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### Notes

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- **Master of Commerce**
- **Master of Engineering**
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- **Graduate Diplomas**
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- **Diploma in Education**
- **Postgraduate Enrolment Procedure**
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### Notes

- **PART 3 — POST-GRADUATE COURSES**
- **PART 4 — DESCRIPTION OF SUBJECTS**
- **PART 5 — STUDENT SERVICES**
Introduction

Wollongong University College was established as a College of the University of New South Wales in May, 1961, under the provisions of The Technical Education and University of New South Wales Act, 1949, as amended, which gives the Council the power to ‘establish and maintain branches, departments or colleges of the University at Wollongong, Broken Hill or such other place in the State as the Council deems fit’. The Council has established the Wollongong University College Council to advise it on all matters affecting the College; and a Board of Studies to consider and report upon matters relating to the academic programme of Wollongong University College.

In March, 1962, the College moved to its present site at North Wollongong. The site, which occupies about eighty-two acres, is approximately two miles from the centre of the City of Wollongong.

In 1970 it was announced that the College would become autonomous from 1st January, 1975.

Undergraduate degree courses in Arts, Commerce, Engineering, Metallurgy and Science are offered at the College. In addition, the first or early years of most courses (with the exception of Architecture, Building, Town Planning, Surveying and Social Work) offered by the University of New South Wales are also available. Postgraduate study in an expanding number of areas may also be undertaken at the College.

The similarity of the courses at the College to those offered by the University of New South Wales at other centres makes possible the transfer of students, and the proximity to Sydney enables the staff of the College to be in close association with the parent University at Kensington.

This handbook has been specially designed as a source of reference for students at Wollongong. However, it should be read in conjunction with the University calendar where further details may be found.
General Information

PART 1.

CALENDAR OF DATES FOR 1971

Session 1

March 1 to May 15.
May Recess May 16 to May 23.
May 24 to June 12.
Midyear Recess June 13 to July 18.

Session 2

July 19 to August 14.
August Recess August 15 to August 29.
August 30 to November 6.
Annual Examinations begin November 9.

January

Monday 25 Last day for acceptance of applications to enrol by new students and students repeating first year.
Tuesday 26 to Saturday, Feb. 6 Deferred examinations.

February

Monday 1 Australia Day — Public Holiday.
Monday 8 to Friday 12 First enrolment period for new students.
Monday 15 Enrolment week commences for students re-enrolling.
Friday 19 College Council, 2 p.m.
Monday 22 Second enrolment period for new students and students repeating first year.

March

Monday 1 Session 1 lectures commence.
Friday 12 Last day of enrolment for new students (late fee payable).
Wednesday 31 Last day for later year enrolments (late fee payable).

April

Friday 9 to

Monday 12 Easter.
Friday 16 Board of Studies, 2.15 p.m.
Monday 26 Anzac Day — Public Holiday.
Friday 30 College Council, 2 p.m.
PART 1 — GENERAL INFORMATION

May

Sunday 16 to Sunday 23 .......... May Recess.

June

Friday 11 .................. Board of Studies, 2.15 p.m.
Saturday 12 ............... Session 1 ends.
Monday 14 ................. Queen's Birthday — Public Holiday.
Friday 18 .................. College Council, 2 p.m.
Wednesday 30 .......... Last day for acceptance of applications for re-admission after exclusion under rules governing re-enrolment.

July

Monday 19 ............... Session 2 commences.

August

Sunday 15 to Sunday 29 .......... August Recess.
Friday 27 .................. College Council, 2 p.m.

September

Friday 3 .................. Board of Studies, 2.15 p.m.
Wednesday 15 .......... Last day for acceptance of corrected enrolment details forms.

October

Monday 4 ................. Eight Hour Day — Public Holiday.
Wednesday 6 ............. Last day for acceptance of corrected enrolment details forms (late fee payable).
Friday 22 .................. College Council, 2 p.m.

November

Saturday 6 ............... Session 2 ends.
Tuesday 9 .................. Examinations begin.
Friday 19 .................. Board of Studies, 2.15 p.m.

December

Friday 10 .................. College Council, 2 p.m.
MEMBERS OF COLLEGE COUNCIL

Chairman: Mr. D. Parry,
Director,
Southern Engineering Services Pty. Ltd.

Mr. E. Beale,
Solicitor.

Professor G. Brinson,
Professor of Metallurgy and Head of Division of Engineering and Metallurgy,
Wollongong University College

Mrs. J. P. Brown,
Business and Professional Women's Association

Mr. J. K. Doherty,
Technical Assistant to the General Manager,
Kembla Coal & Coke Pty. Ltd.

Mr. B. J. Doyle,
Director of Artificial Stock Breeding

Mr. T. K. Duncan,
General Manager,
Australian Iron & Steel Pty. Ltd.

Mr. R. G. Gole,
Accountant

Dr. J. S. Hagan,
Senior Lecturer,
Department of History,
Wollongong University College

Mr. H. H. Hartley,
Manager,
Electrolytic Refining and Smelting Company of Australia Ltd.

Mr. M. P. McCarney,
Secretary,
Vehicle Builders' Employees Federation of Australia

Miss K. McCredie,
Headmistress,
Abbotsleigh

Mr. D. Lear,
President,
Wollongong University College Students' Representative Council

Mr. W. C. McGrath,
Principal,
Wollongong Teachers' College

Mr. R. J. Pearson,
General Manager,
Port Kembla Works,
Metal Manufactures Ltd.

Mr. I. C. Young,
Director,
South Coast Directorate,
Department of Education

Ex Officio:

Professor C. A. M. Gray,
Warden,
Wollongong University College

Professor P. K. Elkin,
Chairman,
Wollongong College Board of Studies

Professor A. H. Willis,
Pro-Vice-Chancellor,
The University of New South Wales
PART 1 — GENERAL INFORMATION

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Professor C. A. M. Gray, Hon.JMN, BSc ME (Syd.), FI MechE, MICE, MIE Aust, FAIM, Emeritus Professor, University of Malaya.

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ADMINISTRATIVE OFFICER
B. C. Moldrich, BA (Ceyl.)

ADMINISTRATIVE ASSISTANT
J. F. White, BA (N.E.)

LIBRARIAN
Vacant.

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F. M. Hall, MSc PhD (N.S.W.), ASTC, ARACI

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R. Rudzats, MSc (N.S.W.), ASTC, ARACI, ARIC

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Mrs. Julie Irving, BA (N.S.W.)
PART 1 — GENERAL INFORMATION

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O. J. Tassicker, MEE (Melb.), FIEAust, FIIEE

LECTURER:
Z. Herceg, DiplEng (Zagreb), MIEAust

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A. W. Roberts, BE PhD (N.S.W.), ASTC, CEng, MIEAust, MIMechE

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T. W. Barnes, MSc (N.S.W.), ASTC, AIM, AMAusIMM
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N. Salasso, BSc (N.S.W.), ASTC, AMAusIMM

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PART 1 — GENERAL INFORMATION

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TUTORS
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Janet C. Walker, BA (Syd.)

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E. R. Phillips, BSc PhD (Qld.)

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T. S. Horner, BSc DipEd (Syd.)

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A. I. Segal, BSc (Melb.), Grad AIP

TUTORS
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N. L. Montgomery, BSc (N.S.W.)
G. K. G. Moore, BSc (N.S.W.)
PART 1 — GENERAL INFORMATION

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LECTURER
P. R. de Lacey, MA (Auck.), BSc (N.S.W.), PhD (N.E.), MACE, MAPS

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LECTURERS
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R. Robinson, BA (N.E.), MA Dip Ed (N.S.W.), PhD (Br.Col.)

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SENIOR LECTURERS
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A. M. Healy, BA (Syd.), PhD (A.N.U.)
C. P. Kiernan, MA (Cantab. and Melb.), PhD (N.S.W.)

LECTURER
H. N. Ingle, MA (Johns H.), PhD (Calif.)

TUTOR
Josephine A. Jeffrey, BA (Syd.)

DEPARTMENT OF HISTORY AND PHILOSOPHY OF SCIENCE

LECTURER
R. D. Francis, MA (N.Z. and Melb.), ABPsS, MAPsS

DEPARTMENT OF PSYCHOLOGY

SENIOR LECTURER
J. L. Morris, BA BCom DipEd DipPsych (Melb.), EdD (Calif.), MAPs, MACE

LECTURERS
N. L. Adams, BSc (N.S.W.), MAPS
D. D. Diespecker, BA PhD (N'cle, N.S.W.), MAPS

TUTOR
C. G. Cupit, BA (Syd.)

THE UNION

SECRETARY MANAGER
I. L. Dunn, LLB (Lond.)
PART 1 — GENERAL INFORMATION

GENERAL CONDUCT

Acceptance as a member of the University implies an undertaking on the part of the student to observe the regulations, by-laws and other requirements of the University, in accordance with the declaration signed at the time of the enrolment.

In addition, 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 College Library. Gambling is also forbidden.

Members of the academic staff of the College, 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 or any breach of regulations occurring in the College.

APPLICATION OF RULES

General

Any student who requires information on the application of these rules or any service which the College offers, may make enquiries from the Secretary.

Appeals

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

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 Secretary.

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

Applications to the Secretary for exemption from re-attendance at classes, either for lectures or practical work, may only be granted on the recommendation of the Head of the appropriate School. The granting of an exemption from attendance does not carry with it exemption from payment of fees.

Application forms for exemption from lectures are available at the Administrative Office and should be lodged there (with a medical certificate where applicable). If session examinations have been missed this fact should be noted in the application.

Where a student has failed a subject at the annual examinations in any year and re-enrolls in the same course in the follow-
ing year, he must include in his programme of studies for that year the subject in which he has failed. This requirement will not be applicable if the subject is not offered the following year; is not a compulsory component of a particular course; or if there is some other cause, which is acceptable to the Professorial Board, for not immediately repeating the failed subject.

Where a student has attended less than eighty per cent of the possible classes, he may be refused permission to sit for the examination in that subject.

Students wishing to transfer from one course to another must apply on an application form obtainable from the Secretary by Friday, 15th January. As quotas may operate on entry to all Faculties in 1971, failure to apply by 15th January, 1971 will most likely result in the application for transfer being unsuccessful.

Students whose applications to transfer are successful are required to comply with the enrolment procedures for the year/stage of the new course in which they expect to enrol. Unless otherwise instructed they must present the letter granting approval of the transfer to the enrolling officer.

Students who have not received advice regarding their application to transfer before the date on which they are required to enrol should check with the Secretary.

**CHANGES IN COURSE PROGRAMMES AND WITHDRAWAL FROM SUBJECTS**

Students seeking approval to substitute one subject for another, or add one or more subjects to their programme, or wishing to withdraw from subjects must make application to the Secretary on a form available from the College office. Approval of withdrawal from subjects is not automatic, each application being determined after considering the circumstances advanced as justifying withdrawal.

It is emphasized that:

(1) withdrawal from a subject, tuition in which extends over the academic year, at any time after the May recess;

(2) withdrawal from a subject, tuition in which extends over only one session, at any time after one month from the commencement of the subject; or

(3) failure to sit for the examinations in any subject in which the student has enrolled, shall be regarded as failure to satisfy the examiners in the subject, unless written approval to withdraw without academic penalty has been obtained from the Secretary.
PART 1 — GENERAL INFORMATION

ANNUAL EXAMINATIONS

Most annual examinations take place in November-December although some are held in the mid-year recess. Timetables showing time and place at which individual examinations will be held are posted on the central notice boards. Mis-reading of the timetable is not an acceptable excuse for failure to attend an examination. Examination results are posted to the term addresses of students. No results will be given by telephone.

Examination results may be reviewed for a fee of $8 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 indicated on the notification of results.

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.

A student who through serious illness or other causes outside his control is unable to attend an examination is required to bring the circumstances (supported by a medical certificate or other evidence) to the notice of the Secretary not later than seven days after the date of the examination.

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

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

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

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

All students will receive an enrolment details form by 30th August. It is not necessary to return this form unless any information recorded there is incorrect. Amended forms must be returned to the Examinations Branch by 15th September. Amendments notified after the closing date will not be accepted unless exceptional circumstances exist and approval is obtained from the Secretary. Where a late amendment is accepted, a late fee of $6 will be payable. Amended forms returned to the Secretary will be acknowledged in writing within fourteen days.
PART 1 — GENERAL INFORMATION

RULES AND PROCEDURE FOR THE CONDUCT OF EXAMINATIONS

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

(b) Candidates are required 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 commencement 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 commences.

(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, to immediate expulsion from the examination room, and to such further penalty as may be determined in accordance with the By-Laws.

DEFERRED EXAMINATIONS

Most Departments at the College do not offer deferred examinations except in medical and compassionate cases. Provision, however, exists for the award of deferred examinations in courses where progression is by year.

TERMINATING PASSES

A grade of "Terminating Pass" has been introduced. The award of such a pass will prohibit a student progressing to the next unit/subject in a sequence for which the unit/subject in which the terminating pass is awarded is a pre-requisite.
APPLICATION FOR ADMISSION TO A DEGREE

Applications for admissions to a degree of the University must be made on the appropriate form by 15th January. Applicants should ensure that they have completed all requirements for the degree, including industrial training where necessary.

RESTRICTION UPON STUDENTS RE-ENROLLING

The University Council has adopted the following rules governing re-enrolment with the object of requiring students with a record of failure to show cause why they should be allowed to re-enrol and retain valuable class places. These rules will be applied retrospectively from January, 1971.

(1) (i) 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 in the annual examination counts, for the purpose of this regulation, as one failure.) Where such subject is prescribed as a part of the student’s course he shall be required to show cause why he should be allowed to continue the course.

Notwithstanding the provisions of Clause 1 (i) —

(ii) A student enrolled in the first year or first stage of any course, other than the medical course, who has failed in more than half the programme in which he is enrolled for that year or stage shall be required to show cause why he should be allowed to continue in the course.

(iii) A student enrolled in the first year of the Medical course who has failed in more than one subject of that year shall be required to show cause why he should be allowed to continue in Medical course.

(iv) The provisions of section (ii) and (iii) of this rule shall be deemed to apply to any student on transfer from another course or institution whose programme of studies in the first year of enrolment immediately following transfer is comprised of subjects so chosen that half or more of such subjects are listed in the University Calendar as first year subjects.

(2) Notwithstanding the provisions of Clause (1), a student shall be required to show cause why he should be allowed to continue a course which he will not be able to complete in the time set down in the following schedule.
(3) No full-time student shall, without showing cause, be permitted to continue a course unless all subjects of the first year of his course are completed by the end of his second year of attendance. No student in the Faculty of Arts shall, without showing cause, be permitted to continue a course unless he completes four subjects by the end of his second year of attendance.

No part-time student shall, without showing cause, be permitted to continue a course unless all subjects of the first two stages 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.

No student in the Faculty of Medicine shall, without showing cause, be permitted to continue with the medical course unless he completes the second year of the course by the end of his third year of attendance, and the third year of the course by the end of his fourth year of attendance.

(4) A student who has a record of failure in a course at another University shall be required to show cause why he should be admitted to this University. A student admitted to a course at this University following a record of failure at another University shall be required to show cause, notwithstanding any other provisions in these rules, why he should be permitted to continue in that course if he is unsuccessful in the annual examinations in his first year of attendance at this University.

(5) Any student excluded under any of the Clauses 1-3 may apply for re-admission after two academic years and such application shall be considered in the light of any evidence submitted by him.

(6) A student wishing “to show cause” under these provisions shall do so in writing to the Secretary. Any such application shall be considered by a committee, hereinafter referred to as the College Admissions Committee, authorised by the Professional Board, to determine whether the cause shown is adequate to justify his being permitted to continue his course or re-enrol as the case may be.
(7) The Vice-Chancellor may on the recommendation of the College Admissions Committee exclude from attendance in a course or courses any student who has been excluded from attendance in any other course under the rules governing re-enrolment and whose record at the University demonstrates, in the opinion of the College Admissions Committee and the Vice-Chancellor, the student's lack of fitness to pursue the course nominated.

(8) A student who has failed, under the provisions of Clause (6) of these rules, to show cause acceptable to the College Admissions Committee why he should be permitted to continue in his course, and who has subsequently been permitted to re-enrol in that course or to transfer to another course, shall also be required to show cause, notwithstanding any other provisions in these rules, why he should be permitted to continue in that course if he is unsuccessful in the annual examinations immediately following the first year of resumption or transfer of enrolment as the case may be.

(9) Any student who is excluded from attendance in any course or subject by decision of the Professorial Board under the provisions of these rules may appeal to an Appeal Committee constituted by Council for this purpose.

(10) The notification to any student of a decision by the College Admissions Committee to exclude the student from attendance in any course or subject shall indicate that the student may appeal against the decision to an Appeal Committee of Council. In lodging such appeal the student shall ensure that a complete statement is furnished of all grounds on which the appeal is based and shall indicate whether or not the student wishes to appear in person before the Appeal Committee.

In considering an appeal the Appeal Committee, on the basis of the student's academic record and the stated grounds of appeal, shall decide:

(i) whether there are grounds which justify the Committee seeing the student in person, or
(ii) whether there is sufficient information available to the Committee to allow decision without seeing the student in person and so proceed to determine the application accordingly.

**PROGRESSION IN FULL-TIME COURSES WHERE PROGRESSION IS BY THE YEAR**

1. No full-time student (except those in the Science course, the Arts course, or in the Commerce courses) will be permitted to attend lectures or to sit for examination in any subject in any year until he has passed in all subjects of the previous year, un-
less special permission has been granted by the faculty in which he is enrolled.

2. A student who fails to qualify to progress to the next year of the course where progression is by years may be granted by the Head of the School conducting the course, exemption from further attendance and examination in any subject in which he has achieved a pass at a satisfactory standard. Such student may repeat those subjects required to complete the year by attendance at either day or evening classes.

3. Any student who elects to transfer to the related part-time course is not eligible to be considered for additional deferred examinations at the time of transfer and may not qualify for progression to the next year of the full-time course, merely by completing the part-time equivalents of the subjects in which he has failed.

4. In general, students who fail in full-time courses, and who transfer to part-time courses, shall not be re-admitted with standing to the full-time course until they have graduated from the part-time course.

PROGRESSION IN THE FACULTY OF ENGINEERING

Progression in all undergraduate courses in the Faculty of Engineering is now permitted by subject. However:

(1) Course programmes will continue to be stated and timetabled by Year or Stage and it cannot be guaranteed that non-standard programmes can be completed in the minimum number of years.

(2) Students must satisfy the rules governing re-enrolment: in particular, these require all subjects of the first year to be completed by the end of two years' study of each subject.

(3) Before enrolling in any subject a student must have satisfied the relevant pre-requisite and co-requisite requirements. This will usually necessitate a student completing or attempting all subjects of a particular Year or Stage before proceeding to a subject in the next part of a course. Further details are available from the appropriate School.

(4) Only in exceptional circumstances will a student be permitted to enrol in subjects extending over more than two years of the course or for more than twenty-eight hours of course work per week.

Students repeating subjects are required to choose a programme approved by the Head of School.

(5) Notwithstanding the above, before a student can enrol in any non-standard programme, such programme must meet with the approval of the Head of School. A non-standard programme is one which involves enrolment in subjects from more than one Year or Stage, or comprises subjects which do not normally constitute a particular year's course work.
PART 1 — GENERAL INFORMATION

ADMISSION WITH ADVANCED STANDING

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

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

(ii) where a student transfers from another University such student shall not in general be granted standing in this University which is superior to that which he would enjoy in the University from which he transfers;

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

(iv) the standing granted by the Board in the case of any application based on partial completion of the requirements for any degree or other award of another institution shall not be such as will permit the applicant to qualify for the degree or award for which he seeks to register by satisfactory completion of a programme of study deemed by the Board to be less that that required of a student in full-time attendance in the final year of the course in which the applicant seeks to register;

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

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

Applications for re-admission must be made on the standard form and lodged with the Secretary not later than 30th June of the year prior to that for which re-admission is sought. An application should include evidence of appropriate study in the subjects (or equivalents) on account of which the applicant was excluded. In addition, evidence that the circumstances which were deemed to operate against satisfactory performance at the time of exclusion are no longer operative or are reduced in intensity, should be furnished. An applicant may be required to take the annual examinations in the relevant subjects as qualifying examinations in which case re-admission does not imply exemption from the subject.

It should be noted that a person under exclusion may not be enrolled in miscellaneous subjects unless he has received the approval of the College Admissions Committee.

Persons who intend applying for re-admission to the University at a future date may seek advice as to ways in which they may enhance their prospects of qualifying for re-admission. Enquiries should be made on a form obtainable from, and lodged with the Secretary.

CHANGE OF ADDRESS

Students are requested to notify the Secretary 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 College cannot accept responsibility if official communications fail to reach a student who has not notified the Secretary of a change of address.

OWNERSHIP OF STUDENTS' WORK

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

NOTICES

Official University notices are displayed on the notice boards and students are expected to be acquainted with the contents of those announcements which concern them.
PART 1 — GENERAL INFORMATION

LOST PROPERTY

All enquiries concerning lost property should be made to the College Office.

UNISEARCH LIMITED

Unisearch Ltd. was established in April, 1959, by the Council of the University for the purpose of furthering one of the major objects of the University as set out in the Act of Incorporation, viz. "to aid by research and other suitable means the advancement, development and practical application of science to industry and commerce".

Unisearch actively seeks to assist Australian industry in the solution of its research and developmental problems. It provides testing services in a wide variety of industrial fields, and is responsible for the exploitation of patents of inventions arising out of the work of the University. The Company has had considerable success in solving production problems brought to it by industrial organisations in all Australian States and in assisting in the establishment of new industrial processes.

All enquiries should be addressed to Unisearch Ltd. (Wollongong Branch), Wollongong University College, Wollongong, N.S.W. 2500. Telephone 2-7301.

PRIZES

Prize awards, made possible by the generosity of sponsors, are available for competition by students at the College.

The Austin Keane Prize
Awarded to the student who most excels in the subject Applied Mathematics III.
1969  A. V. Johnson.

The S. A. Senior Prize
Awarded to the student who most excels in the subject Pure Mathematics III.
1969  No award.
The Australian Institute of Metals (Port Kembla Branch) Metallurgy Prize.
Awarded each year to the graduate who has shown the best general proficiency throughout the full course.
1969 No award.

The Peter Beckmann Memorial Prize.
Awarded to the most deserving student in Chemistry III.
1969 B. R. Worth.

The Illawarra Branch of the N.S.W. Association of University Women Graduates' Prize for Women Students.
Awarded to the final year woman graduate with the best academic record.
1969 Miss B. MacLeod.

The G. W. Daniels Memorial Prize.
Awarded to the student who most excels in the subject Chemistry II.
1969 A. P. Hope.

The Illawarra Group of the Institution of Engineers, Australia, Prize.
Awarded to the final year student proceeding to an undergraduate degree in Engineering with the best academic record.
1969 J. R. Blundell.

Darryl Condon Memorial Prize
Awarded to the student proceeding to an undergraduate degree in Metallurgy who most excels in the subject Metallurgy I.
1969 L. Pengelly.

The Royal Australian Chemical Institute (N.S.W. Branch) Prize.
1969 B. R. Worth.

The Australia Institute of Mining and Metallurgy (Illawarra Branch) Geology Prize.
1969 Miss E. Gorrell.

The Metallurgical Society Award.
Awarded to the student who most excels in the subjects Metallurgy IIA or Metallurgy II.
The first award may be made on the basis of performance in 1970.
PART 2.

Undergraduate Courses of Study

A list of the courses available at the College is set out in this section, along with admission requirements, fees information and details of courses.
### FULL TIME COURSES

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Course</th>
<th>Award</th>
<th>Duration — Years</th>
<th>Years offered in W'gong in 1971</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applied Science</strong></td>
<td>Applied Geology</td>
<td>B.Sc.</td>
<td>4</td>
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<tr>
<td></td>
<td>Ceramic Engineering</td>
<td>B.Sc.</td>
<td>4</td>
<td>2</td>
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<td></td>
<td>Chemical Engineering</td>
<td>B.E.</td>
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<td>1</td>
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<tr>
<td></td>
<td>Food Technology</td>
<td>B.Sc.</td>
<td>4</td>
<td>1</td>
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<td></td>
<td>Fuel Engineering</td>
<td>B.E.</td>
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<tr>
<td></td>
<td>Industrial Chemistry</td>
<td>B.Sc.</td>
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<td>2</td>
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<td></td>
<td>Metallurgy</td>
<td>B.Sc.</td>
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<td>4</td>
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<tr>
<td></td>
<td>Mining Engineering</td>
<td>B.Sc./B.E.</td>
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<td>3</td>
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<td>B.E.</td>
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<td></td>
<td>Polymer Science</td>
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<td></td>
<td>Textile Technology</td>
<td>B.Sc.</td>
<td>4</td>
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<tr>
<td></td>
<td>Wool Technology</td>
<td>B.Sc.</td>
<td>4</td>
<td>1</td>
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<tr>
<td><strong>Arts</strong></td>
<td>Arts</td>
<td>B.A.</td>
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<td>3</td>
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<tr>
<td><strong>Biological Sciences</strong></td>
<td>Applied Psychology</td>
<td>B.Sc.</td>
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<td>1</td>
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<td><strong>Commerce</strong></td>
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<td>B.Com.</td>
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<td></td>
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<td>B.Com.</td>
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<td></td>
<td>Economics</td>
<td>B.Com.</td>
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<td>Economic History</td>
<td>B.Com.</td>
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<td>Marketing</td>
<td>B.Com.</td>
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<td></td>
<td>Statistics</td>
<td>B.Com.</td>
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<td></td>
<td>Wool Commerce</td>
<td>B.Com.</td>
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<tr>
<td><strong>Engineering</strong></td>
<td>Aeronautical Engineering</td>
<td>B.E.</td>
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<td>Civil Engineering</td>
<td>B.E.</td>
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<td>Electrical Engineering</td>
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<td>Naval Architecture</td>
<td>B.E.</td>
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<tr>
<td><strong>Medicine</strong></td>
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<td><strong>Science</strong></td>
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<td>Optometry</td>
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<td></td>
<td>Science (including Biological Sciences Subjects)</td>
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<td><strong>Board of Vocational Studies</strong></td>
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<tr>
<td></td>
<td>Sheep and Wool Technology (Education Option)</td>
<td>B.Sc.</td>
<td>4</td>
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</table>

In most of the disciplines listed honours degree courses are available.
### PART-TIME COURSES

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Course</th>
<th>Award</th>
<th>Duration — Years</th>
<th>Stages (years) available at W'gong in 1971</th>
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<tbody>
<tr>
<td>Applied Science</td>
<td>Applied Ceramics</td>
<td>B.Sc. (Tech.)</td>
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<td>Chemical Engineering</td>
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<td>Food Technology</td>
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<tr>
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</tr>
<tr>
<td>Science</td>
<td>Pure and Applied Chemistry</td>
<td>B.Sc.</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Science (including Biological Sciences subjects)</td>
<td>B.Sc.</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Board of Vocational Studies</td>
<td>Industrial Arts</td>
<td>B.Sc. (Tech.)</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

In most of the disciplines listed honours degree courses are available.
REQUIREMENTS FOR ADMISSION

A person who seeks to become a candidate for any degree of Bachelor of the University must first have qualified for matriculation and have satisfied the requirements for admission to the particular Faculty, course or subject chosen.

It should be noted that compliance with these conditions does not in itself entitle a candidate to enter upon a course. While it is the policy of the University to endeavour to admit all properly qualified applicants who have lodged applications by the appropriate closing date, it may be necessary at times to restrict the entry to one or more faculties because of lack of facilities.

A candidate who has satisfied the conditions for matriculation and for admission to a course of study shall be classed as a “matriculated student” of the University, after enrolment.

A person who has satisfactorily met the conditions for admission may be provided with a statement to that effect on the payment of the prescribed fee.

All enquiries regarding admission and enrolment should be directed to the Secretary.

Section A

GENERAL MATRICULATION AND ADMISSION REQUIREMENTS

1. A candidate may qualify for matriculation by attaining in recognised matriculation subjects at one New South Wales Higher School Certificate Examination or at one University of Sydney Matriculation Examination a level of performance determined by the Professorial Board from time to time.

2. The level of performance required to qualify for matriculation shall be

(a) passes in at least five recognised matriculation subjects, one of which shall be English and three of which shall be at Level 2 or higher;

and

(b) the attainment of an aggregate of marks, as specified by the Professorial Board, in not more than five recognised matriculation subjects, such marks being co-ordinated in a manner approved by the Board.

3. The following subjects, and such other subjects as may be approved by the Professorial Board from time to time, shall be recognised matriculation subjects:

- English
- Mathematics
- Science
- Agriculture
- Modern History
- Ancient History
- Geography
- Economics
- Greek
- Latin
- French
- German
- Italian
- Bahasa Indonesia
- Spanish
- Russian
- Chinese
- Japanese
- Hebrew
- Dutch
- Art
- Music
- Industrial Arts
4. A candidate who has qualified to matriculate in accordance with the provisions of Clauses 1, 2 and 3 may be admitted to a particular Faculty, Course or Subject provided that:

(a) his qualification includes a pass at the level indicated in the subject or subjects specified in Schedule A as Faculty, Course or Subject Pre-Requisites;

or

(b) the requirements regarding these particular Faculty, Course or Subject Pre-Requisites, as specified in Schedule A, have been met at a separate Higher School Certificate or University of Sydney Matriculation Examination.

5. Notwithstanding any of the provisions of Clauses 1 to 4, the Professorial Board may grant matriculation status to any candidate at the Higher School Certificate or University of Sydney Matriculation Examination who has reached an acceptable standard and may admit him to any Faculty, Course or Subject.

NOTE

1. For the purposes of clause 2(a), Mathematics and Science BOTH PASSED at First Level or Second Level Full Course shall together count as three subjects.

2. For the purposes of clause 2(b), Mathematics and Science TAKEN either singly or together at First Level or Second Level Full Course shall each count of one and one half subjects.
<table>
<thead>
<tr>
<th>FACULTY OR COURSE</th>
<th>FACULTY OR COURSE PRE-REQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Science</td>
<td>(a) Science at Level 2S or higher AND</td>
</tr>
<tr>
<td>(excl. Applied Geography and Wool and Pastoral Sciences)</td>
<td></td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>(b) either Mathematics at Level 2F or higher OR</td>
</tr>
<tr>
<td>Engineering</td>
<td>Mathematics at Level 2S, provided that the candidate's performance in this subject and his general level of attainment are at standards acceptable to the Professorial Board.</td>
</tr>
<tr>
<td>Medicine</td>
<td>English at Level 2 or higher</td>
</tr>
<tr>
<td>Military Studies</td>
<td>(a) Mathematics at Level 2S or higher AND</td>
</tr>
<tr>
<td>(Engineering course and Applied Science course)</td>
<td></td>
</tr>
<tr>
<td>Science</td>
<td>(b) either English at Level 2 or higher OR</td>
</tr>
<tr>
<td>Bachelor of Science (Education)</td>
<td>English at Level 3, provided that the candidate's performance in this subject and his general level of attainment are at standards acceptable to the Professorial Board.</td>
</tr>
<tr>
<td>Architecture</td>
<td>Nil</td>
</tr>
<tr>
<td>Applied Geography and Wool and Pastoral Sciences courses</td>
<td>As for Arts</td>
</tr>
<tr>
<td>(Faculty of Applied Science)</td>
<td>As for Commerce</td>
</tr>
<tr>
<td>Sheep and Wool Technology (Education option) course</td>
<td>English at Level 2 or higher; OR</td>
</tr>
<tr>
<td>Social Work Degree Course</td>
<td>English at Level 3, provided that the candidate's performance in this subject and his general level of attainment are at standards acceptable to the Professorial Board, and provided that a candidate so qualified shall not enrol in a course in English literature.</td>
</tr>
<tr>
<td>Commerce</td>
<td>Nil</td>
</tr>
<tr>
<td>Combined Arts/Law</td>
<td>As for Arts</td>
</tr>
<tr>
<td>Combined Commerce/Law</td>
<td>As for Commerce</td>
</tr>
<tr>
<td>Military Studies</td>
<td>English at Level 2 or higher; OR</td>
</tr>
<tr>
<td>(Arts course)</td>
<td>English at Level 3, provided that the candidate's performance in this subject and his general level of attainment are at standards acceptable to the Professorial Board, and provided that a candidate so qualified shall not enrol in a course in English literature.</td>
</tr>
<tr>
<td>SUBJECT</td>
<td>SUBJECT PRE-REQUISITES</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Higher Physics I</td>
<td>As for Faculty of Science</td>
</tr>
<tr>
<td>Physics I</td>
<td></td>
</tr>
<tr>
<td>Physics IC</td>
<td></td>
</tr>
<tr>
<td>Chemistry I</td>
<td>Science at Level 2S or higher</td>
</tr>
<tr>
<td>General and Human Biology</td>
<td></td>
</tr>
<tr>
<td>Geology I</td>
<td></td>
</tr>
<tr>
<td>Higher Mathematics I</td>
<td>Mathematics at Level 2F or higher</td>
</tr>
<tr>
<td>Mathematics I</td>
<td>Either Mathematics at Level 2F or higher OR</td>
</tr>
<tr>
<td>Mathematics IT</td>
<td>Mathematics at Level 2S, provided that the candidate's performance in the subject and his general level of attainment are at standards acceptable to the Professorial Board.</td>
</tr>
<tr>
<td>Economics II</td>
<td>Mathematics at Level 2S or higher</td>
</tr>
<tr>
<td>English I</td>
<td>As for Faculty of Commerce</td>
</tr>
<tr>
<td>History I</td>
<td></td>
</tr>
<tr>
<td>French I*</td>
<td>English at Level 2 or higher</td>
</tr>
<tr>
<td>Russian I*</td>
<td></td>
</tr>
<tr>
<td>German I*</td>
<td>French at Level 2 or higher</td>
</tr>
<tr>
<td>Spanish I*</td>
<td>Russian at Level 2 or higher</td>
</tr>
<tr>
<td>Russian IZ*</td>
<td>German at Level 2 or higher</td>
</tr>
<tr>
<td>German IZ*</td>
<td>Spanish at Level 2 or higher</td>
</tr>
<tr>
<td>Spanish IZ*</td>
<td>A foreign language, other than that in which enrolment is sought, at Level 2 or higher.</td>
</tr>
</tbody>
</table>

* Not available at the College in 1971.
Section B

SUPPLEMENTARY PROVISIONS FOR MATRICULATION

1. Notwithstanding the provisions of Section A above, candidates may be accepted as "matriculated students" of the University under the following conditions subject to the approval of the Professorial Board:

(a) Any person who holds a diploma from the New South Wales Department of Technical Education, or any other Technical college which may from time to time be recognised by the University, may be admitted to the University as a "matriculated student" with such status as the Board may determine, provided that, in the opinion of the Board, the applicant's qualifications are sufficient for matriculation to the Faculty nominated.

(b) The Board may admit as a "matriculated student" in any Faculty with such status as the Board may determine in the circumstances;

   (i) A graduate of any approved University.

   (ii) An applicant who presents a certificate from a University showing that he has a satisfactory record and is qualified for entrance to that University, provided that in the opinion of the Board there is an acceptable correspondence between the qualifying conditions relied upon by the applicant and conditions laid down for matriculation to the nominated Faculty of the University of New South Wales.

(c) (i) Any person who has completed the first year of the course at the Royal Military College of Australia and submits a certificate from the Commandant to that effect may be admitted as a "matriculated student" of the University.

   (ii) Any person who has completed a full course of at least three years' prescribed study at the Royal Military College of Australia and produces a certificate from the Commandant to that effect may be admitted as a "matriculated student" of the University with such status as the Board may determine.

(d) Any person who has completed satisfactorily the passing out examination of the Royal Australian Naval College and submits a certificate from the Commanding Officer may be admitted as a "matriculated student" of the University.

(e) (i) Any person who has completed the first year of the course at the Royal Australian Air Force College and submits a certificate from the Commandant to that effect, may be admitted as a "matriculated student" of the University.

   (ii) Any person who has completed two years of the course at the Royal Australian Air Force College and submits a certificate from the Commandant to that effect, may be admitted as a "matriculated student" of the University with such status as the Board may determine.

(f) An applicant who presents a certificate from another University showing that he is qualified for entrance to that University and setting out the grounds of such qualification, provided that in the opinion of the Professorial Board, there is an acceptable correspondence between the qualifying conditions relied upon by the applicant and the conditions laid down for matriculation to the nominated Faculty of the University of New South Wales.
2. (a) The Professorial Board may in special cases, including cases concerning persons of other than Australian education, declare any person qualified to enter a Faculty as a “provisionally matriculated student” although he has not complied with the requirements set out above, and in so doing may prescribe the completion of certain requirements before confirming the person’s standing as a “matriculated student”. Students who satisfactorily complete these requirements will be permitted to count the courses so passed as qualifying for degree purposes.

(b) Persons over the age of twenty-five years may be admitted to provisional matriculation status provided that:

(i) they have satisfactorily completed an approved course of systematic study extending over at least three years after passing the School Certificate Examination, or

(ii) they satisfy the Professorial Board that they have reached a standard of education sufficient to enable them profitably to pursue the first year of the proposed course.

(c) Any applicant for provisional status may be required to take such examination as the Professorial Board may prescribe before such status is granted.

3. The Professorial Board may at its discretion permit a person, who does not satisfy the requirements for admission, to attend lectures in a subject or subjects at the University, on payment of the prescribed fees provided that such person shall not necessarily have the privileges of “matriculated students” and shall not be eligible to proceed to a degree.

FEES

Completion of Enrolment

All students are required to attend the appropriate enrolment centre during the prescribed enrolment period for the authorisation of course programme. Failure to do so will incur a late fee of $7.

Fees should be paid during the prescribed enrolment period but will be accepted during the first two weeks of Session 1. (For late fees see below.) No student is regarded as having completed an enrolment until fees have been paid. Fees will not be accepted (i.e., enrolment cannot be completed) from new students after the end of the second week of Session 1 (12th March, 1971), and after 31st March from students who are re-enrolling except with the express approval of the Secretary, which will be given in exceptional circumstances only.

Payment of Fees by Session

Students who are unable to pay their fees by the year may pay by the Session, in which case they are required to pay the first Session’s course fees and other fees for the year, within the first two weeks of Session 1. Students paying under this arrangement will receive accounts from the University for Session 2 fees. These fees must be paid within the first two weeks of Session 2.

Assisted Students

Scholarship holders or Sponsored Students who have not received an enrolment voucher or appropriate letter of authority from their sponsor at the time when they are enrolling should complete their enrolment paying their own fees. A refund of fees will be made when the enrolment voucher or letter of authority is subsequently lodged with the Cashier.

*The Professorial Board has determined that normally confirmation of standing as a “matriculated student” will require the successful completion of not less than half the normal programme in the first year of enrolment.
Extension of Time

Any student who is unable to pay fees by the due date may apply in writing to the Secretary for an extension of time. Such application must give year or stage, whether full-time or part-time, and the course in which the applicant wishes to enrol, state clearly and fully the reasons why payment cannot be made and the extension sought, and must be lodged before the date on which a late fee becomes payable. Normally the maximum extension of time for the payment of fees is until 31st March for fees due in Session 1 and for one month from the date on which a late fee becomes payable in Session 2.

Where an extension of time is granted to a first year student in Session 1, such student is not permitted to attend classes until fees are paid, and if seeking to enrol in a restricted faculty may risk losing the place allocated.

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 session, to attend classes or examinations, or to be granted any official credentials.

No student is eligible to attend the annual examinations in any subject where any portion of his course fees for the year is outstanding after the end of the fourth week of Session 2 (13th August, 1971).

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

UNDERGRADUATE COURSE FEES*

(Degree, Diploma and Conversion)

Where course fees are assessed on the basis of session hours of attendance the hours for each subject for purposes of fee assessment shall be those prescribed in the Calendar, irrespective of any variation from the prescribed hours which may be necessary in conducting the subject. The granting of an exemption from portion of any of the requirements of a subject in which a student is enrolled does not carry with it any exemption from the payment of fees.

(a) Courses in the Faculties of Applied Science, Biological Sciences, Engineering and Science and degree courses in Industrial Arts and Sheep and Wool Technology.

For the purpose of fee determination assessment is on a Session basis.

A full-time course will be charged for any session where more than 15 hours' per week instruction, etc. is involved.

(i) Full-time Course Fee (more than 15 hours’ attendance per week)—$198 per session.

(ii) Part-time Course Fee—over 6 hours’ and up to 15 hours’ attendance per week—$99 per session.

(iii) Part-time Course Fee—6 hours’ or less attendance per week—$49.50 per session.

(iv) Course Continuation Fee—A fee of $28 per annum (no session payment) is payable by:

Category (a) students who have once been enrolled for a thesis and have only that requirement outstanding or

*Fees quoted in this schedule are current at the time of publication and may be amended by the Council without notice.
Category (b) students given special permission to take annual examination without attendance at the University. (Students in this category are not required to pay the subscription to the College Union, the Students' Union, the Sports Association and the Library fee.)

(b) Commerce Courses.

For the purpose of fee determination assessment is on a session basis.

A full-time course fee will be charged for any session where more than 11 hours' per week instruction, etc., is involved.

(i) Full-time Course Fee (more than 11 hours' attendance per week) — $165 per session.

(ii) Part-time Course Fee—over 4 hours' and up to 11 hours' attendance per week—$99 per session.

(iii) Part-time Course Fee—4 hours' or less attendance per week—$49.50 per session.

(iv) Course Continuation Fee—A fee of $28 per annum (no session payment) is payable by:

Category (a) students who have once been enrolled for a thesis and have only that requirement outstanding, or

Category (b) students given special permission to take annual examinations without attendance at the University. (Students in this category are not required to pay the subscriptions to the College Union, the Students' Union, the Sports Association and the Library fee.)

(c) Arts Courses*

(i) Pass—$99 per annum per subject or $49.50 per session per subject.

(ii) Honours—an additional $33 per annum per subject in which honours is taken in student's second and third years and $132 per subject per annum in the fourth year.

(d) Miscellaneous Subjects.

(i) Undergraduate subjects taken as “miscellaneous subjects” (i.e., not for a degree or diploma) or to qualify for registration as a candidate for a higher degree are assessed where they appear only in an Arts course (except where approved as the humanities component in another course) according to paragraph (c) “Arts courses”, above. Where the honours section only of an Arts subject is taken the fee payable is $33 per annum per subject. Where a full subject at the honours level is taken, the fee payable is $132 per annum per subject. All other subjects taken as miscellaneous subjects are assessed according to paragraph (a) “Courses in the Faculties of Applied Science etc.” above.

In cases where a student takes a programme of miscellaneous subjects from more than one of the categories referred to above the fees are assessed in accordance with paragraph (a) “Courses in the Faculties of Applied Science etc.” above.

(ii) Students given approval to enrol in a miscellaneous subject or subjects in addition to being enrolled in a course are assessed according to the total hours of attendance as if the additional subject formed part of the course.

*Students transferring from the Arts course to a course other than Arts and claiming credit for subjects taken in the Arts course shall have their fees for these subjects re-assessed retrospectively to conform to those payable for the course to which they transfer.
OTHER FEES

In addition to the course fees set out above all registered undergraduates will be required to pay—

<table>
<thead>
<tr>
<th>Fee Description</th>
<th>Amount (p.a.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>College Union — Entrance Fee</td>
<td>20</td>
</tr>
<tr>
<td>— Annual Fee</td>
<td>26</td>
</tr>
<tr>
<td>Sports Association — Entrance Fee</td>
<td>6</td>
</tr>
<tr>
<td>— Annual Fee</td>
<td>6</td>
</tr>
<tr>
<td>Library Fee</td>
<td>14</td>
</tr>
<tr>
<td>Matriculation Fee (payable at commencement of course)</td>
<td>8</td>
</tr>
<tr>
<td>Student Activities Miscellaneous Fee</td>
<td>2</td>
</tr>
<tr>
<td>Students' Representative Council Fee</td>
<td>6</td>
</tr>
<tr>
<td>Graduation Fee (payable at completion of course)</td>
<td>8</td>
</tr>
</tbody>
</table>

Depending on the course being taken, students may also be required to pay a Chemistry Kit Hiring Charge—$4 per kit. Additional charge for breakages and losses in excess of $1 may be required.

Special Examination Fees

- Deferred examination—$6 for each subject
- Examinations conducted under special circumstances—$8 for each subject
- Review of examination result—$8 for each subject.

LATE FEES

SESSION 1 — First Enrolments

- Fees paid on the late enrolment session and before commencement of session 1 .......................................................... $7
- Fee paid during the 1st and 2nd weeks of Session 1 .......................................................... $14
- Fees paid after the commencement of the 3rd week of Session 1 with the express approval of the Secretary and Head of the Department concerned .......................................................... $28

SESSION 1 — Re-Enrolments

- Failure to attend enrolment centre during enrolment week .......................................................... $7
- Fees paid after the commencement of the 3rd week of Session 1 to 31st March .......................................................... $14
- Fees paid after 31st March where accepted with the express approval of the Secretary .......................................................... $28

SESSION 2 — All Enrolments

- Fees paid in 3rd and 4th weeks of Session 2 .......................................................... $14
- Fees paid thereafter .......................................................... $28
- Late lodgement corrected Enrolment Details Forms (late applications will be accepted for three weeks only after prescribed dates) .......................................................... $6

CASHIER'S HOURS

The Cashier's office is open for the payment of fees from 9.30 a.m. to 1 p.m., and from 2 p.m. to 4.30 p.m., Monday to Friday. The Cashier's Office may be open for additional periods during the first two weeks of session. Details of these additional times may be obtained from notices posted at the College before the commencement of each session.
DETAILS OF COURSES — ARTS

PROGRAMMES FOR THE DEGREE OF BACHELOR OF ARTS*

One of five different programmes may be followed by a student reading for the degree. The first is the programme for the Pass Degree which consists of nine qualifying courses studied in particular sequences over a period of three years. The second is the programme for the General Honours Degree which may be taken by a student who, having completed with special merit the programme for the Pass Degree (without proceeding to graduation), studies in an additional year Course III of each of two subjects previously studied only to Course II level. The third is the programme in Special Studies, which is designed to enable a student to undertake, over a period of four years, specialized study in one subject, although a certain number of courses of subsidiary subjects must also be taken. The fourth is the programme in Combined Special Studies which is designed to enable a student to undertake, over a period of four years, specialized study in two subjects together with certain subsidiary courses. The fifth is the programme for the Part-time Pass Degree which is designed to take five years.

A student who is accepted for the Special Studies or Combined Special Studies programme will be regarded as a candidate for an Honours Degree.

The Rules governing the award of the degree are set out in the following pages and consist of:

Section A — Rules 1 to 11, which are applicable to all candidates for the degree.

Section B — Rules 12 and 13, which apply specifically to the programme leading to the Pass Degree.

Section C — Rules 14 to 19, which apply specifically to the programme leading to the General Honours degree.

Section D — Rules 20 to 26, which apply specifically to the Special Studies programme.

Section E — Rules 27 to 34, which apply specifically to the Combined Special Studies programme.

Section F — Rules 35 to 37, which relate to the recognition of courses completed outside the Faculty of Arts.

Section G — Rules 38 and 39, which are Saving Clauses.

Schedule A — which sets out the subjects available for study, the Group to which each subject has been allocated, the qualifying courses of each subject, and other information.

Schedule B — which sets out approved sequences of courses in Mathematics and Theory of Statistics.

* Students should note that some of the courses listed in the following regulations may not be available at the College.
RULES GOVERNING THE AWARD OF THE DEGREE OF BACHELOR OF ARTS

SECTION A—Rules Applicable to all Candidates and to all Programmes of Study*

1. The degree of Bachelor of Arts may be conferred as a Pass Degree or as a General Honours Degree or as an Honours Degree in Special Studies or as an Honours Degree in Combined Special Studies. There shall be three classes of Honours, namely, Class I, Class II in two Divisions and Class III.

2. No person shall be permitted to enrol in any qualifying course for the Degree of Bachelor of Arts at the same time as he is enrolled for any other degree or diploma in this University or elsewhere.

3. A person on whom the Pass Degree of Bachelor of Arts has been conferred shall not be admitted to candidature for the Honours Degree of Bachelor of Arts.

4. Where, in the following Clauses, reference is made to the requirement that a candidate shall complete a course, the requirement shall be construed as meaning that the candidate shall

(a) attend such lectures, seminars and tutorials as may be prescribed in that course;

(b) perform satisfactorily in such exercises, laboratory work, essays and thesis (if any), as may be prescribed in that course and undertake any prescribed reading relating to that course; and

5. A candidate for the degree of Bachelor of Arts shall complete qualifying courses of subjects to the number, and in the sequences, prescribed in the following Clauses. Unless otherwise indicated, the subjects available for study, the Group to which each subject has been allocated and the qualifying courses of each subject are as set out in Schedule A to these rules.

6. (a) A candidate shall pursue his studies as a full-time day student and, during his first year of study, shall enrol in at least three of the courses listed in Schedule A.

(b) A candidate may not enrol in more than four courses in any one year.

(c) A candidate may not enrol in Course II of a subject until he has completed Course I of that subject.

(d) A candidate may not enrol in Course IIZ of a subject until he has completed Course IZ of that subject.

(e) A candidate may not enrol in Course IIIA of a subject until he has completed Course II or Course IIZ of that subject.

(f) A candidate may not enrol in Course IIIB of a subject until he has completed Course II or Course IIZ of that subject and has the approval of the Head of the School concerned.

* From 1st January 1971 the grouping of subjects will be abolished for all students enrolling for the first time in the B.A. degree.
(g) A candidate may not enrol in Course IV of a subject until he has completed the appropriate Course IIIA or IIIB (or both) of that subject and has the approval of the Head of the School concerned.

7. (a) **Pre-Requisite Courses**

A candidate may not enrol in any course listed in the left-hand column below unless he has completed the corresponding course listed as a pre-requisite in the right-hand column:

<table>
<thead>
<tr>
<th>Course</th>
<th>Pre-requisite Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Mathematics II (either level)</td>
<td>Higher Mathematics I</td>
</tr>
<tr>
<td></td>
<td>or Mathematics I</td>
</tr>
<tr>
<td>Economic History III</td>
<td>Economics History II and Economics I and II</td>
</tr>
<tr>
<td>Education I</td>
<td>Philosophy I</td>
</tr>
<tr>
<td></td>
<td>or Psychology I</td>
</tr>
<tr>
<td></td>
<td>or Sociology I</td>
</tr>
<tr>
<td>Physics II</td>
<td>Higher Mathematics I</td>
</tr>
<tr>
<td></td>
<td>or Mathematics I</td>
</tr>
<tr>
<td>Pure Mathematics II (either level)</td>
<td>Higher Mathematics I</td>
</tr>
<tr>
<td></td>
<td>or Mathematics I</td>
</tr>
<tr>
<td>Theory of Statistics II (either level)</td>
<td>Higher Mathematics I</td>
</tr>
<tr>
<td></td>
<td>or Mathematics I</td>
</tr>
<tr>
<td></td>
<td>or Mathematics IT with a pass at credit level or better.</td>
</tr>
</tbody>
</table>

(b) **Co-requisite Courses**

A candidate may not enrol in any course listed in the left-hand column below unless he enrols concurrently in (or has previously completed) the corresponding course listed as a co-requisite in the right-hand column:

<table>
<thead>
<tr>
<th>Course</th>
<th>Co-requisite Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Mathematics II (either level)</td>
<td>Pure Mathematics II (either level)</td>
</tr>
<tr>
<td>Theory of Statistics III (either level)</td>
<td>Pure Mathematics III</td>
</tr>
<tr>
<td></td>
<td>or Mathematics III</td>
</tr>
</tbody>
</table>

8. (a) Course I of a subject, when completed, shall count as one qualifying course towards the degree, but Course II of a subject, if not followed by the completion of Course IIZ of that subject, shall not count as a qualifying course towards the degree.

(b) Course I of a subject followed by Course II of that subject or Course IZ of a subject followed by Course IIZ of that subject, shall be two consecutive courses of that subject. When both courses have been completed, they shall count as two qualifying courses towards the degree and shall be an approved sequence of two courses.
(c) Course I of a subject followed by Course II of that subject followed by Course IIIA or IIIB of that subject, or Course IZ of a subject followed by Course IIZ of that subject followed by Course IIIA or IIIB of that subject, shall be three consecutive courses of that subject. When the three courses have been completed, they shall count as three qualifying courses towards the degree and shall be an approved sequence of three courses.

(d) Course I of a subject followed by Course II of that subject followed by Courses IIIA and IIIB of that subject, or Course IZ of a subject followed by Course IIZ of that subject, followed by Courses IIIA and IIIB of that subject, shall be a special major sequence of four courses of that subject. When the four courses have been completed, they shall count as four qualifying courses towards the degree and shall be an approved special major sequence of four courses.

9. The following courses shall be regarded as consecutive courses of a subject and, when completed, shall count as two or three, as the case may be, qualifying courses towards the degree and shall be regarded as an approved sequence of two or three, as the case may be, courses:

<table>
<thead>
<tr>
<th>First course in sequence</th>
<th>Second course in sequence</th>
<th>Third course in sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Philosophy I</td>
<td>Education I</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociology I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Education I</td>
<td>Education IIA</td>
<td></td>
</tr>
<tr>
<td>(c) Higher Mathematics I</td>
<td>Theory of Statistics II</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics II with a pass at Credit level or better</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Theory of Statistics II</td>
<td></td>
<td>Theory of Statistics III</td>
</tr>
<tr>
<td>(e) Philosophy I</td>
<td>Education I</td>
<td>Education IIA</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology I</td>
<td></td>
<td></td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociology I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(g) Higher Mathematics I</td>
<td>Theory of Statistics II</td>
<td>Theory of Statistics III</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics I</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. A course may not be counted more than once for the purpose of forming an approved sequence of courses.

*11. A candidate who wishes to study Mathematics or Theory of Statistics beyond the Course I level shall follow one of the approved sequences set out in Schedule B or consult the School of Mathematics concerning alternatives.

Note: The following combination of courses shall be accepted as an approved sequence of three courses and an approved sequence of two courses and shall count as five qualifying courses towards the degree—

Mathematics I
Pure Mathematics II
Applied Mathematics II
Pure Mathematics III
Applied Mathematics III
PART 2 — UNDERGRADUATE COURSES OF STUDY

SECTION B—Rules Relating to the Programme for the Degree of Bachelor of Arts—Pass Degree

12. A candidate shall complete over a period of not fewer than three years nor more than five years* nine qualifying courses of subjects chosen from those listed in Schedule A.

13. The nine qualifying courses so chosen shall comply with the following conditions:

(a) They shall consist of:

(i) an approved sequence of three courses of one subject and an approved sequence of two courses of each of three other subjects;

or

(ii) an approved sequence of three courses of each of two subjects, an approved sequence of two courses of one other subject and Course I of one other subject.

or

(iii) an approved sequence of three courses of each of two subjects and Course I of each of three other subjects.

or

(iv) an approved special major sequence of four courses of one subject, an approved sequence of two courses of each of two other subjects and Course I of one other subject;

or

(v) an approved special major sequence of four courses of one subject, an approved sequence of three courses of one other subject and an approved sequence of two courses of one other subject.

or

(vi) an approved special major sequence of four courses of one subject, an approved sequence of three courses of one other subject and Course I of each of two other subjects.

(b) At least one and not more than five courses shall be chosen from those specified in Group II of Schedule A.

SECTION C—Rules Relating to the Programme for the Degree of Bachelor of Arts—General Honours Degree

14. A student seeking Honours shall complete eleven qualifying courses of subjects over a period of not fewer than four years nor more than five years. The eleven qualifying courses shall be chosen from Schedule A and shall be completed in accordance with Clauses 15 to 18.

15. (a) Nine of the eleven courses shall be completed in such a way as to fulfill the requirements for the Pass degree in accordance with Clauses 12 and 13. If the student has obtained a pass at Credit level or better in at least five of the nine courses by which he qualified for the Pass degree, he may apply to Faculty for formal recognition as a candidate for Honours.

(b) The remaining two of the eleven courses shall be completed in the Honours year and shall comprise Course IIIA or IIIB of each of two subjects of which only Courses I and II (or Courses IZ and IIZ) have so far been completed and each of these two courses shall be completed with a pass at Credit level or better.

* Different time limits apply to part-time students.
PART 2 — UNDERGRADUATE COURSES OF STUDY

16. A candidate in his Honours year may be required to take both the Pass and Honours syllabuses in the Course 111A or 111B of either or both of the two Honours year subjects. Alternatively, he may be required to take additional studies in either or both of the two Honours year subjects.

17. A student seeking recognition as a candidate for Honours, who has fulfilled the requirements for the Pass degree in accordance with Clause 13(a) (ii), (iii), (v) or (vi) and who has obtained a pass at Credit level or better in at least five of the nine courses so completed, may, with Faculty approval, complete Course II (or Course IIZ) of one or two (as the case may be) subjects of which only Course I (or Course IZ) has so far been completed. He may then apply to Faculty for formal recognition as a candidate for Honours and shall then proceed in accordance with the provisions of Clauses 15(b) and 16.

18. The award of Honours and grade of Honours shall be based upon a consideration of the full record of a candidate and, where Honours in any grade are awarded, they shall be listed as General Honours and not as Honours in a particular School or Schools.

19. Where a candidate for Honours has failed to meet the necessary standards of competence in his Honours year, no further examination shall be granted but the student may proceed to graduation with a Pass Degree, the requirements for which shall already have been met.

SECTION D—Rules Relating to the Programme for the Degree of Bachelor of Arts in Special Studies—Honours Degree

20. The degree of Bachelor of Arts in Special Studies shall be awarded at Honours level only and a recognised candidate for Honours shall complete nine qualifying courses of subjects in four years of study. The nine qualifying courses, which shall include Course IV of the subject for Special Studies, shall be chosen from Schedule A and shall be completed in accordance with the provisions of Clauses 21 to 24. There shall be no re-examination in Course IV of the subject for Special Studies.

21. A student seeking recognition as a candidate for Honours shall choose as his subject for Special Studies one from Group I of Schedule A or History and Philosophy of Science.

22. If a student obtains in his first year of study a pass at Credit level or better in Course I or Course IZ of the subject for Special Studies, he may apply to the appropriate Head of School for formal recognition as a candidate for Honours.

23. A candidate for Honours shall complete the nine prescribed qualifying courses in accordance with the following:

(a) Course I (or Course IZ) of the subject for Special Studies shall be completed in the first year of study; Course II (or Course IIZ) shall be completed in the second year of study; Courses IIIA and IIIIB shall be completed in the third year of study; and Course IV shall be completed in the fourth year of study. Candidates shall complete Courses II (or IIZ), IIIA and IIIIB in both Pass and Honours syllabuses.

(b) In addition, a candidate, by the end of his second year of study shall have completed four subsidiary courses which shall INCLUDE:

(i) an approved sequence of two courses and

(ii) at least one course of a subject chosen from Group II of Schedule A, except that a candidate whose subject for Special Studies is History and Philosophy of Science shall choose at least one course of a subject chosen from Group I of Schedule A.
PART 2 — UNDERGRADUATE COURSES OF STUDY

(c) Subject to these Rules, the Head of the School of the subject for Special Studies may prescribe the subjects of which the four subsidiary courses shall be completed as required by sub-Clause (b) of this Clause.

24. A candidate must obtain a pass at Credit level or better in the examinations of all courses of his Special Studies subject.

25. In special circumstances a candidate for the Honours degree who does not fulfil the requirements of Clauses 20 to 24 or who seeks to withdraw from the Special Studies programme may be considered by Faculty for the award of the Pass Degree of Bachelor of Arts provided that he has completed at least eight courses in the Special Studies programme (including Courses IIIA and IIIB of the subject for Special Studies) and has obtained a pass at Distinction level or better in at least two of them beyond the first year level.

26. A candidate who at any stage fails to meet the necessary standards of competence and who does not fall within the provisions of Clause 25 may be required by Faculty to transfer to the programme for the Pass Degree and shall then comply with Clauses 12 and 13 to be eligible for the award of the Pass Degree. Alternatively, Faculty may prescribe an additional course or courses the completion of which shall render the student eligible for the award of the Pass Degree.

SECTION E—Rules Relating to the Programme for the Degree of Bachelor of Arts in Combined Special Studies—Honours Degree

27. The degree of Bachelor of Arts in Combined Special Studies shall be awarded at the Honours level only and a recognised candidate for Honours shall complete nine qualifying courses of subjects in four years of study. The nine qualifying courses shall comprise eight of those listed in Schedule A plus a special Course IV which shall be concerned with study at Honours level of two appropriate subjects and all nine courses shall be completed in accordance with the provisions of Clauses 28 to 32. There shall be no re-examination in the special Course IV.

28. A student seeking recognition as a candidate for Honours shall choose as his subjects for Combined Special Studies two from Group I of Schedule A provided that the subject History and Philosophy of Science from Group II may be one of the two chosen and further provided that the combination of subjects so chosen is approved by the Heads of the Schools concerned.

29. If a student obtains in his first year of study a pass at Credit level or better in Course I or Course IZ of each of the subjects for Combined Special Studies, he may apply to the appropriate Heads of Schools for formal recognition as a candidate for Honours.

30. A candidate for Honours shall complete the nine prescribed qualifying courses in accordance with the following:

(a) Course I (or Course IZ) of each of the subjects for Combined Special Studies shall be completed in the first year of study; Course II (or Course IIZ) of each of these subjects shall be completed in the second year of study; Course IIIA (or in any special case, Course IIIB) of each of these subjects shall be completed in the
third year of study; and a special Course IV relating to these two subjects and comprising studies jointly prescribed by the Heads of the Schools concerned shall be completed in the fourth year of study. Candidates shall complete Courses II (or IIZ) and IIIA (or IIIB) in both Pass and Honours syllabuses.

(b) In addition, a candidate, by the end of his second year of study, shall have completed two subsidiary courses, at least one of which shall be chosen from Group II of Schedule A, except that a candidate studying History and Philosophy of Science as one of the subjects of Combined Special Studies may choose any two courses, not elsewhere chosen, from Schedule A.

(c) Subject to these Rules, the Heads of the Schools of the subjects for combined Special Studies may prescribe the courses specified in sub-Clause (b) of this Clause.

31. Where a Course III B of one of the subjects for Combined Special Studies involves a Pass as well as an Honours component, that Course may, with the approval of the Head of the School concerned, be substituted for a Course III A in satisfying the relevant requirement of sub-Clause (a) of Clause 30.

32. A candidate must obtain a pass at Credit level or better in the examinations of all courses of both his subjects of Combined Special Studies and in the Special Course IV.

33. In special circumstances a candidate for the Honours degree who does not fulfil the requirements of Clauses 27 to 32 or who seeks to withdraw from the Combined Special Studies programme may be considered by Faculty for the award of the Pass Degree of Bachelor of Arts provided that he has completed at least eight courses in the Combined Special Studies programme (including the Course III of each of the subjects for Combined Special Studies) and has obtained a pass at Distinction level or better in at least two of them beyond the first year level.

34. A candidate who at any stage fails to meet the necessary standards of competence and who does not fall within the provisions of Clause 33 may be required by Faculty to transfer to the programme for the Pass Degree and shall then comply with Clauses 12 and 13 to be eligible for the award of the Pass Degree. Alternatively, Faculty may prescribe an additional course or courses the completion of which shall render the student eligible for the award of the Pass Degree.

SECTION F—Rules Relating to the Recognition of Courses Completed Outside the Faculty of Arts

35. Subject to the provisions of Clause 37.

(a) A graduate or undergraduate in another Faculty of this University may be granted advanced standing in a programme in the Faculty of Arts with credit for not more than four of the courses listed in Schedule A which have already been completed in the other Faculty. Where credit is granted, under these provisions, for courses
PART 2 — UNDERGRADUATE COURSES OF STUDY

forming a major sequence of three, the candidate shall be required to complete, *inter alia*, an approved sequence of three courses or an approved special major sequence of four courses in the Faculty before becoming eligible for the award of the degree.

(b) A candidate who, before enrolment in the Faculty, has completed a course or courses at another University may, at the discretion of Faculty, be granted credit towards the degree of Bachelor of Arts for not more than four such courses, provided that credit shall not be granted for Course III of a subject.

36. Subject to the provisions of Clause 37, a candidate in attendance at the University of New South Wales may, in special circumstances, be permitted by Faculty to complete concurrently at another University not more than three courses and to count such courses as partially fulfilling the requirements for the Degree, provided that permission shall not be granted to count courses which are taken externally at the other University or which are available in the University of New South Wales.

37. An applicant seeking to take advantage of any of the provisions of Clauses 35 or 36 shall first submit in writing to Faculty a statement setting out a list of courses for which he seeks credit or which he wishes to complete at the other University, and a list of the remaining courses that he proposes to complete within the Faculty in order to qualify for the degree. Faculty shall then determine the course or courses, if any, for which credit is to be granted or the course or courses which the applicant may complete at the other University and count towards the degree, and shall also determine the remainder of the applicant’s programme within the Faculty.

SECTION G—Saving Clauses

38. Upon sufficient cause being shown, Faculty may, in a particular case or cases¹ vary the requirements of any of the preceding clauses for the award of the degree of Bachelor of Arts provided that any proposed variation to Clauses 22, 23, 24, 28, 29, 30 or 32, shall be initiated by a report to the Faculty from the Head or Heads of Schools concerned recommending the proposed variation.

39. For any student who was enrolled as a candidate in the Faculty before 1st January, 1967, Faculty may, in exceptional circumstances, determine a programme in accordance with these Rules to be followed after 1st January, 1967, in order that the student may satisfy the requirements for the degree.

¹ Note: Faculty has determined that, for the time being, students at Wollongong University College who are enrolled as part-time candidates for the degree need not meet the requirements of Clauses 61 and 12.
### SCHEDULE A*—COURSES AVAILABLE FOR BACHELOR OF ARTS

Courses qualifying for the degree of Bachelor of Arts are listed below. Subject to their availability, and class timetables permitting, these courses may be taken on either a full-time or a part-time basis.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Qualifying Course</th>
<th>Compulsory Hours Per Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Chemistry II</td>
<td>9</td>
</tr>
<tr>
<td>Economics</td>
<td>Economics I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Economics II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Economics II (Honours)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Economics IIIA</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Economics IIIA (Honours)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Economics IIIB</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Economics IIIB (Honours)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Economics IV (Honours)</td>
<td>6</td>
</tr>
<tr>
<td>English</td>
<td>English I</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>English II</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>English II (Honours)</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>English III</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>English III (Honours)</td>
<td>9</td>
</tr>
<tr>
<td>General Biology</td>
<td>General and Human Biology</td>
<td>6</td>
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<tr>
<td>Geography</td>
<td>Geography I</td>
<td>4</td>
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<tr>
<td></td>
<td>Geography II</td>
<td>4</td>
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<tr>
<td></td>
<td>Geography II (Honours)</td>
<td>6</td>
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<tr>
<td></td>
<td>Geography III</td>
<td>6</td>
</tr>
<tr>
<td>Geology</td>
<td>Geology I</td>
<td>6</td>
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<tr>
<td></td>
<td>Geology II</td>
<td>9</td>
</tr>
<tr>
<td>History</td>
<td>History I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>History II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>History IIIA</td>
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</tr>
<tr>
<td></td>
<td>History IIIIB</td>
<td>3</td>
</tr>
<tr>
<td>History and Philosophy of Science</td>
<td>History and Philosophy of Science I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>History and Philosophy of Science II</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Mathematics I</td>
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</tr>
<tr>
<td></td>
<td>Pure Mathematics II</td>
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</tr>
<tr>
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<td>Pure Mathematics III</td>
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<td></td>
<td>Applied Mathematics II</td>
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<td></td>
<td>Applied Mathematics III</td>
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</tr>
<tr>
<td>Physics</td>
<td>Physics I</td>
<td>6</td>
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<tr>
<td></td>
<td>Physics II</td>
<td>7</td>
</tr>
<tr>
<td>Psychology</td>
<td>Psychology I</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Psychology II (Professional)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Psychology II (Terminating)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Psychology III</td>
<td>8</td>
</tr>
</tbody>
</table>

### SCHEDULE B†—COURSE SEQUENCES IN MATHEMATICS AND THEORY OF STATISTICS

* For details of groups see the University Calendar. From 1st January, 1971, the grouping of subjects will be abolished for all students enrolling for the first time in the B.A. degree.

† See the University Calendar.
DETAILS OF COURSES — ECONOMICS AND COMMERCE

Students planning to study Economics as their major subject may enrol in either the Bachelor of Arts or Bachelor of Commerce courses. If they wish to specialise in Accountancy, they should enrol for the Bachelor of Commerce degree. In addition students may study Applied Psychology which also leads to the award of Bachelor of Commerce. These degree courses require a minimum of three years of full-time study for completion at Pass level or four years for the Honours degree.

The Bachelor of Commerce degree is designed for students who plan a career in industry or commerce, and is particularly suited to those students who wish to become accountants. Students in the Bachelor of Arts programme may study the same subjects in Economics, but they substitute Arts subjects for the Commerce Accounting options.

Full-time students take the full-year programme as listed below, while part-time students select a programme which permits the completion of the year in two stages spread over two years.

BACHELOR OF COMMERCE—ECONOMICS

The following subjects are compulsory:
YEAR 1: Economics I, Accounting I.
YEAR 2: Economics II, Economics II M.
YEAR 3: Economics III.

Remaining subjects are selected from the following:

YEAR 1:
Statistics (Economics) or Mathematics I.
Psychology I or Commercial Law I.

YEAR 2:
Economics Option I or General Option.
Humanities I.

YEAR 3:
General Option or Economics Option I.
Economics Options II, III and IV.
Humanities II.

BACHELOR OF ARTS—ECONOMICS

(1) Students may undertake either a three-unit or a four-unit Pass Degree course in Economics for the B.A. degree. In the three-unit course Economics I, Economics II and Economics III A is the appropriate sequence; in the four-unit course, the fourth B.A. unit is Economics III B which may be taken concurrently with Economics III A.

(2) Economics III A includes the Economics III course work taken in the Bachelor of Commerce PLUS one of the following options:
Economics II M.
Comparative Economic Systems.
Economic Development.
Industrial Economics.
Operations Research.
Thesis.
PART 2 — UNDERGRADUATE COURSES OF STUDY

(3) Economics III B requires Economics III A as a co-requisite, and consists of any one of the above options other than that selected for Economics III A.

(4) An approved course in elementary statistics is a pre-requisite for enrolment in Economics III A for students who first enrolled in Economics in 1970 or later. Statistics (Economics) satisfied this requirement. Students who complete Mathematics I will be exempt from this requirement.

Notes

(1) Economics II M is compulsory for Commerce students who first enrolled in the Economics course in 1969 or later.

(2) Economics Options include the following subjects which are available at Wollongong.

Group I

Mathematics I, II and III.
Psychology I, II, III.
Accounting II, III.
Commercial Law I, II.
Geography I, II, III.
History I, II, IIIa or IIIb.
Data Processing and Information Systems.

Group II

Comparative Economic Systems.
Economic Development.
Industrial Economics.
Operations Research.
Thesis.

In the approval of subjects, rules for subject pre-requisites apply. ONLY ONE INTRODUCTORY SUBJECT MAY BE CHOSEN AS AN ECONOMICS OPTION. Unless special permission is given by the Head of the department, students must select two subjects from Group II, for 1971 Data Processing and Information systems will be accepted as a Group I subject.

(3) The general option requirements may be satisfied by enrolment in any Subject available at Wollongong other than those offered by the Departments of Accountancy and Economics as electives. This provision is, of course, subject to the meeting of pre-requisites (for example, English I is a pre-requisite for English II) and to the approval of the Head of the Department concerned.

(4) The Humanities subjects must be approved subjects chosen from English, History, History and Philosophy of Science or General Studies. One Arts subject of at least 3 hours per week is equivalent to two Humanities Options.

(5) Permission will be readily granted to students who elect to take two or more mathematics subjects from Group I.
B.A. AND B. COM. HONOURS

Students who achieve a sufficiently high standard in the first year of the full-time course or the first two years of the part-time course have the opportunity of enrolling in the honours degree programme at the beginning of the following year.

The honours programme requires four full-time years or a minimum of seven part-time years of study. This includes the first full-time year or its part-time equivalent which is common to pass and honours programmes.

Full-time Bachelor of Commerce honours students at second-year level are required to complete Economics II honours and Economics II M plus two optional subjects. Economics II honours students will attend the same lectures as pass students but will form a separate tutorial group and undertake special reading and assignments. Economics II M is the same for pass and honours students.

Part-time students who satisfy requirements for admission to the honours degree course will normally have a break of one year between the completion of Economics I and commencement of Economics II. They will be given advice on special reading and invited to special seminars during this year.

The Bachelor of Commerce honours programme for the third full-time year includes Economics III as for pass subjects together with special reading and assignments in the same area, and the initial year's work on an honours thesis. Students must register an approved thesis topic by the end of April.

Third-year full-time students in the B.A. honours course in Economics are required to complete Economics IIIA and IIIB Honours, and also the initial year's work on an honours thesis. Economics IIIA honours consists of Economics III Honours as for Bachelor of Commerce plus an advanced Economics Option other than the thesis. Economics IIIB Honours consist of an additional third-year Economics Option plus a course in quantitative analysis.

Examinations for Economics II honours and Economics III honours will include papers set for pass students and an additional paper in both mid-year and end-of-year examinations.

Students admitted to the honours degree course should plan their programmes on the following pattern:

**BACHELOR OF COMMERCE HONOURS DEGREE**

**ECONOMICS—FULL-TIME COURSE**

YEAR 2 : Economics II
           Economics II M
           Economics Option I or General Option
           Humanities I

YEAR 3 : Economics III
           General Option or Economics Option I
           Economics Option II
           Economics Option III
           Humanities II
           Thesis

YEAR 4 : Advanced Economic Analysis
           Economics Option IV
           Thesis (continued)
BACHELOR OF COMMERCE HONOURS DEGREE

ECONOMICS—PART-TIME COURSE

YEAR 2: Mathematics I
    or Statistics (Economics)
    Psychology I or Commercial Law

YEAR 3: Economics II
    Economics II M

YEAR 4: Economics III
    Economics Option I
    Humanities I

YEAR 5: Economics Option II
    Economics Option III
    Humanities II

YEAR 6: Advanced Economic Analysis
    Thesis

YEAR 7: General Option
    Economics Option IV
    Thesis (continued)

A special programme can be organised for students, who have the appropriate qualification and who wish to include Mathematics I, II and III in an Honours (Economics) programme.

BACHELOR OF ARTS HONOURS DEGREE

ECONOMICS—FULL-TIME

YEAR 2: Economics II
    Mathematics I or Statistics (Economics)
    Remaining Arts Subject

YEAR 3: Economics IIIA
    Economics IIIB
    Economics IV (Thesis)

YEAR 4: Economics IV (Advanced Economic Analysis)
    Thesis (continued)

BACHELOR OF ARTS HONOURS DEGREE

ECONOMICS—PART-TIME

YEAR 2: Economics (Statistics)
    Arts subject

YEAR 3: Economics II
    Arts subject

YEAR 4: Economics IIIA
    Arts subject

YEAR 5: Economics IIIB
    Economics IV (Thesis)

YEAR 6: Economics IV (Advanced Economic Analysis and Thesis)

YEAR 7: Economics IV (Thesis continued)
BACHELOR OF COMMERCE—ACCOUNTANCY

The following subjects are required for the B.Com-Accountancy course:

YEAR 1:
- Accounting I
- Commercial Law I
- Economics I
- Statistics (Economics)

YEAR 2:
- Accounting II
- Economics II
- Accounting Option I
- Accounting Option II
- Humanities I (see Economics course for details)

YEAR 3:
- Accounting III
- Economics III
- Accounting Option III
- Accounting Option IV
- Humanities II (see Economics course for details)

The following options are available at Wollongong:

GROUP A:
- Auditing and Internal Control
- Commercial Law II
- Data Processing and Information Systems

GROUP B:
- Mathematics I
- Psychology
- Any other APPROVED University subject, e.g.:
  - Comparative Economic Systems
  - Economic Development
  - Industrial Economics
  - Operations Research

Notes:

1. Students must complete four (4) options including at least two (2) subjects from Group A.
2. Additional Group A and B options are available at Kensington.

RULES FOR PROGRESSION

(i) Part I of any subject is a pre-requisite for Part II of that subject and Part II is a pre-requisite for Part III.
(ii) No student shall proceed to Data Processing until he has passed in OR is currently enrolled in Accounting II.
(iii) No student shall proceed to Auditing and Internal Control unless he has passed in OR is currently enrolled in Accounting III.

GENERAL

1. While an Honours degree in Accountancy is not available at Wollongong, students taking an Economics Honours degree can still complete a major in Accountancy through careful selection of Economics Options and provided they have the permission of the Head of the Economics Department.
2. The Accountancy courses offered by the University of New South Wales are accepted by the following professional organisations as fulfilling part or all of their entry requirements.
   a) The Australian Society of Accountants
   b) The Institute of Chartered Accountants in Australia
   c) The Public Accountants' Registration Board of New South Wales
   d) The Chartered Institute of Secretaries
   for further details see the Head of Department,
BACHELOR OF COMMERCE—APPLIED PSYCHOLOGY

The commerce course offering specialization in applied psychology is designed to provide training in economics, together with a theoretical training individual and group psychology and an introduction to the skills and techniques of psychological assessment and data collection and analysis. The first subject in psychology is aimed at giving the student a foundation of psychological theory and an appreciation of the application of scientific method to the social sciences. In later years of the course detailed study is made of personality development, psychology assessment and measurement techniques. Opportunity is given for special study of some selected areas of psychology such as social psychology, motivation, human factors in engineering, learning and psychometrics. Students are encouraged to undertake field work.

YEAR 1: Psychology I
Accounting I
Economics I
Humanities I

YEAR 2: Psychology II
Economics II
Humanities II
Economics Option I

YEAR 3: Psychology III
Economics III
Economics Option II
General Option

Note: The selection of Humanities Options, Economics Option and the General Option is subject to the same provisions as those set out above for the Economics major.

THESES FOR PASS AND HONOURS DEGREES

Each student enrolled for an honours degree in the Division of Commerce must present a thesis in his final year of study. Subject to the approval of the Head of Division, pass students majoring in Economics may present a thesis as an advanced Economics Option. Approval will depend on the student's record and his research plan.

The topic of the thesis is to be selected by the student and submitted to the Head of the Division for approval. The Head of Division will nominate a member of staff as supervisor for each student writing a thesis.

The length of a thesis submitted for the pass degree should not exceed 6000 words, or 10,000 words for the honours degree.

In writing theses, students must pay special attention to matters of presentation. They are advised to consult Kate L. Turabian, A Manual for Writers of Term Papers, Theses and Dissertations, Phoenix Books, University of Chicago Press, 3rd ed., 1967.

The thesis must include a bibliography and an acknowledgement of all source material and be accompanied by an abstract of approximately 200 words. Two copies of the thesis, in double-spaced typescript on quarto paper, with a 1-inch left-hand margin, and suitably bound or stapled, must be submitted.

Note: Students who propose to write a thesis for submission in 1972 as a Group II option for a Pass degree in Economics must submit topics by the end of September, 1971.
## DETAILS OF COURSES — ENGINEERING

Courses are available in Civil, Electrical, Mechanical and Mining Engineering. Details are set out below.

### ELECTRICAL ENGINEERING—FULL-TIME COURSE

**BACHELOR OF ENGINEERING**

<table>
<thead>
<tr>
<th>Year</th>
<th>Course</th>
<th>Hours per week for 2 sessions</th>
</tr>
</thead>
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<tr>
<td></td>
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<td>YEAR 1</td>
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<tr>
<td></td>
<td>Mathematics I</td>
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<td></td>
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<td>Engineering II or Physics II</td>
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<td>Mathematics</td>
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<td>Strength and Properties of Materials</td>
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<tr>
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<td>Applied Elec., Parts I and II</td>
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<td>YEAR 3</td>
<td>Field, Circuit and System Theory</td>
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<td>Electric Machines and Transformers</td>
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<td>Electronic Devices, Circuits and Systems</td>
<td>2½</td>
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<td>Power and Control Systems</td>
<td>2½</td>
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<tr>
<td></td>
<td>General Studies Electives</td>
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PART 2 — UNDERGRADUATE COURSES OF STUDY

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<td>Four Electives</td>
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<td>Thesis</td>
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<td></td>
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</table>

Electives
(a) Circuit and Signal Analysis |
(b) Electrical Machines |
(c) Electronics |
(d) Automatic Control Systems |
(e) Measurements and Instrumentation |
(f) Solid State and Gaseous Physics |
(g) Computing

ELECTRICAL ENGINEERING—PART-TIME COURSE

BACHELOR OF SCIENCE (ENGINEERING)

<table>
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<td></td>
<td>Lec.</td>
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<td>STAGE 1</td>
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<td>Physics I</td>
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<td>4</td>
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<tr>
<td></td>
<td>7</td>
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<tr>
<td>STAGE 2</td>
<td></td>
</tr>
<tr>
<td>Engineering I</td>
<td>4</td>
</tr>
<tr>
<td>Materials or Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>7</td>
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<tr>
<td>STAGE 3</td>
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</tr>
<tr>
<td>Applied Mechanics I</td>
<td>1½</td>
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<tr>
<td>Applied Electricity, Part I</td>
<td>2</td>
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<tr>
<td>Mathematics</td>
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<tr>
<td>English</td>
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### PART 2 — UNDERGRADUATE COURSES OF STUDY

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<td>Stage 5: Field, Circuit and System Theory</td>
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<td></td>
<td>Electric Machines and Transformers</td>
<td>2</td>
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<tr>
<td></td>
<td>General Studies Electives</td>
<td>2</td>
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<tr>
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<td></td>
<td>7</td>
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<td>Stage 6: Electronic Devices, Circuits and Systems</td>
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<td>Systems</td>
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<td></td>
<td>Power and Control Systems</td>
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<tr>
<td></td>
<td>Applied Mechanics II</td>
<td>1½</td>
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<td>6½</td>
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</table>

### CIVIL, MECHANICAL AND MINING ENGINEERING—FULL-TIME COURSE

**BACHELOR OF ENGINEERING**

**Year 1: Physics I** .......................... 3 3
**Engineering I** .................................. 4 2
**Mathematics I** .................................. 4 2
**Chemistry I**
* or

Materials ........................................... 3 3
                                                        14 10

*Compulsory subject for Mining Engineering.

**Year 2: Design I** ............................. 1 2
**Applied Mechanics I** .......................... 1½ 1
**Engineering II** .................................. 2½ 3
**Mathematics** .............................. 4 1
**Strength and Properties of Materials**

Applied Electricity I, Part I .......................... 1 2
General Studies Electives ................................ 1 ½

14 10½

*25.101/1 Geology for Engineers may be substituted for Part B of this subject by Mining Engineering students.
## CIVIL AND MECHANICAL ENGINEERING

### YEAR 3*:
- **Applied Mechanics II**
- **Design 2**
- **Materials and Structures**
- **Fluid Mechanics II**
- **Control Systems**
- **Engineering III**
- **General Studies Elective**

<table>
<thead>
<tr>
<th>Course</th>
<th>Lec</th>
<th>Lab/Tut</th>
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<tbody>
<tr>
<td>Applied Mechanics II</td>
<td>1½</td>
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</tr>
<tr>
<td>Design 2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Materials and Structures</td>
<td>2½</td>
<td>1½</td>
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<tr>
<td>Fluid Mechanics II</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Control Systems</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Engineering III</td>
<td>2½</td>
<td>2½</td>
</tr>
<tr>
<td>General Studies Elective</td>
<td>2</td>
<td>1</td>
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</table>

**Total Hours:** 13½

### YEAR 4*:
- **Engineering Management**
- **System Analysis**
- **General Studies Electives**
- **Project**

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<thead>
<tr>
<th>Course</th>
<th>Lec</th>
<th>Lab/Tut</th>
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<tr>
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<td>General Studies Electives</td>
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<td>½</td>
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<tr>
<td>Project</td>
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</table>

**Total Hours:** 4

* The 3rd and 4th years of this course have been reviewed and separate courses are now available in Mechanical and in Civil Engineering.

* Students enrolling in Year 3 or 4 of this Course should consult the Head of the Department.

Plus at least 7 hours per week from the following Electives.

- **Fluid Mechanics III**
- **Surveying**
- **Geotechnics**
- **Applied Electricity I, Part II**
- **Applied Dynamics**
- **Thermodynamics III**

<table>
<thead>
<tr>
<th>Course</th>
<th>Lec</th>
<th>Lab/Tut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid Mechanics III</td>
<td>1½</td>
<td>1</td>
</tr>
<tr>
<td>Surveying</td>
<td>1½</td>
<td>1½</td>
</tr>
<tr>
<td>Geotechnics</td>
<td>2</td>
<td>2½</td>
</tr>
<tr>
<td>Applied Electricity I, Part II</td>
<td>1½</td>
<td>1</td>
</tr>
<tr>
<td>Applied Dynamics</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Thermodynamics III</td>
<td>1</td>
<td>½</td>
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</tbody>
</table>

Selection of option is subject to the approval of the Head of Division of Engineering and Metallurgy.

## CIVIL, MECHANICAL AND MINING ENGINEERING—PART-TIME COURSE

### (BACHELOR OF SCIENCE (ENGINEERING))

### STAGE 1:
- **Physics I**
- **Mathematics I**

<table>
<thead>
<tr>
<th>Course</th>
<th>Lec</th>
<th>Lab/Tut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics I</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Mathematics I</td>
<td>4</td>
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</table>

**Total Hours:** 7

---

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### Part 2 — Undergraduate Courses of Study

#### Stage 2
- Engineering 1
- Materials or Chemistry 1*  

<table>
<thead>
<tr>
<th>Course</th>
<th>1st Year</th>
<th>2nd Year</th>
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</thead>
<tbody>
<tr>
<td>Engineering 1</td>
<td>4</td>
<td>2</td>
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<tr>
<td>Materials, or Chemistry 1*</td>
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<td>3</td>
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<tr>
<td>Total</td>
<td>7</td>
<td>5</td>
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</tbody>
</table>

*Compulsory subject for Mining Engineer.

#### Stage 3
- Applied Mechanics I
- Mathematics
- Applied Electricity, Part I
- General Studies Elective

<table>
<thead>
<tr>
<th>Course</th>
<th>1st Year</th>
<th>2nd Year</th>
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</thead>
<tbody>
<tr>
<td>Applied Mechanics I</td>
<td>1½</td>
<td>½</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Applied Electricity, Part I</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>General Studies Elective</td>
<td>1</td>
<td>½</td>
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<tr>
<td>Total</td>
<td>7½</td>
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#### Stage 4
- Design I
- Engineering II
- Strength and Properties of Materials

<table>
<thead>
<tr>
<th>Course</th>
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<th>2nd Year</th>
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<tbody>
<tr>
<td>Design I</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Engineering II</td>
<td>2½</td>
<td>3</td>
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<tr>
<td>Strength and Properties of Materials</td>
<td>3</td>
<td>1½</td>
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<tr>
<td>Total</td>
<td>6½</td>
<td>6½</td>
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</tbody>
</table>

*"Geology for Engineers" may be substituted for Part B of this subject by Mining Engineering Students.

### Civil and Mechanical Engineering

#### Stage 5
- Applied Mechanics II
- Design II
- Control Systems
- Fluid Mechanics II
- General Studies Elective

<table>
<thead>
<tr>
<th>Course</th>
<th>1st Year</th>
<th>2nd Year</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Design II</td>
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<td>Control Systems</td>
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<td>½</td>
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#### Stage 6
- Materials and Structures
- General Studies Elective

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<tr>
<td>Total</td>
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Plus at least 7 hours per week selected from the following Electives:

- Engineering III
- Applied Electricity I, Part II
- Surveying
- Geotechnics

<table>
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<tr>
<th>Course</th>
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<tbody>
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<td>Surveying</td>
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<td>1½</td>
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<tr>
<td>Geotechnics</td>
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<td>2½</td>
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DETAILS OF COURSES — METALLURGY

METALLURGY—FULL-TIME COURSE
METALLURGY—PART-TIME COURSE

Both full and part-time courses leading to a degree in Metallurgy are available; however, due to course revision students are asked to consult the Department of Metallurgy for details of courses and textbooks.
PART 2 — UNDERGRADUATE COURSES OF STUDY

DETAILS OF COURSES — SCIENCE

GENERAL DESCRIPTION

The Regulations for this course are based on a unit structure. A unit occupies up to ninety hours of attendance at lectures and tutorials/laboratory classes. The requirements for a pass degree may be met by completing units chosen in accordance with the regulations in a minimum of three years of full-time or the equivalent period of part-time study. Subject to meeting conditions defined in the regulations, a student may be admitted to an honours course which will take an extra year of full-time study or two years of part-time study.

The unit structure allows flexibility in the choice of a course of study and the regulations have been framed so that a student may choose a pattern of units suitable for:

1. A general training in science.
2. A training for science teaching.
3. A professional level of training in a specific discipline.
4. A professional level of training in a combination of related disciplines.

Major sequences of units may be chosen from the following:

WOLLONGONG UNIVERSITY COLLEGE:
DIVISION OF BIOLOGICAL AND CHEMICAL SCIENCE
Chemistry.
DIVISION OF PHYSICAL SCIENCE.
Geology, Mathematics, Physics:

UNIVERSITY OF N.S.W. — KENSINGTON:
FACULTY OF SCIENCE
FACULTY OF BIOLOGICAL SCIENCES
Biochemistry, Biological Technology, Botany, Microbiology, Psychology, and Zoology.

OTHER FACULTIES
Anatomy, Computer Science, Geology and Physiology.

REGULATIONS GOVERNING THE SCIENCE COURSE

1. DEFINITIONS

The Science course is administered by the Dean of the Faculty of Science through his nominated representative.

The pass degree is based on a unit1 structure. A unit may be of fourteen or twenty-eight weeks duration, and units are grouped according to levels. Level I subjects are all double units; level II units normally follow after level I pre-requisites and level III units, in most cases, follow after level II pre-requisites. A major sequence normally includes four level III units chosen from those offered by a particular school2, although a number of schools offer more than four such units.

1 Not all units listed below are available at Wollongong University College. Information on those available may be obtained from the Secretary.
2 At Wollongong University College there are departments instead of schools.
School of Chemistry School of Applied Geology

School of Biochemistry School of Microbiology School of Zoology

1.001, 1.011 or 1.041 Physics.
1.001, 1.011 or 1.041 Physics and 2.001 or 2.011 Chemistry.

School of Biochemistry

School of Microbiology

School of Zoology

1.001, 1.011 or 1.041 Physics and 2.001 Chemistry and 17.001 General and Human Biology except that, with the consent of the Head of the particular school concerned and in special circumstances, 25.001 Geology or 12.001 Psychology may be taken in lieu of Physics I in first year. In this case credit will not be given for level III units offered by these Schools until level I Physics or 12.013 Psychology III is completed.

School of Botany

School of Anatomy

School of Physiology

Dept. of Applied Physics

1.001, 1.011 or 1.041 Physics and 2.001 Chemistry and 17.001 General and Human Biology except that, with the consent of the Head of School and in special circumstances, Physics may be deferred to second year and 25.001 Geology or 12.001 Psychology taken in lieu in first year. In this case, credit will not be given for level III units offered by this School until level I Physics is completed.

School of Botany

School of Anatomy

School of Physiology

Physiology

Dept. of Applied Physics

17.001 General and Human Biology.
2.001 Chemistry and 17.001 General and Human Biology.
1.001 or 1.011 Physics and 5.001 Engineering.

(v) Only one from each of the following subjects/units may be included:

a. 12.001 Psychology or 26.121 Psychology.

b. 52.111 Philosophy or 26.521 Philosophy.

c. Any unit listed in Section 3 (a) or the equivalent unit offered at Wollongong University College which contains similar syllabus material.

(vi) A full time student is required to complete the appropriate level of Mathematics and six other approved level I units in the first two years of attendance or else show cause to the satisfaction of the Professorial Board why he should be allowed to re-enrol. The remaining units of the course may be completed in any order consistent with the requirements concerning pre-requisite and co-requisite units as set out in Clause 3 (a).

(vii) The proposed course must be approved by the Dean of the Faculty of Science or his representative at enrolment. In special circumstances, the Dean may grant a student permission to defer enrolment in certain level I units until the second year of the course. Where any alteration in the course approved at enrolment is desired, the student must obtain the approval of the Dean or his representative for the new course.

(b) Requirements for an honours degree

(i) In order to qualify for admission to the honours degree of Bachelor of Science a candidate shall:

1. Satisfy the requirements for a pass degree but without proceeding to graduation.

7 At Wollongong University College the Head of the Division.
A pre-requisite unit is one which must be completed prior to enrolment in the unit for which it is prescribed. A co-requisite unit is one which must either be completed successfully before or be studied concurrently with the unit for which it is prescribed. An excluded unit is one which cannot be counted together with the unit which excludes it towards the degree qualification. In exceptional circumstances, on the recommendation of the head of the appropriate school, the Dean of the Faculty of Science may waive or vary a particular pre-requisite or co-requisite.

CARE SHOULD BE TAKEN IN THE CHOICE OF UNITS TO ENSURE THAT THE PATTERN COMPLIES WITH THE REGULATIONS SET OUT IN SECTION 3 (a). CERTAIN COMBINATIONS OF UNITS CANNOT BE COMPLETED IN THE MINIMUM TIME DUE TO THE RESTRICTIONS OF TIMETABLES. COPIES OF TYPICAL COURSE PATTERNS ARE AVAILABLE FROM THE FACULTY OFFICE.

2. REGULATIONS GOVERNING THE SCIENCE COURSE

(a) Requirements for a pass degree

In order to qualify for admission to the degree of Bachelor of Science under these regulations a candidate shall attend classes and satisfy the examiners in Science units and General Studies subjects chosen as follows:

(i) At least twenty-three Science units shall be included from the list set out in section 3 (a) and three General Studies subjects from the list in section 3 (b).

(ii) The twenty-three Science units shall comply with the pre-requisites, co-requisites and exclusion conditions set out in section 3 (a) and also shall conform to the following restrictions:

- not less than eight units, nor more than ten units may be from level I;
- not less than four units may be from level III, and these four shall be chosen from related disciplines.

(iii) One of 10.001 Mathematics I, or 10.011 Higher Mathematics I, or 10.021 Mathematics IT shall be included.

(iv) in addition to the specific pre-requisites listed in Clause 3 (a), additional general pre-requisites are required by some schools as a preliminary to certain advanced level units. These units, which are scheduled below, should be taken in the first year of enrolment together with compulsory mathematics. Eight units are normally taken in first year.

1 At Wollongong University College the Head of the Department will provide any necessary advice.
2. Undertake an extra year of full-time or two extra years of part-time study.

(ii) Admission to an honours course is granted by the Head of School. Students wishing to proceed to an honours degree must apply to the Head of the appropriate school on completion of pass degree requirements.

(iii) A suitably qualified candidate may be admitted to an honours course in one of the following:

- Anatomy
- Applied Mathematics
- Applied Physics
- Biochemistry
- Biological Technology
- Botany
- Chemistry
- Computer Science
- Entomology
- Geology
- Microbiology
- Physics
- Psychology
- Physiology
- Pure Mathematics
- Theory of Statistics
- Zoology

(iv) To qualify for admission to an honours course a student must have completed successfully eight level III units in the pass degree course, except that in special cases the Head of the appropriate school may approve entry without such a qualification.

(v) Further to requirements listed in paragraph 2 (b) (iv), to qualify for entry into an honours year a student must have completed any special units at required grades as determined by the Head of the School, prior to admission to the Honours year. In order to ascertain any such special conditions, a student contemplating honours is advised to consult the Head of School at the end of the first year of study.

(vi) Upon admission to the honours course a student must attend lectures, read and engage in laboratory work as required by the Head of School.

3. SCHEDULE OF UNITS

(a) Science units

These are listed under the Schools which provide the instruction and are divided into levels. Students must observe the pre-requisites and co-requisites. Some Schools offer higher units to which special pre-requisites apply and which are designed to lead to honours. Students contemplating honours studies must ensure that they have selected appropriate units. Some units are terminating so that students taking these may not qualify to continue studies in that School. When selecting terminating units students must ensure that a choice of a major sequence is still available. Note that many units are of half year duration so that it is necessary to choose units which give a balanced programme of study over the year.

1 At Wollongong University College the Head of the Department.
2 For the honours course in Applied Physics the corresponding normal requirement is both (a) at least six Level III units to be completed and (b) at least eight units at Levels II and III to be completed at Credit grade or better or in the respective Higher version.
3 Departments at Wollongong University College. Details of units available at Kensington are listed in the University Calendar and the Faculty of Science Handbook.
# Part 2 — Undergraduate Courses of Study

## 3 (a) Schedule of Science Units

<table>
<thead>
<tr>
<th>Name</th>
<th>Level</th>
<th>Units</th>
<th>When Offered</th>
<th>Hours P.W.</th>
<th>Pre-Requisites</th>
<th>Co-Requisites</th>
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### DEPARTMENT OF GEOLOGY

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* Plus Field Work

It should be noted that Geology IIIA and Geology IIIB are offered in alternate years.
### DEPARTMENT OF MATHEMATICS

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Students who wish to proceed to maths units in later years should do units A and B. Students who wish to do a terminating course in maths should do units A and C.

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In addition there will be computer project work related to Dynamics, Probability and Numerical Analysis.
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<th>LEVEL</th>
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<td>Theory of Functions II</td>
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<td>Analysis I and Dynamics</td>
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<td>Stochastic Processes</td>
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In addition computer project work will be related to Dynamics of Continuous Media, Stochastic Processes Mathematical Methods and Operations Research.

<table>
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Students intending to proceed to Honours should consult the Head of Department.
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<td>I</td>
<td>1</td>
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<tr>
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<td>Full year</td>
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<tr>
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<td>3</td>
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<td>Solid State, Nuclear Physics</td>
<td>III</td>
<td>1</td>
<td>Full year</td>
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**Note:** As a general rule, units at any level should be attempted only after completion of all units at the preceding level. In case of doubt the Head of the Department should be consulted.
<table>
<thead>
<tr>
<th>NAME</th>
<th>LEVEL</th>
<th>UNITS</th>
<th>WHEN OFFERED</th>
<th>HOURS P.W.</th>
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<tr>
<td>Engineering I</td>
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<td>Sc. Faculty Entrance</td>
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</table>
PART 2 — UNDERGRADUATE COURSES OF STUDY

3. (b) General Studies

Students shall select three of the following subjects:
- Architecture for Today
- Art in the Twentieth Century
- Aspects of Industrial Society
- Aspects of Modern Psychology, Part I
- Aspects of Modern Psychology, Part II
- Contemporary History
- Developments in Present Day Music
- Our Living Language and the Modern Writer
- Population Geography
- Some Modern Books of Note

For honours students an advanced elective is offered:
- Asia in the Twentieth Century

4. PATTERN OF STUDIES

In general, a student should select a course which is adequately distributed over the six half years of study. Typical course patterns are available from the Faculty Office.*

A suggested pattern of study is:

First year: The appropriate two units of level I Mathematics and six other level I units including those essential to the intended major sequence of units.

Second year: One general studies elective and eight units from level II or six units from level II and two from level I.

Third year: Two general studies electives and at least four level III units. The other units could be level II or III.

Fourth year: For an honours degree, an advanced general studies elective and such requirements as specified by the Head of the appropriate School.

5. PART-TIME STUDY

A student must select the units and general studies electives in accordance with these regulations save that Clause 2a(vi) is modified so that he must complete level I Mathematics and six other level I units in the first four years of enrolment or else show cause to the satisfaction of the Professorial Board why he should be allowed to re-enrol.

RULES GOVERNING ADMISSION TO THE SCIENCE DEGREE COURSE WITH ADVANCED STANDING

1. Graduates of the University of New South Wales may be admitted to the Science degree course with exemption in all General Studies subjects completed by them and in no more than twelve Science course units completed by them.

2. Undergraduates of the University of New South Wales who transfer from another course to the Science degree course, may be admitted to the Science degree course with exemption in all General Studies subjects completed by them and in all Science course units completed by them. Further, where an undergraduate has completed a subject which contains the syllabus material of a Science course unit (or units) the Dean, with the agreement of the Head of the School offering the Science course unit (or units) may allow the unit (or units) so covered to be counted to a Bachelor of Science degree.

An undergraduate transferring to the Science course must take Mathematics 10.021 or 10.001 or 10.011 during his first year of enrolment in the course unless one of them has previously been completed.

* At Wollongong University College, the Head of the Department.
3. Graduates or undergraduates of other universities or of other approved tertiary institutions may be admitted to the Science degree course with advanced standing.

4. Students admitted under Rule 3 who have satisfied the examiners in units of the same title or subject matter as Science course units in this University may, subject to the approval of the appropriate Heads of School, be granted exemption in no more than eleven Science course units but not including level III Science course units.

5. Notwithstanding the provisions of Rules 1, 2, 3 and 4 Faculty may determine a special programme to be completed by a student who wishes to be granted advanced standing for an honours degree of Bachelor of Science in this University.

RULES GOVERNING ADMISSION TO THE SCIENCE DEGREE COURSE WITH ADVANCED STANDING FOR THE PURPOSE OF OBTAINING A DOUBLE DEGREE

1. Undergraduates of the University of New South Wales who have satisfied the examiners in at least the first two years of a degree course extending over four or more years and approved by the Faculty of Science for the purpose of double degrees, may be admitted to the Science degree course with advanced standing. Such undergraduates’ performance shall have been of a high standard and their admission shall be subject to the approval of the Dean of the Faculty of Science.

2. Students so admitted who have satisfied the examiners in General Studies subjects and/or Science course units shall be given advanced standing in such General Studies subjects and no more than fourteen such Science course units.

3. Students so admitted may be granted exemption from two other level II Science units on the basis of other subjects completed by them.

4. In order to qualify for the award of the degree of B.Sc., students so admitted with advanced standing shall be required to complete the appropriate General Studies subjects and no less than four units of either level II or level III and four other level III units in accordance with the Science course regulations. The units submitted for the Bachelor's degree under these regulations must include at least four level III units chosen from related disciplines in accordance with the Science course regulations. One of Mathematics 10.021 or 10.001 or 10.011 must be included in the course.
PART 3.

Post-Graduate Courses
PART 3 — POSTGRADUATE COURSES

INTRODUCTION

Facilities are available for post-graduate studies at the College leading to several degrees of M.A., M.Com., M.E., M.Sc., M.Eng.Sc., and Ph.D. It is also possible to undertake at Wollongong some of the studies leading to the Master of Education within the School of Education at Kensington. In addition, a postgraduate course in education is offered. The research interests of the staff cover a wide range of topics and persons interested in pursuing postgraduate studies should contact the appropriate Head of Department.

Some current fields of interest are:

ACCOUNTANCY

Business finance and capital budgeting.
Cost classification for decision making and cost control.
Investigation of the statutory and financial information as contained in company reports.

CHEMISTRY

Chemistry of natural products—alkaloids and hallucinogenic fungi.
Correlation of chemical structure with physiological activity.
Synthetic organic chemistry.
Physical-organic chemistry—kinetic studies of hydrolysis and measurement of thermodynamic acidity constants.
Magnetochemistry of copper II complexes.
Catalytic deuterium exchange reactions.
Magnetochemistry and inorganic complexes.

CIVIL AND MECHANICAL ENGINEERING

Propagation of waves in air in small bore tubes.
Losses across valves of reciprocating air compressors.
Flow of granular materials.
Theoretical analysis of engine cycles.
Applied mechanics and photo elasticity.
Experimental stress analysis.

ECONOMICS

Industrial economics.
Regional studies.
Economic development.
Labour economics.

EDUCATION

The teaching of social studies.
Moral education.
Classificatory ability in Australian children.
ELECTRICAL ENGINEERING
- Automatic control.
- Plant identification.
- Electrostatic precipitation.
- Static converters.
- Electrical machines.

GEOGRAPHY
- Pedological and land capability studies.
- Urban and transport studies.
- Agricultural geography.

GEOLOGY
- The geology of the regional coal measures.
- Rock magnetism and related geophysical phenomena.
- Textures of igneous and metamorphic rocks.

HISTORY
- European history during the period 1660-1800.
- Nineteenth and twentieth century British history.
- Any area of Australian history.
- Any aspect of modern colonial history, especially the history of Africa, the Pacific and South East Asia.

MATHEMATICS
- Nuclear reactor theory.
- Oceanography.
- Operations research.

METALLURGY
- Deformation and fracture at elevated temperatures.
- Solidification of metals.
- Metallographic and x-ray studies of structure changes in alloys.
- Model studies of fluid flow in shaft furnaces.
- Metal forming, with particular reference to the fabrication of sheet metals.

PHYSICS
- Astronomy—visible and infra-red—near infra-red detectors.
- Mossbauer spectroscopy.

PSYCHOLOGY
- Sensory deprivation.
- Factors affecting academic achievement of senior school pupils.
- Vocational and personnel selection.
- Factors related to the perceptual influences of sensory deprivation.
PART 3 — POSTGRADUATE COURSES

CONDITIONS FOR THE AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)

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

Qualifications

2. A candidate for registration for the degree of Doctor of Philosophy shall—
   (i) hold an honours degree from the University of New South Wales; or
   (ii) hold an honours degree of equivalent standing from another approved university; or
   (iii) if he holds a degree without honours from the University of New South Wales or other approved university, have achieved by subsequent work and study a standard recognised by the appropriate Faculty or Board of Studies as equivalent to honours; or
   (iv) in exceptional cases, submit such other evidence of general and professional qualifications as may be approved by the Professorial Board on the recommendation of the Faculty or Board of Studies.

3. When the Faculty or Board of Studies is not satisfied with the qualifications submitted by a candidate, the Faculty or Board of Studies may require him, before he is permitted to register, to undergo such examination or carry out such work as the Faculty or Board of Studies may prescribe.

Registration

4. A candidate for registration for a course of study leading to the degree of Doctor of Philosophy shall—
   (i) apply to the Registrar on the prescribed form at least one calendar month before the commencement of the session in which he desires to register; and
   (ii) submit with his application a certificate from the head of the University school in which he proposes to study stating that the candidate is a fit person to undertake a course of study and research leading to the degree of Doctor of Philosophy and that the school is willing to undertake the responsibility of supervising the work of the candidate and of reporting to the Faculty or Board of Studies at the end of the course on the merits of the candidate’s performance in the prescribed course.

5. Subsequent to registration the candidate shall pursue a programme of advanced study and research for at least six academic sessions, save that—
   (i) a candidate fully engaged in advanced study and research for his degree, who before registration was engaged upon research to the satisfaction of the Faculty or Board of Studies, may be exempted from not more than two academic sessions;
   (ii) in special circumstances the Faculty or Board of Studies may grant permission for the candidate to spend not more than one calendar year of his programme in advanced study and research at another institution provided that his work can be supervised in a manner satisfactory to the Faculty or Board of Studies.

6. A candidate who is fully engaged in research for the degree shall present himself for examination not later than ten academic sessions from the date of his registration. A candidate not fully engaged in research shall present himself for examination not later than twelve academic sessions from the date of his registration. In special cases an extension of these times may be granted by the Faculty or Board of Studies.
7. The candidate shall be required to devote his whole time to advanced study and research, save that—
   (i) the Faculty or Board of Studies may permit a candidate on application to undertake a limited amount of University teaching or outside work which in its judgment will not interfere with the continuous pursuit of the proposed course of advanced study and research;
   (ii) a member of the full-time staff of the University may be accepted as a part-time candidate for the degree, in which case the Faculty or Board of Studies shall prescribe a minimum period for the duration of the programme;
   (iii) in special circumstances the Faculty or Board of Studies may, with the concurrence of the Professorial Board, accept as a part-time candidate for the degree a person who is not a member of the full-time staff of the University and is engaged in an occupation which, in its opinion, leaves the candidate substantially free to pursue his programme in a school of the University. In such a case the Faculty or Board of Studies shall prescribe for the duration of his programme a minimum period which, in its opinion, having regard to the proportion of his time which he is able to devote the programme in the appropriate University school is equivalent to the six sessions ordinarily required.

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

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

10. A candidate may be required by the Faculty or Board of Studies to attend a formal course of study appropriate to his work.

Thesis

11. On completing his course of study every candidate must submit a thesis which complies with the following requirements—
   (i) the greater proportion of the work described must have been completed subsequent to registration for the Ph.D. degree;
   (ii) it must be an original and significant contribution to the knowledge of the subject;
   (iii) it must be written in English except that a candidate in the Faculty of Arts may be required by the Faculty on the recommendation of the supervisor to write the thesis in an appropriate foreign language;
   (iv) it must reach a satisfactory standard of expression and presentation.

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

13. Every candidate shall be required to submit with his thesis a short abstract of the thesis comprising not more than 300 words.

14. A candidate may not submit as the main content of his thesis any work or material which he has previously submitted for a University degree or other similar award.
PART 3 — POSTGRADUATE COURSES

Entry for Examination

15. The candidate shall give in writing two months' notice of his intention to submit his thesis and such notice shall be accompanied by the appropriate fee.

16. Four copies of the thesis shall be submitted together with a certificate from the supervisor that the candidate has completed the course of study prescribed in his case. The four copies of the thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.* The candidate may also submit any work he has published whether or not such work is related to the thesis.

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

18. There shall normally be three examiners of the thesis, appointed by the Professorial Board on the recommendation of the Faculty or Board of Studies, at least one of whom shall be an external examiner.

19. After examining the thesis the examiners may—

(i) decide that the thesis reaches a satisfactory standard; or

(ii) recommend that the candidate be required to re-submit his thesis in revised form after a further period of study and/or research; or

(iii) recommend without further test that the candidate be not awarded the degree of Doctor of Philosophy.

20. If the thesis reaches the required standard, the examiners shall arrange for the candidate to be examined orally, and, at their discretion, by written papers and/or practical examinations on the subject of the thesis and/or subjects relevant thereto, save that on the recommendation of the examiners the Faculty or Board of Studies may dispense with the oral examination.

21. If the thesis is of satisfactory standard but the candidate fails to satisfy the examiners at the oral or other examinations, the examiners may recommend the University to permit the candidate to represent the same thesis and submit to a further oral, practical or written examination within a period specified by them but not exceeding eighteen months.

22. At the conclusion of the examination, the examiners will submit to the Faculty or Board of Studies a concise report on the merits of the thesis and on the examination results and the Faculty or Board of Studies shall recommend whether or not the candidate may be admitted to the degree.

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

* See later.
CONDITIONS FOR THE AWARD OF DEGREE OF MASTER OF ARTS (M.A.)

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

2. A candidate for the degree shall be registered in one of the following Schools of the Faculty of Arts: Drama, Economics, English, French, Geography, German, History, History and Philosophy of Science, Mathematics,* Philosophy, Political Science, Psychology, Russian, Sociology, Spanish.

3. The degree shall be awarded in two grades, namely the Pass degree and the degree with Honours. There shall be two classes of Honours, namely Class I and Class II.

4. A candidate for the Honours degree may not be awarded the Pass degree.

5. Honours Degree
   (i) Except as provided in sub-section 5 (ii) an applicant for registration for the Honours degree of Master of Arts shall have been admitted to the degree of Bachelor of Arts at a standard not below second class honours in the University of New South Wales, or other approved University, in an appropriate School or Department.
   (ii) Applicants for registration for the Honours degree who are graduates in Arts of this, or other approved University, with a degree at a standard below second class honours shall be required to take a qualifying examination as approved by the Faculty of Arts (hereinafter referred to as "the Faculty"), and if successful may then apply for registration as a candidate for the Honours degree.
   (iii) Notwithstanding any other provisions of these conditions the Faculty may, on the recommendation of the Head of the School, require an applicant to demonstrate fitness for registration as a candidate for the Honours degree by carrying out such work and passing such examinations as the Faculty may determine. The Faculty may on the recommendation of the Head of the School concerned require a candidate for the Honours degree to undergo a suitable test in a relevant language, the form of such test to be recommended by the Head of the School concerned.
   (iv) Every candidate for the Honours degree shall be required to submit three copies of a thesis embodying the results of an original investigation, to take such examinations and to perform such other work as may be prescribed by the Faculty on the recommendation of the Head of the School concerned. A candidate for the Honours degree may not submit as the main content of his thesis any work or material which he has previously submitted for a University degree or other similar award. The Honours thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses.
   (v) It shall be understood that the University retains three copies of the Honours thesis submitted for examination and may allow the thesis to be consulted or borrowed. Subject to the provisions of the Copyright Act, 1968 the University may issue the Honours thesis in whole or in part in photostat or microfilm or other copying medium.

* The School of Mathematics includes a Department of Statistics.
† See later.
PART 3 — POSTGRADUATE COURSES

(vi) The investigation and other work as provided in paragraph 5 (iv) shall be carried out under the direction of a supervisor appointed by the Faculty or under such conditions as the Faculty may determine.

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

(viii) Every candidate for the Honours degree shall in the first instance submit his proposed course of study and the subject of his thesis for the approval of the Head of the School concerned.

(ix) No candidate shall be considered for the award of the Honours degree until the lapse of three complete sessions from the date from which registration becomes effective, save that in the case of a candidate who has demonstrated exceptional merit this period may, with the approval of the Faculty, be reduced by one session.

6. Pass Degree

(i) Unless the Faculty shall otherwise determine, an applicant for registration as a candidate for the Pass degree of Master of Arts shall have been admitted to the degree of Bachelor of Arts in the University of New South Wales or other approved university and shall have taken a major sequence, and passed all necessary examinations, in the subject or subjects, or in a discipline related to the subject or subjects, in which he wishes to work for the Pass degree.

(ii) Notwithstanding the provisions of clause 6 (i) the Faculty may, on the recommendation of the Head of the School, require an applicant to demonstrate his eligibility for registration by carrying out such work and passing such examinations as the Faculty may determine.

(iii) A candidate for the Pass degree shall attend such classes and seminars as may be prescribed, shall pass the required examinations, and shall complete satisfactorily such written and other work as the Head of School may determine.

(iv) No candidate shall be considered for the award of the Pass degree until the lapse of four complete sessions from the date from which registration becomes effective.

7. (i) A graduate in the Faculty other than Arts of this or other approved university may be admitted to registration for the Honours or Pass degree of Master of Arts, with the approval of the Faculty.

(ii) In special circumstances a person may be permitted to register as a candidate for the Honours or Pass degree of Master of Arts if he submits evidence of such academic and professional attainments as may be approved by the Faculty on the recommendation of its Higher Degree Committee.

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

9. No candidate shall, without the approval of the Head of the School concerned, be enrolled as a candidate for the degree of Master of Arts at the same time as he is enrolled for any other degree or diploma in this University or elsewhere.

10. An approved applicant shall pay such fees as may be determined from time to time by the Council.
PART 3 — POSTGRADUATE COURSES

CONDITIONS FOR THE AWARD OF DEGREE OF MASTER OF COMMERCE (M.Com.)

1. An application to register as a candidate for the degree of Master of Commerce shall be made on the prescribed form which shall be lodged with the Registrar at least two full calendar months before the commencement of the session in which the candidate desires to register.

2. (i) An applicant for registration for the degree shall have been admitted to the degree of Bachelor of Commerce in the University of New South Wales or to an appropriate degree of any other approved University.

   (ii) In special circumstances a person may be permitted to register as a candidate for the degree if he submits evidence of such academic and professional attainments as may be approved by the Faculty of Commerce (hereinafter referred to as "the Faculty") on the recommendation of the Higher Degree Committee.

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

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

5. An approved applicant 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;

and shall pay such fees as may be determined from time to time by the Council. Registration as a student working externally will be permitted only in cases where adequate arrangements can be made for external supervision. Course work can not be taken externally.

6. The requirements for the degree of Master of Commerce may be satisfied in either of two ways. Candidates who have a distinguished first degree and who provide evidence of research ability may be permitted to present themselves for examination by thesis only. Other candidates shall be required to follow a programme which places less emphasis on research and more on formal instruction.

7. A candidate presenting himself for examination by thesis only shall, upon application for registration, submit the title and outline of the proposed field of research. The research and investigation shall be carried out under the direction of a supervisor appointed by the Faculty and the results thereof shall be embodied in a thesis. No candidate shall be considered for the award of the degree until the lapse of four complete sessions from the date on which the registration becomes effective, save that in the case of a candidate who has obtained the degree of Bachelor with honours or who has had previous research experience, this period may, with the approval of the Faculty, be reduced by up to two sessions.

8. A candidate following a formal course of study leading to the degree shall:

   (a) undertake a course of formal study prescribed by Faculty as set out in the "Course Requirements for the Master of Commerce Degree", save that a candidate who has obtained an appropriate degree at
honours level may be given credit for honours course work. The course of formal study will extend over two full-time or three part-time years;

(b) except in exceptional circumstances pass at the first attempt all examinations prescribed by the Faculty;

(c) submit a report on a topic approved by Faculty. The report will normally be submitted at the end of the second full-time or third part-time year.

(d) obtain an average of credit or better in the subjects listed below in respect of the school or department in which he is pursuing his studies as a condition for proceeding to completion of the degree, providing that a candidate who has passed at a standard below the required average may be permitted to present again such subject or subjects as the head of school or department approves. The subjects referred to above are:

SCHOOL OF ACCOUNTANCY:
14.163/1 Financial Accounting Theory

AND

14.901G Corporate Organisation and Accounting

OR

14.163/2 Managerial Accounting Theory

AND

14.902G Controllership

SCHOOL OF ECONOMICS:
Economics Graduate Course—
15.143G Economic Theory A
15.144G Economic Theory B
Econometrics Graduate Course —
15.434 Econometrics
15.443 Mathematical Economics

DEPARTMENT OF MARKETING:
28.203 Seminar in Marketing Theory I.

9. (a) Every candidate shall submit three copies of the thesis or report. All copies shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. A candidate may submit also for examination any work he has published whether or not such work is related to the thesis.

(b) It shall be understood that the University retains the three copies of the thesis or report submitted for examination and is free to allow the thesis or report to be consulted or borrowed. Subject to the provisions of the Copyright Act 1912 (as amended) the University may issue the thesis or report in whole or in part, in photostat or microfilm or other copying medium.

10. For each candidate’s thesis or report there shall be two examiners appointed by the Professorial Board on the recommendation of the Faculty, one of whom shall in the case of a thesis, be an external examiner.

* See later.
CONDITIONS FOR THE AWARD OF DEGREE OF MASTER OF ENGINEERING (M.E.)

1. The degree of Master of Engineering may be granted by the Council on the recommendation of the Professorial Board to a candidate who has demonstrated ability to carry out research by the submission of a thesis embodying the results of an original investigation.

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

3. (i) An applicant for registration for the degree shall have been admitted to the degree of Bachelor in the University of New South Wales, or other approved University, in an appropriate school.

(ii) In exceptional cases a person may be permitted to register as a candidate for the degree if he submits evidence of such academic and professional attainment as may be approved by the Professorial Board on the recommendation of the appropriate Faculty (hereinafter referred to as "the Faculty").

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

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

6. An approved applicant 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;

and shall pay such fees as may be determined from time to time by the Council.

7. Every candidate for the degree shall be required to carry out a programme of advanced study, to take such examinations and perform such other work as may be prescribed by the Faculty. The programme shall include the preparation and submission of a thesis embodying the results of an original investigation, three copies of which shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree thesis*. The candidate may submit any work he has published whether or not such work is related to the thesis.

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

9. The investigation and other work as provided in paragraph 7 shall be carried out under the direction of a supervisor appointed by the Faculty or under such conditions as the Faculty may determine.

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

* See later.
PART 3 — POSTGRADUATE COURSES

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

CONDITIONS FOR THE AWARD OF DEGREE OF MASTER OF
ENGINEERING SCIENCE (M.Eng.Sc)

1. The degree of Master of Engineering Science in the Faculty of Engi-
neering may be granted by Council on the recommendation of the Professorial
Board to a candidate who has satisfactorily completed a programme of advanced
study comprising formal course work and including the submission of a report
on a project based upon research, design, or a critical review.

2. An application to register as a candidate for the degree of Master of
Engineering Science shall be made on the prescribed form which shall be
lodged with the Registrar at least one full calendar month before the com-
mencement of the course.

3. (i) An applicant for registration for the degree shall have been admitted
to the degree of Bachelor with Honours in the University of New
South Wales or other approved University in an appropriate school
or department. A graduate with a pass degree of good standing from
an appropriate degree course in engineering may be admitted on the
recommendation of the Head of School and with the confirmation of
Faculty.

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

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

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

6. A candidate for the degree shall be required to undertake the prescribed
course of study, to pass any prescribed examinations and to submit a report on a
project approved by the Faculty. The format of the report shall accord with the
instructions of the Head of the School and shall comply with the requirements
of the Faculty for the preparation and submission of Master of Engineering
Science project reports. (See below).

7. A candidate may submit the report on the project at the completion of
the formal section of the course but in any case shall submit it not later than
one year after the completion of such course.

8. The report on the project shall be examined by two examiners appointed
by the Professorial Board on the recommendation of Faculty.

9. The examiners will submit to the Faculty a concise report on the merits
of the project report, and the Faculty shall recommend whether or not the
candidate may be admitted to the degree.

Faculty of Engineering Requirements for Preparation of M. Eng. Sc. Project
Reports

(i) Two copies of the written part of the report should be submitted,
typed double spaced on one side of good quality foolscap or quarto-
sized paper.

(ii) The margins on each sheet shall be not less than 1½ inches on the
left-hand side, ¼ inch on the right-hand side, 1 inch at the top and
½ inch at the bottom.
PART 3 — POSTGRADUATE COURSES

(iii) There should be a title sheet showing project report title, author’s name, degree and date of submission.

(iv) Sheets shall be numbered consecutively.

(v) Unless otherwise specifically instructed by the supervisor, diagrams, charts, etc., should be included, where possible, with the text, facing the page on which reference to them is made otherwise they may be clearly referred to in the text, numbered and folded for insertion in a pocket on the back cover of the project report. Folding diagrams or charts included in the text should be arranged to open out to the top and to the right.

(vi) All drawings which are separately bound shall be of double elephant size (27 inches by 40 inches) and shall have a margin at least 1 inch wide on the left-hand side to permit binding.

(vii) The drawings shall be bound together by a row of clips on the left-hand side and shall have a clear sheet of drawing paper on top and underneath. On the top sheet shall be printed the words “The University of New South Wales — Master of Engineering Science Degree” and a description of the project, e.g., “Highway Design Project” and underneath that the date submitted. On the bottom right-hand corner should be printed the name of the candidate.

(viii) Drawings may be originals on cartridge paper or black and white prints. They should be suitably coloured where appropriate and it will be permissible to add extra work in ink to original drawings.

(ix) Two copies of all drawings will be required normally. Exceptions to this direction shall be granted only on the recommendation of the Faculty Graduate Studies Committee.

CONDITIONS FOR THE AWARD OF DEGREE OF MASTER OF SCIENCE (M. Sc.)

1. The degree of Master of Science may be granted by the Council on the recommendation of the Professorial Board to a candidate who has demonstrated ability to undertake research by the submission of a thesis embodying the results of an original investigation.

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

3. (i) An applicant for registration for the degree shall have been admitted to the degree of Bachelor of Science in the University of New South Wales, or other approved University, in an appropriate School or Department.

   (ii) In exceptional cases a person may be permitted to register as a candidate for the degree if he submits evidence of such academic and professional attainments as may be approved by the Professorial Board on the recommendation of the appropriate Faculty or Board of Studies.

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

5. In every case before permitting an applicant to register as a candidate the Faculty or Board of Studies shall be satisfied that adequate supervision and facilities are available.
6. An approved applicant 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;
and shall pay such fees as may be determined from time to time by the Council.

7. Every candidate for the degree shall be required to submit three copies of a thesis embodying the results of an original investigation or design, to take such examinations and to perform such other work as may be prescribed by the Faculty or Board of Studies. The thesis shall be presented in a form which complies with the requirements of the University for the preparation and submission of higher degree theses. The candidate may submit also for examination any work he has published whether or not such work is related to the thesis.

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

9. The investigation, design and other work as provided in paragraph 7 shall be carried out under the direction of a supervisor appointed by the Faculty or Board of Studies or under such conditions as the Faculty or Board of Studies may determine.

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

11. For each candidate there shall be at least two examiners appointed by the Professorial Board, on the recommendation of the Faculty or Board of Studies, one of whom shall, if possible, be an external examiner.

CONDITIONS FOR THE DEGREE OF MASTER OF SCIENCE, MASTER OF ENGINEERING OR MASTER OF SURVEYING WITHOUT SUPERVISION

Where it is not possible for candidates to register under the existing conditions for the degree of Master of Science, Master of Engineering or Master of Surveying by reason of their location at centres which are distant from University Schools or where effective supervision is not practicable registration may be granted in these categories under the following conditions:

1. An application to register as an external candidate for the degree of Master of Science, Master of Engineering or Master of Surveying without supervision shall be lodged with the Registrar for recommendation by the Head of School and consideration by the Faculty, not less than six months before the intended date of submission of the thesis. A graduate who intends to apply in this way should in his own interest at an early stage, seek the advice of the appropriate School with regard to the adequacy of the subject matter for the degree. A synopsis of the work should be enclosed.

2. An applicant for registration shall have been admitted to a degree of Bachelor in the University of New South Wales.

See later.
3. An approved applicant shall pay such fees as may be determined from time to time by the Council.

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

(ii) Every candidate shall submit with the thesis a statutory declaration that the material contained therein is his own work, except where otherwise stated in the thesis.

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

6. A candidate shall not be considered for the award of the degree until the lapse of six sessions in the case of honours graduates and eight sessions in the case of pass graduates from the date of graduation.

7. For each candidate there shall be at least two examiners appointed by the Professorial Board on the recommendation of the appropriate Faculty, one of whom shall be an internal examiner.

8. If the thesis reaches the required standard the candidate shall be required to attend for an oral examination at a time and place nominated by the University. The examiners may also arrange at their discretion for the examination of the candidate by written and/or practical examinations on the conduct of the thesis and/or subjects related thereto.

GRADUATE DIPLOMAS

CONDITIONS FOR THE AWARD OF GRADUATE DIPLOMAS

1. An application for admission to a graduate diploma course shall be made on the prescribed form which should be lodged with the Registrar at least two full calendar months before the commencement of the course.

2. An applicant for admission to a graduate diploma course shall be—
   (a) a graduate of the University of New South Wales or other approved university.
   (b) a person with other qualifications as may be approved by Faculty.

3. Notwithstanding clause (2) above, Faculty may require an applicant to take such other pre-requisite or concurrent studies and/or examinations as it may prescribe.

4. Every candidate for a graduate diploma shall be required to undertake the appropriate course of study, to pass any prescribed examinations, and if so laid down in the course, to complete a project or assignment specified by the Head of the School. The format of the report on such project or assignment shall accord with the instructions laid down by the Head of the School.

5. An approved applicant shall be required to pay the fee for the course in which he desires to register. Fees shall be paid in advance.

* See later.
PREPARATION AND SUBMISSION OF THESES FOR HIGHER DEGREES

1. Every candidate for the degree of Master shall submit to the Registrar three copies of the thesis and supporting work. All copies of the thesis 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.

2. Every candidate for the degree of Doctor of Philosophy shall submit to the Registrar four copies of the thesis and supporting work. All copies of the thesis shall contain a short abstract of the thesis comprising not more than 300 words.

3. Every candidate for the degree of Doctor of Medicine shall submit to the Registrar four copies of the thesis and supporting work. All copies of the thesis shall contain a short abstract of the thesis comprising not more than 400 words which inter alia shall indicate wherein the thesis has made an original contribution.

4. The specifications currently approved for higher degree theses are as follows:
   (a) All copies of the thesis shall be in double spaced typescript.
   (b) The size of the paper shall be quarto (approximately 10 in. X 8 in.) except for drawings and maps on which no restriction is placed.
   (c) The margins on each sheet shall be not less than 1½ in. on the left-hand side, ½ in. on the right-hand side, 1 in. at the top and ½ in. at the bottom.
   (d) There shall be a title sheet showing thesis title, author’s name, degree and date of submission.
   (e) Pages shall be numbered consecutively.
   (f) Diagrams, charts, etc., must not be submitted on the back of typed sheets.

   Unless otherwise specifically instructed by the supervisor, diagrams, charts, etc., should be included where possible, with the text, facing the page on which reference to them is made, otherwise they may be clearly referred to in the text, numbered and folded for insertion in a pocket on the back inside cover of the thesis binding. Folded diagrams or charts included in the text should be arranged so as to open out to the top and right.

5. The original copy of the thesis for deposit in the Library shall be bound in accordance with the following specifications: The thesis shall be bound in boards, covered with blue or green bookcloth or backray, or other binding fabric. The bound volume shall be lettered on the spine as follows:
   (a) At the bottom and across—UNSW or if the volume is too thin for this—UNSW
   (b) 2½ in. from the bottom and across, with the degree and year of the thesis, for example—MSc1960
   (c) Evenly spaced between the statement of the degree and the year and the top of the spine the name of the author, first initials and then the surname, reading upwards in one line.

   No further lettering or any decoration is required on the spine or anywhere else on the binding. In the binding of theses which include mounted photographs, folded graphs, and so on, leaves at the spine shall be packed to ensure even thickness of the volume. The Library copy of the thesis shall be bound by one of a panel of approved bookbinders, each of whom is aware of the University’s requirements. Names of approved bookbinders may be secured from the Examinations Branch.
The other copies of the thesis shall be bound in such a manner as allows their transmission to the examiners without possibility of their disarrangement.

6. The thesis and other relevant work may be submitted to the Registrar at any time during the year provided the candidate has completed the minimum period of registration. In order that a successful candidate may have a reasonable chance of having the degree conferred at one of the formal degree conferring ceremonies, the candidate should arrange for the thesis and other relevant work to be in the hands of the Registrar at least fourteen weeks prior to the date of such ceremony.

DETAILS OF COURSEWORK

MASTER OF ARTS (PASS) — ENGLISH

Candidates must complete two courses (one in each of two years). Each course will involve at least 60 hours of seminars, together with such supplementary study of criticism, research-materials and methods as may be prescribed from time to time. Candidates will be expected to undertake wide reading in preparation for each seminar and must, as required, write papers to be presented at the seminars. Assessment will be based on these papers as well as on examinations at the end of each semester, and a long essay (approximately 10,000 words) to be handed in at the end of each course.

Two courses will be offered in 1971 provided that the necessary staff is available; and new courses will be added from time to time in such fields as Modern America Literature, Nineteenth Century Australian Literature, Linguistic History and Theory, and European Fiction and Drama in English Translation.

The Head of the Department reserves the right to place a limit on numbers in particular courses, and to advise candidates on the courses best suited to their qualifications and purposes.

TWENTIETH CENTURY DRAMA: a study of selected plays by Pirandello, O'Neill, Brecht, Giraudoux, Anouilh, Sartre, Eliot, Tennessee Williams, Arthur Miller; and by more recent playwrights such as Beckett and Ionesco, Gelber and Albee, Durrenmatt and Frisch, and Osborne, Wesker, Behan, Delaney and Pinter.

FOURTEENTH CENTURY VERSE AND PROSE, AND MEDIEVAL DRAMA: a study of selected works by Chaucer and his contemporaries and of some late medieval plays.

BASIC READING


MASTER OF ARTS (PASS) — HISTORY

Staff and resources permitting, a Pass M.A. degree in History will be introduced in 1971.

Candidates enrolled for the Pass M.A. in History will participate in a minimum of two seminar hours per week for two academic years (i.e., six terms or four semesters). The emphasis will be on work from primary sources; and the major field of study will be Modern British Social and Political Thought. Candidates will be expected to read widely, and prepare a range of written papers at the direction of the Department.

Candidates may also be required to prepare papers for, and participate in discussions at, seminars on the philosophy of history; historiography and historical methodology.

The Head of the Department of History reserves the right to limit the number of candidates enrolling for the Pass M.A., and to advise candidates on courses and lines of study best suited to their qualifications and purposes.
REFERENCE BOOKS, 1971

SOURCE MATERIALS: BRITISH SOCIAL HISTORY


HISTORY OF BRITISH SOCIAL AND ECONOMIC THOUGHT


PART 3 — POSTGRADUATE COURSES


The Man Versus the State, Watts, London, (reprinted), 1940.


PHILOSOPHY AND METHODOLOGY


Christianity and History, Bell, London, 1949.

Man on His Past, Beacon Press, Boston, 1960.


DIPLOMA IN EDUCATION

The Diploma of Education is a professional course in education for graduates of this or another approved university preparing to teach in secondary schools. It also serves as an introduction to the research disciplines of education for students who will later pursue higher studies in Education. At present the course is for one year full-time, but it is anticipated that in the near future it will be possible for this course to be taken over two years on a part-time basis. The various subjects involve lectures, seminars, tutorials, individual assignments and group exercises. Demonstrations of teaching methods and practice teaching are provided in co-operation with the Wollongong Teachers' College and local schools.

COURSE OUTLINE

<table>
<thead>
<tr>
<th>Subject</th>
<th>Hours per week</th>
<th>Equivalent</th>
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<tbody>
<tr>
<td>Australian Education</td>
<td>1</td>
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<tr>
<td>Educational Practice</td>
<td>1</td>
<td></td>
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<tr>
<td>Educational Psychology</td>
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<tr>
<td>Sociology of Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Philosophy and Theory of Education</td>
<td>1</td>
<td></td>
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<tr>
<td>Seminars</td>
<td>2</td>
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</tr>
<tr>
<td><strong>Methods of Teaching</strong></td>
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<td>6-8</td>
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<tr>
<td>Students must study two methods (including demonstration lessons)</td>
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<tr>
<td><strong>Selected Topics</strong></td>
<td></td>
<td>5</td>
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<tr>
<td>Supervised Teaching Practice</td>
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<tr>
<td>Eight weeks in term time. Two weeks of unsupervised teaching practice is also required.</td>
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Courses leading to the degree of Master of Education are offered through The School of Education at Kensington. Details may be found in Section C of the University of N.S.W. calendar.

AUSTRALIAN EDUCATION

This subject seeks to lift student awareness of problems in Australian education above the level of opinion and limited personal experience, by presenting them in their historical and comparative setting. Various developments in secondary and tertiary education are discussed, with a view to understanding the interplay of social, economic, political and ideological factors, and the need to subject them to more rigorous research.

TEXTBOOKS

REFERENCE BOOKS

SELECTED JOURNALS
The Australian Journal of Education. A.C.E.R.
The Australian University. Australian Vice-Chancellors' Committee.
The Forum of Education. Sydney Teachers' College.

EDUCATIONAL PRACTICE
An appreciation of guiding principles common to the teaching of secondary school children will be gained through study of preparation at course, topic and lesson levels and the utilisation of school and community resources; aspects of classroom control and discipline; individual and group techniques of teaching; and evaluation procedures including the construction and administration of tests and examinations.

REFERENCE BOOKS

EDUCATIONAL PSYCHOLOGY
A study of psychology as it bears on the educational process, through a treatment of learning, motivation and the development of adult modes of thinking. Although
attention is paid to cognitive development throughout the school years, the
cognition of the adolescent is especially considered.

TEXTBOOKS

Stone, L. J. & Church, J. Childhood and Adolescence. Random House, N.Y.,
1968.

REFERENCE BOOKS
Ausubel, D. P. The Psychology of Meaningful Verbal Learning. Grune & Stratton,


Ballot, W. R. & Charles, D. C. The Psychology of Human Growth and Develop-


Elkind, D. & Flavell, J. H., eds. Studies in Cognitive Development. O.U.P.,


Kimbilly, J. D., ed. Learning and the Educational Process. Rand McNally,
Chicago, 1965.


McGinitie, W. & Ball, S., eds. Readings in Psychological Foundations of Educa-


Smart, M. S. & Smart, R. C. Children: Development and Relations. Macmillan,
N.Y., 1967.


SELECTED JOURNALS
British Journal of Educational Psychology.

Education Research.

Harvard Education Review.

SOCIOLOGY OF EDUCATION
The sociological aspects of education are studied with special reference to the
school. The school is seen both as a unit in the social structure and as a social
system in itself. Topics include the relation of personality and culture, home and
school, teacher and community, and the problems of migrant assimilation.

TEXT BOOKS
Brookover, W. B. and Gottlieb, D. Sociology of Education. American Book Co.,
1964.


REFERENCE BOOKS

Havighurst, R. J. and Neugarten, B. L. Society and Education, Allyn and Bacon,
1962.


SELECTED JOURNALS


PHILOSOPHY AND THEORY OF EDUCATION

A study of the nature and scope of educational theory. By tracing the development of educational ideas in western culture, it is seen how the various disciplines of educational theory have emerged to cope with problems of value, knowledge and public education.

REFERENCE BOOKS


SELECTED JOURNALS


Educational Philosophy and Theory. Univ. of N.S.W.


COMMERCE METHOD

The aim is to develop competent and critical teachers of economics and com-
PART 3 — POSTGRADUATE COURSES

merce. These subjects are discussed in relation to a general theory of education, problems of programming, lesson preparation and presentation. The course includes specific aspects of classroom practice in bookkeeping.

REFERENCE BOOKS
Musselman and Hanna, J. Teaching Bookkeeping and Accounting.

SELECTED JOURNALS
Economica. London School of Economics.
The Economic Record. The Economic Society of Australia and New Zealand.

ENGLISH METHOD
This course deals with the aspects of language, expression and literature that concern the teacher in the secondary school. Language work examines contemporary theories and practice and the changing nature of linguistic studies. Expression themes include the fostering of responsive writing and aims and methods in oral practice. In the examination of literature the need is stressed to foster enjoyment and understanding at various levels. Some attention is given to testing, the programming of work and the interpretation of curricula.

REFERENCE BOOKS

SELECTED JOURNALS
English in Australia. Australian Association for the Teaching of English, Melbourne.
The Teaching of English. English Teachers' Association of N.S.W.

GEOGRAPHY METHOD
A survey of the principles and problems underlying the selection, organisation and presentation of geographical knowledge. Topics include: the place of geography in the secondary school, the nature and organisation of programmes, the inter-relationship of systematic and regional geography, and specific aspects of classroom practice and field studies.

REFERENCE BOOKS
PART 3 — POSTGRADUATE COURSES


SELECTED JOURNALS

Australian Geographer. Geographical Society of N.S.W.


HISTORY METHOD

Students are introduced to the theory and practice of the teaching of history at the secondary school level through a study of the principles and problems underlying the selection, organisation and presentation of historical information. Topics include the nature of history; the purposes behind its teaching; programming; practical aspects of classroom work.

REFERENCE BOOKS


SELECTED JOURNALS

English-History Bulletin. N.S.W. Department of Education.

Teaching History. Journal of the N.S.W. History Teachers’ Association.

Teaching Method Bulletin. N.S.W. History Teachers’ Association.

MATHEMATICS METHODS

Mathematics First Method (58.029A) seeks to develop in students an awareness of various methods possible in secondary school. Emphasis is placed on the development of concepts, use of discovery and grading of material. Aims for different age and ability groups are related to these. Students doing another subject method as well will take this course.

Mathematics Second Method (58.029B) deals with a selection of these topics from an advanced standpoint, and is for students taking mathematics as a double method.


SELECTED JOURNALS

Australian Mathematics Teacher.


N.S.W. Department of Education Mathematics Bulletin.

SCIENCE METHOD

Science First Method (58.030A) seeks to prepare graduates to teach at all high school levels, especially in the areas of physics, chemistry, biology and geology. Topics include: science in the school curriculum; aims, procedures and programme planning; teaching aids; pupils' records and assessment; safety precautions. Where previous studies have covered some areas inadequately, students may be required to gain additional content knowledge. Students doing another subject method as well will take this course.

Science Second Method (58.030B) deals with the above topics and others from an advanced standpoint, and is for students taking science as a double method.

REFERENCE BOOKS

A Biology Course for Teachers. Correspondence course prepared in the School of Biological Sciences, University of Sydney, n.d.


McDonald, Massey and Tebbutt. Enquiring into the Earth.


Notes on Biology—Forms V and VI. Dept. Education, N.S.W. In-service Training Branch, n.d.


PART 3 — POST GRADUATE COURSES


SELECTED JOURNALS


Science Education News. Science Teachers' Association of N.S.W.

SELECTED TOPICS

The selected topics are of two kinds: professional skills and academic electives.

(a) Lectures and exercises in certain professional skills given generally at the Wollongong Teachers' College include:

   (i) Physical Education. The aim is to encourage personal physical fitness in the Diploma student, as well as to prepare him for the duties in this area that fall to the general teacher.

   (ii) Health and Health Education. Students are given guidance concerning physical and mental health, and informed of resources available in the schools.

   (iii) Communication Skills. Students are made more aware of problems of communication in the classroom, and their own personal competence is improved.

(b) Electives. Lectures and tutorials are offered in a variety of electives designed to provide opportunity for students to pursue some studies at greater depth. While the composition of the student group from year to year will partly determine which electives are offered, it is intended to provide a range representative of the main disciplines of education. Students are expected to choose electives that enable them to draw in some way on their previous studies.

SUPERVISED TEACHING PRACTICE

Students engage in the equivalent of eight weeks' full-time teaching practice in schools. They are expected to plan learning units, observe and take individual lessons, develop classroom routines and controls, test and evaluate pupil learnings, and become acquainted with the general school duties of a teacher. As the practice situation is meant to be the application in the field of principles studied and informal subjects already described, a detailed reference list is not appropriate, but a specific orientation to Teaching Practice is provided by the following books.

REFERENCE BOOKS


POSTGRADUATE ENROLMENT PROCEDURE

COURSES REQUIRING ATTENDANCE AT FORMAL LECTURES

Students wishing to enrol in any of the postgraduate courses requiring attendance at formal lectures should make application on the appropriate form in accordance with the conditions governing the particular course.

Later year enrolments must be made during enrolment week in accordance with the special arrangements made by individual Schools.

No enrolments will be accepted after 31st March without the express approval of the Secretary which will be given in exceptional circumstances only.

Enrolment forms will be sent to re-enrolling students in early January each year.

Students who have completed the final examinations but have a thesis or project still outstanding are required to enrol for the period necessary to complete the thesis or project and to pay the requisite fees.

RESEARCH DEGREES

Details of the procedure to be followed in order to enrol for a research degree are given in the statement of the conditions of award of the various higher degrees as set out earlier in this section of the Handbook.

(a) POSTGRADUATE COURSE FEES

Master of Arts (Pass), Master of Commerce, Master of Engineering Science, and Graduate Diploma Courses

COMPLETION OF ENROLMENT

Students enrolling in post-graduate courses which include formal instruction are required to attend the appropriate enrolment centre during the prescribed enrolment period for authorisation of course programme.

Fees should be paid during the prescribed enrolment period but will be accepted without incurring a late fee during the first two weeks of Session 1. (For late fees see below.) No student is regarded as having completed an enrolment until fees have been paid. Fees will not be accepted (i.e., enrolment cannot be completed) after 31st March except with the express approval of the Secretary, which will be given in exceptional circumstances only.

PAYMENT OF FEES BY SESSION

Students who are unable to pay their fees by the year may pay by the session in which case they are required to pay Session 1 course fees and other fees for the year within the first two weeks of Session 1. Students paying under this arrangement will receive accounts from the University for Session 2 fees. These fees must be paid within the first two weeks of Session 2.

ASSISTED STUDENTS

Scholarship Holders or Sponsored Students who have not received an enrolment voucher or appropriate letter of authority from their sponsor at the time when they are enrolling should complete their enrolment paying their own fees. A refund of fees paid will be made when the enrolment voucher or letter of authority is subsequently lodged with the Cashier.

EXTENSION OF TIME

Any student who is unable to pay fees by the date due may apply in writing to the Secretary for an extension of time. Such application must give year of study, whether full-time or part-time and the course in which the applicant wishes to enrol, state clearly and fully the reasons why payment cannot be made and the extension sought, and must be lodged before the
date on which a late fee becomes payable. Normally the maximum extension of time for the payment of fees is until 31st March for fees due in Session 1 and for one month from the date on which a late fee becomes payable in Session 2.

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 session, to attend classes or examinations, or to be granted any official credentials.

No student is eligible to attend the annual examinations in any subject where any portion of his course fees for the year is outstanding after the end of the fourth week of Session 2 (13th August, 1971).

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

BASIS OF FEE ASSESSMENT

Where course fees are assessed on the basis of session hours of attendance the hours for each subject for the purpose of fee assessment shall be those prescribed in the Calendar. The granting of an exemption from portion of the requirements of a subject in which a student is enrolled does not carry with it any exemption from the payment of fees.

Courses for the degrees of Master of Arts (Pass), Master of Engineering Science.

(i) Registration Fee ................................................................. $ 6
(ii) Course Fee—per subject ....................................................... $42
(iii) Course Fee—calculated on the basis of a session's attendance at the rate of $10.50 per hour per week. Thus the fee for a programme requiring an attendance of 24 hours per week for the session is 24 x $10.50 = $252 per session.
(iv) Thesis or Project Fee—$42 (an additional fee of $28\(^1\) is payable by students who have completed their final examinations for the degree but have not completed the thesis or project for which they have been previously enrolled.)

Course for the Master of Commerce

The following fees apply when formal course work is undertaken over two years full-time or three years part-time, and a report submitted on a project.

(i) Registration Fee ................................................................. $ 6
(ii) Course Fee—per subject ....................................................... $42
(iii) Project Fee—(at the time of first enrolment in the project) $28
(iv) Project Fee—(for each subsequent enrolment in the project) $28
(v) Graduation Fee ................................................................. $ 8

Diploma in Education

(i) Registration Fee ................................................................. $ 6
(ii) Award of Diploma Fee .......................................................... $ 8
(iii) Full-time Course Fee—$396 per annum or $198 per session
(iv) Part-time Course Fee—$198 per annum or $99 per session.
(v) Fees for repeat subjects—calculated on the basis of a session's attendance at the rate of $10.50 per hour per week. Thus the fee for a programme requiring an attendance of 3 hours per week for the session is 3 x $10.50 = $31.50 per session.

\(^1\)Students paying this fee who are not in attendance at the University are not required to pay the Student Activities Fees or the Library Fee.
PART 3 — POSTGRADUATE COURSES

Miscellaneous Subjects

Post-graduate subjects taken as "Miscellaneous Subjects" (i.e. not for a degree or diploma) or to qualify for registration as a candidate for a higher degree are assessed on the basis of a session's attendance at the rate of $10.50 per hour per week. Thus the fee for a subject requiring an attendance of 2 hours per week for the session is 2 x $10.50 = $21 per session.

(b) RESEARCH DEGREES—FEES

Arts, Commerce, Engineering, Science

Fees are payable from the commencement date of a candidate's registration and remain payable until the candidate's thesis is presented to the Examinations Branch.

(a) MASTER

(i) Qualifying Examination ............................................................. $14
(ii) Registration Fee ................................................................. $ 6
(iii) Internal full-time student annual fee ................................. $84
      Internal full-time student session fee ................................ $42
(iv) Internal part-time student annual fee ................................. $42
      Internal part-time student session fee ................................ $21
(v) External student annual fee .................................................. $28
(vi) Final Examination (including Graduation fee) ...................... $42

(b) DOCTOR OF PHILOSOPHY

(i) Qualifying Examination ......................................................... $14
(ii) Registration Fee ................................................................. $ 6
(iii) Annual Fee ............................................................................ $84
(iv) Final Examination (including Graduation fee) ...................... $57

(c) RESEARCH DEGREE CONTINUATION FEE $28

A candidate who at the end of a year has completed all work for the degree other than the writing up of the thesis and who anticipates submitting the thesis to the Secretary for examination before the end of the next session, may pay, in lieu of the normal fees, a Continuation Fee of 28. The payment must be accompanied by a statement from the candidate's Head of School certifying that his work for the degree has reached this stage. If the thesis has not been submitted by the end of the session for which the concession was given, registration will revert to part-time candidature as from the beginning of the year with consequential adjustment of fees.

(d) MISCELLANEOUS SUBJECTS

Postgraduate subjects taken as "Miscellaneous Subjects" (i.e. not for a degree or diploma) or to qualify for registration as a candidate for a higher degree are assessed on the basis of a session's attendance at the rate of $10.50 per hour per week. Thus the fee for a subject requiring an attendance of 2 hours per week for the session is 2 x $10.50 = $21 per session.

(e) RESEARCH

(i) One day per week—$28 per annum.
(ii) Two or three days per week—$55 per annum.
(iii) Four or five days per week—$84 per annum.

*Students paying this fee who are not in attendance at the University are not required to pay the Student Activities Fees or the Library Fees.
Note:
Candidates registered under the conditions governing the award of the degree without supervision in Engineering and Science will pay the following fees. Registration fee $6, Examination of thesis $84. They are not required to pay the Student Activities Fees or the Library Fee.

(c) OTHER FEES
In addition to the fees set out above all registered students will be required to pay the following library and student activities fees—
Library Fee—annual fee—$14.
College Union1—entrance fee—$20; annual fee—$26.
Sports Association1—entrance fee—$6; annual subscription—$6.
Students’ Representative Council annual subscription—$6.
Miscellaneous—annual fee—$2.

(d) LATE FEES
INITIAL REGISTRATION
Fees paid from commencement of sixth week after date of offer of registration to end of eighth week .................. $14

RENEWAL AT COMMENCEMENT OF EACH ACADEMIC YEAR
Fees paid from commencement of third week of Session 1 to 31st March ................................................................. $14
Fees paid after 31st March where accepted with the express Approval of the Secretary ................................................. $28

WITHDRAWAL
Students withdrawing from a course are required to notify the Secretary in writing. Fees for the course accrue until a written notification is received.
Where notice of withdrawal from a course is received by the Secretary before the first day of the first session a refund of all fees paid other than registration fee will be made.
Where a student terminates for acceptable reasons a course of study before half a session has elapsed, one half of the session’s fee may be refunded. Where a student terminates a course of study after half a session has elapsed, no refund may be made in respect of that session’s fees.
The Library fee is an annual fee and is not refundable where notice of withdrawal is given after the commencement of the first session. The University entrance fee is refundable only when notice of withdrawal is given before the commencement of the first session. On notice of withdrawal a partial refund of the Student Activities Fees is made on the following basis:—
College Union—$2 in respect of each half session.
Students’ Representative Council—where notice is given prior to the end of the fifth week of the first session $2, thereafter no refund .
Sports Association—where notice is given prior to 30th April a full refund is made, thereafter no refund.
Miscellaneous—where notice is given prior to 30th April $1, thereafter no refund.

POSTGRADUATE SCHOLARSHIPS
Details of scholarships available and method of application may be obtained from the Secretary.

1 Life members of these bodies are exempt from the appropriate fee or fees.
PART 4.

Description of Subjects

This section contains details of courses available at the College in 1971. All are offered subject to the availability of staff and resources.
DEPARTMENT OF ACCOUNTANCY

ACCOUNTING I

TEXTBOOKS

ACCOUNTING II
An examination of the relationship between accounting and the functions of management, with particular reference to business objectives and organization, decision-making, planning, control and communication. Management information systems and computer applications in business, including cost accounting systems, internal reporting and control, cost concepts and decision analysis, budgetary control and profit planning, standard costs, responsibility accounting and performance measurement. System design and documentation. Capital budgeting and long-range planning. Application of statistics and operations research to management accounting.

TEXTBOOKS
*Accounting II Tutorial Exercises*, The University of New South Wales Students’ Union.

ACCOUNTING III
Income measurement and asset valuation in accounting with emphasis on their application to the financial management and accountability of corporate enterprises. A comparative study of past, present and proposed solutions to problems of measurement and valuation, including price-level changes, valuation of shares, goodwill, fixed assets and inventory, leases, inter-corporate relationships and divisional and group organization. Corporate objectives, company formation, capital structure, fund-raising and growth strategies. Financial reporting, audit, and taxation aspects of corporate enterprises. Liquidation and receivership. An examination of current reporting practices, professional standards and recommendations.
TEXTBOOKS


**Accounting III Tutorial Exercises.** The University of New South Wales Students' Union.


**AUDITING AND INTERNAL CONTROL**

Integrated with accounting, where practicable, and will cover basic auditing concepts, auditing principles and procedures and methods of investigation. The nature, scope and significance of internal control, internal check and internal audit; vouching, checking, verification of balance sheet items, the development of audit programmes, investigations, reports. Trends and developments in the profession, modern techniques as applied to machine and electronically processed accounting data, testing and sampling, the evolution of auditing standards, professional ethics, social responsibilities of auditors, Statutory requirements and case law decisions affecting auditors.

TEXTBOOKS


**COMMERCIAL LAW I**

The nature of law; elementary jurisprudence; the sources of law in Australia; the doctrine of precedent; the legal system, the courts and the administration of justice; an introduction to law in society.

The law of contract as the basis for the ordering of commercial relationships; formation, operation, interpretation, validity, enforcement and discharge of contract. Sale of goods and consumer protection. Trade practices. Banker/customer relationship and negotiable instruments.

The law of business organizations with particular reference to partnership and company law; the legal nature of partnerships and companies; formation, liabilities, management obligations, operation and termination of business organizations.

TEXTBOOKS


PART 4 — DESCRIPTION OF SUBJECTS


**Statutes:**


Partnership Act (N.S.W.) 1892. N.S.W. Government Printer


Companies Act (N.S.W.) 1961 (as amended to date). N.S.W. Government Printer.

Consumer Protection Act (N.S.W.) 1969. N.S.W Government Printer

**COMMERCIAL LAW II**

Company law including the functions of directors and their relationship with the company, the liability of the company, remedies for oppression of shareholders, use of trusts in connection with companies, takeovers, the history of companies and the role of corporate structure in an industrialized society.

Elements of industrial law, including consideration of types of industrial system; the concept of arbitration with particular reference to Australian conditions and a federal system; the “total wage” concept; the law of employment; workers' compensation; the statutory regulation of industrial conditions in places of work.

Other areas of law relevant to commerce, including banker and customer, hire purchase and insurance.

**TEXTBOOKS**


**Statutes:**

Companies Act, 1961 (as amended to date). N.S.W. Government Printer.


Industrial Arbitration Act (N.S.W.) 1940-1967.

**DATA PROCESSING AND INFORMATION SYSTEMS**

Problems and methods of data collection and processing, including analysis, design and application of information systems for management control. Electronic data processing including programming, flow charting and coding.

**TEXTBOOKS**


**TAXATION LAW AND PRACTICE**

Details of this course are available from the department.

**DEPARTMENT OF CHEMISTRY**

**CHEMISTRY LEVEL I**

Introductory physical and inorganic chemistry (28 hrs. lectures, 14 hrs. tutorials and 42 hrs. practical). Introductory organic and physical analytical chemistry (28 hrs. lectures, 14 hrs. tutorials and 42 hrs. practical).
PART 4 — DESCRIPTION OF SUBJECTS

Atomic theory and structure, chemical bonding, shapes of molecules, particle theory of matter, gases and liquids, thermodynamics and thermochemistry. Chemical equilibrium and equilibrium constants, acids and bases, nomenclature, preparation and reactions of carbon compounds, stereochemistry.

TEXTBOOKS

REFERENCE BOOKS

PHYSICAL CHEMISTRY II
(42 hrs. lectures, 42 hrs. practical)
Introduction to physico-chemical properties of systems. Elementary quantum theory. Molecular energy, chemical thermodynamics (first, second and third laws), application of thermodynamics to chemical systems, nature of electrolyte solutions and electrode processes.

TEXTBOOK

REFERENCE BOOK

PHYSICAL CHEMISTRY 111A
(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)

TEXTBOOKS

REFERENCE BOOKS

PHYSICAL CHEMISTRY 111B
(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)
Quantum Chemistry: Applications of quantum mechanics to chemical systems and problems to demonstrate the methods used in the description and elucidation of atomic and molecular systems. Treatment of systems such as H atom, He+ ion, H2 with extension to polyatomic molecules. Computational and other approximate methods for conjugated and related systems.

TEXTBOOKS

REFERENCE BOOKS

PHYSICAL CHEMISTRY 111C
(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)

REFERENCE BOOKS

INORGANIC CHEMISTRY II
(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)
Systematic chemistry of the elements (metals, non-metals and transition elements). Introduction to co-ordination chemistry. Theories of Blomstrand-Jorgensen and Werner. The co-ordinate bond, stereoisomerism, high and low spin complexes, paramagnetism.

TEXTBOOKS

REFERENCE BOOKS
PART 4 — DESCRIPTION OF SUBJECTS


INORGANIC CHEMISTRY IIIA
(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)

TEXTBOOKS

REFERENCE BOOKS

CHEMISTRY FOR METALLURGISTS
Introduction to physico-chemical properties of systems. Elementary quantum theory. Molecular energy, chemical thermodynamics (first, second and third laws), application of thermodynamics to chemical systems, nature of electrolyte solutions and electrode processes. Systematic chemistry of the elements (metals, non-metals and transition elements). Introduction to co-ordination chemistry. Theories of Blomstrand-Jorgensen and Werner. The co-ordinate bond, stereoisomerism, high and low spin complexes, paramagnetism. Surface chemistry, colloids.

TEXTBOOKS

REFERENCE BOOKS
CHEMICAL ANALYSIS IIIA
(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)

Techniques of Analytical Chemistry — precipitation, organic reagents, solvent extraction, electroanalysis, potentiometry, ion exchange, complex formation.

Sampling and methods of solution — role of the solvent. General Principles in the quantitative analysis of (a) elements and alloys; (b) functional groups; (c) organic materials.

TEXTBOOKS

REFERENCE BOOKS

ORGANIC CHEMISTRY II
(42 hrs. lectures, 42 hrs. practical)


TEXTBOOKS

REFERENCE BOOKS

ORGANIC CHEMISTRY IIIA
(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)


TEXTBOOKS
REFERENCE BOOKS


ORGANIC CHEMISTRY IIIB

*(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)*


TEXTBOOKS


REFERENCE BOOKS


APPLIED ANALYTICAL CHEMISTRY II

*(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)*


TEXTBOOKS


REFERENCE BOOKS


PART 4 — DESCRIPTION OF SUBJECTS

TECHNIQUES IN CHEMISTRY III B

(28 hrs. lectures, 14 hrs. tutorials, 42 hrs. practical)

X-ray diffraction and X-ray fluorescence; mass spectrometry, radio-chemistry; spectroscopic techniques such as Mossbauer, emission, atomic absorption and auto-analysis.

REFERENCE BOOKS


DEPARTMENT OF ECONOMICS

ECONOMICS I

(84 hrs. lectures and tutorials)

Introduces macroeconomics in terms of national accounts, and develops elementary theory of income determination taking account of monetary and fiscal operations and international transactions. The second half of the year is devoted to microeconomics: competition in markets for goods and services and for factors of production is analysed. Theories of production and price determination are related to Australian conditions.

TEXTBOOKS


REFERENCE


STATISTICS (ECONOMICS)

(84 hrs. lectures and tutorials)

Elementary statistics, including an introduction to computer programming, and a section devoted to the application of statistics to economics.

TEXTBOOK


ECONOMICS II

(112 hrs. lectures and tutorials)


TEXTBOOKS

Dorfman, R. Prices and Markets.
Grant, Hagger and Hocking. Economic Institutions and Policy.

**ECONOMICS II HONORS**

(112 hrs. lectures and tutorials.)

This includes the content of Economics II and more advanced work in the same area.

**TEXTBOOKS**

As for Economics II (additional reference material will be prescribed).

**ECONOMICS IIM**

(84 hrs. lectures and tutorials.)

An introduction to the use of quantitative methods in economics, including statistics and mathematical treatment of problems in economic theory.

**TEXTBOOKS**


**ECONOMICS III**

(56 hrs. lectures and tutorials.)

The course is based on macroeconomics analysis and growth theory. It is a study of policies designed to influence aggregate incomes, investment and employment, and is concerned mainly with Australian conditions and policies.

**TEXTBOOKS**


**ECONOMICS III HONOURS**

(84 hrs. lectures and tutorials.)

Includes Economics III and more advanced work in the same area.

**TEXTBOOKS**

As for Economics III (additional reference material will be prescribed).

**COMPARATIVE ECONOMIC SYSTEMS**

(56 hrs. lectures and tutorials.)

Studies the theory of different types of economic systems, actual differences between systems of economic organisation in different countries, and the comparative performances under different systems.

**TEXTBOOKS**

PART 4 — DESCRIPTION OF SUBJECTS

ECONOMIC DEVELOPMENT
(56 hrs lectures and tutorials)
A study of conditions and policies affecting economic development, with particular regard for selected low income countries.

TEXTBOOKS

INDUSTRIAL ECONOMICS
(56 hrs lectures and tutorials)
A study of factors affecting production and productivity in an industrial environment, with particular regard for prospective industrial development in Australia.

OPERATIONS RESEARCH
(56 hrs lectures and tutorials)
Linear, non-linear and dynamic programming, queuing, theory, theory of games simulation.

TEXTBOOKS

THESIS
Honours students must, in their final year, present a thesis on an approved topic. Pass students may present a thesis as an advanced option if approval is granted.

ADVANCED ECONOMIC ANALYSIS
(168 hrs. lectures and tutorials)
A survey of advanced economic theory and normally including advanced microeconomics, advanced macroeconomics, cyclical fluctuations, economic growth, monetary theory, international economics, welfare and methodology.

DEPARTMENT OF ELECTRICAL ENGINEERING

APPLIED ELECTRICITY I


TEXTBOOK:


TEXTBOOK
Draper A. Electrical Machines, Longmans.

REFERENCE BOOK
E.E. III (a) FIELD, CIRCUIT and SYSTEM THEORY
(150 hours)
Elements of electromagnetic field theory; general network theory, transient and steady state; lumped parameters and distributed systems; network topology and matrix methods; analysis of feedback systems; state descriptions.

TEXTBOOK

REFERENCE BOOK

E.E. III (b) ELECTRIC MACHINES and TRANSFORMERS
(150 hours)
The principles of steady state and transient operation of rotating machines and transformers.

TEXTBOOK

REFERENCE BOOK

E.E. III (c) ELECTRONIC DEVICES, CIRCUITS and SYSTEMS
(150 hours)
Current conduction properties of solids; semiconductor devices, their characteristics and models; signal amplifiers and generators; rectifiers, inverters, power supplies; modulation, transmission reception; switching, wave shaping, logic circuits.

TEXTBOOK

E.E. III (d) POWER AND CONTROL SYSTEMS
(150 hours)
Properties of multiconductor transmission systems; symmetrical component analysis; system stability; surges, protection; economic optimisation. Linear control systems, transfer function, block diagram and flow graph analysis; stability, design aspects; non-linear systems.

TEXTBOOKS
Healey, M. Principles of Automatic Control. E.U.P.

REFERENCE BOOK

E.E. IV (a) CIRCUIT AND SIGNAL ANALYSIS
(90 hours)
Extension of material in III (a). Topics to include network analysis and synthesis, time and frequency domain methods; aspects of signal analysis and information theory.

E.E. IV (b) ELECTRICAL MACHINES
(90 hrs.)
To include matrix methods and transformation techniques in a generalised machine analysis and applications of solid state devices to machine control.
E.E. IV (d) ELECTRONICS
(90 hours)
An extension of material in E.E. III (c). Topics to include modular equipment design using discrete and integrated circuits; power amplification, control, regulation, conversion; signal processing and measuring units, logic modules, data collection and transmission.

E.E. IV (e) MEASUREMENTS AND INSTRUMENTATION
(90 hours)
Electronic instruments and measuring techniques — systems approach. Analogue and digital instrumentation; transducers; component and equipment testing — methods.

E.E. IV (f) SOLID STATE AND GASEOUS PHYSICS
(90 hours)
Specialised topics on the electrical properties of semi-conductors, insulators and gases. Electrical discharges and plasmas.

E.E. IV (g) COMPUTING
(90 hours)
Elements of switching theory; number systems, codes, error detection; computer organisation, programming; numerical analysis.

DEPARTMENT OF ENGLISH
In 1971 the Department of English will offer English I, II and III Pass, and English II and III Honours, in the B.A. degree course, and also the first and second years of the M.A. Pass course in English.
The courses leading to the B.A. degree are divided into 14-week units, each of which involves approximately 27 hours of lectures, seminars and tutorials. As many of the proposed units will be offered as can be with the staff available.
Some of the units are optional. In principle, students may choose those that interest them most. Not all units, however, will be offered at both day and evening times. Furthermore, the Head of the Department of English reserves the right to place a limit on numbers in particular units, and to advise students on the units best suited to their qualifications and purposes.
Pass students are required to take FOUR, and honours students, SIX units in each year. Honours students, and pass students following a three-year sequence in English, are required to take at least one of the following units: (English II) Shakespeare's History Plays; and/or (English III) Shakespeare's Tragedies. In addition to those units designated as compulsory in the descriptions of English II and English III courses (see later), Honours students must take at least one of the following: Old English; Chaucer's Canterbury Tales; Medieval English Literature; Medieval Dream Poetry; Fourteenth Century English Literature.
In all units, students will be required to hand in written assignments and sit for examinations during the year.

ENGLISH I — FIRST SESSION
A. Late Medieval English Literature: Chaucer's Canterbury Tales, the medieval lyric and ballad and Malory's Morte D'Arthur.

TEXTBOOKS:
Medieval English Lyrics, ed. R. T. Davies. Faber.

TEXTBOOKS:
Joyce. *Dubliners; A Portrait of the Artist as a Young Man*. Penguin.

ENGLISH I — SECOND SESSION

C. Early English Drama: a study of its origins and a survey of its development in medieval and Tudor times.

TEXTBOOKS:

D. Modern English: an introduction to present day English, its sound system, vocabulary and structure.

TEXTBOOKS:
Pyles, T. *The Origin and Development of the English Language*. Harcourt, Brace and World.

E. Twentieth Century Drama: selected plays by playwrights from Shaw to Albee.

TEXTBOOKS:
Beckett. *Endgame; Waiting for Godot*. Faber.
Pinter. *The Caretaker; The Dumb Waiter*. Methuen.

F. Twentieth Century Poetry: selected poems by Yeats, Eliot, Auden and some more recent poets.

TEXTBOOKS:

ENGLISH II — FIRST SESSION


BASIC READING
Dickens. *Oliver Twist; Hard Times; Our Mutual Friend*.
Thackery. *Vanity Fair; Henry Esmond*.
Students may use any unabridged edition.

B. Selected Poems by Tennyson, Browning, Arnold, Swinburne and Hardy.
PART 4 — DESCRIPTION OF SUBJECTS

RECOMMENDED TEXTS


C. Australian Fiction to 1920.

BASIC READING

Clarke. For the Term of his Natural Life. Pacific.
Lawson. Best Stories, ed. Mann, C. Angus and Robertson.
Furphy. Such is Life. Angus and Robertson.

D. Old English: an introduction to the language, literature and culture of the Anglo-Saxons. (This is a pre-requisite for J. Old English Prose and Verse).

TEXTBOOKS:

Sweet’s Anglo-Saxon Primer, revised N. Davis. O.U.P.
Sweet’s Anglo-Saxon Reader, revised Dorothy Whitelock. Clarendon, Oxford.

E. Chaucer’s Canterbury Tales.

TEXTBOOK:


ENGLISH II — SECOND SESSION


RECOMMENDED TEXTS


G. Shakespeare’s History Plays: Richard III; King John; Richard II; Henry IV (both parts); and Henry V.

Students are advised to use the separate volumes of the New Arden Shakespeare (Methuen), the Signet Classics, the New Shakespeare (C.U.P.), or the New Penguin Shakespeare.

H. Nineteenth Century American Literature: selected novels by authors from Cooper to Crane.

I. Australian Fiction after 1920.

BASIC READING

Prichard. Coonardoo. A. & R.
Herbert. Capricornia. A. & R.
White. The Aunt’s Story; The Tree of Man. Penguin.
PART 4 — DESCRIPTION OF SUBJECTS

J. Old English Prose and Verse (D. Old English is pre-requisite for this unit).

TEXTBOOKS:
Sweet's Anglo-Saxon Reader in Prose and Verse, revised Dorothy Whitelock, O.U.P.

K. Medieval English Literature: the romance, lyric and drama.

TEXTBOOKS:
Medieval English Lyrics, ed. R. T. Davies. Faber.
Everyman and Medieval Miracle Plays, ed. A. C. Cawley. Everyman.

ENGLISH III — FIRST SESSION

BASIC READING
Defoe. Robinson Crusoe; Moll Flanders.
Richardson. Pamela; Clarissa.
Sterne. Tristram Shandy.
No text books are prescribed.

B. Eighteenth Century Prose: Selected writings by Swift, Johnson and Boswell.
Students are advised to use the following editions: for Swift, Gulliver's Travels and Other Writings, ed. Quintana (Modern Library College Edition); for Johnson, Rasselas, Poems and Selected Prose, ed. Bronson (Holt, Rinehart and Winston); and for Boswell, Life of Johnson, 2 vols. (Everyman).

C. Satire: the study of a literary mode.
BASIC READING
Sutherland, J. English Satire, C.U.P.
Hodgart, M. Satire. World University Library.

D. Medieval Dream Poetry: poems by Chaucer and the Scottish Chaucerians.

TEXTBOOKS:

E. The Poetry of Spenser, Marlowe, Shakespeare and Donne.
RECOMMENDED TEXTS

F. American Poety: selected poems by authors from Whitman to Ginsberg.
ENGLISH III — SECOND SESSION

Second Session

Students are advised to use standard editions of Milton and Dryden, such as the Oxford Standard Authors, and for Pope, The Poems, ed. Butt ('Twickenham' one volume edition, Methuen); and for background reading they are advised to purchase A Preface to Eighteenth Century Poetry by J. Sutherland, O.U.P.

H. The Comedy of Manners.

BASIC READING

I. Fourteenth Century English Literature.

TEXTBOOKS:
Pearl and Sir Gawain and the Green Knight, ed. A. C. Cawley. Everyman.

J. Shakespeare's Tragedies: Macbeth; Hamlet; Othello; King Lear; Timon of Athens; Antony and Cleopatra; Coriolanus.
Students are advised to use the separate volumes of the New Arden Shakespeare (Methuen), the New Shakespeare (C.U.P.), the Signet Classics or The New Penguin Shakespeare.
(Available in 1971 for Honours students only).

K. Elizabethan Drama: selected plays by Lyly, Peele, Kyd, Marlowe, Greene; Shakespeare's early plays, Comedies and 'Problem Plays.'

RECOMMENDED TEXTS
Alexander's (Collins) or Sisson's (Odhams) edition of Shakespeare's plays, or the separate volumes of the series listed under Shakespeare's Tragedies above.

DEPARTMENT OF GENERAL STUDIES

It is a requirement of all undergraduate courses* that the programme of study includes certain subjects of a general nature in addition to those vocational courses in which the student must specialise.
The normal general studies requirements for full-time courses of at least four years are four components of 42 hours' duration, and for part-time courses and for three-year full-time courses, three components of 42 hours' duration.
The General Studies programme at Wollongong University College consists of fourteen-week units, each of which in turn consists of fourteen lectures and eight tutorials. In a part-time course or a three-year full-time course the number of such units to be taken is six.
The programme is designed to cover various aspects of the modern world, its thought and artistic expression. The units to be offered in 1971 are:
Our Living Language and the Modern Writer
Aspects of Modern Psychology, Part I
Aspects of Modern Psychology, Part II
Contemporary History
Architecture for Today
Aspects of Industrial Society.

* Except those for the Bachelor of Arts degree.
PART 4 — DESCRIPTION OF SUBJECTS

Population Geography
Art in the Twentieth Century
Developments in Present Day Music
Some Modern Books of Note
For honours students an advanced elective is offered:
   Asia in the Twentieth Century.

OUR LIVING LANGUAGE AND THE MODERN WRITER
The course is made up of both language and literature. It first takes a brief look at language and communication in the present-day world and the nature and development of Modern English; then considers the differing languages of science and literature and the problem of "the two cultures" by way of introduction to a study of some significant works by modern writers.

TEXTBOOKS
Camus, A. The Outsider. Pelican.
Golding, W. Lord of the Flies. Faber.
Snow, C. P. The Two Cultures and a Second Look. Mentor.

ASPECTS OF MODERN PSYCHOLOGY
This course introduces students to psychology through some of its major areas. The course aims not only to impart information about these areas of modern psychology but also to be sufficiently stimulating as to encourage further study.

PART I (First Session)
1. Individual Differences
The nature of psychological measurement, the structure of intelligence, heredity and environment.

2. Motivation and Emotion
The concepts of drive, motivation and activation. Environmental influences, conflict and frustration. Cross cultural comparisons and laboratory studies.

PART II (Second Session)
3. Learning
Principles of conditioning classical (respondent) conditioning and instrumental (operant) conditioning. Learning by trial-and-error vs. learning by 'insight'. Problem solving and thinking.

4. Perception
Sensory processes and the psychophysical methods. Phenomena of perception, e.g. constancy, illusions, after-effects. Environmental influences, e.g. space perception. Social influences. Sensory perceptual deprivation.

TEXTBOOK

The course aims not only to impart information about two areas of modern
REFERENCE BOOKS

CONTEMPORARY HISTORY
Contemporary history takes problems that are actual in the world today, and examines them from the time they first take recognisable shape. It deals with the world scene after World War II, the emergence of Asia, the changing face of Communism, the problems of colour, the thermonuclear stalemate, and the development of supra-national and international organisations.

TEXTBOOKS

REFERENCE BOOKS
Crozier, B. *Turmoil in South East Asia*. Penguin.
Schram, S. *Mao Tse Tung*. Penguin.

ARCHITECTURE FOR TODAY
This course is designed to demonstrate that modern architecture is a mirror of our times, just as the architecture of any earlier age is a mirror of that age. The course will be focused on "the walls around us" now, but it will necessarily include reference to the architectural styles of earlier ages.

TEXTBOOKS

REFERENCE BOOKS
Cichy, B. *Architecture of the Ancient Civilisations in Colour*. Thames & Hudson.
Freeland, J. M. *Architecture in Australia*. Cheshire.

POPULATION GEOGRAPHY
This course is intended to present a world picture of population, with emphasis on spatial differences of selected characteristics of population. It examines
population growth and patterns of density; the age and sex composition; cultural and economic determinants of population numbers and distribution; socio-economic evolution of mankind and urbanization; the balance of people and resources; the future pattern of population.

TEXTBOOKS
Wilson, A. *Population Geography*. N.A.P.

REFERENCE BOOKS

ART IN THE TWENTIETH CENTURY
The course will begin a survey of the traditions obtaining in art in the nineteenth century, and then pursue such subsequent developments as the following: Cubism, Fauvism, Expressionism, Dada, Surrealism, Abstract Art, Abstract Expressionism, Post-Painterly Abstraction, Op Art, Pop Art, Minimum Art and Kinetic Art.

RECOMMENDED READING
Dorival, B. *The School of Paris*. Thames & Hudson.
Elgar, R. *Picasso*. Thames & Hudson.
Levey, M. *A Concise History of Art*. Thames & Hudson.

DEVELOPMENTS IN PRESENT DAY MUSIC
The course will seek to give an understanding and appreciation of twentieth century music by means of discussion and illustration. The main points to be dealt with are: recent developments in music; changing elements in music’s vocabulary; the development of jazz; electronic music; the music of Asia and its influence on modern European music; and the making of music in Australia at the present time.

RECOMMENDED READING

SOME MODERN BOOKS OF NOTE
This course is designed to promote a knowledge of the most important books of modern times and to cultivate the habit of wider reading beyond the set syllabus. Only those students will be permitted to enrol who are taking as one of their degree courses the equivalent of one of the courses in the General Studies programme.

Class room instruction will not normally form any part of the course, but special lectures on some of the books will be given by visiting lecturers and members.
of the University staff. Students will be required to select under the guidance of the lecturer in general studies three of the following books and read and prepare assignments on them under supervision.

TEXTBOOKS
Freud. *A General Introduction to Psychoanalysis.*
Joyce. *Ulysses.*
Kafka. *The Trial.*
Russell, B. *The Problems of Philosophy.*
White, P. *Riders in the Chariot.*

ASPECTS OF INDUSTRIAL SOCIETY
Details of this course are available from the department.

ASIA IN THE 20th CENTURY
Advanced elective for honours students only.
The course which runs for 28 weeks (42 hours) is a survey of the main problems in Asian history today commencing with a brief survey of Asia at the beginning of the 20th Century, the decline of the old imperialism after 1918, and the rise of Japan. The course of World War II in the Pacific and its consequences are evaluated; economic, political, and social and foreign policy problems since 1945 are considered in relation to Japan, China, India, Pakistan and the nations of S.E. Asia. Particular reference is made to the new nationalism and its inter-action with communism, democracy and authoritarianism. The wars in Indo China and Korea are examined as type cases of new theories of warfare. Finally, Australia as an extension of Asia will be discussed.

TEXTBOOKS
Buss, C. A. *South East Asia & The World Today.* Anvil.
Fitzgerald, C. P. *A Cowcase History of South East Asia.* Heimann.
Wallbank, T. W. *A Short History of India & Pakistan.* Mentor.

DEPARTMENT OF GEOGRAPHY

GEOGRAPHY I
The aim of this introductory course is to provide systematic studies, including studies of interdependencies, in the physical and biogeographical fields of geography on the one hand, and in the location aspects of agricultural, manufacturing and tertiary systems on the other. General concepts and principles will be exemplified from south-east Australia and south-east Asia.

Practical work will be conducted concurrently with these courses and will be closely connected with them. Exercises will involve the interpretation of topographical, soils and geological maps together with air photo interpretations and the cartographical representation of data. Three days' field work will be an essential part of the course.
TEXTBOOKS
One of the following atlases is also essential:

REFERENCE BOOKS

GEOGRAPHY II
Geography II and Geography II Honours comprise respectively 130 hours and 170 hours of lectures, tutorials and practical classes. Both courses consist of three strands; studies in biogeography, urban location and structure, location and regional concepts and methods. A practical course of 20 two-hour periods involves quantitative and applied work in the three areas of the year's course. Field work including a five day excursion will be an essential part of the work.

Part I: Biogeography
This course studies the vegetation community from the ecological approach, and is concerned with the inter-relationships of climate, soil, vegetation and fauna. Systematic studies are made of the main requirements of plants and the processes in plant growth, and of the combination of energy flow and biogeochemical cycling in the functioning of ecosystems. The latter part of the course (a) examines examples of vegetation communities in Australia and elsewhere, and (b) applies the foregoing studies to a consideration of the principles of conservation with reference to case studies of particular reserves.
TEXTBOOKS


REFERENCE BOOKS


*Part II: Urban Location and Structure*

Urban and Industrial Location

This segment of the course is concerned with the locational aspects of urban centers. The examination of locational patterns, at varying scales, is oriented towards the formulation and testing of spatial theory.

TEXTBOOK


REFERENCE BOOKS

PART 4 — DESCRIPTION OF SUBJECTS


Part III: Regional Concepts and Methodology

This part of the course examines and exemplifies the development of the regional concept and method in Geography.

TEXTBOOKS


Dobby, E. H. Southeast Asia.

REFERENCE BOOKS


Stamp, L. D. & Wooldridge, S. W., eds. London Essays in Geography.

Part IV: Quantitative Methodology

This work will be concurrent with the other sections of the course.

REFERENCE BOOKS


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PART 4 — DESCRIPTION OF SUBJECTS


GEOGRAPHY III
For details of Geography III contact the Department of Geography.

DEPARTMENT OF GEOLOGY

Students are advised to consult their lecturers before purchasing any book listed for a geology course.

GEOLOGY IIW
UNIT A
Geology as a Science, Geological Time, The Earth in Space, Shape of the Earth, Astrogeology, Earthquakes and Earth Structure, Orogensis and Epeirogenesis, and Volcanose.

Crystallography: Crystal symmetry, crystal forms, crystal systems, stereographic projection, twinning.


Economic Geology: Descriptive mineralogy of minerals of economic importance, Occurrence of ore deposits, coal and petroleum geology.

Petrology: Field occurrence, lithological characters, classification and structural relationships of igneous, sedimentary and metamorphic rocks.

Practical Work: Study of crystal models in clinographic and stereographic projection. Identification and description of common minerals and rocks in hand-specimens. At least one field tutorial.

UNIT B

Physical Geology: The main surface features of the earth; Surface and sub-surface water. Weathering and the geological cycle. Lakes, rivers, glacial phenomena. Introductory physiography, including arid land and coastal processes. Folding and faulting in the crust.

Stratigraphy and Palaeontology: Basic principles of stratigraphy. Introductory palaeontology, especially the morphology of the main invertebrate animal and plant phyla. The geological history of the Australian continent and more specifically that of the Sydney Basin and New South Wales.

Practical Work: Recognition and description of examples of important fossil groups and their use in stratigraphy. Interpretation and preparation of geological maps and cross-sections. Map reading and the use of simple geological instruments. At least one field tutorial.

TEXTBOOKS


OR

Introduction to Geology, 1968. Stokes, W. L. and Judson, S. Prentice-Hall.

OR

REFERENCE BOOKS

* Invertebrate Fossils, 1956.
Moore, R. C., Lalicker, C. G. and Fischer, A. G.
McGraw-Hill.

Phillips, F. C.
Longmans.

* Elements of Mineralogy, 1968.
Mason, B. and Berry, L. G.

Prentice-Hall. Foundation of Earth Science Series.

Geomorphology, 1968.
Twidale, C. R.
Nelson.

Brown, D. A., Campbell, K. S. W. and Crook, A. W.
Pergamon.

Physical Geology, 1969.
Longwell, C. R., Flint, R. F., Sanders J.
John Wiley (Student Edition).

The Earth,

* The purchase of these books is suggested for students who intend to proceed to later units in Geology.

GEOL OGY II

UNIT A. Crystallography, Crystal Chemistry, Mineralogy.


Practical: A laboratory study of the optical properties of minerals using the petrological microscope.

Economic Minerals: The application of the principles of crystal chemistry to the following mineral classes: native elements, sulphides, oxides, halides, carbonates, sulphates and phosphates. Practical: A study of economic minerals in hand-sample.

Silicate Minerals: The application of the principles of crystal chemistry to, and a study of, the physical and chemical properties of the silicate minerals. Practical: A study of silicates in hand-sample and thin-section.

TEXTBOOKS
Mason, B. and Berry, L. Elements of Mineralogy. 1st ed. Freeman, 1968.

REFERENCE BOOKS

UNIT B. Petrology.


TEXTBOOK

REFERENCE BOOKS

UNIT C. Palaeontology, Stratigraphic Palaeontology and Mapping.
Palaeontology: Preservation of fossils. Taxonomy, evolution, species concepts. Systematic treatment of the more important invertebrate and plant groups—
morphology, classification, phylogeny, ecology, geological distribution. Principles of stratigraphic palaeontology. **Practical:** Study of demonstrations to illustrate the groups described.

**Mapping:** Field mapping techniques. Interpretation of maps. Construction of block diagrams. **Practical:** Description and interpretation of a graded series of geological maps. Preparation of sections and block diagrams.

**TEXTBOOKS**

**REFERENCE BOOKS**
Arnold, C. A. *An Introduction to Palaeobotany*. 1942.

**FIELDWORK**
6 days field tutorial to selected areas in the Lachlan and New England Geosynclines.
3 days local field tutorials on sedimentary and igneous rocks of the Illawarra District.

**GEOLOGY IIIA**
It should be noted that Geology IIIA and Geology IIIB are offered in alternate years.

**UNIT A. Crystallography, Mineralogy and Igneous and Metamorphic Petrology.**

**Optical Crystallography:** Oil immersion techniques and mineral determination. Dispersion in refractive index liquids. The universal stage, feldspar determination, location of vibration axes, optic axes and 2V measurement, determination of extinction angles.

**X-ray Mineralogy:** Theory of development of X-rays, instrument techniques, powder photographs, cell dimensions.

**Crystal Chemistry:** Solid-solid phase transistors, transformations of secondary co-ordination, transformations of primary co-ordination, transformations of the bond type, transformations of order-disorder, order-disorder reactions and the feldspars. Phase transitions at high pressures. Crystal chemistry of the pyroxenes or amphiboles. Crystal pathology. Aluminium silicates in metamorphism.

**Petrology:** Rock Kindreds. Concept of primary and derivative magmas, crustal anatexis. magma generation in the upper mantle, partial melting. Tholeiitic, alkaline olivine basalt and high-alumina basalt magmas, the basalt tetrahedron. The shoshonite magma. The calc-alkali association. For a more detailed study: Crystallisation of tholeiitic magma, alkali-basalt magma and derivative rocks. Rocks of the Shoshonite magma association. High-alumina basalt. Ultramafic rocks. The calc-alkali magma and granitic rocks. Orogenic vulcanity. The gabbro-eclogite transformation.

PART 4 — DESCRIPTION OF SUBJECTS

TEXTBOOKS

REFERENCE BOOKS

UNIT B. Geophysics and Statistical Methods in Geology.

Geophysics: Geodesy—study of the shape of the earth, and its gravitational field. Seismology—study of natural (and artificial) earthquake phenomena, and their relation to the structure of the earth and its properties. Meteorology—study of the earth's near-atmosphere. Geomagnetism and Palaeomagnetism—study of the earth's magnetic field, its characteristics and variations; the history of this geomagnetic field especially as recorded in rocks and similar material. Solar-Planetary Relationships, etc.—studies of the Sun, planets, moon, meteorites, etc. and their relationships. Geochronology—methods of radiometric dating and correlation. Geothermy—study of some thermal properties of the earth, such as heat flow.

Practical: Field work will be undertaken.

TEXTBOOKS

REFERENCE BOOKS


Practical: Preparation of simple computer programmes. Use of library programmes to solve geological problems.

TEXTBOOKS
REFERENCE BOOK

UNIT C. Sedimentary rocks, Stratigraphy and Stratigraphic Palaeontology, Vertebrate Palaeontology.


Practical: Study of sedimentary rocks in hand-specimen and thin-section. Heavy mineral and provenance studies.

TEXTBOOKS

Stratigraphy and Stratigraphic Palaeontology: Rock, time and time rock unit concepts. Correlation methods and problems in the Pre-cambrian and the Phanerozoic. A systematic treatment of the geological columns discussing the type successions together with other important overseas successions and those of representative Australian regions. A detailed treatment of the history of the Tasman, Caledonian and Alpine geosynclines.

Practical: Demonstrations of suites and strata and fossils from important successions.

Vertebrate Palaeontology: The main features of the major groups in the evolution of the vertebrates. Practical: Study of morphology of some important groups.

TEXTBOOKS

REFERENCE BOOKS
Arkell, W. J. The Jurassic System in Great Britain, 1933

UNIT D. Structural Geology and Geotectonics, Economic Geology.

Structural Geology and Geotectonics: Non-diastrophic and diastrophic deformation of rocks. Structures, internal and external, associated with igneous rocks. Introduction to structural analysis. Large-scale "Earth deformations" such as alpine tectonics, and the structure and structural evolution of the European Alps and the Himalayas. Other examples of mountain-building, and geosynclines. Mid-oceanic ridges and associated features.

Practical: Advanced mapping. Study of deformed rocks in hand-specimen (and thin-section). Introduction to the stereographic projection in structural geology and the application of such methods to mapping. Field work.

TEXTBOOKS
REFERENCE BOOKS

Economic Geology: Outline of the scope of Economic Geology and of the processes of concentration of economically important minerals. Introduction to some classifications of ore deposits. Description, with examples, of the major types of ore deposits — those contained in igneous rocks, those associated with igneous rocks. Sedimentary ore deposits. Effects of metamorphism in forming new ore deposits, and affecting existing ore deposits. Metallogenic analysis — the distribution of ores in space and time. Appraisal techniques Australian ore deposits.

Practical: An introductory course in ore microscopy especially of Australian examples

TEXTBOOK

REFERENCE BOOKS

GEOLOGY III B
Geology IIIA and Geology IIIB are offered in alternate years.

UNIT A. Crstallography/Mineralogy and Petrology and Geochemistry. 30 hours 60 hours practical.

Crystallography/Mineralogy: An introduction to modern techniques used in crystallography and mineralogy — X-ray diffraction, X-ray fluorescence, electron microscopy, electron probe, spectroscopy, D.T.A., D.T.G.

Theoretical Petrology: The phase rule, systems of one, two and three components. Eutectics and solid solutions. Complex binary systems. Ternary systems. The application of synthetic work to petrology using, for example, systems such as nepheline-kalsilite-silica, quartz-albite-orthoclase-anorthite-water, diopside-forsterite-silica. Experimental work on the melting of natural rocks. Experimental and theoretical petrology as applied to metamorphic rocks. The mineralogical phase rule. Direct determination of equilibrium curves, reactions of synthesis. Use of thermodynamic data. Experimental appraisal of critical metamorphic reactions, reactions in pelitic assemblages, reactions in siliceous dolomitic limestones, experimental data relating to magnesian schists.

Textures of rocks. Structures and textures. The sequence of crystallization in granite, the development of K-feldspar megacrysts and quartz-feldspar intergrowth. Exsolution textures. Textures of basic igneous rocks. Textures of metamorphic rocks.

Practical: Simple experiments using modern instruments especially in regard to silicate melts. Study of suites of rocks in hand-specimen and thin-section. Thin-section studies of rock textures.

Geochemistry: Elements of structural chemistry and some principles of thermodynamics. Structure of the atom, isotopes, radioactivity, ionic size, aggregates of ions, the crystalline state, imperfections in crystals, diffusion in crystals, order-disorder.
PART 4 — DESCRIPTION OF SUBJECTS


Practical: Calculation of problems in geochemistry.

TEXT BOOKS


or


REFERENCE BOOKS


UNIT B. Exploration Geophysics, Petroleum and Nuclear Fuels.

Exploration Geophysics: Introduction to the theory of the various techniques of Exploration Geophysics, especially with respect to Australia. The technique described will be seismic methods — land and marine, reflection and refraction; the potential methods (gravity and magnetic) — land and marine and air; electrical and electromagnetic methods — using natural and artificial electrical and electromagnetic fields; radioactive or radiometric techniques — land and air; well-logging — various methods of Geophysical down-hole logging and correlation. These lectures will include theory and interpretation aspects of these techniques.

Practical: Calculations, of real and imaginary problems, based on the theory and interpretation outlined in lectures — for various techniques. Extensive study of Australian case histories, in particular, will be made. Field work will be undertaken, depending on the availability of instrumentation.

TEXT BOOKS


REFERENCE BOOKS


Petroleum and Nuclear Fuels. Petroleum: History of the use of and search for, petroleum. The distribution of petroleum in time and space. The origin, migration and accumulation of petroleum, including reservoir rock properties and trap characteristics. Methods of search for and exploitation of, including evaluation of, petroleum deposits. The petroleum dealt with will be gas, oil and solids (including oil shale). Australian occurrences will be described. Nuclear Fuels: Description of the mineralogy, and geology, of important nuclear fuel deposits, and related mineral deposits. The methods of search and exploitation of such deposits, and the handling and uses of the nuclear fuels produced. Practical: Study of data on Australian petroleum deposits. Description of rotary drill cutting samples.

TEXT AND REFERENCE BOOKS

Petroleum:


PART 4 — DESCRIPTION OF SUBJECTS


**Nuclear Fuels:**
To be selected.

**UNIT C. Basin Analysis, Sedimentation and Oceanography.**

**Basin Analysis, Sedimentation and Oceanography.** The erosion, transport and deposition of granular solids by fluid media. Flow regimes and their characteristic bed forms. Effects of transport on size distribution. Turbidity currents, Slumping.


The stratigraphy of a number of important Australian and overseas basins. Water movements, waves and currents. Physical and chemical properties of sea water. Sediments of the ocean basins. The nature and structure of the ocean floor.

**Practical:** Examination of textures, fabrics and structures in the laboratory. Demonstrations of specimens and maps from some basins covered in lectures. Field examination of sediments (Recent and Permian) in the Illawarra District. Experiments with erosion transport and deposition of sands by water.

**TEXTBOOKS:**


**REFERENCE BOOKS**


**UNIT D. Structural Geology, Photointerpretation, Geology of Coal.**

**Structural Geology:** Advanced structural analysis, and further study of folding, including superposed folding. Geometrical, kinematic and dynamic analysis of folded rocks. Stress and strain, and analysis, including determination of the strain ellipsoid. Cleavage and fracture, joint and fault development.

**Practical:** Advanced problems using the stereographic projection and maps. Stress—strain analysis. Experimental deformation.

**REFERENCE BOOKS**

In addition to those noted above for Geology IIA, Structural Geology:


**Photointerpretation:** The study of landforms and some other aspects of geomorphology, and the interpretation of aerial photographs. The use of aerial photographs and satellite photographs in geological studies. Australian examples will be used wherever pertinent.

**Practical:** Study of different landforms, etc. in stereoscopic pairs of photographs.

**TEXTBOOKS:**


142
REFERENCE BOOKS

Other references will be given from time to time.


TEXTBOOKS:

REFERENCE BOOKS
Francis, W. Coal. 2nd ed.

FIELD WORK
Two weeks' field tutorials in New South Wales and about 8 days' field work in the local area. Students must complete the mapping camp course before they can be credited with Geology III. This camp is usually held at the end of the Summer vacation prior to the commencement of the third year course.

DEPARTMENT OF HISTORY

HISTORY I

EUROPEAN HISTORY, 1700-1950
The chief events in European history from the age of Louis XIV to present times with emphasis on the growth of the state: the relationship of state and society; and the development of nationalism, liberalism and imperialism as forces shaping the modern world.

TEXTBOOKS
PART 4 — DESCRIPTION OF SUBJECTS


HISTORY II
ENGLISH SOCIAL HISTORY, 1750-1950
The course discusses in lectures and tutorials, principally the latter, changes in the structure of English society from the period of the Industrial Revolution to the early years of the twentieth century. Topics of particular concern include class ideologies, religion, education, the emergence of a labour movement and economic development. The study of documentary extracts is regarded as important.

REFERENCE BOOKS

HISTORY IIIA
Students may take History IIIA, IIIB or both.

AUSTRALIAN SOCIAL HISTORY
This course examines themes in Australian social history at different stages of development. The principal themes for study are the relations between social classes, demographic change and social welfare. These involve discussion of industrial relations, the trade union movement, racial prejudice, education, social services and the problems of social democracy. The course will examine each theme in the periods 1800-1850, 1850-1900 and 1900-1950.

TEXTBOOKS
Barcan, A. A Short History of Education in N.S.W. Martindale, Sydney, 1965.
PART 4 — DESCRIPTION OF SUBJECTS


HISTORY IIIB
Students may take History IIIA, IIIB, or both.

MODERN SOUTH-EAST ASIA AND NEW GUINEA 1
The first section of the course will deal briefly with the history of the region in the pre-European period. Throughout, chronology will be secondary, and the basic approach will be sociological: the aim will be an understanding of the ecological, social, religious and other factors underlying Southeast Asian politics. The main part of the course will involve study of three key Southeast Asian territories—Indonesia, Malaya and Vietnam—since about 1800. Attention will be concentrated on reactions between the ideas and methods of the colonial powers and indigenous concepts and systems. This will lead on to discussion of the emergence and nature of nationalism in the region, and the attendant internal and international problems. German, British and Australian administration in Papua-New Guinea will be similarly considered. The growth of Australian attitudes towards Southeast Asia will also be briefly analysed.

REFERENCE BOOKS

DEPARTMENT OF HISTORY AND PHILOSOPHY OF SCIENCE

HISTORY AND PHILOSOPHY OF SCIENCE I
An account of the development of astronomy and especially of planetary theory, to the early nineteenth century. Special emphasis will be given to the philosophically significant features of the history to be presented.

TEXTBOOKS
Austin, R. H. ed. Star Chart for Southern Observers. Wiley.
Trans Stillman Drake Discoveries and Opinions of Galileo. Doubleday.
Toulmin, S. E. & Goodfield, J. The Fabric of the Heavens. Hutchinson or Penguin

HISTORY AND PHILOSOPHY OF SCIENCE II 1
A study of certain aspects of the histories of geology and biology, with emphasis on the Darwinian Revolution, and consideration of topics in the philosophy of science. The geological portion of the course is illustrated by field studies in the Sydney area.

1 This subject will not be offered in 1971.
TEXTBOOKS
Hempel, C. G. Philosophy of Natural Science. Prentice-Hall.
Loewenberg, B. J. Darwinism, Reaction or Reform? Holt, Rinehart & Winston.

DEPARTMENT OF MATHEMATICS

Students are advised to consult their lecturers before purchasing any book listed for a mathematics course.

MATHEMATICS I
Unit A Calculus, Introduction to Abstract Algebra
Unit B Calculus, Abstract Algebra, Linear Algebra, Introduction to Computing
Unit C Statistics, Computing

Unit A is the prerequisite for Unit B.

Students who wish to proceed to maths units in later years should do units A and B. Students who wish to do a terminating course in maths should do units A and C.

TEXTBOOKS—Units A and B.

TEXTBOOK—Unit C.

MATHEMATICS II
Analysis I
Partial differentiation, multiple integrals, Fourier series, complex variable, first and second order differential equations.

TEXTBOOKS

REFERENCE BOOKS

Algebra and Geometry I
Vector algebra, vector calculus, general integral theorems, matrix algebra, eigenvalues and vectors.
Vector functions, conic sections, quadric surfaces, projections and projective properties.
REFERENCE BOOKS
Tyres, F. **Matrices**. Schaum.
Davis, H. F. *Vector Analysis*. Allyn and Bacon.

**Theory of Functions I**

TEXTBOOK

**Dynamics**
Motion of a particle and of a rigid body; normal modes, vibrations of continuous systems.

TEXTBOOK

REFERENCE BOOK

**Probability**
Probability, discrete and continuous distributions, expectations, sampling distributions, estimation, tests of hypotheses.

TEXTBOOK

REFERENCE BOOK
Hoel, P. G. *Introduction to Mechanical Statics*. Wiley.

**Numerical Analysis**
TEXTBOOK

REFERENCE BOOKS
Froberg, C. E. *Introduction to Numerical Analysis*. Addison-Wesley.

In addition there will be computer project work related to lecture courses in Dynamics, Probability and Numerical Analysis.

**MATHEMATICS III**
**Analysis II**
Laplace, Fourier and Hankel transforms, special functions of mathematical physics.

TEXTBOOKS

REFERENCE BOOKS
Rainville, E. D. *Special Functions*. Macmillan.
PART 4 — DESCRIPTION OF SUBJECTS

Geometry II
Serret-Frenet formulae, quadratic, differential forms, geodesics, elliptic functions.

TEXTBOOKS

Algebra II
Groups, rings, fields, ideals, algebraic number theory.

TEXTBOOK

REFERENCE BOOKS
Ewitt, E. and Stromberg, K. Real and Abstract Analysis, Springer Verlag, N.Y.
Kleene, S. Mathematical Logic. Wiley.
Lang, S. Algebra. Addison-Wesley.
Van der Waerden, Modern Algebra, Ungar.

Theory of Functions II
Metric spaces, function spaces, Lebesgue integration, analytic functions and continuation, multiple-valued functions.

REFERENCE BOOKS
Burkill, J. C. The Lebesque Integral, C.U.P.
Halmos, P. Finite Dimensional Vector Spaces. Van Nostrand.

Dynamics of Continuous Media
Infinitesimal elastic strain theory, Euler's equation, two-dimensional motion, compressible flow, water waves including surface, long, capillary and finite amplitude waves, dispersion, perturbation theory, interaction of waves, spectral analysis.

TEXTBOOK

REFERENCE BOOK
Bullen, K. E. Introduction to Seismology. C.U.P.

Stochastic Processes
Probability measures, random variables, branching processes, renewal processes, markov chains, test of significance, sequential analysis.

TEXTBOOK

Mathematical Methods
Laplace's and Poisson's equation, cartesian tensors, calculus of variations, optimisation of numerical process in solving differential equations, harmonic and data analysis.
TEXTBOOK

REFERENCE BOOKS
Hildebrand, F. B. *Methods of Applied Mathematics*. Prentice-Hall.
Jeffreys, H. and Jeffrey, B. *Methods of Mathematical Physics*. C.U.P.

Operations Research
Linear, non-linear and dynamic programming, queuing theory, theory of games, simulation.

TEXTBOOK

In addition computer project work will be related to lectures courses in the applied units.

MATHEMATICS IV HONOURS
TEXTBOOK

DEPARTMENT OF MECHANICAL, CIVIL AND MINING ENGINEERING

ENGINEERING I
(a) Principles of Engineering Drawing and Design. 60 hours' lectures and drawing office; limits and fits; elementary rivetted, bolted and welded connections; couplings and bearings; brakes, clutches, power screws and springs.

(b) Engineering Mechanics. 70 hours' lectures and tutorials: Two-dimensional force systems; laws of equilibrium; concurrent and non-concurrent forces; funicular polygon; statics applied to rigid bars; statics of pin-jointed frames, analytical and graphical treatment; concepts of shear force, axial force and bending moment; simple states of stress; three-dimensional statics; composition and resolution of forces; general laws of equilibrium; dynamics of a particle; graphical and analytical analysis of velocities, accelerations; relative motion and energy conservation. Introduction to rigid body dynamics.

(c) Introduction to Engineering. 50 hours' lectures and tutorials.

(i) Engineering Technology (30 hours).
Materials: Classification of materials in common use, occurrence of raw materials, processing of raw materials, refinements and properties of materials. Manufacture: Description and appraisal of the processes classified as forming from liquid or solid. material removal, materials joining. Machines: Analysis of the primary functions of the machine tools and an appraisal of their limitations; principles of operations of common machine tools and illustration of their use.

(ii) Introduction to Computers and Systems (20 hours' lectures).
Computers: Information — concepts, representation storage and manipulation in automatic systems; algorithms — transformation of information by algorithms: expression in flow charts and languages, iterative and recursive algorithms; computer organisation — user languages and hardware organisation, number and data representation, instruction sets, basic organisation, computer components, present and future uses of computers.
Systems: General introduction to systems involving consideration of the basic concepts of Systems, System Components and Quantities involved. These concepts to be related to the phenomena within the experience of the students and to be illustrated by case histories and engineering examples.
TEXTBOOKS
Meriam, J. L. Statics. Wiley.
Meriam, J. L. Dynamics. Wiley.

DESIGN I
Bolted and welded connections; form and strength of structural members; design and construction of roof trusses and transmission lines; introduction to concrete design—slabs and beams; introduction to design of electro-mechanical devices.

APPLIED MECHANICS I
(60 hours lectures and tutorials)

TEXTBOOK
Haberman, C. M. Engineering Systems Analysis. Merrill.

ENGINEERING II
(a) Thermodynamics: 45 hours lectures and tutorials.
   Concepts and definitions, Properties of a Pure substance, work and heat. First law, Quantum and Probability considerations and the concept of entropy, second law and corollaries, property changes for open and closed systems, availability.
(b) Theory of Machines, 30 hours lectures and tutorials.
   Kinematics of Simple Machines. Gear trains. Mechanical Vibrations. Isolation
(c) Fluid Mechanics, 30 hours lectures and tutorials.
(d) Experimental Engineering: 60 hours lectures, tutorials and experimental work.

TEXTBOOKS
Hirschhorn, J. Dynamics of Machinery.

MATERIALS
(a) Atomic theory, stoichiometry and structure; states of matter; energy concepts including bond and lattice energies.
(b) Crystalline nature of metals and its significance; solidification of metals; phase equilibria in metallic alloys; heat treatment of some ferrous and non-ferrous alloys; plastic deformation of crystalline materials; Introduction to the study of the mechanical properties of metals and non-metals.

STRENGTH AND PROPERTIES OF MATERIALS
(135 hours lectures, laboratory and tutorials)
(a) Strength of Materials (40hrs): Components of stress and strain; two-dimensional stress systems; torsion of circular shafts; springs; flexure and
deflexion of beams; structures; slope deflexion equation; strain energy; frame structures.

(b) **Materials** (65 hrs): Further work on mechanical behaviour of metals and non-metals; behaviour of materials in electromagnetic fields; metallic and ceramic phases and their properties; equilibrium diagrams.

(c) **Materials in Engineering Design** (30 hrs): Standard specification and acceptance tests; measurement of fatigue and impact strengths and hardness; notch sensitivity; application of criteria of failure.

**APPLIED MECHANICS II**

(60 hours lectures and tutorials)

Numerical methods; integral transforms; matrices; state variables and linear systems analysis; function space analysis; statistics.

**DESIGN II**

(90 hours lectures and tutorials)

Welded/design using structural steel of high yield stress; advanced reinforced and prestressed concrete design; the use of analog methods in design, including photoelasticity, and strain measuring techniques; optimum methods in design.

**MATERIALS AND STRUCTURES**

(120 hrs lectures and tutorials)

(a) **Structures** (60 hours)

Analysis of statically indeterminate structures; shells; plastic analysis of steel structures; introduction to two-dimensional elasticity; approximate methods.

(b) **Materials** (60 hours)

Mechanical behaviour of materials; non-destructive test procedures; concrete technology.

**FLUID MECHANICS II**

(90 hrs lectures and tutorials)

Incompressible fluid flows; jets and trajectories, vortices; laminar and turbulent flow; flow resistance in pipes and channels; pipe network; model studies; unsteady flow. Hydraulic Machines. One-dimensional gas dynamics. Hydrology; cycles; water and energy balance; atmospheric studies; stream gauging; flood estimation.

**CONTROL SYSTEMS**

(90 hrs lectures and tutorials)

Principles and techniques applicable to the analysis and design of feedback control systems with particular application to industrial processes; time domain, frequency domain and state space methods of analysis of linear continuous and discrete systems; introduction to non-linear systems and techniques of analysis; system stability; introduction to optimal control theory; identification of process parameters using both on-line and off-line methods.

**ENGINEERING III**

(a) **Thermodynamics II** (45 hours)

Vapour and gas power cycles; mixtures; psychrometry; heat pumps and refrigerators; rotodynamic machines; gas turbines; mixed cycles.

(b) **Heat Transfer** (45 hours)

One and two-dimensional steady state conduction; free and forced convection; radiation; combined heat transfer mechanics and applications,
PART 4 — DESCRIPTION OF SUBJECTS

(c) Experimental Engineering II (60 hours)
Testing of reciprocating and rotodynamic machines; refrigeration plant; nozzles; heat exchangers; electrical machines; testing of materials; measurements of common non-electric processes.

ENGINEERING MANAGEMENT
(60 hrs lectures and tutorials)
Theory and practice of organization and industry; introduction to cost accounting; general principles of law of contract; industrial relations.

SYSTEMS ANALYSIS
(75 hrs lectures and tutorials)
Signal analysis; stochastic processes; linear and non-linear systems; approximations representations and perturbations; system optimization; calculus of variations; linear programming and hill climbing techniques; models and simulation; introduction to dynamic programming.

FLUID MECHANICS III
(75 hrs lectures and tutorials)
Compressible fluids; steady and unsteady flow; effects of friction and heat transfer; Navier-Stokes and energy equations; boundary layer theory; radial and axial flow machinery.

SURVEYING
(90 hrs lectures and tutorials)
Measurements of distances, directly and indirectly; electronic methods; levelling; measurement of angles; traverse surveys and computations; photogrammetry.

GEOTECHNICS
(135 hrs lectures and tutorials)
(a) Soil Mechanics (60 hours).
Properties of soil and soil testing; stability of slopes; retaining walls and sheet piling; bearing capacity.
(b) Geology (75 hours)
Rock forming minerals, clay minerals; rock classification and properties; structural geology; groundwater; application of geology and geophysics in engineering practice.

APPLIED DYNAMICS
(90 hrs lectures and tutorials)
Kinematics and dynamics of particles and rigid bodies in three-dimensional motion; fixed and moving reference frames; Newtonian dynamics; inertia tensor; Euler's equations of motion; general motion of rigid bodies; dynamic analysis of mechanisms relativistic dynamics; Lagrangian dynamics and Hamilton's principle; application to particles and rigid bodies; analysis of multi-degree of freedom dynamic systems.

THERMODYNAMICS III
(60 hrs, lectures and tutorials)
Behaviour of real gases and gas mixtures; generalized thermodynamic relationships and charts combustion and thermochemistry; chemical equilibrium; solutions; irreversible processes.
**PART 4 — DESCRIPTION OF SUBJECTS**

**DESIGN M**
Moving loads; influence lines for beams; permissible stresses; design of welded plate web girder; project.

The following are Postgraduate Courses:

**OPTIMUM DESIGN FOR MECHANICAL ENGINEERS**
(3 credit hours)
Introduction, discussion of methods of optimization; mathematical functions in engineering; principles of optimum design; normal, redundant and incompatible specifications; problems with more than one primary design equation; optimum design of axially loaded members (with static and variable load); optimum design of torsion shaft for minimum weight, minimum cost, maximum cost, maximum energy absorption, maximum torque felt by machine frame, maximum power transmission; optimum design of shaft with combined loading; optimum design of gears for maximum torque transmission capability, for maximum power transmission capability for minimum size; some typical examples of optimum design; optimization by linear programming—simplex method.

**ADVANCED DYNAMICS**
(6 credit hours)
Kinematics and dynamics of particles and rigid bodies in three-dimensional motion: Fixed and moving reference frames; Newtonian dynamics; inertia tensor; Eulers equations of motion; general motion of gyroscopes and rigid bodies in space; Calculus of variations; Functions and functionals; stationary values of integrals; Euler-Lagrange equation; constraints and Lagrange multipliers; fixed and variable end points; problems of Lagrange Mayer and Bolza. Variational dynamics: Performance optimisation; generalised co-ordinates; Lagrange equation; Hamiltons principle; impulsive motion; oscillatory motion

**ADVANCED MECHANICS OF SOLIDS I**
(6 credit hours)
**Stresses in normally loaded flat plates and shells:** Bending and deflection of long rectangular plates; bending and deflection of circular plates; bending stresses in thin-walled vessels; thermal stresses in thin-walled vessels.
**Buckling:** Lateral buckling of prismatic bars; energy method of calculating critical compressive loads; buckling of bars of variable cross section; effect of shearing force on the critical load; inelastic buckling of straight columns; buckling of circular rings and tubes under external pressure; buckling of beams without lateral supports; buckling of shafts by torsion; twistbend buckling, twist buckling of columns; buckling of rectangular plates.
**Stresses and deformation of rotating discs:** Uniform and varying thickness; uniform stress; sum and difference method; temperature gradients.
**Effect of small inelastic strains on load-carrying capacity:** Notched bar in tension; residual stress; beam of rectangular cross-section; torsion of prismatic bars; ultimate load analysis—simple cases; thick cylinders.

**ADVANCED MECHANICS OF SOLIDS II**
(6 credit hrs.)
**Plasticity and metal forming:** Theories of plasticity; plane strain problems in cartesian and polar co-ordinates; axially-symmetrical problems in cylindrical and spherical co-ordinates; effect of temperature strain rate and external friction on plastic deformation; applications to certain metal forming problems.
**Elastic bodies in contact:** Point and line contact; contact stresses; deflection of bodies in contact; effect of friction on contact stresses.
Fluctuating stresses: Endurance test; fatigue; effect of stress concentration on fatigue; mean stress, variable stress; fatigue under combined loading; theories of fatigue failure; factor of safety; corrosion fatigue.

Mechanical properties of materials at high temperature: Introduction to the mechanics of creep; deformation by creep; steady creep under general state of stress; creep under alternating stress; effect at temperature variations; stress relaxation due to creep; creep recovery.

Mechanical properties of materials at low temperature: Brittle fracture; propagation of brittle cracks; ductile-brittle transition; fracture toughness; notch ductility

THEORY OF ELASTICITY
(6 credit hrs.)

Basic concepts: Notation; components of stress and strain; plane stress and plane strain; equations of equilibrium and compatibility: Airy's stress function; applications to the solution of two-dimensional problems in rectangular co-ordinates; polar co-ordinates; stress distributions symmetrical about an axis; application to the solution of various problems.

Torsion: Prismatical bars, St. Venant's theory; membrane and other analogies; torsion of rectangular bars, angles, channels, etc.; hollow shafts and thin tubes.

Stress concentration: Mathematical and experimental methods; stress concentration in tension and compression members; stress concentration in torsion: circular shafts of variable diameter; stress concentration in bending; investigation of stress concentration with models; photoelastic method of stress measurements.

Thermal stresses: One-dimensional temperature distributions; rectangular plate, turbine blade: two-dimensional temperature distributions; circular disc, turbine disc; allowable stresses at elevated temperatures; creep, fatigue, thermal shock.

Stress waves: Longitudinal waves in prismatic bars; longitudinal impact of bars.

COMPUTATIONAL METHODS IN MECHANICAL ENGINEERING I
(3 credit hrs.)

Programming languages, including Fortran and automatic differential equation solvers; solution of single non-linear equations; iteration; extension to simultaneous equations; systems of linear equations; direct, matrix and iterative methods; relaxation; empirical analysis; least squares, differential correction; introduction to linear programming; ordinary differential equations: series and stepwise methods; partial differential equations; solution by finite differences; iterative methods in boundary value and initial value problems.

COMPUTATIONAL METHODS IN MECHANICAL ENGINEERING II
(3 credit hrs.)

Deals with the solution of engineering problems employing the methods of systems analysis. Both lumped parameter and distributed systems are discussed. The following topics are treated:—

Problem formulation, classical time domain methods, frequency domain analysis, Fourier, Laplace and Z transforms, matrix methods and introduction to state-space analysis, phase-plane analysis applied to non-linear systems, analogue computation.

GAS DYNAMICS AND COMPRESSIBLE FLUID FLOW
(9 credit hrs.)

Thermodynamics, conservation equations, kinematics, vorticity; acoustic waves; mach number; isentropic and isenergetic flow; nozzle; wind tunnel; diffusers.

Method of characteristics; influence of friction and heat transfer; combustion in a duct; rocket motor; general one-dimensional flows; potential flow small pertu-
hation theory; linearised theory of steady plane flow for wings and bodies; shock waves; shock polar; conical shocks; moving shocks; Prandtl-Meyer flow; Busemann series expansion method.

ADVANCED HEAT TRANSFER I
(6 credit hrs.)

Fluid Dynamics: Mass continuity equations; Navier-Stokes equations, their general properties and exact solutions; boundary layer theory; laminar, transition and turbulent flow; equations of motion; exact solutions of boundary layer parameters for laminar flow; turbulence; Reynolds stresses; eddy diffusivity theory; mixing length theories; Prandtl's momentum transfer theory; Taylor's vorticity transfer theory; Von Karman's similarity hypothesis; boundary layer parameters for turbulent flow; velocity defect law; universal velocity distribution; application to turbulent flow in circular pipes; velocity distributions and resistance formulae for hydraulically smooth and rough pipes; integral method for approximate boundary layer analysis; Von Karman's momentum equation; application to laminar and turbulent boundary layers; boundary layers with pressure gradient; separate and vortex formation; boundary layer control; drag and pressure distribution relationships for bluff bodies.

HEAT TRANSFER BY CONVECTION

A. General: Introduction; heat, mass and momentum transport; methods of evaluation of the convective heat transfer coefficient; dimensional analysis; physical interpretation of parameters; correlation of experimental data; theory of similarity in heat transfer; energy equation; thermal boundary layers in laminar flow; general properties; exact solutions of temperature distributions; integral method as an approximate analyses of thermal boundary layers in laminar flow; heat and momentum transfer in turbulent flow; the Reynolds analogy; the Taylor-Prandtl analogy; the Von Karman analogy; the turbulent Prandtl number, the Stanton number.

B. Free Convection: Similarity parameters; velocity and temperature fields; correlation of data for vertical, horizontal and sloping surfaces; evaluations of heat flow for geometric shapes of practical interest; laminar and turbulent flow cases; convection caused by centrifugal forces; convection from rotating bodies.

C. Forced Convection: Velocity and temperature fields in closed conduits; effect of similarity parameters on heat transfer; heat transfer coefficients for laminar and turbulent flow; semi-empirical equations and working formulae; flow over exterior surfaces; separated flow; application to flow over a bank of tubes; heat exchanger design and selection; flow arrangements and effectiveness; fouling factors; heat transfer in high-speed flow, in rarefied gases and in free molecule flow.

D. Heat Transfer with change of Phase: Condensation; Nusselt's liquid-film theory; turbulent film condensation; super-heated vapours; multicomponent vapours; non-condensable gases; drop-wise condensation; experimental results and working formulae; condensation in tubes; evaporation; surface evaporation; nucleate boiling of a sub-cooled liquid; nucleate pool boiling; film boiling; burnout; experimental results and working formulae; boiling in tubes.

ADVANCED HEAT TRANSFER II
(6 credit hrs.)

Conduction: Unidimensional heat flow; analysis of extended surfaces; two and three-dimensional conduction; unsteady conduction in one or more dimensions; analytical, numerical and analogical methods of solution; transient systems; initial value and boundary value problems; nonhomogeneous bodies; anistropic bodies; variable material properties.

Radiation: Thermal radiation properties of materials, black bodies—characteristics of real solids, liquid and gases; radiation exchange between infinite surfaces and
between finite surfaces shape factor for various configurations; radiation shields; re-radiating surfaces and electrical analogies; radiation behaviour of gases and vapours; pyrometry; solar radiation.

STATISTICAL THERMODYNAMICS
(6 credit hours)
History and review of classical thermodynamics; kinetic theory of an ideal monatomic gas; equations of state; statistical mechanics for systems of independent particles; concept of entropy; Maxwell, Boltzmann, Bose-Einstein and Fermi-Dirac statistics; partition function; velocity and energy distributions; classical-statistical comparisons; quantum mechanics; Schrödinger wave equation and applications; electronic states; the photon gas; the Einstein solid; diatomic and polyatomic gases; low temperature effects; statistical mechanics for systems of dependent particles; behaviour of real gases and liquids; irreversible processes; thermoelectric and thermochemical phenomena.

SYSTEMS ANALYSIS METHODS
(9 credit hours)

DEPARTMENT OF METALLURGY
Due to revision of courses, students are asked to consult the Department of Metallurgy for details of subjects and textbooks.

DEPARTMENT OF PHYSICS
Students are advised to consult their lecturers before purchasing any book listed for a physics course.

PHYSICS I
TEXTBOOKS
Van der Ziel. Introduction to Electronic Circuits, Allyn and Bacon.

PHYSICS II
TEXTBOOKS

PHYSICS III
TEXTBOOKS
PART 4 — DESCRIPTION OF SUBJECTS


Note: Detailed syllabuses are available in the Physics Department.

DEPARTMENT OF PSYCHOLOGY

FIRST YEAR:
1. All students enrolling for the first year of Psychology are required to take
Psychobiology, Psychological Measurement I, Laboratory Method and
Motivation and Adjustment.

SECOND YEAR:
2. Students enrolling in Psychology II have two options, a professional (P) and
a terminating (T) sequence. The latter sequence is designed for students who
do not intend to go beyond second year in this subject. The professional
strand is designed for students who desire to complete ultimately a programme
of training which will permit them to practice or gain professional employ­ment as psychologists.

3. Terminal Sequence —
   (a) All first year subjects.
   (b) Together with second year subjects
      Personality Theory and Laboratory Method
      Psychological Testing
      Developmental Psychology

4. Professional Sequence —
   (a) All Terminal Sequence subjects with a strong pass in each subject.
   (b) All Professional Sequence subjects with an option of Psychological
      Testing or Developmental Psychology.

THIRD YEAR:
5. This is the final year in major sequence for Bachelors' Degrees. It is also
the first year of a two-year programme of training for entry to professional
work. During their second year, students should review the range of electives
and ensure that they have strong passes in subjects prerequisite for particular
electives.
6. In the third year programme all students are required to take Psychological
Theory and TWO only of the electives offered.
7. Unless students can attend nine hours per week in programmed classes they
should not contemplate enrolling in the third year sequence. Generally, the
course is designed for full time students or for those part time students
whose employers are prepared to allow time off for study purposes. At least
one half day per week is essential.
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<tr>
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<td>Psychobiology</td>
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<td>Psychological Measurement I</td>
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<td>Laboratory Method</td>
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<td>Motivation and Adjustment</td>
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<td>Learning Theory and Laboratory Method</td>
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<tr>
<td>Psychological Measurement II</td>
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<td>Research Design</td>
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<td>Personality Theory and Laboratory Method</td>
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<td>Psychological Testing</td>
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<td>Developmental Psychology</td>
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<td>Occupational and Personnel Psychology</td>
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<td>Social Psychology</td>
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<tr>
<td>Experimental Psychology</td>
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</table>
PART 4 — DESCRIPTION OF SUBJECTS

PSYCHOBIOLOGY

Aims of the Course:

1. This is an introductory course in Psychology and is aimed at stimulating interest in the subject in general.

2. Secondly, it deals with areas of psychology which traditionally have had a long history and an established body of empirical data. Thus, the student is introduced to experimental method and typical data at an early stage in his course work.

Syllabus:

1a. Conceptions of the roles and areas of responsibility of psychologists will be considered. Some of the history of psychology as well as findings from various areas in modern applied psychology will be discussed.

1b. Physiological aspects of behaviour: These will be discussed in some detail. The following topics will be described: The central nervous system, the autonomic nervous system, the endocrine system, neural transmission, the synapse, reflexes.


TEXTBOOKS


PSYCHOLICAL MEASUREMENT I

Aims of the Course:

1. To equip students with a knowledge and understanding of the basic statistical concepts and techniques most appropriate to psychological measurement.

2. To enable students to apply these techniques to research data.

Syllabus:

1. Presentation of Data — Tabulation; graphical representation.

2. Measures of central tendency, with emphasis on the mean, using ungrouped and grouped data.

3. Measures of dispersion, with emphasis on the standard deviation, using ungrouped and grouped data.


5. Z and t tests of significance.

6. Tests of hypotheses. Type I and type II errors; one tailed and two tailed tests.

7. Chi square tests.

8. Spearman Rank order correlation.

LABORATORY METHOD

Aims of the Course:
1. To provide an introduction to laboratory method in psychology.
2. To illustrate the application of psychological measurement and statistics to experimental situations.
3. To acquaint students with a variety of experimental apparatus.

Syllabus:
Laboratory Method is entirely a practical course and will include experiments in each of the following areas:
1. Attitudes and values (survey method).
2. Psychophysics.
3. Effect of social factors on attitudes.
5. Effect of personality differences on reactions to conflict.

TEXTBOOKS:
No textbook is set for this course. Students will be advised of reference material in connection with each experiment.

MOTIVATION AND ADJUSTMENT

Aims of the Course:
1. To provide an introduction to the concept of behaviour as the outcome of personality, environmental forces, and interpersonal relationships.
2. To provide a basis for second year courses on personality theory and dynamics of behaviour.

Syllabus:
Primary and secondary motivation and emotions; frustration and conflict; defense mechanisms; relation between motivation and the self; conscious and unconscious motivations; attitudes; values, beliefs, interests and social influences on these; the socialization process.

TEXTBOOKS:

LEARNING THEORY AND LABORATORY METHOD

Aim of the Course:
1. To treat in detail material related to learning which was introduced in first year.
2. To teach laboratory method specifically related to learning and operant conditioning.

Syllabus:
A. Theory
1. Definitions and historical perspective
2. Theories of learning
3. Classical and operant conditioning
4. Reinforcement and the Law of Effect
5. The Drive Reduction Hypothesis
6. Brain stimulation effects
7. Discrimination learning
8. Extinction
9. Vibrotactile and multi-sensory learning
10. Learning of skills

B. Laboratory
TEXTBOOKS

or


PSYCHOLOGICAL MEASUREMENT II
(1971 only. An advanced statistics course will be offered in 1972).

Aims of the Course:

1. To equip students with a knowledge and understanding of basic measurement and statistical concepts appropriate to psychology.
2. To enable students to apply these concepts to research projects.

Syllabus:

1. Elementary Probability Theory.
2. Chi square.
3. Random sampling.
4. Sampling and normal distribution.
5. Binomial probability distribution.
6. Estimation and confidence intervals.
8. Statistical decision-making — two sample tests.
9. Association and prediction.
10. Variance ratio tests and analysis of variance.

TEXTBOOKS:


RESEARCH DESIGN

Aims of the Course:

1. To teach principles of research design and methodology.
2. To illustrate the practical application of statistical techniques covered in courses Psychological Measurement I and Psychological Measurement II.

Syllabus

1. The context of discovery.
   - Formulation of hypotheses
   - Form of hypotheses
   - Specification of meaning of terms
     - Explication
     - Definitions
   - Substraction (Facet analyses)
   - Measurement of variables
     - Scaling
     - Validity
     - Reliability

2. The context of evaluation.
   - Experimental design
     - Antecedent probability
     - Control groups
     - Variables
     - Choosing statistical methods
     - The risk function and decision theory

3. Analysis and interpretation of outcomes.
   - Casualty.
   - Application of results (truth and knowledge)
PART 4 — DESCRIPTION OF SUBJECTS

4. Theories and models.
   Elements of a formal theory
   Formal theories and behavioural science.

TEXTBOOKS:

PERSONALITY THEORY AND LABORATORY METHOD

Aims of the Course:
1. To examine critically the major theoretical approaches to personality structure, dynamics and development.
2. To equip students with sufficient understanding of the various personality theories to enable them to develop critical and diagnostic skills.
3. To provide a specialist background in personality development and functioning against which third year elective subjects may be viewed.

Syllabus:
A. THEORY —
Theories exemplifying: Psychoanalytic, neo-Freudian, interpersonal self-theory, behaviouristic, rational/motivational, field trait and factor analytic theories of personality. Two of the above will be dealt with in depth, the remainder at a level only sufficiently deep to meet the aims above.

B. LABORATORY —
Concurrent with the theory lectures, students will complete three research exercises related to personality. One will take the form of a survey, in which students will examine the relationship between certain attitudes of parents and personality factors in their children. Another will be an experiment, in which the variable of anxiety will be related to performance.

TEXTBOOKS:

PSYCHOLOGICAL TESTING

Aims of the Course:
1. To provide an overview of the variety of tests available for use in educational-vocational settings.
2. To examine in detail the construction and use of some tests in each of the major areas of psychological testing.
3. To teach the administration of the Wechsler Intelligence Scale for Children.
4. To teach background theory necessary for efficient reporting of test results.

Syllabus:
1. History and development of the testing movement.
2. Individual Testing.
   The Terman Revision of the Stanford Binet.
   The Wechsler Adult Intelligence Scale.
   The Wechsler Intelligence Scale for Children — students will be instructed in the administration of this test.
   Intelligence Tests
   Achievement Tests.
   Multi-factor Tests.
   Aptitude Tests
   Interest and Attitude Tests
   Personality Tests (including Projective Tests).
4. Test Theory.
   Scales, Scores and Norms.
   Reliability.
   Validity.
   Item Analysis.

Textbooks:

DEVELOPMENTAL PSYCHOLOGY

Aims of the Course:
1. To give students a knowledge of the normal developmental stages and processes, and the interaction between the individual and his social environment during development.
2. To provide students with further background against which third year elective subjects such as counselling psychology, educational psychology, occupational psychology and social psychology may be viewed.
3. To apply in a more practical way the understanding of personality function and structure acquired in the course Personality Theory and Laboratory Method.

Syllabus:
Three major strands will be incorporated in this course:
(a) A descriptive outline of normal maturation and development, and the physiological and environmental influences on these. This section will be considered from a very general rather than a particular theoretical viewpoint.
(b) A study of the development of personality in terms of several of the major theoretical approaches: Erikson, Fromm, Horney and Sullivan.
(c) A course on personality adjustment, in which adjustment will be defined, the factors influencing adjustment and the dynamics of adjustment examined, and the particular problems of adjustment of adolescents examined.

TEXTBOOKS

PSYCHOLOGICAL THEORY

Aims of the Course:
1. To provide a philosophical basis for work in the elective subject in the third year which are "applied" in orientation.
2. To extend on the student's knowledge of scientific theory construction and to provide background material, mainly of historical interest, but necessary to a thorough understanding of contemporary science.

Syllabus:
1. The general nature of theory construction and levels of explanation.
2. The role of models.
3. Personality and Psychodynamics.
4. Complex Processes
   Verbal Learning
   Thinking
5. Sensory and Perceptual Functions.
PART 4 — DESCRIPTION OF SUBJECTS

Weightings
Written examination 50
Individual seminar leadership 20
Essay 30

TEXTBOOK:

COUNSELLING PSYCHOLOGY
Aims of the Course:
1. To introduce students to the theory and practice of giving guidance and counselling.
2. To give students the opportunity to gain some experience in interviewing and counselling techniques.

Syllabus:
1. The nature of counselling:
   — educational
   — vocational
   — psychotherapy
2. Techniques of Counselling.
3. Relationship techniques.
4. Use of tests in counselling.
5. Decision approaches to counselling.
6. Counselling theory:
   — Non-directive
   — Desensitization
   — Interpersonal
   — Psychoanalytic
   — Rational/emotive

TEXTBOOKS:

OCCUPATIONAL AND PERSONNEL PSYCHOLOGY
Aims of the Course:
1. To provide an overview of the field of theory and instrumentation used in educational-vocational guidance and personnel selection.
2. To examine in detail the research needs of the field and to design and implement individual research projects.

Syllabus:
1. Work
   Definitions and constructs
   Occupational Classifications
2. Determinants of occupational choice.
   Childhood experience
   Psychoanalytic conceptions of work
   Need reduction
   Decision making
   Social determinants
3. Major programmes of research.

TEXTBOOKS
SOCIAL PSYCHOLOGY

Aims of the Course:
1. To consider in detail the interaction between the personality and the social environment.
2. To present the major theories in social psychology.
3. To familiarize students with research methods appropriate to the field.

Syllabus:
1. Social psychological theories
   (a) Field theoretical
   (b) Psychoanalytic
   (c) Reinforcement
   (d) Cognitive
2. Attitude and opinion change including conformity
3. Socialization and child rearing practices
4. Group Dynamics — norms, conformity, deviance
5. Inter societal variation in socialization
6. Socialization of specific personality and behavioural variables and their relation to role playing and attitude formation.
7. Collective behaviour, crowds and social movements.

The tendency will be to emphasize field theoretical and psychoanalytic orientations.

TEXTBOOKS:

EDUCATIONAL PSYCHOLOGY

Aims of the Course:
1. To apply psychological principles to the process of instruction.
2. To give experience in the conduct of research in this field.
3. To explore in depth selected areas of specialization in education.

Syllabus:
1. A review of major areas of psychology with particular emphasis on their relation to education including:
   — learning theory
   — personality theory
   — psychological testing
   — individual differences
2. Concept formation.
3. Group dynamics in the classroom
4. Psychological principles applied to educational administration

TEXTBOOKS
EXPERIMENTAL PSYCHOLOGY

Aims of the Course:

1. To develop skill in conducting psychological research with apparatus and animals.

Syllabus:

Emphasis will be placed on experimentation in:

(a) Perception
(b) Skill acquisition
(c) Vibrotactile and multi-sensory learning
(d) Instrumental conditioning.
(e) Human factors/engineering psychology

TEXTBOOKS:

DEPARTMENT OF BIOLOGICAL SCIENCE

GENERAL AND HUMAN BIOLOGY

This is an introductory course for students intending to proceed in medicine or in the biological sciences.

Syllabus:


TEXTBOOKS:

Requirements for Practical Work:

Students will be notified of equipment required for practical work. This must be purchased before the first practical class.
PART 5.

Student Services

This section provides brief details only of the extra-curricular activities which are open to students.
THE STUDENTS' REPRESENTATIVE COUNCIL

The Students' Representative Council is a body elected by and from the students to promote student welfare and interests. Payment of the SRC fee is compulsory for all students.

"TERTANGALA" — the Journal of the Wollongong University College Students' Representative Council is published monthly during the academic year.

CLUBS AND SOCIETIES

All students are encouraged to participate in the activities of at least one of the various student Clubs and Societies. These clubs aim to promote the physical, social and educational development of students through their leisure time activities. The following clubs are recognised at this College:

- Arts Faculty Association
- Commerce Society
- Cricket Club
- Drama Society
- Geological Society
- Liberal Club
- Literary Society
- Men's Hockey Club
- Metallurgical Society
- National Union of Australian University Students
- Outdoors Club
- Rugby Union Club
- Science Faculty Association
- Squash Club
- Students for the A.L.P.
- Table Tennis Club
- Tennis Club
- Trainee Teachers Association
- Women's Basketball Club
- Women's Hockey Club
- W.U.C. Christian Union

SPORTING FACILITIES

The College has constructed a sporting oval at the northeastern end of its campus to provide first class facilities for the playing of various sports. Hockey fields and tennis courts are also available.
THE COLLEGE UNION

The Union, which provides opportunities for the development of social and intellectual intercourse between members, is situated at the southern boundary of the campus. It was opened in 1965 and Stage II additions were completed in 1970. The premises now comprises four common rooms and refectory plus associated offices and kitchen. A coffee bar and hot meal service is provided and there is also a Union shop. The Union building also accommodates a branch of the University Co-operative Bookshop Limited and an agency of the Commercial Bank of Australia.

Membership is compulsory for all students; staff may elect to become members. The affairs of the Union are controlled by a Board of Management and, in day to day matters by its executive officer, the Secretary/Manager.

THE COLLEGE LIBRARY

All members of the College have a right to the use of the College library. There are certain formalities to be complied with, however, before books may be taken away, details of which may be obtained in the library.

The library seeks to cater with its stock of books and journals for all the courses in the College curriculum and to hold a balanced collection of material covering subjects in normal demand outside of these areas. Its stock of 45,000 books and 900 journals is rapidly increasing.

During 1971 the first stage of a new library building will be opened. This will accommodate over 100,000 volumes and will have seats for 280 readers.

Hours of opening are clearly displayed in the library. The present coverage of 65½ hours a week over six days will be extended as soon as staff numbers allow it.

Graduates of other universities are received as guest users of the library and certain other classes of users are able to use the facilities provided, in particular qualified professionals from local commerce and industry.

CHAPLAINCY SERVICE

A Chaplaincy Service is provided within the College for the benefit of students and staff by four Christian Churches.

The Service offers fellowship, personal counselling and guidance, and leadership in biblical and doctrinal studies and in
worship. The Chaplains maintain close liaison with student religious societies. The Chaplains are located in the Office Block and are available there at various times. They may also be contacted at their private addresses.

Anglican: Rev. K. Giles, St. Michael’s Rectory, Market Street, Wollongong. 2500. Tel. 2-3132.

Methodist: Rev. J. Scott, 36 Fisher Street, West Wollongong. 2500. Tel. 2-2119.


Roman Catholic: Rev. Father K. Sharkey, The Presbytery, Cabbage Tree Lane, Fairy Meadow. 2518. Tel. 2-4133.

STUDENTS' TRAVELLING CONCESSION PASSES

The various transport authorities provide fare concessions for certain classes of students.

Application forms for these concessions may be obtained at the Cashier’s Office, Main Building.

Train:

(a) Periodical tickets are available during term time to full-time students not in employment nor in receipt of any remuneration.

(b) Vacation travel concessions are available to students qualifying under (a) above.

Aircraft: Concession fares for travel overseas, inter-state and intra-state are available under the conditions ruling for the various operating companies.

ACCOMMODATION

Accommodation for male students is available at Illawarra House, a student residence operated by the Y.M.C.A. At present accommodation, in single and double rooms, is limited to sixty-two. The construction of a residential college affiliated with Wollongong University College has been approved, and it is anticipated that this will be opened for students, both male and female, in 1971. This college, which will accommodate eighty-one
students, will also be under the management of the Y.M.C.A. Tutors in residence will provide tutorial assistance.

Students requiring other types of accommodation should apply to the Secretary.

CASUAL EMPLOYMENT

Any vacancies are displayed on the main College notice boards. For further information students should contact the Secretary.

SCHOLARSHIPS

Various scholarships, bursaries and cadetships are tenable at The University of New South Wales and Wollongong University College.

Except where otherwise specified, applications on the forms obtainable from the Secretary must be lodged with him within seven days of the publication of the results of the Higher School Certificate Examination.

A separate application must be lodged for each category of scholarship listed below except that applicants for scholarships in Textile Technology and Wool Technology will automatically be considered for the scholarships which are offered in the same field by the Wool Research Trust Fund.

In addition to those scholarships made available by the University and other bodies as set out below, a number of industrial organizations and Government Departments sponsor students at the University. These students generally have their University fees paid by the employer and are employed at cadet rates of pay during their course.

Certain scholarships are tenable only at this College. In this category the Australian Iron and Steel Pty. Ltd. provides a number of scholarships.

Further particulars about these and other scholarships, cadetships and bursaries may be obtained from the Secretary, Wollongong University College, Wollongong.

Commonwealth University Scholarships

Students enrolling in first degree courses at the University are eligible. Benefits include payment of all tuition fees and other compulsory fees, and living allowances (these latter being subject to a means test). The closing date for applications is 30th September in the year immediately preceding that for which the scholarship is desired. Full particulars and application forms may be obtained from the Officer-in-Charge, Sydney Office, Department of Education and Science, La Salle Building, 70 Castle-reagh Street, Sydney, 2000 (Telephone 2-0323).
University Scholarships

The University annually awards up to fifteen scholarships tenable in degree courses to students who have matriculated at the Higher School Certificate Examination; ten scholarships to students who have completed Certificate Courses (Department of Technical Education); ten scholarships to students who have completed Trade Courses (Department of Technical Education); and ten scholarships to part-time students who have taken the Diploma Entrance course of the Department of Technical Education. The scholarships are tenable in any faculty and exempt the holder from payment of course fees during the currency of the scholarship. Scholarships will be awarded in order of merit on Higher School Certificate Examination results. They may be held only by persons who do not hold another award. Applications for these scholarships, on forms obtainable from the Secretary, must be lodged with him within seven days of the publication of the results of the New South Wales Higher School Certificate Examination.

Food Technology Scholarships

A number of scholarships are usually made available by firms in the food processing industries. These scholarships have a value from $800-$1000 per annum, payable as a living allowance to students enrolled full-time in the Food Technology degree course. These scholarships may be held concurrently with a Commonwealth University Scholarship.

Mining Scholarships

The Joint Coal Board is offering scholarships to male students who desire to enter the full-time degree courses in Mining Engineering and Applied Geology. The value of the scholarships ranges from $700 to $1200 per annum (including allowance for books and instruments). These scholarships will be awarded on the understanding that applicants will normally hold a Commonwealth University Scholarship which covers the cost of University fees. However, applicants without Commonwealth University Scholarships may be given consideration. While scholarship holders are not under bond it is expected that they will obtain employment in Coal Mining or a related industry on graduation. Applications on forms obtainable from headmasters or from the Secretary, Joint Coal Board, Box 3842, G.P.O. Sydney, must be lodged with the Board's secretary not later than seven days after the publication of Higher School Certificate results.
Textile Technology Scholarships

The textile industry provides a number of scholarships for students wishing to enrol in courses leading to the degree of Bachelor of Science (Pass and Honours) in Textile Technology. Each scholarship has a value of $1000 per annum and may be held concurrently with a Commonwealth University Scholarship. An applicant for this scholarship will also receive consideration for the Wool Research Trust Fund Scholarships in Textile Technology.

Wool Technology Scholarships

Several firms and banks associated with the wool industry endow scholarships in courses leading to the Bachelor of Science degree in Wool Technology. Valued at $1000 per annum, these scholarships are normally tenable for four years, and may be held concurrently with a Commonwealth University Scholarship. An applicant for these scholarships will also receive consideration for the Wool Research Trust Fund Scholarships in Wool Technology.

Wool Research Trust Fund Scholarships in Wool Technology and Textile Technology

Several scholarships for courses in Wool Technology and Textile Technology have been made available by the Wool Research Trust Fund (Commonwealth Government). The scholarships provide an allowance of $1000 per annum for living expenses for four years, and successful applicants may hold a Commonwealth University Scholarship concurrently.

Scholarship in Wool Commerce

One scholarship is available for students proceeding to the degree of Bachelor of Commerce in Wool Commerce. It is tenable for four years at a value of $200 per annum. It may be held concurrently with a Commonwealth University Scholarship.

C.S.R. Scholarship in Commerce

The Colonial Sugar Refining Co. Ltd., offers one scholarship each year to students enrolling in courses leading to the degree
of Bachelor of Commerce specialising in Economics, Accountancy, Statistics, Applied Psychology or Industrial Relations. The scholarship holder will study full-time at the University during the first and fourth years of tenure; during the second and third years the scholar will be employed by the Company and enrol as a part-time student, being allowed some time off from work to attend day classes. The value of the scholarship is $1200 per annum when studying full-time, and during the years of part-time employment with the Company the holder will be paid according to the Company's basic salary scale. This award may be held concurrently with a Commonwealth University Scholarship.

Manufacturers’ Mutual Insurance Company Scholarship in Commerce

The Manufacturers’ Mutual Insurance Company offers a scholarship each year to the value of $200 per annum. The scholarship is available to students who desire to enter or are enrolled in one of the full-time courses in the Faculty of Commerce leading to the Degree of Bachelor of Commerce and specialising in either Economics, Accountancy, Statistics, Applied Psychology or Industrial Relations. The scholarship will normally be tenable for three years but may be extended for a fourth year to allow the holder to proceed to a degree with honours. The scholarship may be held concurrently with another scholarship.

Scholarships in Industrial Arts

Two scholarships, valued at $100 per annum, are offered each year by the Institute of Industrial Engineers to students entering the full-time course in Industrial Arts leading to the B.Sc. degree. The scholarships are tenable for four years, and may not be held concurrently with any award except one providing solely for the payment of compulsory University fees.

Scholarships in Electrical Engineering

The Tyree Electrical Company Pty. Ltd. provides two scholarships for students enrolling in the full-time courses in Electrical Engineering. The scholarships have a value ranging from $500 to $1,500 p.a. depending on the circumstances and progress of the successful applicants. They are normally tenable for four years but may be extended to a fifth year when the
holder intends to qualify for the two degrees, Bachelor of Science and Bachelor of Engineering. It may be held concurrently with any other scholarship.

Ceramic Engineering Scholarships

The Brick Manufacturers' Association of New South Wales and the State Brickworks of the New South Wales Department of Public Works each offer one undergraduate scholarship in ceramic engineering. Students who have completed the first year of the course may also apply. The value of the scholarship is $800-$1000 per annum, and applicants are expected to apply for a Commonwealth University Scholarship to cover course and other fees.

The Clement Blazey Memorial Scholarships—Metallurgy

Metal Manufactures Ltd. of Port Kembla, provide the Clement Blazey Memorial Scholarships for students enrolling in the full-time course in Metallurgy leading to the Degree of Bachelor of Science. Each scholarship has a value of between $200 to $800 per annum payable to students as a living allowance. The scholarships will normally be tenable for four years and may be held concurrently with a Commonwealth University Scholarship.

Australian Iron and Steel Pty. Ltd. Scholarships in Metallurgy

Australian Iron and Steel Pty. Ltd. has undertaken to provide two scholarships for students wishing to enrol in the full-time course for the Bachelor of Science degree in Metallurgy. The scholarships are valued at between $360 and $700 per annum, and applicants are expected to apply for a Commonwealth University Scholarship to cover course and other fees.

C.I.G.-E.M.F. Scholarships in Metallurgy

The Commonwealth Industrial Gases Limited of Sydney has undertaken to provide scholarships for students wishing to enrol in the full-time course for the B.Sc. degree in Metallurgy. Each scholarship has a value of $1,000 and may be tenable for a maximum of four years. Applicants are expected to apply for a Commonwealth University Scholarship to cover course and other University fees.
Teachers' College Scholarships

A limited number of Teachers' College Scholarships are available to allow students to undertake studies for a University degree, to be followed by a year devoted exclusively to training as a teacher. Benefits include the payment of University fees and a scholarship allowance.

Scholarship holders are expected to attend the University appropriate to the home address of their parents or legal guardian. The area appropriate to students for Wollongong University College is bounded by a line drawn through and including Helensburgh, Braidwood and Moruya and whose training can be adequately undertaken at Wollongong University College.

Further information, application forms and the Teachers' College Scholarship Handbook may be obtained from the Officer in Charge, Teacher Training Division, Department of Education and Science, Blackfriars Street, Chippendale, N.S.W., 2006.

Bursaries Awarded by The Bursary Endowment Board

A number of bursaries tenable at the University are awarded to candidates of merit at the Higher School Certificate Examination whose family income falls within certain limits prescribed by the Bursary Endowment Board.

Application should be made to the Secretary, Bursary Endowment Board, c/o Department of Education, Bridge Street, Sydney.

C.S.I.R.O. Postdoctoral Studentship

The Commonwealth Scientific and Industrial Research Organisation provides studentships which are tenable for one year at overseas universities. Successful candidates would be expected to take up their awards no later than the commencement of the overseas 1971-72 academic year. University academic staff on sabbatical or study leave with pay and travel allowance are not eligible to receive assistance under the scheme.

Studentships are awarded in fields of specific interest to the C.S.I.R.O.

Benefits include the payment of return air or sea fares between Australia and the country of study. Return fares will also be paid for the wife and family of married students.
PART 5 — STUDENT SERVICES

Further information and application forms may be obtained at the Student Enquiries Office of this College.

RADIO COURSES

The University's radio station, VL2UV, which broadcasts on a frequency of 1750Kc's, began operating in May, 1961, and now offers programmes five nights a week. The University also has its own post-graduate television network, VITU, but at present it is not possible for programmes from the University television station to be received at home. Students enrolling in radio courses receive printed notes which are essential for an understanding of the lectures. Seminars conducted in conjunction with the radio courses give students an opportunity to discuss with the lecturers any difficulties they may have had with the material.

Students in Wollongong may take advantage of this service by means of tape-recorded correspondence courses, which are offered to country students at extension centres or wherever a group of students exists. The programmes are recorded on twin track 5" reels of standard magnetic tape, and can be played on most tape recorders. Over forty courses are available, and in country areas groups of as few as three students may participate at fees comparable to those paid by students in metropolitan areas. Many enrolments have been accepted from students in other States and overseas.

The emphasis of radio courses is on postgraduate and refresher courses for professional people, and subjects covered range from specialities in Medicine and Dentistry to Operations Research and Computer Programming. School-University bridging courses, another service of Radio University, are meeting a pressing need. These courses are designed to assist students who are proceeding from secondary school to first year university studies, but they are also helpful to students taking the Higher School Certificate.

Further information on Radio University programmes may be obtained from the Division of Postgraduate Extension Studies, University of New South Wales, P.O. Box 1, Kensington, N.S.W., 2033.
WOLLONGONG UNIVERSITY COLLEGE

LEGEND
1 CHEMISTRY & METALLURGY
2 METALLURGY
3 ENGINEERING
4 ENGINEERING
5 GARDENING, GARAGE & SUB-STATION
6 WORKSHOPS & ENGINEERING
7 ENGINEERING
8 ADMINISTRATION LIBRARY & PHYSICS
9 OFFICE BLOCK
10 SPORTS CLUBS
11 UNION
12 UNION
13 SPORTS CLUBS
14 LECTURE THEATRE
15 ARTS, COMMERCE & SCIENCE
16 LIBRARY

TEACHERS COLLEGE

THE UNIVERSITY OF NEW SOUTH WALES
WOLLONGONG UNIVERSITY COLLEGE

EXPRESSION

NORTHFIELDS AVENUE