Consult the Calendar for:

Academic Dress
University of Newcastle Act. 1964
By-laws
The Council
The Senate
Officers and Former Officers of the University
Prizes and Scholarships
University Medallists
Lists of Graduates and Diplomates
Publications and Research Interests
### PRINCIPAL DATES — 1967

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<th>Term</th>
<th>Lectures</th>
<th>Vacation</th>
<th>Annual Examination</th>
<th>Vacation</th>
</tr>
</thead>
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<tr>
<td>First Term</td>
<td>February 27th to May 13th.</td>
<td>May 15th to June 3rd.</td>
<td></td>
<td></td>
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<tr>
<td>Second Term</td>
<td>June 5th to August 12th.</td>
<td>August 14th to September 2nd.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**JANUARY**
- Deferred Examinations: All courses Monday, 23rd to Saturday, 4th February.
- Monday, 30th: Australia Day — Public Holiday.

**FEBRUARY**
- Friday, 10th: Last day for lodgment of all enrolment applications.
- Wednesday, 22nd: Orientation commences.
- Monday, 27th: First Term Lectures begin.

**MARCH**
- Friday, 24th to Tuesday, 28th: Easter Vacation.

**APRIL**
- Tuesday, 25th: Anzac Day — Public Holiday.

**MAY**
- Monday, 13th to Saturday, June 3rd: Vacation (3 weeks).

**JUNE**
- Monday, 5th: Second Term Lectures begin.
- Monday, 12th: Public Holiday.
- Thursday, 29th: Last day for acceptance of applications for examinations — 24 week courses.

**AUGUST**
- Friday, 11th: Last day for acceptance of applications for examinations — 30 week courses.
- Monday, 14th to Saturday, September 2nd: Vacation (3 weeks).

**SEPTEMBER**
- Monday, 4th: Third Term Lectures begin.

**OCTOBER**
- Monday, 2nd: Public Holiday.
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INTRODUCTION

By Professor F. Romberg.

The Architect is a planner of environment and designer of buildings. He is concerned not only with the aesthetics but also the technology and function of buildings and their construction. Therefore his training, in addition to developing his design talent, must include a wide range of subjects relating to Structures, Building Science and the administrative aspects of Building Construction.

In his working day the practising architect comes into contact with many facets of community life.

He must have an understanding of management, finance, accountancy, public relations, legal matters and the operating conditions of his clients from case to case. He must take an interest in the fine arts, landscaping, townplanning and a host of other fringe areas of his field.

The Faculty of Architecture of the University of Newcastle offers the student a five year full-time and a six year part-time course, leading to graduation as Bachelor of Architecture. Practical experience in an Architect's office, always an important factor of architectural training in the past, is required for a period of 12 months prior to graduation, incorporated with the course.

Subject to the completion of administrative details, the Faculty of Architecture at the University of Newcastle is a recognised school for registration under the Act and admission to the Royal Australian Institute of Architects.

Comparatively small in numbers, it offers more intimate and personal conditions for study than that provided by larger schools.

LOCATION

In 1967, the University of Newcastle will continue to be divided into the Shortland and Tighe's Hill Campuses.

The Faculties of Arts, Economics and Commerce, and most departments of Science are located at Shortland, together with the Administration, the bulk of the Library and the Union Building.

The Faculties of Applied Science, Architecture, Engineering and the Chemistry Department of Science remain at Tighe's Hill.

The Faculty of Architecture is located on the first floor of the Main University Building at Tighe's Hill.

The telephone number of the Tighe's Hill Campus is: 61 0461.

For connection to the Faculty of Architecture ask Switchboard Operator for “Architecture” or the required party by name.

The telephone number of the Shortland Campus is: 68 0401.

The Postal Address of both Campuses of the University is:

The University of Newcastle,
New South Wales.
OFFICERS OF THE UNIVERSITY

VISITOR
His Excellency The Governor

CHANCELLOR
The Honourable Sir ALISTER MAXWELL McMULLIN, K.C.M.G.,
President of the Senate

DEPUTY CHANCELLOR
GEORGE ALFRED EDWARDS, B.A., B.Sc.(Oxon.),
A.M.I.Chem.E., A.R.I.C.

VICE-CHANCELLOR AND PRINCIPAL
Professor JAMES JOHNSTON AUCHMUTY, M.A., Ph.D.(Dub.),

VICE-PRINCIPAL
Professor BRINLEY NEWTON-JOHN, M.A.(Cantab.)
TEACHING STAFF
OF THE FACULTY OF ARCHITECTURE

Full-time Academic Staff:

F. Romberg, Dipl.Arch. E.T.H.Zurich, F.R.A.I.A. Professor and Dean

E. C. Parker, A.S.T.C., F.R.A.I.A. ... Associate Professor, Seconded to University Administration.

R. M. Deamer, A.S.T.C., A.R.A.I.A. ... Senior Lecturer and Sub-Dean.


E. L. Harkness, B.Arch. Hon.(Syd.) ... Lecturer.


Visiting Lecturers:

C. C. Allan, A.S.T.C., A.R.A.I.A. ... Construction 3.


R. J. Ellis, A.M.I. Struct.E., A.M.S.E. ... Structural Seminar.

A. J. Guy, F.A.I.H.S. ... Building Services A.


F. S. Sanderson, Supervisor Building Trades, Descriptive Geometry, Newcastle Technical College ... Geometry and Perspective.

ADMINISTRATIVE STAFF

Vice-Chancellor and Principal

Vice-Principal
Professor B. Newton-John, M.A.(Cantab.)

Senior Student Counsellor
S. G. Alley, B.A.(Syd.), A.S.T.C., M.A.Ps.S.

Student Counsellor
P. M. Whyte, B.A.(Melb.), M.A.Ps.S.

Bursar
L. W. Harris, A.A.S.A., A.C.A.A., A.B.I.A.

Deputy Bursar
M. G. Talty, B.Com.(N.S.W.), A.A.S.A.

Accountant
G. W. Walker, A.A.S.A.

Secretary
P. D. Alexander, B.A., Dip.Ed.(Syd.)

Graduate Assistants
Joan Bale, B.A.(N.S.W.)
Nell Emanuel, B.A.(N.S.W.)
H. Floyer, B.Ec.(Syd.)
Glennie Jones, B.A.(N.S.W.)

University Planner
Associate Professor E. C. Parker, A.S.T.C., F.R.A.I.A.

Secretary/Manager of the University Union
I. H. S. Irwin
THE LIBRARY STAFF

_University Librarian_
E. Flowers, M.A.(Syd.), A.L.A.A.

_Head Cataloguer_
Elizabeth Guilford, B.A.(N.E.), A.L.A.A.

_Reader Services Librarian_
Joan E. Murray, B.A.(N.E.), A.L.A.A.

_Assistant Librarians_
Marianne E. Flood, B.A.(Syd.), Dip.Lib.(N.S.W.)
Two appointments pending

_Library Assistants_
B. Mitcheson, A.L.A.A.
Winifred Murdoch, B.Sc.(N.E.)
L. Faidigo
P. Davies
M. Swerus
Two appointments pending

_Librarian's Secretary_
Marcia C. Meyjes

_Typists_
Joyce Kiefer
Colleen Flynn

_Attendants_
P. Moroney
J. Vanson

UNIVERSITY OF NEWCASTLE

The University of Newcastle has existed in its own right for two years, yet it is not the youngest of the Australian Universities, for there are three universities junior to it. This expansion of higher education in Australia is due to the somewhat belated recognition that if this country is to maintain its place in the modern world, let alone progress, it will need many more scientists, teachers, architects, engineers, administrators, economists, linguists, and specialists and technologists of all kinds. To supply these, and above all to produce a thoughtful educated society, is a function of the Universities.

The University began in 1952, modestly, on the site of the Newcastle Technical College, as a College of the New South Wales University of Technology. Of the first enrolment of 370, only five students were starting degree courses—the others were seeking a diploma or were converting their diplomas into degrees. The courses offered were those given in the University of Technology, but public pressure soon brought about the introduction of Arts courses, in which 95 students enrolled in 1954. Since the University of Technology had no Faculty of Arts, the supervision of these courses was entrusted to the University of New England and a happy relationship was established which lasted until 1959, by which time the University of Technology had become the University of New South Wales.

Student numbers have grown steadily from the original band of 370 to 1726 in 1965, the year in which autonomy was granted and 2,023 in 1966. Academic staffing has kept pace numerically with this expansion, but it was only very recently that any significant increase in the number of professors took place. Up to 1961, we had one. By 1962 we had two. At the beginning of this year there will be twenty two.

Graduates from Newcastle who took their degrees from the Universities of New South Wales and New England now number about 900. In 1966 the University of Newcastle conferred degrees for the first time on its own authority when 138 candidates were admitted to degrees.

Most students will spend their University life on the new campus at Shortland; some students will not be able to complete their degrees there, because the University had insufficient money to move all the Faculties at the same time. But for some years it is expected that new buildings will be erected on the Shortland campus for Applied Science, Engineering, Chemistry, Architecture, the Library and the Great Hall.

It is confidently expected that this physical growth will be accompanied by an increasing emphasis on honours and post-graduate studies.

THE ORGANISATION OF THE UNIVERSITY

The governing body of the University is the Council, which has the responsibility for making all major decisions on policy.

The Council consists of 23 members including representatives of the undergraduates, the graduates, the non-academic and the academic staff of the University and Convocation. Its Chairman is the Chancellor of the University, Senator The Honourable Sir Alister McMullin, K.C.M.G.

The Chief Executive Officer of the Council is the Vice-Chancellor and Principal, Professor J. J. Auchmuty, M.A., Ph.D., M.R.I.A., F.R.Hist.S., F.I.A.L., who sees to the implementation of the Council decisions and has the general oversight of the administration of the University. In this work he is assisted by Professor B. Newton-John, M.A., the Vice-Principal.
The Chief Academic Body in the University is the Senate, which is composed of the professors and one non-professorial representative from each faculty. It meets under the Chairmanship of the Vice-Chancellor and presents to Council the results of its deliberations on all matters affecting the academic life of the University—matriculation requirements, course structures, the appointment of examiners, the conditions for the award of post-graduate degrees and diplomas and similar matters. The Senate has inter alia a Personnel and Finance Committee which is an advisory committee to the Vice-Chancellor, and an Admissions Committee, which deals with all applications for entry which do not satisfy formal matriculation requirements.

The other major academic bodies are the Faculty Boards of which we have six (Applied Science, Architecture, Arts, Economics and Commerce, Engineering, Science). Each Faculty Board consists of all the tenured academic staff of the Departments composing the Faculty together with representatives of other Faculties and is chaired by the Dean of the Faculty, a professor elected by the Faculty Members. It is the Faculty Board that is responsible for the teaching, research activities and examinations within the Faculty. Once courses have been approved by the Board, it is the business of the individual Departments to teach and examine them.

Most Departments invite an External Examiner, usually a Professor from another University, to co-operate in the assessment of examination results, particularly those of honour candidates, thus ensuring that this University's standards are known in the other Australian Universities.

THE FACULTIES

Courses are offered in six Faculties, each of which is composed of one or more departments.

FACULTY OF APPLIED SCIENCE

Dean: Professor I. McC. Stewart

Chemical Engineering and Industrial Chemistry

Metallurgy

FACULTY OF ARCHITECTURE

Dean: Professor F. Romberg

Professor F. Romberg, Dipl.Arch.(E.T.H. Zurich), F.R.A.I.A.

FACULTY OF ARTS

Dean: Professor J. A. Keats

Classics
Professor R. G. Tanner, M.A.(Melb. and Cantab.)

Education
Head of Department G. H. Duncan, M.A.(Syd.), B.Ed.(Melb.), M.A.C.E.

English
Professor K. G. W. Cross, M.A., Ph.D.(Dub.)

French
Professor K. H. Hartley, M.A.(Syd.), D. de l'U(Paris)

Geography
Professor A. D. Tweedie, M.A.(N.Z.)

German
Professor D. G. Mowatt, B.A., Ph.D.(Lond.)

History
Professor G. A. Cranfield, B.A., Ph.D.(Cantab.)

Philosophy
Professor A. M. Ritchie, M.A.(Syd.), Ph.D.(Lond.)

Psychology

FACULTY OF ECONOMICS AND COMMERCE

Dean: Professor W. P. Hogan

Commerce
Professor M. O. Jager, B.Com.(Melb.), A.A.S.A., A.C.A.A.

Economics
Professor W. P. Hogan, M.A.(N.Z.), Ph.D. (A.N.U.)
FACULTY OF ENGINEERING
Dean: Professor H. R. Vallentine

Civil Engineering
Professor
H. R. Vallentine, B.E.(Syd.),
M.Sc.(Iowa), A.S.T.C.,
A.M.I.E.(Aust.), M.ASCE.

Electrical Engineering
Professor
B. D. O. Anderson, B.Sc., B.E.(Syd.),
Ph.D.(Stanford)

Mechanical Engineering
Professor
Appointment pending.

FACULTY OF SCIENCE
Dean: Professor C. D. Ellyett

Chemistry
Professor
J. A. Allen, M.Sc.(Q'ld.),
Ph.D.(Bristol), F.R.A.C.I.

Geology
Professor
Beryl Nashar, B.Sc., Dip.Ed.(Syd.),
Ph.D.(Tas.)

Mathematics
Professor
I. D. Macdonald, M.A.(Aberd.),
Ph.D.(Manc.)

Physics
Professor
C. D. Ellyett, M.Sc.(N.Z.),
Ph.D.(Manc.), F.R.A.S.,
F.R.S.N.Z., F.A.I.P.

REQUIREMENTS FOR ADMISSION
Candidates may qualify for entry to undergraduate courses by complying with the matriculation requirements set out hereunder at the New South Wales Leaving Certificate Examination, or the University of Sydney Matriculation Examination.

The New South Wales Leaving Certificate Examination is usually held in November and entries must be lodged with the Department of Education during July.

The Matriculation Examination is held in February and applications must be lodged at the University of Sydney during the first ten days of January except by candidates who have taken the Leaving Certificate Examination in the previous November. The closing date for such candidates will be announced when the Leaving Certificate results are published.

MATRICULATION REQUIREMENTS
(To operate from 1st January, 1961, to 31st March, 1967.)

1. (i) A candidate for any first degree of the University shall satisfy the conditions for admission set out in section 2 (ii) below before entering upon any course for such degree.
   Compliance with these conditions does not in itself entitle a student to enter upon a course.

   (ii) A person who has satisfied the conditions for admission may on the payment of such fees as may be determined by the Council from time to time be provided with a statement to that effect.

2. (i) For the purpose of matriculation, approved subjects are grouped as follows:
   A. English.
   B. Latin, Greek, French, German, Italian, Hebrew, Chinese, Japanese, Russian, Dutch, Geography, Ancient History, Modern History, Economics;
   C. Mathematics I, Mathematics II, Mathematics III.
   E. Accountancy, Art, Descriptive Geometry and Drawing, Music, Theory, and Practice of Music.

   (ii) The conditions for admission to any undergraduate course leading to a degree are that a candidate must have passed the New South Wales Leaving Certificate Examination conducted by the Department of Education or the University of Sydney Matriculation Examination, in a least five approved subjects at the one examination;
   Provided that:
   (i) either (a) the five subjects include English and at least one subject from each of the Groups B and C but include not more than one subject from Group E, except that candidates may qualify for admission to the Faculty of Arts only, by passing in one subject from group D in lieu of the subject from Group C. or (b) the five subjects include English, and at least one subject from either Group B or Group C, but include not more than one subject from Group E, and
provided further that the five passes include either one first-class Honours and two A's or two Honours of which one is first-class; and

(ii) (a) neither Physics nor Chemistry is offered with the combined subject Physics and Chemistry;
(b) neither Botany nor Zoology is offered with Biology;
(c) neither Botany nor Zoology nor Biology is offered with Physiology;
(d) neither Mathematics I nor Mathematics II nor Mathematics III is offered with General Mathematics;
(e) neither Mathematics I nor Mathematics II is offered with Mathematics III; and
(f) Mathematics I or Mathematics II may be counted as an approved subject only if the candidate presented himself for examination in both Mathematics I and Mathematics II.

3. The Council may, with the advice of the Senate, admit as a matriculated student, under such conditions and with such standing as it may determine, any person who has satisfied the Council that he has reached a standard of education sufficient to enable him to pursue his proposed course.

4. The Council may, with the advice of the Dean of the Faculty concerned permit any person to enrol in a subject or subjects on payment of such fees as may be determined from time to time by the Council. Such a person shall not have the privileges of a matriculated student and shall not be eligible to proceed to a degree.

UNDERGRADUATE COURSES

The following tables show the courses available and the degrees awarded. Details will be found in the Faculty Handbooks.

<table>
<thead>
<tr>
<th>FULL-TIME COURSES</th>
<th>DURATION — YEARS</th>
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</thead>
<tbody>
<tr>
<td>COURSE</td>
<td>DEGREE</td>
</tr>
<tr>
<td>Applied Science</td>
<td>B.E.</td>
</tr>
<tr>
<td>Architecture</td>
<td>B.Arch.</td>
</tr>
<tr>
<td>Arts</td>
<td>B.A.</td>
</tr>
<tr>
<td>Commerce and Commerce</td>
<td>B.Com.</td>
</tr>
<tr>
<td>Economics</td>
<td>B.E.</td>
</tr>
<tr>
<td>Engineering</td>
<td>B.E./B.Sc.</td>
</tr>
<tr>
<td>Engineering</td>
<td>B.E./B.Sc.</td>
</tr>
<tr>
<td>Electrical Engineer</td>
<td>B.E./B.Sc.</td>
</tr>
<tr>
<td>Mechanical Engineer</td>
<td>B.E./B.Sc.</td>
</tr>
<tr>
<td>Science</td>
<td>B.Sc.</td>
</tr>
</tbody>
</table>
POST GRADUATE AWARDS

It is well to consider at the outset of your University career the desirability of undertaking an honours course.

A good honours degree, valuable in itself and a most useful qualification in any professional field, is essential to gain a post-graduate award which will enable the recipient to read for a higher degree.

Particulars of post-graduate awards available at the University are published in the Calendar.

PROCEDURES

HOW TO ENROL

All documents relating to enrolment are obtainable from the Student Records Office, Room No. 158, Building "A", Shortland site.

1. (i) PERSONS ENROLLING IN AN UNDERGRADUATE COURSE AT THE UNIVERSITY OF NEWCASTLE FOR THE FIRST TIME.

Two forms, as under, are required to be completed by each intending student and lodged with the Student Records Office before the 10th February, 1967.

(a) Application for Admission.
(b) Enrolment Application.

(ii) PERSONS RE-ENROLLING IN UNDERGRADUATE COURSES.

Undergraduates re-enrolling will be required to complete an Enrolment Application and lodge it with the Student Records Office before the 10th February, 1967.

A student in this category whose Enrolment Application is not received by the Student Records Office before 5.00 p.m. on Friday, 10th February, 1967, will become liable to pay a late fee.

(iii) CANDIDATES FOR POST-GRADUATE DIPLOMA COURSES

(a) Candidates for the Diploma in Education.
These people should complete the Post-Graduate Diploma Application Form and lodge it with The Principal, Newcastle Teachers' College, before the 10th February, 1967.

(b) Candidates for the Post-Graduate Diploma in Industrial Engineering.
These people should complete the Post-Graduate Diploma Application Form and lodge it with the Student Records Office before the 10th February, 1967.

(iv) CANDIDATES FOR THE DEGREE OF MASTER OR DOCTOR OF PHILOSOPHY.

Candidates re-enrolling.
These persons will be required to complete the Higher Degree Enrolment Form and lodge it with the Student Records Office before the 10th February, 1967.

Candidates Registering for the first time.
These persons should complete an "Application for Registration as a Candidate for a Higher Degree" and lodge it with the Student Records Office.

(v) CANDIDATES FOR QUALIFYING COURSES FOR HIGHER DEGREES.

Graduates intending to pursue qualifying studies for admission as a candidate for the degree of Master or Doctor of Philosophy
POST GRADUATE AWARDS

It is well to consider at the outset of your University career the desirability of undertaking an honours course.

A good honours degree, valuable in itself and a most useful qualification in any professional field, is essential to gain a post-graduate award which will enable the recipient to read for a higher degree.

Particulars of post-graduate awards available at the University are published in the Calendar.

PROCEDURES

HOW TO ENROL

All documents relating to enrolment are obtainable from the Student Records Office, Room No. 158, Building "A", Shortland site.

1. (i) PERSONS ENROLLING IN AN UNDERGRADUATE COURSE AT THE UNIVERSITY OF NEWCASTLE FOR THE FIRST TIME.

Two forms, as under, are required to be completed by each intending student and lodged with the Student Records Office before the 10th February, 1967.

(a) Application for Admission.
(b) Enrolment Application.

(ii) PERSONS RE-ENROLLING IN UNDERGRADUATE COURSES.

Undergraduates re-enrolling will be required to complete an Enrolment Application and lodge it with the Student Records Office before the 10th February, 1967.

A student in this category whose Enrolment Application is not received by the Student Records Office before 5.00 p.m. on Friday, 10th February, 1967, will become liable to pay a late fee.

(iii) CANDIDATES FOR POST-GRADUATE DIPLOMA COURSES

(a) Candidates for the Diploma in Education.
These people should complete the Post-Graduate Diploma Application Form and lodge it with The Principal, Newcastle Teachers' College, before the 10th February, 1967.

(b) Candidates for the Post-Graduate Diploma in Industrial Engineering.
These people should complete the Post-Graduate Diploma Application Form and lodge it with the Student Records Office before the 10th February, 1967.

(iv) CANDIDATES FOR THE DEGREE OF MASTER OR DOCTOR OF PHILOSOPHY.

Candidates re-enrolling.
These persons will be required to complete the Higher Degree Enrolment Form and lodge it with the Student Records Office before the 10th February, 1967.

Candidates Registering for the first time.
These persons should complete an "Application for Registration as a Candidate for a Higher Degree" and lodge it with the Student Records Office.

(v) CANDIDATES FOR QUALIFYING COURSES FOR HIGHER DEGREES.

Graduates intending to pursue qualifying studies for admission as a candidate for the degree of Master or Doctor of Philosophy...
should complete the special form for this purpose and lodge it with the Student Records Office, preferably before 10th February, 1967.

2. NOTIFICATION OF ACCEPTANCE.
   (i) All Undergraduates.
      Each student will be required to call at Room No. 150, Building "A", Shortland site, to collect his/her approved Enrolment Application. The approved Enrolment Applications will be available for collection on and after Wednesday, 22nd February, 1967. Wednesday, 22nd February, 1967, is the Opening Day of Orientation Week.
   (ii) All Post-Graduate Candidates.
      The approved Enrolment Application will be posted to the address nominated by the candidate on his Enrolment Form.

3. NOTIFICATION OF AMENDMENT, CALL FOR INTERVIEW OR REJECTION.
   In cases where an enrolment may be authorised subject to certain amendments, the student concerned may be advised by post or may be requested to call for an interview. Where it is considered desirable or where the student has so requested, an appointment will be made for the student to discuss his enrolment application. The student whose enrolment cannot be accepted will be notified in writing.

4. STUDENTS NEEDING ACADEMIC ADVICE BEFORE ENROLLING.
   The student who is uncertain which subjects he should read, after referring to the information available in the appropriate Faculty Handbook, should consult the Dean of the Faculty during the period 6th—10th February, 1967. An appointment may be made by phoning the Dean's secretary. The Deans of various faculties are listed on page 18.

5. LATE ENROLMENTS.
   (i) Students who are unable to lodge their Application for Enrolment by the prescribed date, shall make written application to the Vice-Principal for an extension of time. This application must be received by the Vice-Principal on or before 10th February, 1967, otherwise the University reserves the right not to accept the student's application.
   (ii) No enrolments will be accepted after 31st March of each academic year without the approval of the Vice-Principal which shall be given only in exceptional circumstances.
   (iii) Deferred Examinations.
      A student who has taken a deferred examination will be required to lodge an Enrolment Application with the Student Records Office after the publication of the examination results and before Thursday, 23rd February, 1967.
   (iv) Show Cause Students.
      A student given permission to re-enrol will be required to lodge, with the Student Records Office, an Enrolment Application within seven (7) calendar days of the despatch to him of a letter advising permission to re-enrol.
   (v) Sydney University Matriculation Examination.
      Students relying on this examination for matriculation will be required to lodge an Application for Admission and an Enrolment Application with the Student Records Office within seven (7) calendar days of the publication of results.

6. INTERSTATE AND OVERSEAS STUDENTS.
   Students relying for matriculation on examinations taken outside New South Wales will be required to produce evidence of matriculation to their local university or some other recognised university, for example, The University of London. These students should lodge with this University, before 1st December, 1966, an Application for Admission and an Enrolment Application, supported by a statement as above and documentary evidence of their educational qualifications.

7. PRECAUTIONS WHEN COMPLETING ENROLMENT DOCUMENTS.
   (i) Students should answer all questions unless otherwise instructed.
   (ii) The description of subjects should correspond exactly with the information shown in the Faculty Handbooks.
   (iii) The student should ensure that he has inserted his standing in the course in accordance with the instructions set out in the Faculty Handbook, e.g. Year II, Stage 4.
   (iv) The student should check the timetable for the courses selected to ensure that there are no clashes.
   (v) It is important that the student check his proposed programme to ensure that he has:
      (a) completed pre-requisite subjects,
      (b) satisfied the sequence requirements.
   (vi) Amendments to Enrolments.
      All amendments to enrolments must be completed by lodging, before 21st March, 1967, with the Dean of the Faculty, a Variation Form indicating the change required. Changes are not automatically approved; the reasons therefore must be given.

8. AMENDMENTS.
   The following matters are regarded as amendments to course programmes and require documentation.
   (i) To change from one course to another.
   (ii) To substitute one subject for another.
   (iii) A change in the method of completion of course, e.g. full-time to part-time.
   (iv) Permission to include five first year subjects in Arts Degree course.
   (v) Approval to withdraw from a subject or course.
   (vi) Leave of absence from course.
   (vii) Any other course change.

9. ENROLMENT IN CORRECT SUBJECTS.
   Considerable inconvenience is caused to the University and to the student if he reads a subject in which he has not enrolled. It is essential for the student to determine before submitting his Enrolment Application, the subjects he will read for the year. Particular attention should be made to the inclusion of the Honours segments where these are taken.

10. WITHDRAWAL FROM COURSE REGARDED AS FAILURE.
    Approval to withdraw from a course is not automatic. It should be noted that a student is regarded as having failed in a course if he enrols in it and does not pass the annual examinations—i.e. not sitting for the examination (unless withdrawal has been approved) is regarded as not passing the examinations.
After the sixth Monday of Second Term a student will not be allowed to withdraw without penalty unless, in the opinion of the Dean of the Faculty, there is good reason why he should be permitted to do so.

PAYMENT OF FEES

Completion of Enrolment.
Enrolment is completed by the payment of fees. Fees should be paid before or during the first two weeks of First Term. After that, a late fee is incurred (see below). Fees will not be accepted after the 31st March except with the written approval of the Secretary, which will be given only in exceptional circumstances.

PAYMENT OF FEES

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IT IS RECOMMENDED that wherever possible payment of fees be made through the post, by cheque, money order, or postal note. (Money orders should be made payable at Newcastle University Post Office). Payment in person may be made to the Cashier who is located opposite the Student Records Office in Building “A”, Shortland Site. The cashier’s ordinary hours of opening are as follows:

<table>
<thead>
<tr>
<th>Monday to Friday</th>
<th>9.00 a.m. to 11.00 a.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.00 p.m. to 4.30 p.m.</td>
</tr>
</tbody>
</table>

During enrolment periods the Cashier’s office will be open for additional hours, which will be published on the notice boards.

Payment of Fees by Term.
A student may pay course fees by the term, in which case payment must be made within the first two weeks of each term.

Scholarship Holders and Sponsored Students.
The student whose fees are met from a scholarship or some other form of financial assistance is required to submit an approved enrolment application together with a voucher or other documentary evidence from the sponsor accepting liability for his fees, together with payment of fees not included in such authority, to the Cashier by the due date. Where such documentary evidence is not available, the student is expected to make payment by the due date and to apply for a refund of fees paid when he is in a position to lodge such document.

Extension of Time.
The student who is unable to pay fees by the prescribed date may apply in writing to the Secretary for an extension of time. This application must state fully the reasons why fees cannot be paid and must be lodged before the date on which the late fee becomes payable.

Failure to Pay Fees.
Any student who is indebted to the University and who fails to make a satisfactory settlement of his indebtedness upon receipt of due notice ceases to be entitled to membership and privileges of the University. Such a student is not permitted to register for a further term, to attend classes or examinations, or to be granted any official credentials. The student is not eligible to attend the annual examinations in any subject where any portion of his course fees for the year is outstanding by the end of the third week of Third Term.

In very special cases the Vice-Principal may grant exemption from the disqualification referred to in the two preceding paragraphs upon receipt of a written statement setting out all relevant circumstances.

DATES FOR PAYMENT OF FEES IN 1967.

First Term.
Fees due: Monday, 27th February to Friday, 10th March.
Late fee of $6 applicable: Monday, 13th March to Friday, 31st March.
Late fee of $10 applicable, if permission given by the Secretary for the enrolment to be accepted after 31st March.

Second Term.
Fees due: Monday, 5th June to Friday, 16th June.
Late fee of $6 applicable: Monday, 19th June to Friday, 30th June.
Late fee of $10 applicable, if permission given by the Secretary for fees to be accepted after 1st July.

Third Term.
Fees due: Monday, 4th September to Friday, 15th September.
Late fee of $6 applicable: Monday, 18th September to Friday, 22nd September.
Late fee of $10 applicable, if permission given by the Secretary for fees to be accepted after September 22nd.

EXTENSION OF TIME TO PAY FEES

A student whose written application for an extension of time in which to pay fees has been approved by the Secretary (see above) may be granted a maximum period of ONE MONTH after the closing date for payment of fees. The closing dates are:

- First Term: Friday, 10th March.
- Second Term: Friday, 16th June.
- Third Term: Friday, 15th September.

UNDERGRADUATE COURSE FEES

The fees quoted below are current at the time of publication and may be varied by the Council without notice.

It will be noted that the fee schedule applicable to students who enrolled for the first time in 1966 and in later years differs from that obtaining beforehand.

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Fee per annum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts, Economics and Commerce</td>
<td>$276</td>
</tr>
<tr>
<td>Full-time registered students</td>
<td>$276</td>
</tr>
<tr>
<td>Arts, Economics and Commerce</td>
<td>$330</td>
</tr>
<tr>
<td>Part-time registered students</td>
<td>$165</td>
</tr>
<tr>
<td>in all Faculties</td>
<td></td>
</tr>
</tbody>
</table>

Notes (a) A full-time student is a student who enrolls in more than half the subjects of a normal first year course and such a student remains classified as a full-time student except on the written approval of the Dean of his Faculty that he be reclassified as a part-time student — this re-classification would be exceptional.

(b) A part-time student is either one who enrolls in half or less than half the subjects of a normal first year course or one who enrolls in a part-time course. In subsequent years the enrolment as a part-time student requires the approval of the Dean of the Faculty.

‘Non-degree’ Students. (Fee under review).

‘Non-degree’ students, are those permitted to read one or more subjects in a first degree course without counting them as qualifying for a degree. Such students, whether enrolling for the first time or re-enrolling are required to pay a course fee of $90 p.a. for each subject.
The General Services Fee.
From 1966 onwards all registered students will pay a combined General Services Fee of $42 p.a. payable in First Term with the Course Fees. In addition students joining the University Union for the first time will be required to pay an entrance fee of $12.

HIGHER DEGREE FEES
(Under review)

Master's Degree.
Course and Supervision Fee (Full-Time) .... $96 per annum
Course and Supervision Fee (Part-Time) .... $48 per annum
General Services Fee, which includes an annual contribution of $10 to the University Library .... $36 per annum

Doctor of Philosophy.
Qualifying Examination Fee (if applicable) .... $10 per annum
Course and Supervision Fee .... $96 per annum
General Services Fee, which includes an annual contribution of $10 to the University Library .... $36 per annum

Note:
The above fees will apply to candidates who registered for the first time in 1966 or who register in later years. Fees for candidates who were enrolled in 1965 will be as set out on page 38 of the 1965 Handbook.

Other fees.
1. Where an application to sit for examinations is accepted after the closing date for the examinations, a fee of $4 will be made.
2. Deferred examinations per subject $4
3. Under special supervision per paper $6
4. Review of Examination result, per subject .... $6

Adjustment of Fees.
Should an application to withdraw from a course or subject be approved, an adjustment of fees will be made, relative to the date on which the application was submitted. Up to that date, fees accrue. Where notification of withdrawal from a course is received by the Dean of the Faculty before the first day of First Term, a refund will be made of all Course Fees. Where a student for acceptable reasons notifies the termination of a course before the end of the fifth week of term, one half of the course fees for the term may be refunded. If the student notifies termination of a course after the end of the fifth week, no refund will be made.

IN RESPECT OF APPLICATIONS TO WITHDRAW FROM A COURSE OR SUBJECT WHICH ARE RECEIVED IN THE EARLY PART OF FIRST TERM, THE UNIVERSITY RESERVES THE RIGHT NOT TO MAKE ANY REFUND OF MONEYS UNTIL AFTER THE END OF THE SIXTH WEEK OF TERM.

EXAMINATIONS

General.
Examinations and other exercises may be held in any subject and at any time at the discretion of the lecturer or other competent authority, and the results of such examinations may be incorporated with those of the annual examinations in such subjects.

A student desiring to sit for an annual examination must lodge an application with the Secretary on the appropriate form by the prescribed date.

The annual examinations take place in November-December for students in 30 week courses, and in September for students in 24 week courses. Time-tables showing time and place at which individual examinations will be held are posted on the central notice boards. Miss-pairings of the time-table will not under any circumstances be an acceptable excuse for failure to attend an examination. Examination results are published in the daily Press. No results will be given by telephone.

Examination results may be reviewed for a fee of $6 a 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 necessary fee by the date notified in the Press publication.

In the assessment of a student's progress in University courses, consideration is given to work in laboratory and class exercises and to any term or other tests given throughout the year, as well as to the annual examination results.

Students should also note that an examiner may call them in after completion of the written papers in the annual examination to complete further written, practical or oral tests as part of the annual examination. It is therefore important that the Examinations Branch be advised of any change in address from the one given on the Application for Admission to Examinations.

The prescribed dates by which applications to sit for examinations are to be lodged are:
(a) Annual examinations for 24-week courses—30th June
(b) Annual examinations for 30-week courses—11th August
(c) Annual examinations for other courses—14 weeks prior to date of first examination.

No student is eligible to attend the annual examination in any subject if any portion of fees due by the student is outstanding by the end of the third week of Third Term.

The Cashier is authorised to receive application forms during the three weeks immediately following the prescribed closing dates if they are accompanied by a late fee of $4. Applications submitted more than three weeks after the closing date will not be accepted except in very exceptional circumstances and with the approval of the Secretary. Where an application is not accepted the student concerned is not eligible to sit for the examination.

Special Examinations.
Special Examinations may be awarded under certain conditions. The relevant sections of the University's By-laws are set out below.

By-law 5.9.3
5. When a candidate is prevented by illness or by other serious cause from presenting himself for the annual examination the appropriate Faculty Board may order a special examination for that candidate in the subject or subjects in which he was unable to present himself. The result of a special examination may be graded.
6. When a candidate's studies during the academic year have been seriously hampered by illness or other serious cause, the appropriate Faculty Board upon application being made to the Secretary to the University before the commencing date of the examination supported by medical or other proper evidence may direct the examiners to take the circumstances into account in determining whether or not a special examination should be provided for the candidate in any subject in which he does not pass at the annual examination.
7. When a candidate at the annual examination is to a substantial degree affected by illness during the course of an examination in any subject the appropriate Faculty Board, upon application being made...
to the Secretary to the University within three days after such examination or within such further period as the Vice-Chancellor may consider reasonable in the circumstances supported by medical or other proper evidence, may direct the examiners in that subject to take the circumstances into account if the candidate does not pass therein in determining whether or not a special examination or test should be provided for him: Provided that no such application shall be considered unless the candidate either during or immediately after such examination reports to the supervisor in charge the circumstances relied on in the application.

DEFERRED EXAMINATIONS

Deferred examinations may be granted to help resolve a doubt as to whether a student has reached the required standard in a subject.

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

(a) Candidates are required to obey any instruction given by a proctor for the proper conduct of the examination.
(b) Candidates are expected to be in their places in the examination room not less than ten minutes before the time for commencement.
(c) No bag, writing paper, blotting paper, manuscript or book, other than a specified aid, is to be brought into the examination room.
(d) No candidate shall be admitted to an examination after thirty minutes from the time of the beginning of the examination.
(e) No candidate shall be permitted to leave the examination room before the expiry of thirty minutes from the time the examination begins.
(f) No candidate shall be re-admitted to the examination room after he has left it unless during the full period of his absence he has been under approved supervision.
(g) A candidate shall not by any improper means obtain or endeavour to obtain assistance in his work, give or endeavour to give assistance to any other candidate, or commit any breach of good order.
(h) Smoking is not permitted during the course of examinations.
(i) A candidate who commits any infringement of the rules governing examinations is liable to disqualification at the particular examination, and if detected at the time, to immediate expulsion from the examination room, and is liable to such further penalty as may be determined.

GENERAL REQUIREMENTS

The University tries to function with a minimum of formal regulations; it has, for instance, drawn up no code of conduct for students, beyond forbidding gambling in the precincts and smoking in lectures, examinations and the Library.

It is obvious however that there must be standard practice throughout the University in such diverse matters as examination procedures and car parking and an acceptance of certain requirements which are described in the following pages.

Academic Requirements.

The student is responsible for informing himself as to, and for complying with, University requirements, especially the requirements relating to admission and to the award of the degree for which he is reading.

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.

Attendance at Classes.

Students are expected to be regular and punctual in attendance at all classes in the course or subject in which they are enrolled. All applications for exemption from attendance at lectures or practical classes must be made in writing to the Head of the appropriate Department. If term examinations have been missed this fact should be noted in the application.

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

Applications for exemption from re-attendance at classes, either for lectures or practical work, may only be approved on the recommendation of the Head of the appropriate Department. The granting of an exemption from attendance does not carry with it exemption from payment of fees. Where a student has attended less than 80 per cent of the possible classes, he may be refused permission to sit for the examination in that subject.

Ownership of Students' Work.

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

Student Identification.

Students are expected to carry their receipt for First Term enrolment as evidence that they are entitled to the rights and privileges afforded by the University.

Students desiring certification of documents for obtaining travel and other concessions should present such documents to the Student Records Section.

Change of Address.

Students are responsible for notifying Student Records Office in writing of any change in their address as soon as possible. Failure to do this 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 Student Records Office of a change of address.

General Conduct.

Acceptance as a member of the University implies an undertaking on the part of the student 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, and it is their duty, to check and report on disorderly or improper conduct occurring in the University.
PARKING OF CARS.
On the Tighe's Hill Site the authorities of the Newcastle Technical College are responsible for traffic control and parking, and their regulations, traffic signs, etc., must be obeyed.
At Shortland, all vehicles must be parked in a car park.

PROGRESS IN THE COURSE AND EXAMINATION FAILURE
The University is vitally concerned to see that all students take full advantage of the opportunities that they receive as persons privileged to attend a University.
However, to assist those students who may be unsuited to University study or whose circumstances jeopardise success at study and to deal with those students whose lack of success has a detrimental effect on the work of the course, certain By-laws have been enacted to give guidance to and deal with these students. They are:

By-law 5.4.1—Unsatisfactory Progress.*
1. The Head of a Department in any Faculty may determine that a student taking a subject or course offered by the Department shall be excluded from any examination for which the Department is responsible for any or all of the following reasons:
(a) unsatisfactory attendance at lectures;
(b) failure to complete laboratory work;
(c) failure to complete written work or other assignments; or
(d) failure to complete field work.
2. The Faculty Board may review the academic progress of any student enrolled in the Faculty concerned who fails in, or is absent from, or is excluded under section 1 of this By-law from any examination and may determine:
(a) that the student be excluded from any further study in a subject;
(b) that the student may enrol in that Faculty only in such subject or subjects as the Faculty Board shall specify; or
(c) that the case be referred to the Admissions Committee if, in the opinion of the Faculty Board, the student should be excluded from a degree course, from the Faculty or from the University.
3. The Admissions Committee, in considering a referral under subsection (c) of section 2 and after giving the student an opportunity to be heard, may determine:
(a) that the student be excluded from a degree course or from the Faculty;
(b) that the student shall be permitted to continue his course, subject to such conditions as the Admissions Committee may determine; or
(c) that the case be referred to the Vice-Chancellor with the recommendation that the student be excluded from the University.
4. The Vice-Chancellor may, on the recommendation of the Admissions Committee, exclude from the University any student whose academic record in the opinion of the Vice-Chancellor and the Admissions Committee demonstrates the student's lack of fitness to pursue University studies.

* See also 'Withdrawal from Course Regarded as Failure'—Page 27.

By-law 5.4.2—Show Cause.
1. A student shall show cause why he should be allowed to repeat a subject in which he has failed more than once. Failure in a deferred examination as well as the annual examination counts for the purposes of this By-law as one examination.

2. (1) A full-time student shall show cause why he should be allowed to continue a course if all subjects of the first year of his course are not completed by the end of his second year of attendance.
(2) A part-time student shall show cause why he should be allowed to continue a course if all subjects of the first two stages of his course are not completed by the end of his fourth year of attendance.
3. (1) A student who has a record of failure at another University shall show cause why he should be admitted to the University.
(2) A student admitted to a course at the University following a record of failure at another University shall show cause, notwithstanding any other provision in this By-law, why he should be allowed to continue in that course if he is unsuccessful in the annual examinations in his first year of attendance at the University.
4. A student required to show cause shall have his application considered by the Admissions Committee which shall determine whether the cause shown is adequate to justify the student's being permitted to continue his course or to re-enrol as the case may be.

By-law 5.4.3—Re-enrolment.
1. Any student who has been excluded from a Faculty shall not be allowed to enrol in another Faculty without the permission of the Faculty Board concerned.
2. Any student excluded from a degree course or from a Faculty or from the University may apply after two academic years to the Admissions Committee for re-admission to any such Faculty or to the University. If the Admissions Committee is satisfied that the condition or circumstances of any such student have so changed that there is a reasonable probability that he will make satisfactory progress in his studies it may authorise the re-admission of that student under such conditions as it may determine.

By-law 5.4.4—Appeal Against Exclusion.
1. A student who is refused permission to enrol under the provisions of section 1 of By-law 5.4.3 may appeal to the Senate.
2. A student who has been excluded from any degree course or from a Faculty or from the University may appeal to the Council.

UNIVERSITY SERVICES

CHAPLAINCY SERVICE
A Chaplaincy Service within the University of Newcastle for the benefit of students and members of staff is provided by the Christian Churches of Newcastle.
The service offers personal counselling and guidance, and also assistance in biblical and doctrinal studies. Opportunities for liturgical worship are also provided.
The Chaplains' office is situated on the Ground Floor of the Main Administration Building at Shortland.
The Chaplains are in regular attendance at the University but they may also be contacted at their private addresses.
NAMES AND ADDRESSES OF CHAPLAINS

Anglican  The Reverend Canon E. H. V. Pitcher, M.A., Th.Schol., 83 Queen's Road.
NEW LAMBTON. Tel. 57 1875.

Methodist  The Reverend M. B. Coleman, B.E., B.D., The Parsonage, SHORTLAND. Tel. 55 8390.

Presbyterian  The Reverend H. Barratt, B.A., St. Phillip's Manse, NEWCASTLE. Tel. 2 2379.

Roman Catholic  The Reverend Father T. Warren, B.A., Redemptorist Monastery, MAYFIELD. Tel. 68 2347.

COUNSELLING SERVICE

The Counselling Service assists students, prospective and enrolled, in a variety of ways. Most students, whatever their academic achievements, at one time or another need help in dealing with difficulties which arise during the course of their University lives. Although a somewhat new service in Universities, its existence is justified by the fact that at this University about one third of all students utilise it. Whether or not students do use the counselling service is entirely a matter for their own decision.

Students who have problems about their choice of course, or a change in their career plans, students who are worried about inadequate study methods or who are perturbed by personal difficulties, by nervous states and anxiety are invited to arrange an appointment with a Student Counsellor.

On request the Counsellors will conduct courses for the improvement of reading skills and tests of ability and personality.

"Study at the Tertiary Level" — the Counselling Department has produced a booklet specifically for students of this University, and this will be on sale at a nominal cost early in 1967.

Student Counsellors—S. G. Alley, B.A.(Syd.), A.S.T.C., M.A.Ps.S. (Top floor of Main Building at Shortland).

Tighe's Hill: One of the Student Counsellors will be available for interviews in the Main Building (1st floor) on Thursday, 2 p.m.—8 p.m.

THE LIBRARY

The University Library contains approximately 110,000 books and subscribes to over 2,000 periodicals.

For the time being the Library is split between the Shortland and Tighe's Hill Campuses. Due to the Faculty of Architecture's location at Tighe's Hill, architectural books and periodicals are kept there, but all Library facilities at Shortland are available to architecture students as well.

The University Library Staff at Tighe's Hill is Mr. Mike Swerus.

THE UNIVERSITY OF NEWCASTLE COMPANY

The University of Newcastle Company is the Citizen Military Force's Unit affiliated with your University. The Company was formed in 1957 as a Sub-Unit of the University of Technology Regiment which is now called The University of N.S.W. Regiment. The current strength of the Company is 100 and is rising.

The function of the Company is to train graduates and undergraduates for commissioned rank in the C.M.F. and the training is designed with this in view.
The training is done on an Infantry basis and consists of:
(a) An Annual Camp for three weeks in February.
(b) An optional camp of ten days in May.
(c) An optional camp of two weeks in December.
(d) Five weekend bivouacs a year.
(e) Parades on Friday nights of two and a half hours duration.

The training programme is designed to fit in with vacations, examinations, and deferred examinations and there is practically no commitment in the third term. Leave is available from activities where a good reason exists.

Enlistment in the Company is voluntary and is open to all graduates or undergraduates who are 17 years of age or over.

As a member of the University of Newcastle Company you are eligible for the following benefits:
- An opportunity to reach commissioned rank in 2-3 years.
- Tax-free pay for all training undertaken.
- Travelling expenses refunded.
- An alternative to 2 years full-time National Service.
- Opportunities for attendance at Regular Army courses and short time attachments to Army units in Malaysia, New Guinea or Vietnam.
- Free meals and accommodation at camps and bivouacs.
- Free Uniforms.

Enquiries regarding conditions of service, and enlistment procedure should be made at the Training Depot which is in King West, (opposite Birdwood Park). Phone No. 61 2121.

**Officers and Staff.**

- Officer Commanding: Capt. J. G. Raymond
- Second in Command: Lt. J. G. Digby
- Officers:
  - Capt. N. R. Watkins
  - Capt. M. J. Hough
  - Lt. F. S. O'Toole
  - Lt. R. McGregor
  - Lt. A. Shaw
  - Lt. T. R. O'Brien
  - Lt. B. G. Jordan
- Company Sergeant-Major: W02 N. G. Platts
- Full-time Staff: Sgt. K. B. Carmichael

**THE UNIVERSITY OF NEWCASTLE SPORTS UNION**

The Sports Union is the student organization responsible for promotion and control of sporting activities within the University. As a student you are automatically a member of the Sports Union. There are eighteen affiliated clubs:— Athletics, Badminton, Men's Basketball, Women's Basketball, Boat, Cricket, Golf, Women's Gymnastics, Men's Hockey, Women's Hockey, Women's Rowing, Rugby, Sailing, Ski-ing, Soccer, Squash, Tennis, Weightlifting, most of which participate in local competitions and send teams to Inter-Varsity contests each year. Each club has a student representative on the Sports Union Committee, which meets monthly. The Executive Committee consists of the President, Vice-President, Secretary, Treasurer, a representative of the University Council, and the Amenities Officer. The Sports Union's annual income is derived from portion of your General Services Fee, to meet the cost of equipment, affiliation fees, Inter-Varsity trips, etc.

For outstanding individual performance in sport, the Sports Union awards "Blues" each year at the Annual "Blues" Dinner.

The number of constituent clubs is increasing continually, and you are urged to contact our Amenities Officer, Mr. Bradford, or one of the Executives for further information.

**THE UNIVERSITY OF NEWCASTLE STUDENTS' ASSOCIATION**

Included in the General Services Fee of the University is an amount payable to the Students' Association, a body to which all undergraduate members of the University must belong. Each year the governing body, known as the Students' Representative Council (SRC), is elected by the Association. Its functions are many and varied.

The SRC serves as the main liaison body between the students and the University and, as such, has a number of offices and committees in existence. Complaints and requests from members may be handled by the Library Office, the Welfare and Education Office or the Council as a whole. The committee with which most students are in contact is the Welfare and Education branch. Welfare work ranges over such topics as accommodation agencies, employment service (both vacation and other temporary work) and it is hoped that, in the near future, a health service will be established. Soon to come into operation is the second-hand book service. The Education branch conducts an education campaign (e.g. Newcastle seminars on education in 1966) and attempts, insofar as its resources allow, to study the local and national needs of education and participate in NUAUS activities in this regard.

The Papua-New Guinea committee is engaged in liaison work with a tertiary establishment in New Guinea and organises, on a local level, participations for work camps held in the territory over the long vacation.

One of the major ways in which the $6.00 membership fee is spent is in grants to affiliated clubs and societies, both of a cultural and social nature. To this end the Vice-President of the Association acts as Clubs and Societies Liaison Officer and, with his assistant, gives such assistance to affiliates within the competence of his office as they may from time to time require.

The SRC is also responsible for publishing the newspaper "OPUS" and the literary magazine "NIMROD" both of which will be seen around the campus at their time of publication.

The Association is a constituent member of the National Union of Australian University Students (NUAUS) and participates in conferences of this organisation and other activities such as the work camps, overseas student travel, education campaigns and the like.

Each year the SRC organises Autonomy Day—of this nothing need be said other than it is our equivalent of Commemoration or Foundation Day.

Every student is urged to take an active part in the functioning of the Association and enquiries may be made at the UNSA office, basement floor of the University Union.

**NEWCASTLE UNIVERSITY UNION**

The objects of the Union are to provide a common meeting ground and social centre for men and women who are members of the University; to promote the education and the intellectual culture of its members by debates and otherwise and, generally, to secure the co-operation of University men and women in furthering the interests of the University.

The Union maintains a fine building at Shortland which provides common room facilities for its members; a cafeteria; a coffee room; a
meeting room; a reading room; a stationery shop catering for all members academic needs; the University Co-operative Bookshop and a Barber's Shop for men's and women's haircutting. The offices of the Students' Representative Council, Sports Union and the Students Counsellor are contained in the basement of the building. A common room is provided in the Main University building at Tighe's Hill and members are eligible to use the catering facilities of the Technical College Union.

Membership of the Union, obligatory for all registered students, is open to graduates, members of the University Council and the permanent staff of the University.

The conduct of the affairs of the Union is vested in the Board of Management composed of two members appointed by the University Council, two members elected by the graduates, six members elected by the Union members, two members appointed by the Students' Representative Council, two members elected by the Senior Common Room, and the Secretary/Manager. Elections for the Board of Management are held in April.

BOARD OF MANAGEMENT—1966/67

Mr. J. R. Crittenden: President
Mr. D. T. Kennedy: Vice-President
Mr. L. W. Harris: Hon. Treasurer
Mr. I. H. S. Irwin: Secretary/Manager
Mr. C. B. Belcher
Mr. K. G. Booth
Mr. W. G. Derkenne
Dr. L. K. Dyall
Miss N. Gollan
Mr. B. C. Humphries
Mr. J. A. Lambert
Mr. D. L. Marchoni
Mr. A. A. Morris
Mr. J. A. Sara
Mr. T. J. Smith

THE ARCHITECTURAL SOCIETY

Membership is open to both students and staff of the Faculty of Architecture as well as the members of the Architectural profession. Students of other faculties are admitted as associate members.

The executive for 1967 is Robert Donaldson, President, Ian Farnham, Secretary, and John Lane, Treasurer. The Society aims at bringing together students of the various levels within the Faculty and holds regular functions, including guest lectures by prominent members of the profession.

Announcements of the Architectural Society are found on the Faculty's Notice Board.

ACADEMIC DRESS

The Academic Dress worn by graduates of the Faculty of Architecture of the University of Newcastle are as follows:

GOWNS

Degree of Bachelor — A gown of black cloth as worn by Bachelors of the University of Cambridge.

Degree of Master — A gown of black cloth as worn by Masters of Arts of the University of Cambridge.

Degree of Doctor of Philosophy — A gown of garnet cloth faced with silver grey to a width of 4 inches.

CAPS AND BONNETS

Degree of Bachelor and Master — For men, a black cloth trencher cap, for women a black Canterbury cap.

Degree of Doctor of Philosophy — A black velvet bonnet with a silver cord.

HOODS

Degree of Bachelor of Architecture — A full hood of black silk lined to a depth of 6 inches with garnet.

Degree of Master of Architecture — A full hood of black silk lined with garnet.

Degree of Doctor of Philosophy — A hood of garnet lined with silver grey.
SCHOLARSHIPS AND AWARDS

Commonwealth Undergraduate Scholarships: The Commonwealth Government offers full or part-time scholarships to eligible architecture students covering University Fees and, in certain cases, living allowances. Conditions may be obtained from the University Administration. Closing date for applications is 30th November of the preceding year.

Commonwealth Post-Graduate Awards: The Commonwealth Government is providing each year a number of awards for post-graduate study and research tenable in the Australian Universities. In the University of Newcastle the awards will provide an emolument normally of $1,800 per annum. In addition, holders of these awards will be exempt from University tuition fees. The awards are tenable for one year but may be extended to a maximum duration of four years.

Persons domiciled in Australia who are University graduates or will graduate in the current academic year are eligible for the awards, the conditions of which may be obtained from the University Administration.

Applications for awards must be lodged with the Secretary by 30th November each year.

Board of Architects of New South Wales: An annual prize of $40 is offered to the Architecture student at the University of Newcastle showing the greatest proficiency in completing his course.

Royal Australian Institute of Architects, Newcastle Division, Junior Prize: An annual prize of $21 is awarded to the student showing the highest academic proficiency in either Years 1, 2 or 3 or Stages 1, 2, 3 or 4 of the undergraduate course in Architecture at the University of Newcastle.

Royal Australian Institute of Architects, Newcastle Division, Senior Prize: An annual prize of $21 is awarded to the student showing the highest academic proficiency in either Years 4 or 5 or Stages 5 or 6 of the undergraduate course in Architecture at the University of Newcastle.

James Hardie Prize: An annual amount of $50 is awarded each year to the final year student coming top in his course.

SYSTEM OF MARKING

Examination results shall be in accordance with the following table:

<table>
<thead>
<tr>
<th>Description</th>
<th>Symbol</th>
<th>Percentage Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fail</td>
<td>F</td>
<td>0—39</td>
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<tr>
<td>Deferred</td>
<td>X</td>
<td>40—49</td>
</tr>
<tr>
<td>Pass</td>
<td>P</td>
<td>50—64</td>
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<td>Credit</td>
<td>C</td>
<td>65—74</td>
</tr>
<tr>
<td>Distinction</td>
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<td>75—84</td>
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<tr>
<td>High Distinction</td>
<td>HD</td>
<td>85—100</td>
</tr>
</tbody>
</table>

CONDITIONS FOR THE AWARD OF DEGREE OF BACHELOR OF ARCHITECTURE

A candidate for the degree of Bachelor of Architecture shall complete the course under one of the two basic timetable arrangements:

(1) Full-time Degree Course: 1st, 2nd and 3rd years each of 30 weeks full-time study followed by 4th and 5th years each of 20 weeks full-time study.

(2) Part-time Degree Course: 1st year of 30 weeks full-time study followed by 5 annual 30 weeks stages of part-time study.

First year students shall normally enrol in the full-time course. However, on completion of Year 1 and if eligible to progress to Year 2, a student may apply to the Dean of the Faculty to transfer to the part-time course. Approval will be granted only if the student can satisfy the Dean that he is in approved employment.

On application to the Dean a student may be permitted to transfer from full-time to part-time or vice-versa later in the course subject to compliance with the normal rules governing Progression and Complementary Employment.
CLASSIFICATION OF STUDENTS IN COURSES

CLASSIFICATIONS

1. (i) Full-time students are classified by year (Roman numerals).

   (ii) Part-time students are classified by stage.

2. In the Faculties of Arts and Science, classification depends on the number of subjects passed.

3. (i) In all other Faculties, classification is determined by enrolment in a classifying subject, i.e., by a major subject in a course. The classifying subjects are set out below.

   (ii) If a student enrols in more than one classifying subject, then the year or stage of the lower classifying subject applies.

   (iii) If the student enrols in no classifying subject, then he is classified in the year or stage of the highest classifying subject he has passed.

4. FULL-TIME COURSE

   YEAR I (30 weeks full-time)

<table>
<thead>
<tr>
<th>Hours per week</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design I</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Construction I</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Structures I</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Building Science I</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(Properties of Materials)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of Architecture I</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Drawing I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A) Architectural</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>B) Freehand</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>C) Descriptive Geometry and Perspective</td>
<td>3</td>
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<tr>
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<td>Physics (1.011)</td>
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   YEAR 2 Full-time (30 weeks full-time)

<table>
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<tr>
<th>Hours per week</th>
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<th>Term 3</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>Building Science IIA</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(Climate Control)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Science IIB</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(8.211, Materials Testing)</td>
<td></td>
<td></td>
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<tr>
<td>History of Architecture II</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Drawing II</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A) Architectural</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>B) Freehand</td>
<td>3</td>
<td>3</td>
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</tr>
<tr>
<td>Building Services A</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(Plumbing and Drainage)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>27</td>
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   YEAR 3 (30 weeks full-time)

<table>
<thead>
<tr>
<th>Hours per week</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design III</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Construction III</td>
<td>6</td>
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<tr>
<td>Structures III</td>
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</tr>
<tr>
<td>Building Science III</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(Lighting and Acoustics)</td>
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<td></td>
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<tr>
<td>History of Architecture III</td>
<td>2</td>
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</tr>
<tr>
<td>Building Services B</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(Mechanical and Electrical Installations)</td>
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<td></td>
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<tr>
<td>Surveying (8.411)</td>
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### YEAR 4 (20 weeks full-time)

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<th>Course</th>
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<th>Term 3</th>
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<tbody>
<tr>
<td>Design IV</td>
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<td>Structures IV</td>
<td>2</td>
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<tr>
<td>Australian Architecture</td>
<td>3</td>
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<td></td>
</tr>
<tr>
<td>Specifications</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Town Planning A</td>
<td>2</td>
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<td><strong>Total</strong></td>
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<td>Full-time employment</td>
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### YEAR 5 (20 weeks full-time)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Term 3</th>
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<tbody>
<tr>
<td>Design V and Structural Seminar</td>
<td>13</td>
<td>13</td>
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<tr>
<td>Professional Practice</td>
<td>2</td>
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<tr>
<td>Estimating</td>
<td>2</td>
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</tr>
<tr>
<td>Town Planning B</td>
<td>3</td>
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<td></td>
</tr>
<tr>
<td>Arch. Research</td>
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<td>1</td>
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<td><strong>Total</strong></td>
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### PART-TIME COURSE

#### STAGE II Part-time (30 weeks part-time)

<table>
<thead>
<tr>
<th>Course</th>
<th>Term 1</th>
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<th>Term 3</th>
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<tbody>
<tr>
<td>Construction II</td>
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<tr>
<td>Building Science IIIB</td>
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<tr>
<td>(8.211, Materials Testing)</td>
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<tr>
<td>History of Architecture II</td>
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<td>2</td>
</tr>
<tr>
<td>Drawing II</td>
<td>2</td>
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<td>2</td>
</tr>
<tr>
<td>A) Architectural</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
<td>B) Freehand</td>
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<td><strong>Total</strong></td>
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#### STAGE III (30 weeks part-time)

<table>
<thead>
<tr>
<th>Course</th>
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<th>Term 2</th>
<th>Term 3</th>
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<tbody>
<tr>
<td>Design II</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>Structures III</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Building Science II A</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(Climate Control)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of Architecture III</td>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td>Building Services A</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>(Plumbing and Drainage)</td>
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#### STAGE IV (30 weeks part-time)

<table>
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<th>Course</th>
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<th>Term 2</th>
<th>Term 3</th>
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<tbody>
<tr>
<td>Design III</td>
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</tr>
<tr>
<td>Construction III</td>
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<tr>
<td>Building Science III</td>
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</tr>
<tr>
<td>Building Services B</td>
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<td>1</td>
</tr>
<tr>
<td>(Lighting and Acoustics)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Surveying (8.411)</td>
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#### STAGE V (30 weeks part-time)

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<th>Term 3</th>
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<tbody>
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<tr>
<td>Structures IV</td>
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</tr>
<tr>
<td>Australian Architecture</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Specifications</td>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td>Town Planning A</td>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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#### STAGE VI (30 weeks part-time)

<table>
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<th>Course</th>
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<th>Term 2</th>
<th>Term 3</th>
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</thead>
<tbody>
<tr>
<td>Design V and Structural Seminar</td>
<td>4</td>
<td>4</td>
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</tr>
<tr>
<td>Professional Practice</td>
<td>2</td>
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<td>2</td>
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<tr>
<td>Estimating</td>
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</tr>
<tr>
<td>Town Planning B</td>
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</tr>
<tr>
<td>Arch. Research</td>
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<tr>
<td><strong>Total</strong></td>
<td>8</td>
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</table>
DESCRIPTION OF SUBJECTS

(A) DESIGN

This subject embodies and applies all the subject matter of the other lectures and studies in the course. Design includes planning, construction, specialised building techniques, engineering services and equipment, specification, estimating, and building job supervision and control.

The Design course consists of a series of lectures and studio assignments. The problems are planned to develop a knowledge of the fundamental aesthetic and technical aspects of building, and to stimulate imaginative thinking in the process.

In all projects, structure and construction are considered an essential part of design. In many cases, special or unusual features are required to be substantiated by drawn details of construction. Towards the end of the course, structural calculation and details of construction are produced for a large building.

Studio work, at all levels, consists of the design and architectural representation of projects which are clearly and realistically programmed, located on actual sites. Economics are taken into account and estimates are required with the designs. Students must comply with all regional government acts and by-laws applicable to their work.

Projects will normally extend over one term, but the whole year's work may be co-ordinated for the investigation of a major architectural task. An esquisse, of one week's maximum duration, generally forms part of each term's work.

An incidental purpose of studio work is the academic study of civic building problems in the Newcastle region. For the senior years this is an important factor in the selection of studio subjects which, by display and public discussion, can make a contribution to the architectural development of the area.

Studio projects are sometimes made the subject of a competition within the class, with a prize being awarded to the winning design.

Projects are assessed by a panel of staff members who, as the occasion warrants it, may co-opt outside experts, and criticisms and discussion in class follow.

DESIGN I

A lecture course to develop an appreciation of the fundamental principles of design, and to build up in the students new to the idea of aesthetics, a background of experience and knowledge by observation prerequisite to the study of the theory and practice of design.

In the studio students are given a small domestic project as a vehicle for coming to grips with basic architectural elements and techniques of presentation. This is closely related to concurrent instruction in Building Science, Trades and Construction.

Books:
R. G. Scott, Design Fundamentals.
Ramsay and Sleeper, Architectural Graphic Standards.

DESIGN II

Lectures on various theories of art and of architecture as an art. Studio assignments are still of a residential nature, but increased in scope. As an example, they may consist of a regional housing scheme, sponsored by a municipality or industrial concern on 10 to 20 acres of open suburban land. Site planning is governed by townplanning and regional aspects. In the course of the year, components of the scheme are developed, embracing various house types, a kindergarten, chapel, doctor's residence, small blocks of bachelor flats, a neighbourhood shopping centre and the like.

Books:
Teague, Design this Day.
David Pye, The Nature of Design.

DESIGN III

Lectures on the material and environmental factors influencing architectural design. The studio work follows the student's studies in structures, construction, building science and aesthetics; the student is in a position to attempt the imaginative application of these faculties in the design of buildings. The essential relationship between environment, site and building is emphasised from the beginning as is also the sensitivity to appropriate form for purpose and structure and the development of architectural character.

Assignments consist of medium sized civic projects such as schools, old people's homes, churches, walk-up flats, municipal town halls and libraries, etc.

Books:
C. Siegal, Structure and Form in Modern Architecture.
L. Moholy-Nagy, Vision in Motion.
B. Zevi, Towards an Organic Architecture.

DESIGN IV

Studio assignments on the design of buildings more intricate in planning and taken to a further stage of completeness in overall design, detailed planning and a consideration of structure, construction and materials.

At this level, the year's work is devoted to a major communal problem with a bias for research in town planning during the early stages.

Through the terms, designs are prepared for the individual components of the scheme which may embrace multi-storey flats, offices, car parking stations and other commercial and civic buildings.

Books:
References vary according to the assignments undertaken in the studio.

DESIGN V

Assignments are given in advanced planning, involving urban problems of zoning, densities and traffic, both vehicular and pedestrian and the investigation of industrial, commercial, civic and other large building projects. Associated questions of economics, structure, mechanical equipment and services are studied in depth.

Emphasis is placed on research into human and technical requirements and the solution of problems in specialised buildings to fit the present and future needs of the developing community.

Throughout this year, the aim is the correlation of all major aspects of the design of buildings, that is practical planning, structure, construction, economy and the provision of a fine human environment.

A series of structural seminars is conducted simultaneously with the development of each design project to enable the student to thoroughly integrate his building structure and construction with his overall design theme.
Hospitals, theatres, buildings for rail, road or air transport, education, sports, industry, commerce and similar are all suitable subjects for studio work at this level.

**Books:**
References vary according to the assignments undertaken in the studio.

**(B) BUILDING CONSTRUCTION**

The course consists of lectures and studio assignments and is intended to give the student a basic working knowledge of the materials and methods of construction of buildings of all kinds.

**CONSTRUCTION I**


Studio: Details of construction illustrating selected work treated in lectures. Methods of transmitting requirements by detail drawings and specification clauses.

**Books:**
- C.E.B.S. *Notes on the Science of Building I—Latest Issue.*
- Local Government Ordinance No. 71.
- Sydney Corporation Act By-laws 51-58 inclusive.

**CONSTRUCTION II**

Lectures: Requirements of buildings of two-storey load-bearing construction, domestic and industrial, in masonry and structural timber. Basement construction; elementary construction in structural steel and concrete.

Studio: Drawn details and contract drawings of work treated in lectures. Design of elements of construction with specifications. Details of selected work designed in Structures I.

**Books:**

**CONSTRUCTION III**


Studio: Assignments involving the investigation, design and detail of constructions treated in lectures. Details of selected work designed in Structures III.

**Books:**

**(C) STRUCTURES**

Structures I, II, III and IV are to be given to Architectural students by the Department of Civil Engineering.

**11.221 STRUCTURES I**

Graphical and analytical methods of analysis of forces in two and three dimensional pin-jointed structures.

Simple beams, moments and shear.

Further tutorial sessions in statics.

Development of structural intuition using wire models.

Discussion of statically determinate forms, e.g. bracing of multistorey frames; truss lay-outs. (Study of Salvadori & Heller. *Structure in Architecture.*)

**Books:**
- Principles of Statics. *University of N.S.W. Students' Union Publication.*

**11.222 STRUCTURES II**

Introduction to stress and strain. Thin shells.

Principal stresses. Mohr's circle of stress, Poisson's ratio.

Axial force, shear force, bending moment and torque, graphical representation.

Relationship between load, shear force and bending moment.

Moments of inertia.

Stresses and deformations due to axial force, bending moment, shear force and torsion.

Relationship between bending moment slope and deflection

Theory of columns.

**Books:**

**11.223 STRUCTURES III**

Principles of structural design—loadings—use of codes.

Steel design—riveted, bolted and welded joints, columns (perry-Robertson formula)—beams, plated beams, plate web girders, roof trusses.

Reinforced concrete design—simple beams, doubly reinforced beams, tee-beams, one-way slabs, axially loaded columns, eccentrically loaded columns by charts, column footings.

**Books:**

**11.224 STRUCTURES IV**

Types of multistorey frames and methods of bracing.

Introduction to analysis of indeterminate frames using moment distribution and frame tables. Approximations used for preliminary design.

Introduction to plastic analysis of frames.

Soil mechanics problems in foundations—retaining walls.

Description of behaviour of two-way and flat slabs including ribbed slabs.

Introduction to prestressed concrete. Prestress losses.

Ultimate load behaviour of reinforced and prestressed beams.

Design by load balancing.
Membrane behaviour of shells including domes, cylindrical shells, hyperbolic paraboloids.
Simple folded plate structures.
Model analysis of structures.

(D) BUILDING SCIENCE

This subject deals with the application of the methods and findings of science as applied to the problems of the building industry in two principal fields:
1. Materials. The properties, uses, testing and selection of materials.
2. Environmental Physics. The analysis of human requirements and methods for their satisfaction in such fields as heating, ventilation, lighting and acoustics.

At the commencement emphasis is placed on broad general principles, whilst at later stages certain aspects are studied in more detail.

BUILDING SCIENCE I (Property of Materials)

Introduction to the science of building, scientific method and measurement.
The application of chemical and physical laws in the study of building materials and the natural environment.
The functional requirements of buildings and the principles through which these may be satisfied.
The nature, properties, manufacture, and uses of the primary building materials, including their testing and compliance with statutory standards and recommendations.

Books:
B.R.S. Digests (selected) HMSO
Notes on the Science of Building (selected) CSIRO
A. C. Gleeson, Building Science.
C. C. Handisyde, Building Materials.

BUILDING SCIENCE IIA (Climate Control)
The thermal environment and the physiological factors of human comfort.
Climatology, fundamentals of electromagnetic radiation and heat transfer, thermal properties of materials and buildings, principles of insulation.
Hygrometry and condensation.
Geometry of shade, control of sunlight penetration and solar radiation.
Basic theory of heating, cooling and ventilation.
Further study of secondary building materials.

Books:
R. O. Phillips, Sunshine and Shade in Australia.
N. S. Billington, Thermal Properties of Buildings.
T. Bedford, Basic Principles of Ventilation and Heating.

8.211 BUILDING SCIENCE IIB (Materials Testing)
A course of lectures and laboratory work given by the Department of Civil Engineering under the heading of "Materials for Architects." Subject matter dealt with covers the load deformation behaviour of engineering materials and their efficient utilisation with reference to strength durability and appearance. Concrete work includes the properties characteristics and testing of cements and aggregates: mix requirements and design methods.

BUILDING SCIENCE III (Lighting and Acoustics)

Lighting: Basic concepts, elementary photometry; consideration of light sources and controls; colour; physiological, psychological and aesthetic aspects; vision.
The calculation and design of artificial illumination installations and the uses of daylighting standards and assessments.
Acoustics: Basic concepts and measurement, hearing. Noise control, transmission of airborne and structure borne sound, absorption and acoustic materials, calculation of transmission loss and control of sound. Geometric acoustics, reverberation, echoes, the design of auditoria and other building types.

Books:
A. Lawrence, Acoustics in Building.
W. R. Stevens, Principles of Lighting.

(E) HISTORY OF ARCHITECTURE

This is one of the basic subjects leading to Architectural Design. Students of architecture should obtain some knowledge of past systems of building, the use of materials, and the principles of design for purpose and beauty. The subject is treated in a general manner, but certain buildings and other works of construction are examined analytically, the approach being critical rather than architectural. Research assignments and/or examinations are required in each term of each year.

HISTORY OF ARCHITECTURE I, II AND III

This course covers the History of Architecture from antiquity past the middle ages to modern. It includes geographical, geological, climatic, religious, social and historical influences on architecture and extends into the allied fields of painting and sculpture within each period. The study of the industrial revolution of the nineteenth century and the emergence of new materials and engineering techniques leads to an assessment of modern architecture, demonstrated with significant contemporary buildings and biographical information of their architects.

Books:
B. Fletcher, A History of Architecture.
N. Pevsner, An Outline of European Architecture.
Hamlyn, World Architecture.
L. Mumford, The City in History.
R. Wittkower, Architectural Principles in the Age of Humanism.
The Art and Architecture of Japan.
S. Giedion, Space, Time and Architecture.
J. Richards, An Introduction to Modern Architecture.
N. Pevsner, Pioneers of Modern Design.
AUSTRALIAN ARCHITECTURE

The History of Architecture in Australia, within the framework of the general history course.

Working in a group the student is called upon to do field investigations and prepare measured drawings of buildings of historical significance in the Hunter Valley.

Books:
M. E. Herman, Early Australian Architects and their Work.
M. E. Herman, The Blackets.
M. E. Herman, Victorian Sydney.
Casey, Maie, Early Melbourne Architecture.

(F) DRAWING

DRAWING I

The subject encompasses all types of drawing used in the practice of architecture. Practical work in various media is given to develop perception and observation and skill in depiction. For purposes of teaching and studio arrangements the subject matter is dealt with under three main categories:

(A) Architectural: This range of work introduces the student to the conventional forms of architectural drawing and develops the students' skill in draughting techniques.

(B) Freehand: The range of work covers elementary freehand drawing and includes quick sketching, outdoor sketching, memory drawing and free perspective drawing.

(C) Descriptive Geometry and Perspective: This subject provides an introduction to general draughtsmanship and consists of lecture-demonstrations followed by drawing assignments. Exercises in line drawing and plane geometry; lettering, orthographic, isometric, oblique, and exonometric projection; theory of perspective, shadow projection and solid geometry.

Books:
Lee and Reekie, Descriptive Geometry for Architects and Builders.
R. F. Reekie, Draughtsmanship.

DRAWING II

A continuation and extension at a higher level of the methods, media and techniques begun in Drawing I in (A) Architectural Drawing, concentrating on architectural presentation; and (B) Freehand.

Books:
Watson, Creative Perspective.
Halse, Architectural Rendering.
Kautsky, Ways with Watercolour.

(G) BUILDING SERVICES A (Plumbing and Drainage)

Principles and practice as controlled by regulation for domestic and commercial building services including drainage, sanitary plumbing, water supply and reticulation, fire services, gas services, hot water service heaters and tanks, efficiency of units and relative costs are considered.

Books:
H. Y. Randerson, Australian Sanitary Engineering Practice.

Building Services B (Mechanical and Electrical Installations)

Design principles and practical requirements of the following services and their application to buildings are studied to provide the architect with sufficient information for selection and inclusion in building projects. Heating, ventilation, air-conditioning, electrical services, call systems, fire protection, lifts, steam.

Books:
R. Whitely, A Guide to Building Services for Australian Architects.

(H) TOWN PLANNING A

The course provides an outline of the aims of town and country planning and its relationship to the techniques of architecture, civil engineering, geography, sociology, land economics and land surveying. The course touches on the history, theory and practice of town and country planning and includes considerations of traffic and transportation, elements of civic design, the planning of residential areas and principles of regional planning.

Books:
Brown and Sherrard, Town and Country Planning.
L. Mumford, The City in History.
D. Winston, Sydney's Great Experiment.
Chapin, Urban Land Use Planning.
Buchanan Report, Traffic in Towns.
J. Miller, The Nature of Politics.

TOWN PLANNING B

An extension of the subject matter of Townplanning A, emphasising the architectural aspects of townplanning with particular reference to requirements in community planning, Government housing, residential and estate development.

Books:
Text as for Townplanning A.

(I) BUILDING TRADES

The general purpose of this subject is to familiarise the student with the materials, tools and terms used by the building craftsmen and the interworking of building trades.

Specialist trade teachers give short lectures and demonstrations in the technique of bricklaying, carpentry and joinery, plastering, plumbing, drainage and painting. Each student is required to do some practical work.

(J) ARCHITECTURAL RESEARCH

Architectural research is concerned with the study and critical assessment of contemporary buildings of architectural merit.

This subject is conducted as a seminar, where each student is required to conduct an investigation into an aspect of modern architecture, to present an address with demonstrations to his fellow students and to take part in discussion.
(K) SPECIFICATIONS
Subject matter covered by lectures includes:
Specifications, their purpose, legal significance and relationship to building contract. Types of specifications and their uses. Methods of preparation; sources of information; schedules; abstracts; and general conditions. The basic principles of quantities and specified bills of quantities.
Books:

(L) ESTIMATING
Methods used for estimating; standard mode of measurement; project, establishment and other on-costs charges; awards, insurance, taxes, etc. Scale of fees and charges by local and other authorities.
Measuring and methods of adjusting variations; grouping of unit item to obtain a bulked cost rate for different structural parts of buildings; comparison of costs for alternative methods of construction related to structural parts of buildings; preparation of preliminary estimates from sketch plans; tenders.

(M) PROFESSIONAL PRACTICE
Subjects dealt with include:
Law of contracts; relationship of contracting parties and the architect; types of contracts; code of ethics; scale of professional charges; engagement and acceptance of instructions; statutory controls; responsibilities of an architect; office administration; financial aspects; supervision.
Correspondence, relationship with specialist consultants; copy-right; insurance; litigation; study of articles of agreement.
Books:
Year Book, R.A.I.A.
E. J. Rimmer, The Law relating to Architects.

(N) OTHER SUBJECTS
1.011 PHYSICS
A general course comprising all fields of physics at an elementary level for students in the Faculty of Architecture and given in the Department of Physics of the Faculty of Science. A course of about 90 hours lectures and demonstrations; a final examination of three hours.

8.411 SURVEYING
A course of lectures and field work given in the Department of Civil Engineering.

10.051 MATHEMATICS
A course given in the Department of Mathematics consisting of two lectures per week for three terms and comprising the following:
Practical applications of trigonometry. Analytical geometry, including some work on conic sections. Further work on calculus and a study of the equation \( y'' = f(x) \) with a variety of boundary conditions.

COMPLEMENTARY EMPLOYMENT
Prior to graduation all students are required to gain practical experience by approved employment.

Approved employment means employment in the office of a registered architect, in the architectural Section of a Government Department or industrial organisation.

Employment in a technical capacity in the allied fields of town-planning, quantity surveying, civil engineering and building may also be approved but must not exceed 25% of the total required time of practical experience.

Full-time students must complete 12 months in approved employment prior to being admitted to the degree, 9 months of which would normally occur in the period between 4th and 6th years. Part-time students are required to be in approved employment for the full duration of their part-time enrolment.

Students must keep a well conducted record of their practical experience. It is recommended that the "Practical Experience Log Book" of the Royal Institute of Architects be used for this purpose. Copies of these are available on application to the Sub-Dean.

Full-time students must submit evidence of 12 months practical experience with enrolment in second term of 5th year.

Part-time students must submit evidence of practical experience during the preceding year with enrolment at the beginning of each academic year. Evidence of current employment may be requested by the Dean at any stage of part-time study.
PROGRESSION

Students are referred to the general University regulations affecting the completion of courses.

As a guide, some of the principal points are listed here as follows:

1. Progression shall be from year to year or stage to stage.

2. A student will not be permitted to proceed to the next year or stage of a course until he has passed in all subjects of the previous year, except that he may be granted permission by the Dean to progress to the next year, if he has failed in one subject only in the immediately preceding year. The student must then, during the subsequent year, pass the examination in the subject for which special permission has been granted, provided that no two Design subjects may be taken concurrently.

3. In the event of a student failing in a subject more than once he shall show cause why he should be allowed to repeat it and to continue the course.

If a student has failed in an annual examination he may be granted a deferred examination. If he fails in the deferred examination as well, this shall be counted as one failure only.

4. A student who fails in two or more subjects of a year or stage will be required to repeat all subjects of that year or stage, except that the Faculty Examinations Committee may exempt a student from repeating a subject in which he has reached an acceptable level of attainment.

5. In the case of the full-time course, a student shall be required to show cause why he should be allowed to continue if he will not be able to complete the course in a total of eight years from first enrolment to completion.

In the case of the part-time course, a student shall be required to show cause why he should be allowed to continue if he will not be able to complete the course in a total of nine years from first enrolment to completion.

6. No full-time student shall, without showing cause, be permitted to continue the course unless all subjects of the first year of his course are completed by the end of his second year of attendance.

No part-time student shall, without showing cause, be permitted to continue the course unless all subjects of the first year and stage two of his course are completed by the end of his fourth year of attendance and all subjects of the third and fourth stages of his course by the end of his seventh year of attendance.

7. A student may be enrolled concurrently in the subjects of no more than two consecutive years except in the case of students admitted to the course with advanced standing, for whom special programmes which do not accord with this rule may be arranged.

HONOURS

Honours are awarded taking into account the students' performance throughout his course.

To be considered for honours a student should normally have achieved the equivalent of credit gradings in 18 subjects up to the end of Year 4 or Stage 5.

In addition a student in his final year or stage should achieve the equivalent of four credit gradings one of which must be in Design V.

HIGHER DEGREE

A) Master of Architecture

1. An application to register as a candidate for the degree of Master of Architecture shall be made on the prescribed form which shall be lodged with the Vice-Principal at least one full calendar month before the commencement of the term in which the candidate desires to register.

2. An application for registration for the degree of Master shall have been admitted to a Bachelor's degree in Architecture in an approved University, provided that,

   i) In exceptional cases, persons may be permitted to register as candidates for the degree of Master if they submit evidence of such general and professional attainments as may be approved by the Senate.

   ii) The registration of diplomas of the New South Wales Department of Technical Education as candidates for the degree of Master of Architecture shall be determined in each case by Senate. Normally such applicants shall be required to produce evidence of academic and professional progress over a period of five years from the time of gaining the diploma.

3. The applicants approved by the Senate shall register in one of the following categories:

   i) Student in full-time attendance at the University.

   ii) Student in part-time attendance at the University.

   iii) Student working externally to the University.

4. An approved applicant shall be required to pay the undermentioned fees:

   i) Registration fee of $4.00.

   ii) Supervision fee of:

      (a) $60.00 per annum for students in full-time attendance at the University.

      (b) $30.00 per annum for students in part-time attendance at the University.

      (c) $20.00 per annum for students working externally to the University.

Fees shall be paid in advance.

5. Every candidate for the degree shall be required to carry out a programme of advanced study, to take such examinations, and to perform such other work as may be prescribed by Senate. The programme shall include the preparation and submission of a thesis embodying the results of all original investigations or design relative to architecture. The candidate may submit also for examination any work he has published whether or not such work is related to the thesis.

6. The investigation or design, and other work as provided in paragraph 5 shall be conducted under the direction of a supervisor appointed by Senate or under such conditions as Senate may determine.
7. Every candidate shall submit three copies of the thesis as provided under paragraph 5*. All copies of the thesis shall be in doublespaced typescript, shall include a summary of approximately 200 words, and a certificate signed by the candidate to the effect that the work has not been submitted for a higher degree to any other University or institution. The ORIGINAL copy of the thesis for deposit in the Library shall be prepared and bound in a form approved by the University. The other two copies of the thesis shall be bound in such a manner as allows their transmission to the examiners without possibility of disarrangement.

It shall be understood that the University retains the three copies of the thesis and is free to allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act (1912-1950) the University may issue the thesis in whole or in part in photostat or microfilm or other copying medium.

8. No candidate shall be considered for the award of the degree until the lapse of six complete terms from the date from which the registration becomes effective, save that in the case of a full-time candidate who has obtained the degree of Bachelor of Architecture with Honours or who has had previous research experience, this period may, with the approval of Senate, be reduced by not more than three terms.

9. For each candidate there shall be two examiners appointed by Senate, one of whom shall, if possible, be an external examiner.

*The thesis and other relevant work may be submitted to the Vice-Principal at any time during the year, within the provisions of paragraph 8 of the Master of Architecture Regulations. In order that a successful candidate may have a reasonable chance of having his degree conferring ceremonies, the candidate should arrange for his thesis and other relevant work to be in the hands of the Vice-Principal at least fourteen weeks prior to the date of such ceremony.

B) Doctor of Philosophy (Ph.D)
This degree is awarded for advanced study and research in Architecture which has produced an original and important contribution to knowledge. Conditions governing this course can be had on application to the Dean of the Faculty.
OLD COURSE

Year 5
Design V and Structure Seminar .... .... .... .... Th. 2-5
Architectural Research .... .... .... .... .... .... Th. 5-6
Specifications .... .... .... .... .... .... W. 6-8 (T1 & T2)
Painting, Sculpture and Allied Arts .... .... .... .... Th. 10-11
Professional Practice .... .... .... .... .... .... W. 8-9
Town Planning I .... .... .... .... .... .... Th. 11-1

PART-TIME

Special programmes will be arranged in 1967 for part-time students other than those eligible to proceed to the stages indicated below.

SUBJECT

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<td>Th. 2-4</td>
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<td>Th. 4-6</td>
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<td>Tu. 6-8</td>
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Stage II

Construction II .... .... .... .... .... .... W. 9-12
Structures II .... .... .... .... .... .... Th. 2-4
Building Science IIB .... .... .... .... .... Th. 4-6
History of Arch. II .... .... .... .... .... Tu. 6-8
Drawing IIA and KKB .... .... .... .... .... W. 1-5

Stage V

Design IV .... .... .... .... .... .... M. 9-1
Structures IV .... .... .... .... .... .... Th. 9-11 (T1 & T2)
History of Arch. IV .... .... .... .... .... Th. 1-2 (T1 & T2)
Th. 1-4 (T3)
Specifications .... .... .... .... .... .... W. 6-8 (T1 & T2)
Town Planning A .... .... .... .... .... .... Th. 11-1 (T1 & T2)
+Building Services B .... .... .... .... .... M. 6-8 (T1 & T2)