policies of special interest to students are as follows —

Criteria for the Award of the Degree with Merit and Honours

(a) To qualify for the degree of Bachelor of Science (Architecture) with Merit, a candidate's performance expressed as an average of the marks obtained for all subjects of that course shall be 65% or better and there shall be no failure in any subject of that course.

(b) To qualify for the degree of Bachelor of Architecture with Honours Class I, a candidate's performance expressed as an average of the marks obtained for all subjects of that course shall be 72% or better and there shall be no failure in any subject of that course.

(c) To qualify for the degree of Bachelor of Architecture with Honours Class II, a candidate's performance expressed as an average of the marks obtained for all subjects of that course shall be less than 72% and equal to or better than 65% and there shall be no failure in any subject of that course.

For the purposes of this policy, a failure in a subject shall be deemed to result when the marks gained in each unit or sub-unit of the subject aggregate to less than 50%, or where the individual mark in any unit amount to less than 50%, except that in the case of one unit only per subject the mark may amount to no less than 45%.

Student Progress

A student who is required to repeat a subject may, in exceptional circumstances and at the discretion of the Head of the Department, be granted standing in any passed unit or sub-unit of that subject. A student who has failed a subject should apply to the Head of the Department to determine whether any standing will be granted in units/sub-units of that subject.

A student who is required to repeat Architecture I, Architecture II or Architecture IV shall not be entitled to standing in any part of the subject.

Unsatisfactory Progress

Under the Regulations Governing Unsatisfactory Progress the Faculty Board may review the academic performance of a student who does not maintain a rate of progress considered satisfactory by the Faculty Board. The following statement has been approved by the Faculty Board, Faculty of Architecture, with respect to its powers of review under the Regulations Governing Unsatisfactory Progress.

1. A student shall be considered to have failed to maintain a satisfactory rate of progress if:

(a) he or she fails Architecture I in the Bachelor of Science (Architecture) degree course or Architecture IV in the Bachelor of Architecture degree course at the first attempt; or

(b) he or she fails a subject for a second time.

2. The academic progress of students who fall into either or both of the above categories shall be reviewed by a Faculty Progress Review Committee consisting of the Sub-Dean of the Faculty and the Head of the Department of Architecture, which may determine, under regulation 3(1) of the Regulations Governing Unsatisfactory Progress:

(a) that the student be permitted to continue the course;

(b) that the student be permitted to continue the course subject to such conditions as the Dean may decide;

(c) that the student be excluded from further enrolment:

(i) in the course; or

(ii) in the course and any other course offered in the Faculty; or

(iii) in the Faculty; or

(d) that the case be referred to the Admissions Committee together with a recommendation for such action as the Dean considers appropriate.

Subjects incompatible with the elective requirements for the B.Sc.(Arch.) and B.Arch. degree courses.

The following subjects offered by departments other than the Department of Architecture, shall not be approved as elective subjects for the B.Sc.(Arch.) degree or the B.Arch. degree because their content overlaps substantially with core subjects in the degree courses:

- Introductory Quantitative Methods
- Commercial EDP
- Legal Studies I

Students may not enrol in the units CE111 Statics and ME111 Graphics and Engineering Drawing offered by the Faculty of Engineering.

List of subjects approved by the Faculty Board as electives to be offered by the Department of Architecture.

- Architectural Research
- Architectural Research B
- Landscape Design
- Urban Design A
- Urban Design B

Note: Students are advised that not all subjects listed will necessarily be offered in 1986 and that additional subjects may be added to the list.

Year in Practice

Students are encouraged to spend a year working in the office of an architect or related professional upon completion of the B.Sc.(Arch.) degree and before commencing the B.Arch. programme. This year will be recognised by the Board of Architects as contributing towards the overall minimum seven year period of training/experience which is required of the architectural student, provided it is undertaken with the guidance of the Faculty. Advice on potential employers, log books and other relevant issues is available from the Faculty.

Part-time Students

The architecture courses are generally considered to require a high level of commitment and time, and students who attempt them on a part-time basis often find this to be a particularly onerous and difficult route. For this reason students are recommended to undertake full-time study wherever possible, but where circumstances prevent this, arrangements for part-time study are available. Currently the Faculty policy for part-time study is:

Parts I and II of the Bachelor of Science (Architecture) degree and Part IV of the Bachelor of Architecture degree can be undertaken by enrolling in individual subjects (subject to prerequisite requirements), so that a part-time course comprising one or two subjects per year can be followed.

Students should note the Faculty's intention to extend its integrated course structure to Parts III and V in 1987.

Those undertaking outside employment are recommended to do so in a field which will support their coursework studies, and to seek advice from the Faculty in this respect.
INTRODUCTION

Parts I, II and IV

The Bachelor of Science (Architecture) and Bachelor of Architecture degrees comprise three and two parts respectively, these five parts corresponding to the five years study of an uninterrupted full-time programme leading to professional registration.

The Department of Architecture has been moving towards a more integrated form of study in which all of the various discipline areas are treated within the single subject 'Architecture'. In 1986 this integrated format will apply in Parts I, II and IV of the course, so that students will enrol in those cases in one of the these single subjects Architecture I, II or IV respectively. In each of these subjects specific areas of knowledge and skill are developed, and these are grouped into seven study areas for the purposes of assessment and the statement of objectives.

Study Areas

The study areas developed through each Part of the course are as follows:

Professional Skills: forms of communication, including draughtsmanship, model making, photography, video and verbal and written communication; computer applications.

User Studies: concerning the people who commission and use buildings; ergonomics; the definition and interpretation of user and client needs.

Site Studies: concerning the measurement and interpretation of the site and its context; surveying; landscape design; urban design.

Cultural Studies: concerning the cultural context of the programme; history of architecture; theory of architecture.

Design Studies: the development of design procedures.

Technical Studies: building structures; building construction; environmental control; building services; cost planning and control.

Implementation Studies: concerning the implementation of the building project and issues of professional practice; law for the architect; management for the architect; the building industry.

These seven study areas define the scope of the curriculum, and are described in more detail under the Part I, II and IV subject descriptions which follow. Students will be expected to attain a required level of competence in all seven study areas at each level of the course. However the study areas do not exist as independent subjects; the essence of the integrated approach adopted for Parts I, II and IV is that the knowledge and skills acquired in each study area must be capable of being applied in the context of other parallel areas of skill and knowledge. For although the development of knowledge and expertise in the individual disciplines which contribute to the practice of architecture is important, it is equally important that the interaction between areas of knowledge is appreciated, and that the integrative nature of design is understood. The method adopted for developing the study areas is thus intended to reflect the way in which the architect responds to design problems.

Problem-based Learning

Rather than attend a series of independent lecture courses on the various study areas to be mastered, students in Parts I, II and IV are presented with a succession of problems of the type encountered in architectural practice, and so designed as to develop the various areas of skill and knowledge appropriate to that level of the course. Thus the organisation of these parts of the course resembles a matrix in which the individual study areas are introduced and developed through their successive application in problem exercises:

Study Areas

1 2 3 4 5 6 7

Problem-based Exercises

1

2

3

4

5

Working Method

Students will usually work in groups of 8-10, with the guidance of a group tutor. In addition tutors with particular knowledge of the study areas will act as specialist consultants in running the problem-based exercises.

Hours

Contact hours for full-time students will be in the range of 12-20 hours per week.

Assessment

At the end of each problem phase, students will receive advice on their work and, where necessary, help in rectifying areas of difficulty. Students will be responsible for keeping a portfolio of all their work carried out during that year, and this will be the subject of a formal assessment on two occasions, at the end of the first semester, and at the end of the year, by a panel of examiners.

Texts

The specialist consultant tutors will make available Learning Units and other specially prepared texts during the course of the problem-exercises to support the development of appropriate skills and knowledge, and will advise on the purchase of text books.

Parts III and V

The integrated format of Parts I, II and IV was first introduced in 1985, and it is proposed that it will be extended to other parts of the two degree courses. However, in 1986 Parts III and V retain the earlier format of four subjects, with the study areas grouped broadly into Humanities, Technical, Studio Design and Elective subjects, the last of which may be taken, subject to Faculty approval, in other departments of the university.
In the description of Parts III and V subjects which follow:

prerequisites are compulsory, and are those subjects which a student must have passed before enrolling in the subject; these will be the former Part II and Part IV subjects which are described in the 1985 Handbook;

hours refers to formal contact hours, whether in lectures, tutorials or studio periods, which are included in the timetable;

texts are essential books which students are recommended to purchase;

references are additional sources which students are recommended to read.

Transition Arrangements
Provision will be made for those students who fail Part II and Part IV subjects in 1985 to undertake a transitional programme in 1986.

BACHELOR OF SCIENCE (ARCHITECTURE)

PART I

211000 Architecture I (full-time students only)
211001 Architecture I (Part-time 1) (part-time students only)
211002 Architecture I (Part-time 2)

Problem-based Exercises
The overall theme and focus of the Architecture I exercises is "Problems of the Workplace". This introduces the student immediately to architectural problems arising from clearly perceived needs, and in a relatively direct and unambiguous form. The individual exercises are of varying length, but are grouped into a series of phases, usually lasting about 5 weeks and having a common client, situation or location. They provide a sequence of design experiences which progressively focus on aspects of designing for people at work, with straightforward objectives and social interactions, and in a variety of physical environments in the Hunter Region, including:

- the survey and analysis of simple traditional buildings, including consideration of the history, climatic and geography of the region;
- the ergonomic design of the individual workplace, and the generation of simple spaces around the internal functions of a programme;
- the design of the envelope containing simple functional spaces, with regard to climatic and other environmental considerations as well as the functional connections between inside and out;
- consideration of strategies for assembling a number of functionally related spaces on plan, and introduction to the full production cycle of a building;
- the organisation in plan and section of a more varied number of functional spaces within a contained envelope.

Study Areas
The objectives for development of knowledge and skills during the course of the problem-based exercises in Architecture I are outlined in each of the study areas as follows:

Professional Skills
first level competence in each of the basic areas of architectural communication, including letterwriting; report writing; drawing; model making; photography; video; introduction to aspects of development of communication skills, including colour; graphics; introduction to word processing and its use in an architectural business practice.

User Studies
understanding of patterns of work in the community and the need generated for buildings; ability to elicit needs from client and user for simply defined problems; knowledge of ergonomics of the workplace.

Site Studies
introduction to the variety of landscape conditions in the Hunter Valley and of its natural elements; introduction to the patterns of development in the Hunter Valley and of their urban elements; ability to carry out a measured drawing of a simple structure.
Cultural Studies: introduction to forms of settlement and building in the Hunter Valley having regard to factors of history, climate and geography, and to the impact of technological developments in Europe and America; introduction to the functional tradition in Western architecture, from 1800 to the present; introduction to the strengths and limitations of the functionalist philosophy in modern architecture.

Design Studies: ability to generate, assess and develop appropriate design solutions for relatively clearly defined needs and activities, up to a level of complexity of about 10 discrete functional spaces on 3 physical levels.

Technical Studies: design of light, small-scale framed structures in timber; introduction to basic structural types; introduction to concepts of dead, live and wind loadings, of elementary load analysis, of equilibrium of forces and force analysis, of transmission of forces in a structural system and load path analysis, and of structural stability; introduction to selection, design and detailing of appropriate constructional solutions for simple framed floor construction, wall construction and medium and low-pitched roof constructions, with alternative claddings and linings; design and detailing of simple joinery components and fixtures; introduction to wired and piped services systems for a small building; appraisal of the interactions between buildings and a rural environment, between flora, fauna, surface soils and climate, between people and their workplace environments; appraisal of noise, glare and ergonomic factors, of environmental factors affecting the design of a simple building, of sunlight and shading, weather and weatherproofing, noise, lighting and thermal conditions; introduction to approximate estimating.

Implementation Studies: introduction to the scope and responsibilities of the architect; introduction to the complete job cycle for a small project; introduction to the management of individual and small group activities and to the use of consultants.

GENERAL INFORMATION
The University of Newcastle Calendar consists of the following volumes:

Volume 1 — Legislation:
Part 1 — The University of Newcastle Act,
Part 2 — By-laws and Regulations,
Part 3 — Bodies Established by Resolution of Council,
Part 4 — Scholarships, Prizes and Financial Assistance.

Volume 2 — University Bodies and Staff:
Part 1 — Principal Officers, Council, Senate, Boards and Committees.
Part 2 — The Professors and Staff.

Volume 3 — Handbook, Faculty of Architecture
Volume 4 — Handbook, Faculty of Arts
Volume 5 — Handbook, Faculty of Economics and Commerce
Volume 6 — Handbook, Faculty of Education
Volume 7 — Handbook, Faculty of Engineering
Volume 8 — Handbook, Faculty of Mathematics
Volume 9 — Handbook, Faculty of Medicine
Volume 10 — Handbook, Faculty of Science
Volume 11 — Annual Report

All volumes, except Volume 1 — Legislation, are published annually.
Volume 1 — Legislation is published irregularly the last issue being 1982.

All volumes except Volumes 2 Staff and 11 Annual Report are available on microfiche.

Other Publications
Undergraduate Prospectus
Postgraduate Prospectus
An ABC for New Students
University News
Gazette

CONTENTS

I PRINCIPAL DATES 1986
Page
(iv)

II GENERAL INFORMATION
Enrolment of New Students
Re-enrolment by Continuing Students
Enrolment Approval
Payment of Charges
Student Cards
Re-admission after absence
Attendance Status
Change of Address
Change of Name
Change of Programme
Withdrawal
Confirmation of Enrolment
Indebtedness
Leave of Absence
Attendance at Classes
General Conduct
Notices
Student Matters Generally

(iii)

III EXAMINATIONS
Examination Periods
Sitting for Examinations
Rules for Formal Examinations
Examination Results
Special Examinations
Deferred Examinations

(iv)

IV UNSATISFACTORY PROGRESS
Regulations Governing Unsatisfactory Progress

(x)

V CHARGES
Payment of Charges
Scholarship Holders and Sponsored Students
Extension of time to pay charges
Refund of Charges
Higher Degree Candidates

(xiv)

VI CAMPUS TRAFFIC & PARKING

(xv)
I  PRINCIPAL DATES 1986

January
1 Wednesday  Public Holiday — New Year's Day
10 Friday  Last day for return of Application for Re-Enrolment Forms — Continuing Students
13 Monday  Deferred Examinations begin
24 Friday  Deferred Examinations end
27 Monday  Public Holiday — Australia Day
31 Friday  Closing date for applications for residence in Edwards Hall

February
5 Wednesday  New students attend in person to enrol and pay charges
7 Friday  Re-enrolment Approval Sessions for Re-Enrolling Students
10 Monday to
17 Monday
18 Tuesday  Late enrolment session for new students
24 Monday  First Term begins

March
28 Friday  Good Friday — Easter Recess commences

April
2 Wednesday  Lectures resume
25 Friday  Public Holiday — Anzac Day
28 Monday  Last day for withdrawal without academic penalty from first half year subjects (See page (vii) for Dean's discretion)

May
2 Friday  First Term ends
19 Monday  Examinations begin
23 Friday  Examinations end
26 Monday  Second Term begins

June
9 Monday  Public Holiday — Queen's Birthday
13 Friday  Last day for return of Confirmation of Enrolment forms
28 Saturday  Examinations begin
30 Monday  Closing date for Applications for Selection to the Bachelor of Medicine course in 1987

July
12 Saturday  Examinations end

August
11 Monday  Last day for withdrawal without academic penalty from full year subjects (See page (vii) for Dean's discretion)
15 Friday  Second Term ends
18 Monday  Examinations begin
22 Friday  Examinations end

September
8 Monday  Third Term begins
29 Monday  Last day for withdrawal without academic penalty from second half year subjects (See page (vii) for Dean's discretion)

October
1 Wednesday  Closing date for Applications for Enrolment 1987 (Undergraduate courses other than Medicine)
6 Monday  Public Holiday — Labor Day
31 Friday  Third Term ends

November
10 Monday  Annual Examinations begin
26 Wednesday  Annual Examinations end

Note: Term dates for students in the Bachelor of Medicine course are printed in Calendar Volume 9 — Medicine Handbook.

1987

January
12 Monday  Deferred Examinations begin
23 Friday  Deferred Examinations end

March
2 Monday  First Term begins
II GENERAL INFORMATION

1. Enrolment of New Students

Persons offered enrolment are required to attend in person at the Great Hall early in February to enrol and pay charges. Detailed instructions are given in the Offer of Enrolment.

2. Transfer of Course

Students currently enrolled in an undergraduate Bachelor degree course who wish to transfer to a different undergraduate Bachelor degree course must complete an Application for Course Transfer form and lodge it with their Application for Re-enrolment at the Student Administration Office by 10 January 1986.

3. Re-Enrolment by Continuing Students

There are four steps involved for re-enrolment by continuing students:
- collection of the re-enrolment kit
- lodging the Application for Re-enrolment form with details of your proposed programme
- attendance at the Great Hall for enrolment approval, and
- payment of the General Service Charge (Students who are in research higher degree programmes re-enrol and pay charges by mail).

Re-Enrolment Kits

Re-enrolment kits will be available for collection from 21 to 25 October 1985 from the Tanner Room, Level Three University Union and thereafter from the Student Administration Office in the McMullin Building. The re-enrolment kit contains the student’s Application for Re-enrolment form, the 1986 Class Timetable, the Statement of Charges Payable for 1986 and re-enrolment instructions.

Lodging Application for Re-Enrolment forms

The Application for Re-enrolment form must be completed carefully and lodged at the Student Administration Office by 10 January 1986. It can be lodged in November or December, but in general students should know their examination results before completing the form. There is no late charge payable if the form is late, but it is very important that the Application for Re-enrolment form is lodged by 10 January 1986 as late lodgement will mean that enrolment approval will not be possible before the late re-enrolment session to the disadvantage of the student.

Enrolment Approval

All re-enrolling students are required to attend at the Great Hall on a specific date and time during the period 10-17 February 1986. Enrolment Approval dates are on posters at University Noticeboards and are included in the enrolment kits issued to students in October. When attending for Enrolment Approval students will collect their approved 1986 programme and student card. Any variations to the proposed programme must be clarified and submitted for approval. Enrolments in tutorial or laboratory sessions will be arranged. Staff from academic Departments will be available to answer enquiries. Fare concessions forms will also be issued, providing the General Services Charge has been paid.

A service charge of $10 will be imposed on students who re-enrol after the specified date.

Payment of Charges

The re-enrolment kit issued to re-enrolling students includes a Statement of Charges Payable form which must accompany the payment of charges for 1986. These charges may be paid at any time after receiving the re-enrolment kit.

All charges, including debts outstanding to the University, must be paid before or upon re-enrolment — part payment of total amount due will not be accepted by the cashier. Payment by mail is encouraged; alternatively by cheque or money order lodged in the internal mail deposit box in the foyer of the McMullin Building. The receipt will be mailed to the student.

Payment by cash at the Cashier’s Office may lead to queues at enrolment time. The Cashier’s Office will be open for extended hours during the enrolment approval sessions in the period 10-17 February 1986. Afterwards any further payment should be by mail only.

Late Payment

Payment of the General Services Charge is due before or upon re-enrolment. The final date for payment is the date of the Re-enrolment Approval session for the course concerned in the period 10-17 February 1986, after which a late charge applies at the rate of

- $10 if payment is received up to and including 7 days late;
- $20 if payment is received between 8 and 14 days late; or
- $30 if payment is received 15 or more days late.

Thereafter enrolment will be cancelled if charges remain unpaid.

Student Cards

When attending for Enrolment Approval, students will be given their Approved Enrolment form which incorporates the Student Card. The Student Card should be carried by students when at the University as evidence of enrolment. The Student Card has machine readable lettering for use when borrowing books from the University Library, and contains the student’s interim password for access to facilities of the Computing Centre.

Students are urged to take good care of their Student Card. If the card is lost or destroyed, there is a service charge of $5 payable before the card will be replaced. A student who withdraws completely from studies should return the Student Card to the Student Administration Office.

Re-admission after Absence

A person wishing to resume an undergraduate degree course who has been enrolled previously at the University of Newcastle, but not enrolled in 1985, is required to apply for admission again through the Universities and Colleges Admissions Centre, Box 7049 G.P.O. Sydney. Application forms may be obtained from the UCAC or from the Student Administration Office and close with the UCAC on 1 October each year. There is a $40 fee for late applications.

Attendance Status

A candidate for any qualification other than a postgraduate qualification who is enrolled in three quarters or more of a normal full-time programme shall be deemed to be a full-time student whereas a candidate enrolled in either a part-time course or less than three-quarters of a full-time programme shall be deemed to be a part-time student.

A candidate for a postgraduate qualification shall enrol as either a full-time or a part-time student as determined by the Faculty Board.

Change of Address

Students are responsible for notifying the Student Administration Office in writing of any change in their address. A Change of Address form should be used and is available from the Student Administration Office.
Failure to notify changes could lead to important correspondence or course information not reaching the student. The University cannot accept responsibility if official communications fail to reach a student who has not notified the Student Administration Office of a change of address.

It should be noted that examination results, re-enrolment and other correspondence will be mailed to students in December and January. Students who will be away during the long vacation from the address given to the University for correspondence should make arrangements to have mail forwarded to them.

Change of Name
Students who change their name should advise the Student Administration Office. Marriage, deed poll or naturalisation etc. certificates should be presented for sighting in order that the change can be noted on University records.

Change of Programme
Approval must be sought for any changes to the programme for which a student has enrolled. This includes adding or withdrawing subjects, changing attendance status (for example from full-time to part-time) or transferring to a different degree or faculty.

All proposed changes should be entered on the Variation of Programme form available at the Student Administration Office. Reasons for changes and where appropriate documentary evidence in the form of medical or other appropriate certificates must be submitted.

Withdrawal
Application to withdraw from a subject should be made on a Variation of Programme form and lodged at the Student Administration Office or mailed to the Secretary.

Applications received by the appropriate date listed below will be approved for withdrawal without a failure being recorded against the subject or subjects in question.

Withdrawal Dates

<table>
<thead>
<tr>
<th>Subject Type</th>
<th>First Half-Year</th>
<th>Second Half-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects</td>
<td>Subjects</td>
<td>Subjects</td>
</tr>
<tr>
<td>Monday</td>
<td>Monday</td>
<td>Monday</td>
</tr>
<tr>
<td>11 August 1986</td>
<td>28 April 1986</td>
<td>29 September 1986</td>
</tr>
</tbody>
</table>

Withdrawal after the above dates will normally lead to a failure being recorded against the subject or subjects unless the Dean of the Faculty grants permission for the student to withdraw without a failure being recorded.

If a student believes that a failure should not be recorded because of the circumstances leading to his withdrawal, it is important that full details of these circumstances be provided with the application to withdraw.

Confirmation of Enrolment
In May each year the University mails to all students a Confirmation of Enrolment form which also serves as the application to sit for examinations. This form must be checked carefully, signed and returned by all students (including non-degree students and postgraduate students not taking formal subjects) to confirm that they are actively pursuing subjects for which they are enrolled and that the information on University records is correct and complete.

Indebtedness
The Council of the University has directed that students who are indebted to the University because of unpaid charges, library fines or parking fines may not

- receive a transcript of academic record; or
- graduate or be awarded a Diploma.

Students are requested to pay any debts incurred without delay.

Leaves of Absence

A student who does not wish to re-enrol for any period up to three years should write to The Secretary and ask for leave of absence. Leave of absence is normally granted only to those students who are in good standing. Applications should be submitted before the end of first term in the first year for which leave of absence is sought. Leave of absence will not be granted for more than three years and will not be granted retrospectively.

Application for re-admission to undergraduate degree courses must be made through the UCAC (see p. vii).

Attendance at Classes
Where a student's attendance or progress has not been satisfactory, action may be taken under the Regulations Governing Unsatisfactory Progress.

In the case of illness or absence for some other unavoidable cause, a student may be excused for non attendance at classes.

All applications for exemption from attendance at classes must be made in writing to the Head of the Department offering the subject. Where tests or term examinations have been missed, this fact should be noted in the application.

The granting of an exemption from attendance at classes does not carry with it any waiver of the General Services Charge.

General Conduct
In accepting membership of the University, students undertake to observe the by-laws and other requirements of the University.

Students are expected to conduct themselves at all times in a seemly fashion. Smoking is not permitted during lectures, in examination rooms or in the University Library.

Gambling is forbidden.

Members of the academic staff of the University, senior administrative officers, and other persons authorised for the purpose have authority to report on disorderly or improper conduct occurring in the University.

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.

A notice board on the wall opposite the entrance to Lecture Theatre B01 is used for the specific purpose of displaying examination time-tables and other notices about examinations.

Student Matters Generally

The main notice board is the display point for notices concerning enrolment matters, scholarships, University rules and travel concessions, etc. This notice board is located on the path between the Union and the Library.

III EXAMINATIONS

Tests and assessments may be held in any subject from time to time. In the assessment of a student's progress in a university course, consideration will be given to laboratory work, tutorials and assignments and to any term or other tests conducted throughout the year.

The results of such assessments and class work may be incorporated with those of formal written examinations.
Examinations, as follows:

- failure to attend an examination.

Timetables showing the time and place at which individual examinations will be held will be posted on the examinations notice board near Lecture Theatre B01 (opposite the Great Hall).

Misreading of the timetable will not under any circumstances be accepted as an excuse for failure to attend an examination.

Sitting for Examinations

Formal examinations, where the timetable allows, are compulsory. Students should consult the final timetable in advance to find out the date, time and place of their examinations and should allow themselves plenty of time to get to the examination room so that they can make use of the 10 minutes reading time that is allowed before the examination commences. Formal examinations are usually held in the Great Hall area and (in November) in the Auchenmuty Sports Centre. The seat allocation list for examinations will be placed on the Noticeboard of the Department running the subject, and on a noticeboard outside the examination room.

Students can take into any examination any writing instrument, drawing instrument or calculating instrument. Logarithmic tables may not be taken in: they will be available on the Examination Room.

Calculators may be used, if permitted by the examiner in any examination. They must be non-programmable and students should note that no concession will be granted:

- (a) to a student who is prevented from bringing into a room a programmable calculator;
- (b) to a student who uses a calculator incorrectly; or
- (c) because of battery failure.

Rules for Formal Examinations

Regulation 15 of the Examination Regulations sets down the rules for formal examinations, as follows:

- (a) candidates shall comply with any instructions given by a supervisor relating to the conduct of the examination;
- (b) before the examination begins candidates shall not read the examination paper until granted permission by the supervisor which shall be given ten minutes before the start of the examination;
- (c) no candidate shall enter the examination room after thirty minutes from the time the examination has begun;
- (d) no candidate shall leave the examination room during the first thirty minutes or the last ten minutes of the examination;
- (e) no candidate shall re-enter the examination room after he has left it unless during the full period of his absence he has been under approved supervision;
- (f) a candidate shall not bring into the examination room any bag, paper, book, written material, device or aid whatsoever, other than such as may be specified for the particular examination;
- (g) a candidate shall not by any means obtain or endeavour to obtain improper assistance in his work, give or endeavour to give assistance to any other candidate, or commit any breach of good order;

- (h) a candidate shall not take from the examination room any examination answer book, graph paper, drawing paper or other material issued to him for use during the examination;
- (i) no candidate may smoke in the examination room.

Any infringement of these rules constitutes an offence against discipline.

Examination Results

Examination results and re-enrolment papers will be available for collection from the Drama Studio in December. The dates for collection will be put on noticeboards outside the main examination rooms in November.

Results not collected will be mailed.

No results will be given by telephone.

After the release of the annual examination results a student may apply to have a result reviewed. There is a charge of $8.00 per subject, which is refundable in the event of an error being discovered. Applications for review must be submitted on the appropriate form together with the prescribed review charge by 6 January 1987.

However, it should be noted that examination results are released only after careful assessment of students' performances and that, amongst other things, marginal failures are reviewed before results are released.

Special Examinations

When considering the examination results Faculty Boards take into consideration any circumstances such as illness or personal problems which may have seriously affected a student's work during the year or during the examinations. Any student who considers that his work has been affected in this way or who is unable to attend any examination and who wishes to apply for special consideration should write to the Secretary explaining the circumstances and, in the case of illness, enclosing a medical certificate (see Regulation 12 (2) of the Examination Regulations, Calendar Volume 1).

If a student is affected by illness during an examination, and wishes to ask for a Special Examination, he must report to the supervisor in charge of the examination and then make written application to the Secretary as soon as possible after the examination (see Regulation 12 (3) of the Examination Regulations, Calendar Volume 1).

Deferred Examinations

The Boards of the Faculties of Architecture, Engineering, and Mathematics may grant deferred examinations. Such examinations, if granted, will be held in January-February and candidates will be advised by mail of the times and results of the examinations.

IV UNSATISFACTORY PROGRESS

The University has adopted Regulations Governing Unsatisfactory Progress which are set out below.

Students who become liable for action under the Regulations will be informed accordingly by mail after the release of the End of Year examination results and will be informed of the procedure to be followed if they wish to 'show cause'.

Appeals against exclusion must be lodged together with Application for Re-enrolment forms by Friday 10 January 1986.

The Faculty's progress requirements are set out elsewhere in this volume.

Regulations Governing Unsatisfactory Progress

1. (If These Regulations are made in accordance with the powers vested in the Council under By-law 5.1.2.

2. These Regulations shall apply to all students of the University except those who are candidates for a degree of Master or Doctor.
In these Regulations, unless the context or subject matter otherwise indicates or requires:

"Admissions Committee" means the Admissions Committee of the Senate constituted under By-law 2.3.5;

"Dean" means the Dean of a Faculty in which a student is enrolled.

"Faculty Board" means the Faculty Board of a Faculty in which a student is enrolled.

2. (1) A student's enrolment in a subject may be terminated by the Head of the Department offering that subject if that student does not maintain a rate of progress considered satisfactory by the Head of the Department. In determining whether a student is failing to maintain satisfactory progress the Head of Department may take into consideration such factors as:

(a) unsatisfactory attendance at lectures, tutorials, seminars, laboratory classes or field work;
(b) failure to complete laboratory work;
(c) failure to complete written work or other assignments; and
(d) failure to complete field work.

(2) The enrolment of a student in a subject shall not be terminated pursuant to regulation 2 (1) of these Regulations unless he has been given prior written notice of the intention to consider the matter with brief particulars of the grounds for so doing and has also been given a reasonable opportunity to make representations either in person or in writing or both.

(3) A student whose enrolment in a subject is terminated under regulation 2 (1) of these regulations may appeal to the Faculty Board which shall determine the matter.

(4) A student whose enrolment in a subject is terminated under this Regulation shall be deemed to have failed the subject.

3. (1) A Faculty Board may review the academic performance of a student who does not maintain a rate of progress considered satisfactory by the Faculty Board and may determine:

(a) that the student be permitted to continue the course;
(b) that the student be permitted to continue the course subject to such conditions as the Faculty Board may decide;
(c) that the student be excluded from further enrolment;
   (i) in the course; or
   (ii) in the course and any other course offered in the Faculty; or
   (iii) in the Faculty; or
(d) if the Faculty Board considers its powers to deal with the case are inadequate, that the case be referred to the Admissions Committee together with a recommendation for such action as the Faculty Board considers appropriate.

(2) Before a decision is made under regulation 3 (1) (b) (c) or (d) of these Regulations the student shall be given an opportunity to make representations with respect to the matter, either in person or in writing or both.

(3) A student may appeal against any decision made under regulation 3 (1) (b) or (c) of these Regulations to the Admissions Committee which shall determine the matter.

4. Where the progress of a student who is enrolled in a combined course or who has previously been excluded from enrolment in another course or Faculty is considered by the Faculty Board to be unsatisfactory, the Faculty Board shall refer the matter to the Admissions Committee together with a recommendation for such action as the Faculty Board considers appropriate.

5. (1) An appeal made by a student to the Admissions Committee pursuant to Regulation 3 (3) of these Regulations shall be in such form as may be prescribed by the Admissions Committee and shall be made within fourteen (14) days from the date of posting to the student of the notification of the decision or such further period as the Admissions Committee may accept.

(2) In hearing an appeal the Admissions Committee may take into consideration any circumstances whatsoever including matters not previously raised and may seek such information as it thinks fit concerning the academic record of the appellant and the making of the determination by the Faculty Board. Neither the Dean nor the sub-Dean shall act as a member of the Admissions Committee on the hearing of any such appeal.

(3) The appellant and the Dean or his nominee shall have the right to be heard in person by the Admissions Committee.

(4) The Admissions Committee may confirm the decision made by a Faculty Board or may substitute for it any other decision which the Faculty Board is empowered to make pursuant to these Regulations.

6. (1) The Admissions Committee shall consider any case referred to it by a Faculty Board and may:

(a) make any decision which the Faculty Board itself could have made pursuant to regulation 3 (1) (a) or (b) or (c) of these Regulations; or
(b) exclude the student from enrolment in such other subjects, courses, or Faculties as it thinks fit; or
(c) exclude the student from the University.

(2) The Committee shall not make any decision pursuant to regulation 6 (1) (b) or (c) of these Regulations unless it has first given to the student the opportunity to be heard in person by the Committee.

(3) A student may appeal to the Vice-Chancellor against any decision made by the Admissions Committee under this Regulation.

7. Where there is an appeal against any decision of the Admissions Committee made under Regulation 6 of these Regulations, the Vice-Chancellor may refer the matter back to the Admissions Committee with a recommendation or shall arrange for the appeal to be heard by the Council. The Council may confirm the decision of the Admissions Committee or may substitute for it any other decision which the Admissions Committee is empowered to make pursuant to these Regulations.

8. (1) A student who has been excluded from further enrolment in a Faculty may enrol in a course in another Faculty only with the permission of the Faculty Board of that Faculty and on such conditions as it may determine after considering any advice from the Dean of the Faculty from which the student was excluded.

(2) A student who has been excluded from further enrolment in any course, Faculty or from the University under these regulations may apply for permission to enrol therein again provided that in no case shall such re-enrolment commence before the expiration of two academic years from the date of the exclusion. A decision on such application shall be made:

(a) by the Faculty Board, where the student has been excluded from a single course or a single Faculty; or
(b) by the Admissions Committee, in any other case.

9. (1) A student whose application to enrol pursuant to Regulation 8 (1) or 8 (2) (a) of these Regulations is rejected by a Faculty Board may appeal to the Admissions Committee.

(2) A student whose application to enrol pursuant to Regulation 8 (2) (b) of these Regulations is rejected by the Admissions Committee may appeal to the Vice-Chancellor.
V CHARGES

The General Services Charge (details below) is payable by all students. New undergraduate students are required to pay all charges when they attend to enrol. Re-enrolling students receive in October each year, as part of their re-enrolment kit, a statement of charges payable. Students are expected to pay charges in advance of re-enrolment and payment by mail is requested. The last date for payment of charges without incurring a late charge is the date of the Re-enrolment Approval session for the particular course (in the period 10-17 February 1986).

Charges

1. General Services Charge
   (a) Students Proceeding to a Degree or Diploma .................. $166 Per annum
      Plus Students joining Newcastle University Union for the first time .................. $20
   (b) Non-Degree Students
      Newcastle University Union charge .................. $75 Per annum

   The exact amount must be paid in full by the prescribed date.

2. Late Charges
   Where the Statement of Charges payable form is lodged with all charges payable after the due date
   - if received up to and including 7 days late .................. $10
   - if received between 8 and 14 days late .................. $20
   - if received 15 or more days late .................. $30

3. Other Charges
   (a) Examination under special supervision .................. $15 per paper
   (b) Review of examination results .................. $8 per subject
   (c) Statement of matriculation status for non-members of the University .................. $8
   (d) Replacement of Re-enrolment kit .................. $10
   (e) Re-enrolment after the prescribed re-enrolment approval session .................. $10
   (f) Replacement of Student Card .................. $5

4. Indebted Students
   All charges, including debts outstanding to the University, must be paid before or upon re-enrolment — part payment of total amount due will not be accepted by the cashier.

Method of Payment

Students are requested to pay charges due by mailing their cheque and the Statement of Charges Payable form to the University Cashier. The Cashier's internal mail deposit box in the foyer of the McMullin Building may also be used. Payment should be addressed to the Cashier, University of Newcastle, NSW 2308. Cheques and money orders should be payable to the University of Newcastle. Cash payment must be made at the Cashier's Office 1st Floor McMullin Building between the hours of 10 am to 12 noon or 2 pm to 4 pm.

Scholarship Holders and Sponsored Students

Students holding scholarships or receiving other forms of financial assistance must lodge with the Cashier their Statement of Charges payable form together with a warrant or other written evidence that charges will be paid by the sponsor. Sponsors must provide a separate voucher warrant or letter for each student sponsored.

Loans

Students who do not have sufficient funds to pay charges should seek a loan from their bank, buildings society, credit union or other financial institution. Applications for a loan from the Student Loan Fund should be made to Mr J. Birch, Student Administration Office. Arrangements should be made well in advance to avoid the risk of a late charge.

Refund of Charges

A refund of the General Services charge paid on enrolment will be made when the student notifies the Student Administration Office of a complete withdrawal from studies. (Any change of address must also be advised). A refund cheque will be mailed to the student or, if applicable, to the sponsor.

Refund will be based on the date of notification of withdrawal, as follows:
   Notification on or before Monday, 24 February, 1986 .......................................................... 100%
   Notification on or before Friday, 21 March, 1986 .......................................................... 90%
   Notification on or before Friday, 27 June, 1986 .......................................................... 50%

No refund will be made before 31 March 1986.

Higher Degree Candidates

Higher degree candidates are required to pay the General Services charge and Union Entrance charge, if applicable. Where the enrolment is effective from First or Second Term, the General Services charge covers the period from the first day of the term to the Friday immediately preceding the first day of First Term in the following academic year. Where enrolment is on or after the first day of Third Term, the General Services charge paid will cover liability to the end of the long vacation following the next academic year.

VI CAMPUS TRAFFIC AND PARKING

Persons wishing to bring motor vehicles (including motor cycles) on to the campus are required to complete a parking registration form for each vehicle. Completed forms must be lodged with the Attendant (Patrol) Office located off the foyer of the Great Hall. All persons must comply with the University's Traffic and Parking Regulations including parking in approved parking areas, complying with road signs and not exceeding 35 k.p.h. on the campus.

If the Manager, Buildings and Grounds, after affording the person a period of seven days in which to submit a written statement is satisfied that any person is in breach of Regulations, he may:
   (a) warn the person against committing any further breach; or
   (b) impose a fine; or
   (c) refer the matter to the Vice-Chancellor.

The range of fines which may be imposed in respect of various categories of breach include:

- Parking in areas not set aside for parking ........................................ up to $10
- Parking in special service areas, e.g. loading bays, by fire hydrants, etc. ........................................ up to $15
- Draining offences — including speeding and dangerous driving, etc. ........................................ up to $30
- Failing to stop when signalled to do so by an Attendant (Patrol) ........................................ up to $30
- Refusal to give information to an Attendant (Patrol) ........................................ up to $30
- Failing to obey the directions of an Attendant (Patrol) ........................................ up to $30

The Traffic and Parking Regulations are stated in full in the Calendar, Volume 1.
PART II

212000  Architecture II (full-time students only)

212001  Architecture II (Part-time 1) (part-time students only)
212002  Architecture II (Part-time 2) (part-time students only)

Problem-based Exercises

The focus of Architecture II projects concerns how and where people live. The theme 'Problems of the Dwelling' introduces the design of multi-cellular spaces for multiple objectives and social interactions, and for both individual and institutional clients, using load-bearing low-rise structures with high performance envelopes. The design problems considered include:

- the design of an individual family house on a steep site, on a number of levels;
- the design of clusters of dwellings, and the spaces between them, raising issues of community, privacy and landscape;
- the design of specialised areas within the house, such as kitchens and bathrooms;
- the design of larger spaces for communal facilities associated with residential areas.

Study Areas

The objectives for the study areas in Architecture II cover the following:

Professional Skills : development and application of skills in all areas of architectural communication;
- introduction to production drawing;
- development of knowledge about the applicability of computers in the building industry;
- awareness of the need for responsibility in the use of computer evaluation programs;
- use of prepared programs for testing design performance;
- development of a simple computer program relating to some aspects of the building process.

User Studies : understanding the different types of housing provision in the community and the needs of different user groups;
- assessment of individual and social factors influencing house design and in particular concepts of community and privacy;
- development of methods for identifying client and user needs;
- the needs of handicapped and other special user groups.

Site Studies : preparation of photographic and dimensional surveys of a site to enable analysis and preliminary design;
- the establishment of contours;
- landscape problems of underground services, slope, terracing, steps and drainage;
- introduction to grass, shrub and tree environments integrated with building design;
- introduction to statutory planning and environment requirements;

Cultural Studies : the investigation, through study of historical models, of issues arising in the design problems, including:
- the evolution of house form in relation to social structure;
the creation of community and privacy both within the dwelling and in groupings of dwellings and villages;
the detail design of forms and materials in the dwelling;
the impact of technological developments on dwelling form and construction;
the integration of painting, sculpture, furnishings and decorations in the design of the dwelling.

Design Studies: development of design solutions for more complex relationships of uses and spaces, and on more demanding sites;
design of external spaces between clusters of buildings.

Technical Studies: design of load-bearing masonry construction to three storeys;
simple concrete floors; light timber and steel trusses; simple stair forms; retaining walls;
analysis of simple trusses and beams;
further concepts in structural stability;
concepts of strength of materials, stress analysis and deformations;
elementary concepts of aggregation of structural elements to form a complete structure and of continuity in structural systems;
design of building services for residential buildings including multi-occupant developments;
assessment of physiological and psychological comfort conditions for home activities;
environmental separation of incompatible activities;
control of adverse climatic and weather impacts;
compromise of interacting controls;
introduction to specifications; identification and definition of terms; the contractual and communication network in the building process with reference to basic financial matters;
preparation of specification for a house;
basic estimating methods; identification and definition of terms; preparation of estimates for a house;
introduction to building regulations, controls, authorities, professional organisations;
introduction to law and contract;
introduction to the basic concepts of management;
introduction to the management of simple projects by means of bar, Gantt systems.

PART III

213800 Architecture IIA

Prerequisite: Architecture IIA

Hours: See individual unit requirements

Assessment: See individual unit requirements

Content: Architecture IIA consists of the following units:

(i) 213801 Visual Studies
(ii) 213802 Data Processing
(iii) 213804 Man Environment Studies

(i) 213801 VISUAL STUDIES

Hours: 2 hours per week

Content: Projects will include:

Term 1:
A. Photography
B. Building Detail Project

Term 2:
B. Continued
C. Life Drawing and Man/Space Projects

Term 3:
D. Visual Aspects of Architecture
E. Light/Kinetics

Unit Requirements
(a) Weekly Studio and/or Field Sessions will be held.
(b) Submissions: The work carried out in the various projects will be submitted as required.

Assessment: Each Project will have a percentage value as follows:

A = 12½%
B = 50%
C = 12½%
D = 12½%
E = 12½%

The marks awarded will be used as the basis to determine the Final Mark and Grade for the Unit — however, the development of a student may also be taken into account, and consequently a student may be requested to resubmit all or part of the year's work for review at the end of Term 3.

Texts and References: There are no texts recommended for this unit. A reading list will be issued to students enrolled in this unit at the beginning of first term.

(ii) 213802 DATA PROCESSING

Content: Data Processing consists of the following sub-unit:

(a) 213803 Statistics
(a) **213803 STATISTICS**

*Hours*  
2 hours per week over half the academic year

*Content*  
This subject is inter-related with several others, including particularly Environmental Technology and Computer Studies. The emphasis will be on the collection and testing of data; the presentation of data in evidence; the assessment of data presented by others; and the use of computer statistics packages. Lectures, tutorials and assignments will be used, including field surveys and objective and subjective data collection.

*Texts and References*  
To be advised

*Assessment*  
By assignment.

(b) **213804 MAN ENVIRONMENT STUDIES**

*Content*  
Man Environment Studies consists of the following sub-units:

(a) **213805 SOCIAL SCIENCES**

*Hours*  
1 hour per week

*Content*  
This subject extends and complements the Social Sciences course of the previous year by studying the effects of the built environment on individuals and communities. Architectural psychology examines questions of colour, space and place while sociological problems of group dynamics illustrate how far Architecture goes beyond the disciplines of art, building and business. The course is modified as new ideas derived from competitions, visiting lecturers or conferences arise. The papers throughout the year reinforce the direction of the lectures, although students are free at any time to select their own topic as interest or occasion demands — so long as their choice is directly applicable to architecture. The term papers should be seen as introductory exercises to the architectural research elective offered in the second degree course.

The aim of both streams of Social Sciences is to unite the immaterial and physical aspects of architecture and to emphasise the primacy of human over technological values, without denying either. However, the impulses of the whole man, his search for the divine, his need of community, personal identity and respect, physical well-being and shelter are inseparable from the profession of architecture.

The changing conditions of the profession and means of adaptation are discussed. Social Science projects are set in conjunction with those of Architectural Design and cover the preparation of architectural briefs, feasibility studies and post completion-post occupancy evaluation. These illustrate the student to the breadth of the advisory service required of architects as offices move into project management.

*Assessment*  
Term papers and seminar.

*References*  
Hall, E. *The Hidden Dimension* (London 1969)  
Lynch, K. *The Image of the City* (MIT 1960)

(b) **213806 HISTORY OF ARCHITECTURE**

*Hours*  
1 hour per week

*Content*  
The course includes a survey of developments occurring in the 19th Century and the evolution of the Modern Movement in the 20th Century. Included in the course is a commentary on contemporary colonial developments especially those in N.S.W. and Australia.

*Assessment*  
Two essays, each of equal weighting

*References*  
Boyd, R. *The Puzzle of Architecture* (Melbourne University Press 1965)  
Freeland, J. J. *Architecture in Australia: A History* (Cassell, Melbourne 1968)  
Giedion, S. *Space Time and Architecture* (Harvard University Press 1962)  
Jencks, C. *Modern Movements in Architecture*  
Le Corbusier (Translated by Etchells, F.) *Towards a New Architecture* (Architectural Press, London 1948)  
Pevsner, N. *Pioneers of Modern Design* (Pelican Books)  
Wright, F. L. *Writings & Buildings* (Horizon Press)  
The Open University: *History of Architecture and Design 1890-1939* Units 1-22

213820 Architecture IIIB

*Prerequisite*  
Architecture IIIB

*Hours*  
See individual unit requirements

*Assessment*  
See individual unit requirements

*Content*  
Architecture IIIB consists of the following units:

(i) **213821 Structures**

(ii) **213822 Construction**

(iii) **213825 Environmental Technology**
(i) **213821 STRUCTURES**

*Hours*
- 2 hours per week

*Content*
- The following areas will be covered:
  - **Review of SAA Building Codes and Material Specifications**
  - Loading Codes, Steel Structures, Cold-formed Structures, Welding Code, High Strength Bolting Code, Lift Code, Crane and Hoist Code, Concrete Structures, Prestressed Concrete, Brickwork Code, Concrete Block Masonry Code, Light Timber Framing Code.
  - **Steel Structures AS1250**
    - Design of Beams, Trusses, Columns and Struts, Tension Members, Design examples, Design Aids — AISC Safe Load Tables for Structural Steel.
  - Concrete Structures AS1480

*Subject Requirements*
- Lectures, tutorials, assignments and reports.

*Assessment*
- The lecturer will award marks in grades for the assignments and term tests and these will be combined with the marks of the final examination to determine the final mark and grade in the subject.

*Text*
- Cowan, H. J. *The Design of Reinforced Concrete* (Sydney University Press)

*References*
- Gorenc *Steel Designer's Handbook* (Univ. of N.S.W. Press)
- Schodeck, D. *Structures* (Prentice-Hall 1980)
- Warner, Rangan *Reinforced Concrete* (Pitman 1977)

(ii) **213822 CONSTRUCTION**

*Content*
- Construction consists of the following sub-units:
  - (a) **213823 Construction**
  - (b) **213824 Estimating**

(a) **213823 CONSTRUCTION**

*Hours*
- Lectures: 1 hour up to 2 hours per week
- Studio: 1 hour up to 2 hours per week

*Content*
- Lectures and assignments covering the following aspects of framed construction as applied to high-rise and heavy industrial buildings:
  - Performance and maintenance, foundations — footings — building failures, framing systems, bracing, connection of members, basements, floors, walls, roofs, cladding, internal elements and finishes, service installations, fire protection, fire resisting construction, special consideration of industrial building types, control joints, sealants, finishes, and performance of materials.

*Subject Requirements*
- Assignments, drawing, reports, and three or four organised field trips.

*Assessment*
- Progressive assessment of assignments. Each assignment will have equal value and the final mark will be the average of marks awarded for the assignments set.

*References*
- Architects' Detail Sheets
- Ordinance 70 and N.S.W. Building Regulations Handbook (Government Printers)
- Precast Concrete Recommended Practice (Concrete Institute of Australia, Sydney)
- B.H.P. Structural Steel Design Sheets (BHP 1983)

(b) **213824 ESTIMATING**

*Hours*
- 1 hour per week

*Content*
- The nature of estimating. Definitions of terms. The contractual and communication network in the building process with reference to basic financial matters. Functions of estimating in project planning, administration and management. Scope and responsibilities of architects providing estimates. Budgets, methods, variations, accuracy and presentation of estimates. Factors influencing building costs. Introduction to cost planning.

*Assessment*
- Class assignments 40%
- 2 hour examination in July 30%
- 2 hour examination in November 30%

*Text*
- Practice Note No. 3.4 Revised, January 1979 (R.A.I.A.)

*References*
- Ferry, D. J. *Cost Planning of Buildings* 3rd edn metric (Cordell Building Publications)
- Cordell's Building Cost Book, New Construction N.S.W. (Cordell Building Publications)

(iii) **213825 ENVIRONMENTAL TECHNOLOGY**

*Content*
- Environmental Technology consists of the following sub-units:
  - (a) **213826 Building Science**
  - (b) **213827 Building Services**
213826 BUILDING SCIENCE

Hours 2 hours per week

Content Lectures, tutorials, seminars, laboratory work and field surveys in the assessment of, and design for, electric lighting, day lighting and architectural acoustics.

Assessment
Progressive assessment of assignments, term tests, seminars will constitute a value of 60% of the student's final assessment. The remaining 40% will be based upon an end of year examination.

Texts
British Lighting Council Interior Lighting Design. Lawrence, A. Acoustics in Building Parkin, P. H. & Humphreys, H. R. Acoustics Noise and Buildings

References

Beranek, L. L. Music Acoustics and Architecture

Furrier, W. Room and Building Acoustics and Noise Abatement

Hopkinson, R. G. Architectural Physics: Lighting

Krudsen, V. O. & Harris, C. N. Acoustical Designing in Architecture

213827 BUILDING SERVICES

Hours 1 hour per week

Content This sub-unit, which is complementary to the Building Services sub-units of Architecture IB and II B, completes an over-view of services connected to or located within a building.

It involves an investigation of the following services:
1. Ventilation
2. Air Conditioning and Heating
3. Refrigeration
4. Tenant Transport (lift, escalators)
5. Fire Precautions, Prevention, Control and Detection Systems
6. Dangerous Fuel Storage
7. Emergency Power Systems

Sub-Unit Requirements
Assignments are set which involve the submission of research reports, diagrams, sketches of the services under investigation. Students are expected to complement the formal sessions with personal investigation of and consequent reporting upon selected examples of services installations.

Assessment
The result of the set projects are used to produce a progressively assessed result for the sub-unit. No formal examination is set. A component of the assessment will be based on the resolution of all building services related to the major Architecture IIIC projects for the year.

213840 Architecture IIIC

Prerequisite Architecture IIIC

Corequisites Architecture IIIA and IIIB

Hours 6 hours per week

Content Design Projects

Assessment Progressive assessment of project submissions
Problem-based Exercises

Having considered a range of individual building types in the course of the design problems undertaken in Parts I-III, the Part IV problems investigate the ways in which larger groupings and assemblages of buildings combine to generate the form of town and cities. Projects carried out under the theme "Problems of the City" include:

- high-rise buildings;
- medium-rise, densely packed types, using atria, arcades and articulated pedestrian and vehicular circulations;
- the extension of environmental, circulation, land use and other design issues beyond the individual building plot;
- commercial and multi-use building types.

Study Areas

The scope of the study area objectives for Part IV are:

Professional Skills

Further development of graphic and other communication skills; use of computer to develop and monitor simple contracts and building time schedules; use of computer-based specifications; use of prepared programs for technical and design evaluations.

User Studies

Investigation of institutional clients and their forms of organisation; preparation of post occupancy studies of larger projects; preparation of Development Application Reports for larger projects.

Site Studies

Introduction to planning frameworks and urban design guidelines for development in an urban context; concepts of urban design; mapping of services and other issues of site information in an urban context; landscape design in urban conditions for public amenity, conservation, commercial development and vehicle management.

Cultural Studies

Investigation of the evolution of built form in an urban context, through the study of historical models, including the assessment of the impact of individual buildings on their environment, and of systems of circulation.

Design Studies

Development of design solutions of considerable complexity and multiple uses on many levels; the design of public space on an urban scale.

Technical Studies

development of structural solutions for medium and high-rise buildings;
one-way, two-way, flat plate, flat slab, waffle slab and other floor systems;
elementary concepts of lightweight and prestressed concrete structures;
introduction to the problems associated with the construction of tall buildings, including assessment of framing types and of the effects of wind and solar loads upon and around the buildings;
design for building services in large buildings of multiple use and occupation;
strategies for integrating structure and services;
design for safety and security in large buildings of multiple use and occupation;
strategies for compartmentation, means of escape and smoke control;
assessment of interaction of major buildings and their environments and environmental impact;
isolated, controlled and balanced internal environments;
physiological and psychological comfort criteria for workplace activities;
specifications for large/complex projects;
management of documentation production, computer techniques; word processing, scheduling, coordination; preparation of specifications for a major project;
introduction to the financial control of building at all stages of design and construction;
basic cost planning theory and practice; preparation of a cost plan for a major project.

Implementation Studies

Office/job procedures and organisation; comparison of traditional and non-traditional modes of practice;
office/job accounting and financial management; contract types, processes and procedures; building contract law; consideration of system management, management by objectives, organisational development, decision making theory, project management and marketing; network analysis programming and resource allocation for complex projects.

In addition to the core programme whose objectives are indicated above, students in Part IV will undertake an elective component which will allow them to investigate some aspect of the projects in greater depth.
PART V

215500 Architecture VA

Prerequisite
Architecture IVA

Hours
See individual unit requirements

Assessment
See individual unit requirements

Content
Architecture VA comprises the following units:
(i) 215501 Professional Practice
(ii) 215502 Management for the Architect
(iii) 215503 Law for the Architect

(i) 215501 PROFESSIONAL PRACTICE

Hours
1 hour per week

Content
Traditional and non-traditional modes of practice; various architect/client/builder relationships and contracts; interaction with other professional consultants; prescribed curriculum of preparation for Board of Architects' examination (prerequisite to registration after meeting practical experience requirements); private practice and employment opportunities; traditional and non-traditional role opportunities including specialisation; development of individual skills and interests; and preparation for change in the practice of architecture, the operation of the industry, and the attitudes of society.

Assessment
3 hour examination in November (combined with 215502 Management for the Architect)

Practice and Management are assessed conjointly on the bases of a formal examination at the end of the year (30%); a major group research project in mid-year (30%); class participation, topical quizzes and assignments throughout the year (40%).

References
— A.A.C.A. Practice Examination Study Guide

(ii) 215502 MANAGEMENT FOR THE ARCHITECT

Hours
2 hours per week

Content
This subject takes a behavioural approach to an understanding of the way in which the whole industry works, and of the various ways in which the separate parts of the industry work: including the motivation and modus operandii of investors, financiers, building managers, and tenants, as well as the suppliers, subcontractors, builders and consultants more directly associated with the architect. A group research project in second term serves to heighten awareness and understanding of the complexities of motivation, behaviour, and interaction between clients, consultants, builders and local government.

Concentrated attention is paid to the development of individual and group lateral thought processes and problem-solving skills at a wholistic level, and including an understanding of the uses of conventional and fast-track control procedures, Bar, Gantt and CPM analysis systems and various contractual and communication systems.

Assessment
3 hour examination in November (combined with 215501 Professional Practice)

Management and Practice are assessed conjointly on the bases of a formal examination at the end of the year (30%); a major group research project in mid-year (30%); class participation, topical quizzes and assignments throughout the year (40%).

References
Aiken, L. R. Psychological Testing 2nd edn (Allyn & Bacon, Boston 1979)
De Bono, E. The Use of Lateral Thinking (Cape, London 1968)
De Bono, E. Teaching Thinking (Penguin 1978)
Lockyer, K. G. An Introduction to Critical Path Analysis (Pitman, London 1967)

(iii) 215503 LAW FOR THE ARCHITECT

Hours
2 hours per week over half the academic year

Content
Commercial arbitration and the Arbitration Act 1902; Parts XI-XII of the Local Government Act 1919 (NSW) and the general nature and structure of town-planning schemes in N.S.W.; a detailed study of the standard forms of building contract in use in N.S.W.; aspects of the law relating to copyright in architects' drawings and plans; the Architects Act 1921 (NSW); the Builders' Licensing Act 1973 (NSW).

Assessment
To be advised.

References
To be advised.

215520 Architecture VB

Prerequisites
Architecture IVB

Hours
See individual unit requirements

Assessment
See individual unit requirements

Content
Architecture VB consists of the following units:
(i) 215521 Construction
(ii) 215522 Specifications
(iii) 215523 Estimating
(i) **215521 CONSTRUCTION**

*Hours*  
3 hours per week

*Content*  
Architecture IVC submissions indicated architectural preferences in the manipulation of forms and spatial organisation which is but a short way along the path in the development of a scheme to erect a building and have it perform in a predictable fashion over a number of years in a manner acceptable to the owners' and occupants' expectations.

The performance of the building is directly related, in real terms, to the building's cost effectiveness over its life cycle. A great proportion of the cost effectiveness will depend on material selection, the fixing and anchoring devices and structural and construction adequacy.

As money is just as much a resource as minerals or energy, it too must be husbanded if its full potential is to be realised and is not to be frittered away on what could be unnecessary and avoidable maintenance.

The assignment for the first half of the year is to be an evaluation of the structural and constructional themes inherent in the proposal together with detailed construction details and specified report including an outline anticipated performance and maintenance report.

During the period of the assignment each student will be required to give at least two seminars; one on the evaluation of the original submission and the other two on aspects of the developed structural and constructional proposals. These seminars will be taken into account in the final assessment mark for the assignment.

The second semester will be occupied by students developing their current Architecture VC schemes.

Texts and References will be recommended to students depending upon their particular avenue of work.

*Assessment*  
Two seminars each 20%  
Two assignments each 30%

(ii) **215522 SPECIFICATIONS**

*Hours*  
1 hour per week

*Content*  
Detailed analysis of guide and master specifications for a range of building types from simple to complex construction. Review of preliminaries, all trade sections, services specifications, specification for nominated subcontractors and specialist works. Case studies and exercises in specification analysis, writing and production. Performance specifications, dimensional co-ordination, computer techniques, word processing and production. Building methods and products.

*Assessment*  
Class assignments 40%  
2 hour examination in July 30%  
2 hour examination in November 30%

*Texts*  
*Australian Building Specification* 1982 edn (A.B.I.S.)  
*Terms in Practice* (R.A.I.A.)

(iii) **215532 ESTIMATING**

*Hours*  
1 hour per week

*Content*  
Continuation and development of work undertaken in Unit 214803, Estimating. This includes the coverage of:  
1. Detailed programming procedure for contract administration.  
2. Detailed analysis of costs related to the administration of rise and fall, progress claims, variations, time claims.  
3. Analysis of tenders and identification of information requirements.  
4. Case study of a cost planned building.  
5. Techniques for finalising the costs of a project; defects liability period, final accounts, final certificate.

*Assessment*  
Class assignments 20%  
2 hour examination in July 40%  
2 hour examination in November 40%

*References*  
*The Building Economist* (Journal of the Australian Institute of Quantity Surveyors)  
*Builder N.S.W.* (Official Journal of the Master Builders Association of N.S.W.)  
*Cordell's Building Cost Book, New Construction N.S.W.* (Cordell Building Publications)  
*Rawlinson's Australian Construction Handbook* (Rawlhouse Publishing)  

215540 Architecture VC

*Prerequisites*  
Architecture IVC

*Corequisites*  
Architecture VA and VB

*Hours*  
6 hours per week

*Content*  
Design Projects

*Assessment*  
Progressive assessment of project submissions
ELECTIVES OFFERED BY THE DEPARTMENT OF ARCHITECTURE

216005 Architectural Research

Hours 5 hours per week

Content
The objective of this elective is to allow a student to carry out a piece of individual study in an area of particular interest to a depth not normally possible elsewhere in the course. The student may choose an area of study from among those offered by individual lecturers in the Department, being generally:
(a) History of Architecture
(b) Theory of Architecture
(c) Visual Studies
(d) Building Science
(e) Architectural Practice and Management
(f) Urban Design, including History and Theory of Urbanism
(g) Structural Engineering
(h) Computing
(i) Construction.

The form of the elective demands a considerable level of initiative from the student to pursue the line of study under the general guidance of a research tutor.

Assessment
Submission of material at end of year, generally in the form of an A4 thesis report, bound in black buckram with author's surname, title of subject, "U of N", and year printed in gold leaf lettering on front and spine. Students are reminded that this document becomes the property of the University.

216021 Architectural Research B

Hours 5 hours per week

Prerequisites Architectural Research and the approval of Head of Department

Content
This subject must be undertaken in a different area of study to that chosen for the previous Architectural Research elective. See 216005 Architectural Research for further information on the topics available.

Assessment
As for Architectural Research

216018 Landscape Design

Hours 5 hours per week

Content
This subject will provide an opportunity for understanding Landscape and the design process and the construction techniques used in the Landscape industry. The emphasis will be on the altered landscape, man's apparent needs and his relationship to his environment. The "man-made" landscape is a product of pressure and changes brought about by agriculture, religion, shelter, industry, travel and recreation and one of

our aims will be the understanding of these changes and the potential influence of the designer on their impact on the environment.

The programme will be developed to include —

a. Site appraisal techniques
b. Development of design analysis methods
c. Study of natural elements as design components
d. Study of the built environment, materials and techniques
e. Practical application of skills acquired, by developing proposals for specific problems.

The materials and techniques of construction will be studied in detail and through this study an appreciation will be developed of the controls and requirements of the built environment. A vocabulary of construction details and their appropriate application will be built up through a study of a variety of examples in the studio and through field trips to landscape projects.

Practical examples of completed works will be discussed and related assignments presented to allow a steady development of design ability. Observation and recording exercises will be used to provide readily available methods of establishing physical site data.

Lectures will be given on specific elements and wherever possible they will be illustrated by slide material or drawings. Studio sessions will be allotted to student design development of specific assignments both singly and in groups.

Some field trips are scheduled and these will include visits to landscape projects, and investigation of particular materials, techniques and environments.

A report on each field trip will be required.

Some attention will be given to relating the design studies to other subjects, particularly Architecture C-stream subjects.

Assessment
Examination is based on assignments which will vary from short exercises to more comprehensive take home studies. The majority of assignments will be marked and the final mark for each term arrived at using these marks and marks for class participation.

Investigation and experimentation and working with others will be encouraged allowing maximum freedom of design thought and the steady development of individual skills.

Texts and References
To be advised

216012 Urban Design A

Hours 5 hours per week

Content
The elective aims to provide an introduction to the concepts and theories of urban design and to the background of town planning practice in Australia; to develop an understanding of the processes which shape urban environments and a familiarity with the techniques available for their analysis; and to consider alternative patterns of development possibilities within an existing urban context.

An initial lecture course and study of source material is followed by a field study and finally a design project based around an urban intervention in an existing area of Newcastle.

Work is carried out partly in groups and partly on an individual basis.
Assessment
Submissions made during the course of the year.

Text
Gosling, D. & Maitland, B. S.

References
Alexander, C. et al.
Cullen, G.
Jacobs, J.
Krier, R.
Lynch, K.
Mumford, L.
Rowe, C. & Koetter, F.
Venturi, R. et al.

216003 Urban Design B

Hours
5 hours per week

Content
The student will examine some aspect of the urban environment and initiate a design project which explores its implications.

Assessment
Submission of project work and supporting documentation at end of year.

Texts and References
To suit the chosen project.

SUBJECT COMPUTER NUMBERS FOR ARCHITECTURE COURSES

BACHELOR OF SCIENCE (ARCHITECTURE)
The subjects selected should be written on the enrolment form in the following manner.

<table>
<thead>
<tr>
<th>Computer Number</th>
<th>Subject Name</th>
<th>Computer Number</th>
<th>Names of Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>211000</td>
<td>Architecture I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>211001</td>
<td>Architecture I</td>
<td>(Part-time 1)</td>
<td></td>
</tr>
<tr>
<td>211002</td>
<td>Architecture I</td>
<td>(Part-time 2)</td>
<td></td>
</tr>
<tr>
<td>212000</td>
<td>Architecture II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>212001</td>
<td>Architecture II</td>
<td>(Part-time 1)</td>
<td></td>
</tr>
<tr>
<td>212002</td>
<td>Architecture II</td>
<td>(Part-time 2)</td>
<td></td>
</tr>
<tr>
<td>213800</td>
<td>Architecture IIIA</td>
<td></td>
<td>Visual Studies</td>
</tr>
<tr>
<td>213801</td>
<td>Data Processing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213802</td>
<td>Statistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213803</td>
<td>Man Environment Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213804</td>
<td>Social Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213805</td>
<td>History of Architecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213820</td>
<td>Architecture IIIB</td>
<td></td>
<td>Structures</td>
</tr>
<tr>
<td>213821</td>
<td>Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213822</td>
<td>(A) Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213823</td>
<td>(B) Estimating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213824</td>
<td>Environmental Technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213825</td>
<td>Building Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213826</td>
<td>Building Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>213840</td>
<td>Architecture IIIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>219300</td>
<td>Elective III</td>
<td></td>
<td>Elective component(s)</td>
</tr>
</tbody>
</table>
BACHELOR OF ARCHITECTURE

The subjects selected should be written on the enrolment form in the following manner.

<table>
<thead>
<tr>
<th>Computer Number</th>
<th>Subject Name</th>
<th>Computer Number</th>
<th>Names of Components</th>
</tr>
</thead>
<tbody>
<tr>
<td>214000</td>
<td>Architecture IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>214001</td>
<td>Architecture IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Part-time 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>214002</td>
<td>Architecture IV</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Part-time 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>215500</td>
<td>Architecture VA</td>
<td>215501</td>
<td>Professional Practice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>215502</td>
<td>Management for the Architect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>215503</td>
<td>Law for the Architect</td>
</tr>
<tr>
<td>215520</td>
<td>Architecture VB</td>
<td>215521</td>
<td>Construction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>215522</td>
<td>Specifications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>215523</td>
<td>Estimating</td>
</tr>
<tr>
<td>215540</td>
<td>Architecture VC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>219500</td>
<td>Elective V</td>
<td></td>
<td>Elective component(s)</td>
</tr>
</tbody>
</table>

ELECTIVES OFFERED BY THE DEPARTMENT OF ARCHITECTURE

<table>
<thead>
<tr>
<th>Computer Number</th>
<th>Elective Subject Name</th>
<th>Computer Number</th>
<th>Elective Component(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>219500</td>
<td>Elective V (for example)</td>
<td>216005</td>
<td>Architectural Research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>216021</td>
<td>Architectural Research B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>216018</td>
<td>Landscape Design</td>
</tr>
<tr>
<td></td>
<td></td>
<td>216012</td>
<td>Urban Design A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>216003</td>
<td>Urban Design B</td>
</tr>
</tbody>
</table>