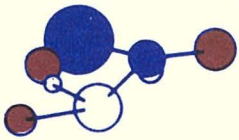
QUEENSLAND INSTITUTE OF TECHNOLOGY

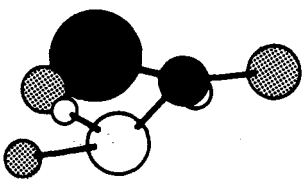


ENGINEERING

HANDBOOK 1985

School of Engineering

Civil
Electrical
Mechanical
Surveying



QUEENSLAND INSTITUTE OF TECHNOLOGY

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ISSN 0156—1804 (Engineering)

Engineering

Head of School

H J B Corderoy
BSc(Tech)(Merit), MEngSc, PhD(NSW), Barrister of the Supreme Court of NSW, MIEAust.

The School of Engineering offers courses at postgraduate level, at professional level and at sub-professional level within its four Departments of Civil Engineering, Electrical Engineering, Mechanical Engineering and Surveying.

A Master of Engineering by Thesis is offered in Civil, Electrical and Mechanical Engineering, and postgraduate diplomas in all four Departments within the School are available to provide specialist education for qualified engineers and surveyors interested in the fields covered. The Masters degree program involves a close cooperation with industry to solve practical problems and to effect the transfer of the latest technology.

The professional Engineering courses, leading to the award of Bachelor of Engineering (BEng) require a Grade 12 entry standard and are offered on either a full-time or part-time basis. This award qualifies for graduate membership of The Institution of Engineers, Australia, ensuring the professional status of students completing the course.

The professional Surveying course requires a Grade 12 entry standard and is offered on a six year sandwich basis. The course leads to the award of Bachelor of Applied Science (Surveying) and qualifies for graduate membership of The Institution of Surveyors, Australia, ensuring the professional status of the student completing the course.

The earlier years of these degree courses emphasize the fundamentals of Mathematics, basic Science and their applications, progressing in the later years to the more detailed analysis of theory, design and practice. Modern facilities and laboratories are provided in all fields. Liberal and social studies are included in the course, to encourage a balanced development of the students in humanities as well as in Engineering and Surveying.

The sub-professional courses, leading to the award of an Associate Diploma in Engineering or Surveying, require an entry standard of Grade 12, but at a lower level than that required for the professional level course.

The engineering courses are offered on a full-time or part-time basis. The surveying and the cartography courses are offered on a part-time basis only. Upon qualifying, the engineering or surveying associate is well equipped to assist the professional engineer or surveyor and cartographer in all aspects of his vocation.

In both professional and sub-professional courses, the School of Engineering provides a broad and practical education with emphasis on both the practice of the profession and on techniques used in industry. Graduates are thus amply prepared to avail themselves of the opportunities that government and industry have to offer in the attainment of satisfying, challenging and rewarding careers.

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Institute Calendar

QUEENSLAND INSTITUTE OF TECHNOLOGY
AUTUMN SEMESTER

Jan.

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1/1 - 6/2 Summer Recess
1 Public Holiday - New Year's Day
4 **Closing date** for lodgement of applications for review of Spring Semester 1984 examination results
4 **Closing date** for lodgement of re-enrolment forms and due date for payment of fees by all continuing students
11 **Closing date** for lodgement of applications for admission by unregistered students and re-registering students
19/1 - 2/2 Supplementary/Deferred Examinations
28 Public Holiday - Australia Day

Feb.

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

7 - 8 Orientation Programme (except Nursing Studies 6 - 8)
11 **Autumn Semester Commences** (except Grad.Dip. Legal Practice course)
11 **Closing date** for lodgement of applications to graduate
22 Final date for late lodgement of enrolment and re-enrolment forms
25 Commencement date for Grad.Dip. Legal Practice course

March

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

8 Final date for additions and substitutions of Autumn Semester subjects and for changes of course
22 Final date for cancellation of Autumn Semester subjects without prejudice to examination results
22 Final date for cancellation of Autumn Semester subjects for entitlement to refund of Union fees

April

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

2 **Friday Timetable** - Classes in lieu of Friday, 5 April
9 - 16 Graduation Ceremonies (tentative)
5 - 14 Mid-semester Recess
5 Public Holiday - Good Friday
8 Public Holiday - Easter Monday
24 **Thursday Timetable** - Classes in lieu of Thursday, 25 April
25 Public Holiday - Anzac Day

May

M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

10 Final date for cancellation of full year subjects without prejudice to examination results
6 Public Holiday - Labour Day
15 Autumn Semester Examination timetables placed on notice-boards
29 **Autumn Semester Ends**
30/5 - 5/6 Examination preparation

June

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

6 - 22 Autumn Semester examinations
10 Public Holiday - Queen's Birthday
24/6 - 23/7 Winter Recess
26 **Closing date** for lodgement of applications for deferred examinations and for special consideration of matters affecting examination performance - see **General Examination Rules 12 to 15.**

ACADEMIC CALENDAR 1985
SPRING SEMESTER

July

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

8 - 11 Progressive public release of Autumn Semester exam results
12 **Closing date** for new enrolments, Spring Semester
17 **Closing date** for lodgement of applications for review of Autumn Semester examination results
20 - 27 Supplementary/deferred Examinations
24/6 - 23/7 Winter Recess
17 **Closing date** for changes in Spring Semester programme arising from results in Autumn Semester examinations (adjustments to this new programme possible until 17/8)
24 **Spring Semester Commences**
24 **Closing date** for lodgement of applications to graduate
31 **Closing date** for applications for post-basic nursing courses

Aug.

M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

14 Public Holiday - Exhibition Day
23 Final date for additions and substitutions of Spring Semester subjects and for changes of course
23 - 24 QIT-in-Action Open Days (tentative)
27 - 30 QIT-in-Action Career Evening Programme (tentative)
26/8 - 13/9 Campus Interview Programme

Sept.

M	T	W	T	F	S	S
30						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

26/8 - 13/9 Campus Interview Programme
6 Final date for cancellation of Spring Semester subjects without prejudice to examination results
6 Final date for cancellation for entitlement to refund of Spring Semester Union fee
23 - 29 Mid-semester Recess

Oct.

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

4 Graduation Ceremony (tentative)
9 **Closing date** for lodgement of applications for quota entry to undergraduate courses in 1985 through QTAC (tentative)
23 Spring Semester examination timetables placed on noticeboards

Nov.

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

6 **Spring Semester Ends**
7 - 13 Examination preparation
14/11 - 2/12 Spring Semester examinations

Dec.

M	T	W	T	F	S	S
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

3 - 31 Summer Recess
4 **Closing date** for lodgement of applications for deferred examinations and for special consideration of matters affecting examination performance - see **General Examination Rules 12 to 15**
11 **Closing date** for lodgement of applications for admission to postgraduate courses
13 - 19 Progressive public release of Spring Semester examination results
25 Public Holiday - Christmas Day
26 Public Holiday - Boxing Day

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By-Laws of the Queensland Institute of Technology

BY-LAWS OF THE QUEENSLAND INSTITUTE OF TECHNOLOGY

HIS Excellency the Governor, acting by and with the advice of the Executive Council and in pursuance of the provisions of the *Education Act 1964-1974* has been pleased to approve of the following By-laws made by the Council of the Queensland Institute of Technology and approved by the Board of Advanced Education.

BY-LAW NO. 1

Interpretation

1. *Application of By-laws.* Except where otherwise expressly provided the several provisions of this By-law shall apply to every By-law of the Institute and any Rule made thereunder.
2. *Meaning of Certain Words.* Unless the context otherwise indicates or requires -

   'Academic Year' means an academic year as set out in the calendar;
   'Calendar' means the calendar of the Institute in respect of any academic year;
   'Chairman' means the Chairman of the Institute Council;
   'Institute' means the Queensland Institute of Technology;
   'Council' means the Council of the Institute constituted under the Act;
   'Course' means a course of study in the Institute;
   'Department' means a department of the Institute;
   'Deputy Chairman' means the Deputy Chairman of the Institute Council;
   'Director' means the Director of the Institute;
   'Handbook' means a handbook of the Institute;
   'Registrar' means the Registrar of the Institute;
   'Term' means a term of the Institute as set out in the calendar.
3. *Application for Enrolment.* A person who has lodged an application for enrolment shall until that application has been accepted, withdrawn or rejected be bound by and observe the By-laws and Rules of the Institute as if he were an enrolled student.
4. *Reference to Authority or Officer.* Unless the context otherwise indicates or requires reference to an authority, officer or office shall be construed as reference to that authority, officer or office in and of the Institute.
5. *Method of Citation.* In a By-law, Rule, Order or other instrument of the Institute a By-law may be cited by its number or title and shall be construed as a reference to that By-law as amended from time to time.
6. *Right of Students where By-law or Rule Amended.* If while a student is proceeding to an academic award any provisions of the By-law or

Rules relating to that award are repealed or amended the student shall be entitled to complete his course for and receive the award under the original provision upon such terms as to time for completing or otherwise as the council deems reasonable in the circumstances of the case provided always that if the Council is of opinion that it would impose no hardship upon a student to complete his course under the provisions of the By-law or Rule as so amended he may be required so to do.

7. *Serving of Notices.* Any notice or other document which is authorised or required to be served on any person by any By-law or Rule may be served in any one of the following manners:
   (a) by delivering it to that person personally;
   (b) by post.

8. *Promulgation of Rules.* A Rule made by the Council pursuant to any By-law shall be promulgated by the Registrar affixing a copy of the Rule on a notice board of the Institute and the production of a copy of any such Rule certified as a true copy by the Registrar shall be sufficient evidence of the making, authenticity and promulgation of the same for all purposes within the Institute. A copy of the Rule shall upon such affixation be forwarded by the Registrar to the Queensland Institute of Technology Union by delivering or posting it to the Queensland Institute of Technology Union or its Director of Administration.

The foregoing By-Law was made at a meeting of the Council of the Queensland Institute of Technology held on the tenth day of August, 1972.

BY-LAW NO. 2

Election of Council

1. *Introductory* -
   (a) The staff members of the Institute and the enrolled students of the Institute to be appointed members of the Council pursuant to this Act shall be elected in accordance with the By-law.
   (b) An election of elective members (other than in respect of a casual vacancy) shall be held at a time to be fixed by the Registrar not less than two months prior to the expiry of the term of such members.
   (c) For the purpose of this By-law 'staff' shall include -
      (i) all full-time employees of Council engaged as tutors, senior tutors, lecturers, senior lecturers, principal lecturers, Heads of Department, Heads of Schools;
      (ii) the Deputy Director and all full-time employees other than those referred to in (i) above who hold a salary classification equal to any of the classifications held by employees specified in (i) above;

(iii) all part-time employees of Council engaged to teach an average of six (6) hours or more per week in the semester in which the election is held;

(iv) full-time employees of Council under the Professional and Technical Employees' Award - Colleges of Advanced Education who hold a classification with a minimum salary equal to or greater than the minimum salary prescribed for a Technician Division II;

(v) full-time employees of Council under the Clerical Staffs Colleges of Advanced Education Industrial Agreement who hold a classification with a minimum salary equal to or greater than the minimum salary prescribed for an Administration Officer Grade IV.

2. *Rolls* -

(a) The Registrar shall keep separate rolls of -

(i) the members of the staff of the Institute as defined in clause 1(c); and

(ii) the enrolled students of the Institute.

(b) Each roll shall contain -

(i) the full name and address of each person enrolled;

(ii) the qualification for enrolment of each such person;

(iii) the date upon which each person qualified for enrolment.

(c) For each election the roll of persons entitled to vote at that election shall be the roll as at 4 pm. on the day on which nominations for that election close provided that up to the time fixed for the close of voting the Registrar may add to the roll the name of any person otherwise qualified to vote but whose name was inadvertently omitted from the roll.

(d) The Registrar shall from time to time make any correction to a roll which may be necessary to ensure its accuracy. Subject to any such correction the inclusion of a person's name on a roll shall be conclusive evidence of his right to vote at an election and the absence of a person's name shall be conclusive evidence that he has no right to vote at an election.

3. *Registrar to Conduct Election*

(a) The Registrar shall be the returning officer for every election and he may appoint such presiding officers and other persons to assist him as he shall deem necessary.

(b) The Registrar shall conduct every election in accordance with this By-law and the electoral system set out in the Schedule hereto.

(c) Subject to this By-law and the Rules the Registrar shall have full power and authority to determine all procedural matters relating to an election.

4. *Notice of Election.* When an election is to be held the Registrar shall publish on a notice board of the Institute and by such other means if any as he may deem desirable a notice which shall -
   (a) state that an election of staff members or of enrolled students to be appointed to the Council as the case may be is to be held on a specified date;
   (b) state the number of persons of either category to be elected;
   (c) invite nominations of qualified persons for election and specify the form in which nominations shall be made;
   (d) fix a date and time by which nominations shall be delivered to the Registrar.

5. *Manner of Nomination*
   (a) A nomination of a candidate shall be made by delivering the nomination paper in the prescribed form to the Registrar at his office by the appointed time.
   (b) A nomination paper shall be signed by the candidate and by -
      (i) in the case of an election of members by the staff two persons qualified to vote at the election;
      (ii) in the case of an election of members by the student body two persons qualified to vote at the election.
   (c) Only one candidate may be nominated on a nomination paper.
   (d) After the time fixed for the closing of nominations a nomination may not be withdrawn.

6. *Result if Only Number to be Elected Nominated.* If the number of nominations received by the Registrar within the time so specified is equal to the number of persons who may be appointed the Registrar shall declare the persons nominated to be elected.

7. *Result if Insufficient Nominations.* If the number of nominations in respect of either category is fewer than the number of persons who may be appointed the Registrar shall declare the persons nominated to be elected in that category and shall notify the Council that the body concerned has failed to nominate a sufficient number of persons to be a member or members of the Council.

8. *Result if More Nominated Than to be Elected.* If the number of nominations received exceeds the number of persons who may be appointed in either category an election shall be held in accordance with the electoral system set out in the Schedule hereto.

9. *Voting Obligation.* Voting shall not be compulsory.

10. *Secret Ballot.* Voting shall be by secret ballot.

11. *Times for Voting.* The poll shall be conducted continuously from 9 am. to 9 pm. on the nominated day.

12. *Secrecy.* The Registrar or any scrutineer or other persons concerned with the conduct of an election shall not in any way disclose nor aid in disclosing in what manner any voter voted

13. *Scrutineers.* A candidate may appoint not more than two scrutineers.

14. *Election not to be invalidated by Informalities.* An election shall not be invalidated by reason of -

    (a) failure to do any act at or by the required time;

    (b) any defect in the appointment of a person who acts as scrutineer; or

    (c) any defect of a merely formal nature.

15. *Right of Appeal.* A candidate shall have the right of appeal to the Chairman within seven days of the declaration of the poll should he feel that the conduct of the election was in any way contrary to this By-law. The Chairman shall have full power to make such enquiry as he deems necessary into the matter complained of and after such enquiry may confirm the election or annul the election and direct that a fresh election be held or give such other direction as he considers necessary. The decision of the Chairman after hearing such appeal shall be final and conclusive.

16. *Rules.* The council may make rules for the carrying into effect of all or any of the provisions and objects of this By-law.

The foregoing By-law was made by resolution of the Council of the Queensland Institute of Technology on the fourteenth day of March, 1975.

Schedule

1. *Times for Preliminary Matters.* The Registrar shall allow the intervals specified hereunder between the events severally set out -

    (a) between the publication of notice of an election and the time specified for the receipt of nominations: not less than fourteen and not more than twenty-eight days; and

    (b) between the time specified for the receipt of nominations and the nominated polling day: not more than twenty-eight days.

2. *Form of Voting Paper.* Every voting paper shall contain the names of the candidates in random order determined by the Registrar by lot in the presence of at least two of the candidates or their representatives.

3. *Conduct of the Poll.* The Registrar shall conduct the poll at a central place on the nominated day. Ballot boxes shall be sealed immediately prior to being set out for the receipt of voting papers and shall remain sealed until counting commences. When a person presents himself at the poll the presiding officer shall verify that the person's name appears on the roll as an eligible elector. The presiding officer shall then issue one voting paper to the elector and initial the elector's name where appearing on the roll. Each voting paper shall be initialled by the presiding officer. A voter shall forthwith place the completed voting paper in the sealed ballot box.

4. *Method of Marking Ballot Paper.* A voter shall mark a voting paper by placing a cross in the square opposite the names of that number of candidates which are to be elected.

5. *Postal Voting.* An elector who -

   (a) will not throughout the hours of polling on polling day be within fifteen miles by the nearest practicable route of the polling place on that day for the purposes of an election; or

   (b) is seriously ill or infirm and by reason of such illness or infirmity will be precluded from attending to vote or, in the case of a woman, will by her approaching maternity be precluded from attending to vote; or

   (c) is by reason of his membership of a religious order or his religious beliefs -
      (i) precluded from attending at the polling place; or
      (ii) precluded from voting throughout the hours of polling.

   (d) in the opinion of the presiding officer presents good and sufficient reason why he will be precluded from attending at the polling place

   may after the issue of notification of the election and before five o'clock in the afternoon of the day immediately preceding polling day, apply in the prescribed form to the returning officer for a postal vote certificate.

   The application shall be signed by the applicant in the presence of and shall be declared before and attested by a person who is an authorised witness.

   The following persons are authorised witnesses for the purposes of this clause - returning officer, justice of the peace or elector, or a duly qualified medical practitioner or duly qualified nurse who is in attendance on the applicant.

   An application under paragraph (c) shall be accompanied by a certificate from a minister of religion of the religious denomination of which the applicant is a member.

6. *Counting of Votes.* Forthwith on the closure of the poll the Registrar shall cause the votes to be counted.

7. *Informal Votes*

   (a) A voting paper shall be rejected as being an informal vote if voting paper -
      (i) is not initialled by the presiding officer;
      (ii) contains any means by which the name of the voter may be identified;
      (iii) contains votes for more or fewer candidates than the number to be elected; or
      (iv) has no vote indicated on it.

   (b) A voting paper shall not be informal for any reason other than a reason specified in paragraph (a) hereof but shall be given effect to according to the voter's intention so far as his intention is clear.

(c) The Registrar's decision as to the validity or regularity of any voting paper shall be final.

8. *Declaration of Elected Candidates.* On completion of the counting of the votes the Registrar shall declare the names of the candidates elected.

9. *Equality of Votes.* In the event of an equality of votes the election shall be decided by lot conducted by the Registrar.

10. *Custody of Election Material.* After the end of the counting the Registrar shall fasten and seal in one packet all the ballot papers together with any other papers and documents signed or marked by a voter and a marked copy of the roll signed by the Registrar and the scrutineers and keep the packet safely for twelve months after which time it may be destroyed.

11. *Recording of Result of Election.* The Registrar shall prepare a statement signed by himself and counter-signed by such of the scrutineers as may wish to do so containing the names of the candidates and the number in words as well as in figures of the votes received by each candidate and a declaration of the names of the candidates who have been elected and place that statement and declaration in the packet referred to in clause 10 of this Schedule.

12. *Registrar to Report.* The Registrar shall report the names of the persons elected to the Chairman of the Board of Advanced Education for transmission to the Minister and to the Chairman of the Council or in his absence some member of the Council nominated by him or by the Council for that purpose and shall publicly notify such names by posting a copy of the statement prepared as aforesaid upon a notice board of the Institute.

BY-LAW NO. 3

The Common Seal

1. *Custody of Common Seal.* The Common Seal shall be and remain in the custody of the Registrar and shall not be affixed to any document except pursuant to a resolution of the Council.

2. *Use of Common Seal.* The Common Seal shall be affixed to such documents as the Council either generally or in any particular case may by resolution determine and shall be affixed by the Registrar or other person authorised by the Council and every such document to which the seal is affixed shall be signed by the Chairman or in his absence the Deputy Chairman and the Registrar or other person duly authorised by the Council for the purpose.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the tenth day of August, 1972.

BY-LAW NO. 4

Meeting of Council

1. *Council to Meet.* The Council shall meet as frequently as is necessary to ensure the efficient operation of the Institute but so that not more than three months shall elapse between consecutive meetings.
2. *Chairman May Call Special Meetings.* The Chairman or in his absence the Deputy Chairman or in the absence of both the Director may call a special meeting for consideration of any urgent business.
3. *Request for Meeting.* Upon the written request of any seven members the Registrar shall convene a special meeting of the Council to be held within fourteen days after the receipt of the request. The written request shall set forth the objects for which the meeting is required.
4. *Initiation of Business by Members of Council.* Except with the permission of the meeting a member other than the Chairman or the Director shall not initiate any subject for discussion at an ordinary meeting except in pursuance of notice given at the previous ordinary meeting of the Council or conveyed by letter to the Registrar fourteen clear days before the meeting and the Registrar shall enter all such notices in a 'Notice of Motion Book' to be kept by him for the purpose.
5. *Notice of and Business at Meetings.* Notice of a meeting and copy of the business papers accompanied by supporting statements in sufficient detail shall be posted or delivered by the Registrar to each member of the Council at least ten days prior to the meeting; provided that by a further notice so posted or delivered not less than three days prior to the meeting the Registrar may advise of supplementary business to be put before the meeting. Subject to the approval of the meeting the Chairman may allow additional business to be circulated with less notice or to be tabled at the meeting.
6. *Lack of Quorum.* In the event of a quorum not being present within half an hour after the time appointed for a meeting the Chairman or in his absence the Deputy Chairman or in the absence of both the Chairman and the Deputy Chairman the members present or the majority of them or any one member if only one is present or the Registrar if no member is present may adjourn such meeting to any time not later than fourteen days from the date of such adjournment: Provided that nothing herein shall be construed to prevent the adjournment of any meeting to a later hour of the same day on which such meeting was appointed to be held.
7. *Minutes.* The minutes of any preceding meeting of the Council whether ordinary or special not previously approved as being a true record shall be circulated to members of the Council prior to the meeting at which they are to be considered. Upon being approved as correct such minutes shall be signed by the Chairman as being a true record.

8. *Adjournment.* The Council may adjourn any meeting to a later date.
9. *Rules.* The Council may make Rules -
   (a) prescribing the procedures and Rules of debate to be followed at its meetings; and
   (b) generally for carrying into effect all or any of the provisions and objects of this By-law.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the tenth day of August, 1972.

BY-LAW NO. 5

Committees Appointed by the Council

1. *Council May Appoint Committees.* The Council may from time to time -
   (a) appoint committees either for general or specific purposes;
   (b) delegate to a committee power to do any act or hold any enquiry;
   (c) authorise a committee to take executive action either generally or in specific cases in relation to any matter within its scope;
   (d) require a committee to advise the council in respect of any matter or class of matters concerning the Institute.
2. *Duties of Powers of Committees*
   (a) Every committee shall after each of its meetings or as otherwise directed by the Council transmit to the Council a submission in writing or a report consisting of minutes of any of its proceedings which involve recommendations to the Council or concern matters to which it desires the attention of the Council.
   (b) A recommendation or any decision of a committee shall be of no force or effect unless and until it is approved by the Council.
3. *Membership of Committees*
   (a) The Council may appoint to a committee such members of the Council or other persons as the Council may from time to time determine. A committee shall consist of not less than three members and a quorum shall consist of a majority of the members of the committee.
   (b) The Chairman shall by virtue of his office be a member of each committee of the Council.
   (c) A committee may co-opt such persons as it considers appropriate for the efficient conduct of its business. A co-opted member shall be entitled to vote on any matter except

one involving the exercise by the committee of a power to take executive action.

4. *Chairman of a Committee.* The Council may from time to time appoint a member of a committee to be chairman of that committee. In the absence of such appointment or in the event of the absence of the Chairman of a committee from a meeting of that committee the committee shall elect one of its members to be Chairman.
5. *Conduct of Business.* Subject to the By-laws and any direction of the Council every committee may regulate its own procedures.
6. *Recommendations to Committees.* A person or body authorised to make recommendations to the Council involving any matter within the scope of a committee may subject to any direction by the Council instead make such recommendations to that committee.
7. *Committee May Consult or Refer.* A committee may consult with or refer any matter for consideration and advice to such persons or bodies whether members of the Institute or not as it deems fit in the execution of its powers or the performance of its duties.
8. *Committee to Report to Council.* After each of its meetings every committee shall submit to the Council a full report of the proceedings.
9. *Saving of Other Powers of Council.* Nothing in this By-law shall limit the powers conferred upon the Council by the Act or any By-law or Rule and in particular and without limiting the generality of the foregoing every committee shall exercise its function and authority subject to the supreme control and direction of the Council.
10. *Rules.* The Council may make Rules for the carrying into effect of all or any of the provisions and objects of this By-law.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the tenth day of August, 1972.

BY-LAW NO. 6

The Director

1. *Duties of Director.* The Director shall be the principal officer of the Institute and shall be charged with the duty of promoting the interests and furthering the development of the Institute.
2. *Powers of Directors.* Under the Council and subject to the Act and the By-laws thereunder and to any resolution of the Council the Director shall -
   (a) be responsible for the academic, administrative, financial and other business of the Institute;
   (b) exercise a general supervision over all persons in the service of the Institute and over the welfare and discipline of the students of the Institute;
   (c) exercise such powers as the council may delegate to him.

3. *Director to be Member of Committees.* The Director shall be ex-officio a member of every board and committee within the Institute.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the tenth day of August, 1972.

BY-LAW NO.7

The Registrar

1. The Registrar shall be the chief administrative officer of the Institute.
2. *Registrar to Assist Director.* The Registrar shall assist the Director as the latter may require in the performance of his duties.
3. *Duties of Registrar.* Under the Director the Registrar shall -
   (a) be responsible for the general administration of the Institute;
   (b) be Secretary of such sub-committee as may be determined by the Council from time to time;
   (c) keep all such registers as may be required;
   (d) conduct the correspondence of the Institute; and
   (e) be responsible for the management and supervision of the examinations of the Institute.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the tenth day of August, 1972.

BY-LAW NO. 8

Staff

1. *Council May Appoint Staff.* The Council may -
   (a) appoint staff;
   (b) note resignations from members of the staff;
   (c) declare the employment of any member of the staff to have been abandoned by such member;
   (d) approve the grant of salary progression to any member of staff within the salary scale applicable to such member.
2. *Discipline of Members of Staff*
   (a) The Council may take disciplinary action against any member of the staff who is guilty of a breach of discipline.
   (b) In this By-law the expression 'take disciplinary action against' means fine, reprimand, suspend, transfer to other duties, dismiss or reduce in status and the expression 'guilty of a breach of discipline' means guilty of neglect in the discharge of his duties or of misconduct which in either case in the reasonable opinion of the Council is detrimental to the Institute.

3. *Suspension of Staff*

   (a) Where in his reasonable opinion such action is necessary or desirable in the interests of the Institute the Director may suspend a member of the staff and may exclude him from admission to the precincts of the Institute or to any of its buildings.

   (b) After suspending a member of the staff in accordance with subsection (a) the Director shall immediately inform the Chairman or Deputy Chairman of such action and shall submit a report on the circumstances thereof to a meeting of the Council to be held within fourteen days of such suspension.

   (c) The Council shall consider the report of the Director and shall either determine that the suspension shall be terminated or shall refer the matter for the immediate consideration of a Staff Disciplinary Advisory Committee. If the suspension of a member of the staff be terminated by the Council and he thereupon resumes his duties all salary and other emoluments which would have become payable to him if he had not been suspended shall become immediately payable to him.

   (d) A member of staff whilst under suspension shall not receive pay or any other entitlements of his office accruing after the suspension pending determination of his case by the Council.

4. *Staff Disciplinary Advisory Committee*

   (a) There shall be constituted from time to time as and when necessary a staff Disciplinary Advisory Committee consisting of the following members -

   The Chairman or in his absence Deputy Chairman;
   Two members of Council appointed by Council;
   Two members of the staff appointed by the relevant Staff Association.

   (b) Three members of the Committee shall be a quorum.

   (c) The functions of the Committee shall be to make enquiry into and report to the Council through the Director on the existence and sufficiency of any alleged ground for disciplinary action against any member of the staff which may be referred to it by the Council the Director or when requested by the member of the staff accused of the breach of discipline.

   (d) The Committee shall -

      (i) furnish forthwith to such member of the staff concerned particulars in writing of the alleged breach of discipline and give him a reasonable time to prepare his defence; and

      (ii) when making enquiry into the matter which enquiry shall be held as soon as reasonably possible -

         (a) consider such submissions material and evidence as are relevant; and

(b) give the member of the staff concerned reasonable opportunity to be heard and to make such submissions and present such materials and evidence as are relevant.

(e) The Chairman shall have a primary vote only.

(f) In the case of equality of votes the member of the staff concerned shall be found not guilty.

5. A member of the staff in respect of whom the Committee has made an adverse report shall be entitled to make written and with the approval of the Council verbal representations to the Council before any decision by the Council. The Council shall meet for the purpose of hearing such representations within fourteen days of the making of the adverse report and a copy of the proceedings of the Committee shall be made available to such member of the staff prior to his making his representations.

6. A member of the staff shall be entitled to be represented by Counsel or solicitor or by such other person being willing to act as he may appoint. In the event of any such representation of a member of the staff the Chairman or Deputy Chairman may appoint to the Committee for the particular hearing a barrister or solicitor of the Supreme Court of Queensland and the Chairman for the time being of the Committee may adjourn the hearing to enable and effect such further appointment to the Committee. Such barrister or solicitor shall advise the Committee from time to time as the Committee or any member of the Committee may request but such barrister or solicitor shall not have nor exercise any vote.

7. *Rules.* The Council may make Rules for carrying into effect all or any of the provisions and objects of this By-law.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the tenth day of August, 1972.

BY-LAW NO. 9

Student Discipline

1. *Application of By-law.* Except where otherwise herein expressly provided this By-law applies to all breaches of discipline as herein defined committed by a student within any boundary or the precincts of the Institute.

2. *Breach of Discipline.* A student who contravenes or fails to comply with any By-law or Rule of the Institute or any lawful order of any of its employees is guilty of a simple breach of discipline.

3. *Misconduct.* 'Misconduct' means conduct on the part of a student which impairs or interferes with the freedom or ability of other persons to pursue their studies, researches, duties or lawful activities in the Institute or upon premises of the Institute or to participate in the life of the Institute or is otherwise detrimental to

the proper conduct or good order of the Institute or which while or as a member of an accredited or representative body of students and whether or not occurring or taking place upon premises of the Institute is such as to prejudice or to adversely affect the studies, researches or duties of any student of the Institute.

Without prejudice to the generality of the foregoing the expression includes -

(a) disrupting or obstructing any teaching activity, examination or official meeting or proceeding of or within the Institute;

(b) refusing to leave any building or part of a building of the Institute upon being reasonably directed by a senior officer of the Institute to leave it;

(c) knowingly entering any place within the premises of the Institute which the student is forbidden by a senior officer of the Institute or by a statute or rule to enter;

(d) knowingly divulging confidential information relating to any Institute matter which is clearly of a confidential nature and which he has no right to divulge;

(e) obstructing or attempting to interfere with the lawful performance of his duties by any officer or employee of the Institute;

(f) intentionally damaging or wrongfully dealing with any property in or upon Institute premises;

(g) unlawfully assaulting a person on Institute premises;

(h) failing to comply with any action taken under this By-law other than non-payment of a fine;

(i) committing a breach of any By-law or Rule of the Institute the breach of which by that By-law is declared to be misconduct for the purposes of this By-law;

(j) making a false representation as to a matter affecting him as a student of the Institute.

'Senior Officer of the Institute' means the Director the Registrar the Bursar the Head of a Department any member of the teaching staff; the Librarian the Manager of the Bookshop the Director of Administration of the Queensland Institute of Technology Union and any other person designated as such in writing by the Director.

'The premises of the Institute' means any land, building or improvements owned or occupied by or which are or may be in the possession or under the control or management of the Institute.

'An accredited or representative body' shall be and be deemed to be one which the Director certifies to be concerned or engaged or having been concerned or engaged in or on an educational activity of the Institute.

4. *Powers of Staff.* A member of the teaching staff a librarian in charge of the library the Bursar the Registrar or the person for the time being acting as or carrying out the duties of Bursar or Registrar may in respect of any simple breach of discipline by a student

committed in a class, laboratory, library or facility or premises under his management or control suspend the student from attendance at such class or from use of such laboratory, library, facility or premises for a period not exceeding twenty-four hours as he may determine and shall forthwith advise the Head of Department or if there be no appropriate such Head of Department the Registrar or the person for the time being acting as Registrar of the action taken. The Head of Department or the Registrar or person acting as Registrar as the case may be shall forthwith advise the Director. In the event that there be doubt or lack of definition as to who has such management or control of any part or parts of the Institute the Registrar or the person for the time being acting as Registrar shall be deemed to have such management or control.

5. *Powers of Heads of Departments and Persons in Charge of Facilities or Services.* Heads of Departments and persons in charge of facilities and services may in respect of any simple breach of discipline by the student committed in the department or area of the Institute under the control of the Head of Department or such person so in charge suspend the student from entering into that part of the Institute for a period not exceeding twenty-four hours. The Head of the Department or such person as aforesaid shall forthwith advise the Director of the action taken.

6. *Powers of the Director.* The Director whether following receipt of advice as referred to in the preceding sections 4 and 5 of this By-law or otherwise may after the student has been given reasonable opportunity to be heard in respect of any simple breach of discipline fine a student an amount not exceeding $25 or alternatively or in addition may take any one or more of the following courses of action -

   (a) Reprimand and warn the student against repetition of the simple breach of discipline;

   (b) Suspend the student for a period not exceeding one week which shall include any period of suspension imposed under sections 4 or 5 of this By-law;

   (c) Suspend the student from examinations either prior to or during the currency thereof provided that a student may not be so suspended during the currency of an examination unless the Director is of the opinion that such action is necessary to enable other candidates to concentrate or to preserve peace, order or decorum in the examination centre.

7. (a) Where any misconduct is alleged to have been committed the following provisions shall apply -

      (i) Notice of the charge shall be stated in writing with reasonable particularity by the Director and a copy thereof together with no less than seven days' notice of the date and place of hearing shall be given to the student and to the Director of Administration Queensland Institute of Technology Union.

(ii) The guilt or otherwise of the student shall be determined by a committee of which the Chairman and two other members shall be appointed by the Council and to which the Queensland Institute of Technology Union shall have the right to appoint up to three members but no appointment by the Queensland Institute of Technology Union shall be valid and effective unless written accreditation has been lodged with the Director before the hearing begins. Any of the committee members may be appointed for a stated or any undetermined period.

(iii) A student shall be entitled to be represented by Counsel or solictor or by such other person being willing to act as he may appoint. In the event of any such representation of a student the Chairman or Deputy Chairman may appoint to the committee for the particular hearing a barrister or solicitor of the Supreme Court of Queensland and the Chairman for the time being of the committee may adjourn the hearing to enable and effect such further appointment to the committee. Such barrister or solicitor shall advise the committee from time to time as the committee or any member of the committee may request but such barrister or solicitor shall not have nor exercise any vote.

(iv) Three members of the committee shall constitute a quorum and the decision of the majority of the members taking part in the hearing shall be the decision of the committee.

(v) The Chairman shall have a primary vote only.

(vi) In the case of an equality of votes the student shall be found not guilty.

(b) Where a student is found guilty of misconduct the committee-

(i) may fine him an amount not exceeding $100, and

(ii) may order him to pay restitution or compensation to the Institute and may assess the amount thereof, and

(iii) may recommend to the Council that he be suspended or excluded from the Institute for a specified period or be expelled therefrom.

8. *Procedure.* Any proceedings under this By-law including an appeal shall be heard and finalised without delay. A student shall be given a reasonable opportunity of answering any allegation against him of misconduct.

The Chairman of the committee shall keep or direct to be kept a reasonably comprehensive record of the proceedings for use of the Council in the event of an appeal and a copy of such record shall be made available to the student upon request.

9. *Appeal.* A student convicted of any breach of discipline shall be entitled to have the matter reviewed by the Council but subject to the condition that within fourteen days of his conviction he gives written notice in that behalf to the Director and sets out therein the

grounds of his appeal and such other relevant matters and contentions as he desires to have considered by the Council.

Unless the Council otherwise directs the matter shall be considered in the first instance by an Appeals Committee (none of whom shall have sat upon the committee referred to in section 7 hereof) of which the Chairman and two other members shall be appointed by the Council and the Queensland Institute of Technology Union shall have the right to appoint three members but any appointment by the Queensland Institute of Technology Union shall not be valid and effective unless written accreditation has been lodged with the Director before the hearing begins and the provisions of section 7 hereof *mutatis mutandis* shall apply to such committee. The review shall be decided upon a consideration of the record kept pursuant to section 8 hereof (or in the case of a simple breach of discipline of a report of the Director) and of any notice given by the student as abovementioned unless the Council or the committee (as the case may be) considers that there should be further enquiry and in that event further evidence may be heard.

The student shall have the same rights in relation to the taking of this evidence as he had in relation to the evidence taken at the hearing and any written submission by him in relation thereto shall be taken into consideration provided that such submission is given to the Director within fourteen days from the conclusion of such evidence.

The Appeals Committee shall report to the Council which may confirm or set aside a conviction and may confirm, set aside or vary in whole or in part any fine and any order for restitution or compensation and where the conviction has been confirmed it may order that the student be suspended or excluded from the Institute for a specified period or be expelled therefrom.

10. *Interim Order of Suspension.* In circumstances where the Director considers that the good order or discipline of the Institute so requires he may order that a student charged with misconduct shall be suspended from such Institute activities as the Director shall determine pending the determination of the charge. Provided that a student shall not be so suspended during the currency of any examination unless the Director is of opinion that such action is necessary to enable other candidates to concentrate or to preserve peace, order or decorum in the examination centre.

    The Institution of an appeal shall not operate so as to stay or suspend any such order made by the Director unless the Director otherwise directs.

11. *Enforcement of sentences.* The imposition of any fine and any order made under or pursuant to this By-law shall become operative immediately it is pronounced and a record of all such fines and orders shall be kept by the Registrar.

    A student in respect of whom there is operative an order of suspension or exclusion or expulsion shall be a trespasser if he enters upon the premises of the Institute or any part thereof in

breach of such order and shall as such be liable to the due processes of the law; and he may be lawfully removed therefrom by any person or persons so authorised by the Director who may lawfully use any reasonable force to effect such removal.

So long as a fine imposed on him or any compensation or restitution ordered to be paid by him remains unpaid a student may by order of the Director be suspended from such Institute activities as he may determine.

12. In the absence of the Director his powers, functions and discretions under this By-law may be exercised by such person and for such period as the Council may determine.

13. The committee referred to in section 7 hereof and the Appeals Committee referred to in section 9 hereof shall make enquiry in such manner as it deems appropriate to the circumstances of the case; and shall proceed in all respects according to the justice of the case and decide the issue according to equality and good conscience without being bound by legal technicalities or the laws of evidence. Provided always that the student shall be given reasonable notice of the matters alleged against him and a reasonable opportunity to answer them.

    No proceeding of such committee or Appeals Committee shall be rendered invalid by reason of any informality in its proceedings or in the absence of any member from a meeting provided that a quorum is otherwise present.

14. *Effect of Suspension of Student.* Unless the context otherwise indicates or requires or the Director in any particular case otherwise directs any student who is suspended or excluded by any By-law or rule or under the authority of any By-law or Rule -

    (a) shall not thereby become entitled to be repaid any fees paid by him or to be relieved of the payment of any fees already payable by him; and

    (b) while the suspension or exclusion continues shall not attend at the Institute or at any premises where the Institute is offering lectures, tutorials or training or use any of the facilities of the Institute or take any part in any student activities or be entitled to sit for any examination or re-enrol for any course or subject;

    Provided that the Director shall grant to any student charged with misconduct reasonable access to such Institute premises and facilities as in the opinion of the Director is reasonably necessary to enable the student to prepare his defence.

15. *Rules.* The Council may make Rules for the carrying into effect of all or any of the provisions and objects of this By-law.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the tenth day of August, 1972.

BY-LAW NO. 10

The Queensland Institute of Technology Union

1. *The Union.* The Queensland Institute of Technology Union (in this By-law called 'the Union') shall be the recognised means of communication between -
   (a) the students or any section of them and the Institute;
   (b) the students of this and other colleges or other tertiary institutions;
   (c) student societies within the Institute and outside persons or bodies.
2. *Constitution.* Subject to this By-law and to any rules made hereunder, the Union shall have such powers and authorities and be subject to such obligations as are set out in the Constitution of the Union as approved from time to time by the Council.
3. *Annual Reports.* The Union shall in each year submit to the Council, through the Registrar, a copy of its annual general report, a copy of its balance sheet, and a statement of its income and expenditure duly audited.
4. *Appeal against disciplinary action.* Any student or body against whom any disciplinary action has been taken by the Union may within thirty days of the taking of such action appeal to the Council against any such disciplinary action and the Council shall have full power to deal with such appeal and to make any determination it considers necessary in the matter.
5. *The Council may make rules.* The Council may make rules for carrying into effect all or any of the provisions and objects of this By-law.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the nineteenth day of December, 1974.

BY-LAW NO. 11

Union Fees

1. *Union Fees Payable.* Each person whose application for enrolment as a student of the Institute is accepted shall pay fees (hereinafter called 'the Union Fees') for membership of the Queensland Institute of Technology Union (hereinafter called 'The Union'). The Union Fees shall be received on behalf of the Union by the Registrar or such other officer of the Institute as the Council may appoint or by the Union as the Council may from time to time direct.

2. *Union Fees.* The Union Fees shall be:

	Per Annum
Part-time External Students	$5.00
Part-time Internal Students	$40.00
Full-time Students	$80.00
All Other Members	$40.00
Sandwich Course Students	$40.00

3. *Refund of Fees.* Subject to such Rules as the Council may make from time to time the Union Fees paid by a student whose application for enrolment is cancelled or withdrawn at any time shall be refunded in whole or in part as the Union may determine.
4. *Exclusion.* The Council may cancel the enrolment of any student who has not paid by such date or dates as the Council may prescribe by Rule all Union Fees due and payable by such student.
5. *Rules.* The Council may make Rules and amend such Rules from time to time for the carrying into effect of all or any of the provisions and objects of this By-law.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the eighteenth day of October, 1979.

BY-LAW NO. 12

Libraries

1. A person shall not use the Institute Main Library or any other library which may at any time be established in the Institute except in compliance in all respects with rules made by the Council relating to such use.
2. The Council is authorized, pursuant to this By-law to make such rules as it considers necessary for the carrying into effect of all or any of the provisions and objects of this By-law.
3. A person who contravenes or fails to comply with any of the provisions of the rules made under the authority of this By-law shall be liable to a penalty not exceeding $100.
4. Without limiting the generality of the provisions of Sub-By-law two hereof, rules made pursuant to this By-law may be for all or any of the following purposes -
   (a) The management and conduct of a library to which the provisions of this By-law apply and the use care and maintenance preservation and safety of such a library and of any materials (whether journals papers books films tapes recordings or other materials) equipment furniture or other property forming part of or located therein;
   (b) Defining the powers and duties of the holder of any specified office in the Institute with respect to libraries;

(c) The conditions on which a person may enter a library to which the provisions of this By-law applies or use any materials equipment furniture or other property forming part of or located therein;

(d) Prescribing in respect of contravention of or failure to comply with rules made under this By-law -

(i) a reprimand and warning against repetition of the contravention of or failure to comply with the rules;
(ii) withdrawal of borrowing privileges for a specified period not exceeding one semester;
(iii) exclusion from a library for a specified period not exceeding one semester;.
(iv) refusal to release examination results;
(v) Refusal to permit re-enrolment in any course or subject offered by the Institute.

5. The provisions of this By-law twelve and any rules made pursuant thereto shall be in addition to and not in substitution for the provisions of any other By-law or rule made by the Council in pursuance of the *Education Act 1964-1974* in respect of the Institute.

The foregoing By-law was made at a meeting of the Council of the Queensland Institute of Technology held on the twenty-first day of June, 1979 and seventeenth day of May, 1983.

BY-LAW NO. 13

OWEN J. WORDSWORTH MEMORIAL SCHOLARSHIPS

1. *Power to Grant Scholarships*

The Council may grant scholarships to be named the Owen J. Wordsworth Memorial Scholarships in accordance with the provisions of this By-Law and in accordance with the provisions of the Owen J. Wordsworth Memorial Trust Declaration dated 18th November, 1982, a copy of which is available from the Registrar upon request by an applicant for a scholarship or by any other interested person. An Owen J. Wordsworth Scholarship, hereinafter referred to as 'scholarship' shall be funded only from interest accrued on moneys from time to time held in the Owen J. Wordsworth Memorial Trust.

2. *Eligibility for Scholarship*

(a) To be eligible for a scholarship an applicant shall meet the following conditions -

(i) The applicant shall have been accepted as a full-time student in a Masters Degree program at the Institute at the time the scholarship is taken up;

(ii) The applicant shall have achieved better than pass results in a high percentage of individual subjects taken during undergraduate studies. Consideration

may be given to an applicant whose academic performance does not meet this standard, but who has shown evidence of special capacity in his subsequent employment;

(iii) Where applicants are otherwise considered to be equally qualified, preference shall be given to graduates of the Institute.

(b) (i) An applicant shall be ineligible for a scholarship if he holds another like award from any source of a value of more than $1,000.00 per year, or such other amount as may be determined by Council from time to time, which provides benefits similar to those provided by the Owen J. Wordsworth Memorial Scholarship.

(ii) Concurrent assistance from an employer in the form of part-salary, payments in relation to long service leave, or assistance granted for travel associated with overseas research or field trips, or any assistance for purposes other than those covered by the scholarship shall be ignored in calculating the value of the award referred to in Clause 2(b)(i) of this By-Law.

3. *Application Procedures*

Applications shall be made on the prescribed form available from the Registrar's office and shall be lodged with the Registrar by the Thirty-first day of October each year.

4. *Value and Payment of Scholarship*

(a) The Value of each scholarship shall be $7,000 per annum or such other amount as the Council may determine from time to time. The Council shall review the value of the scholarship annually.

(b) A scholarship holder shall receive payment in equal monthly instalments commencing in the first month of study by the scholarship holder following the granting of the scholarship. Payments shall be made by cheque sent through the post to the address nominated by the scholarship holder.

5. *Post-graduate Award Committee*

(a) The award of a scholarship and authorisation of the disbursement of moneys in payment of such award shall be made by the Post-graduate Award Committee consisting of:

(i) The Deputy Director of the Institute (who shall be the Chairman of the Committee);

(ii) The Head of each School within the Institute which offers a Masters Degree Program;

(b) The Registrar (or his nominee) shall be the Secretary of the Committee.

6. *Term of Scholarship*

   The scholarship shall be awarded for one year and subject to progress satisfactory to the Post-graduate Award Committee, shall be extended for one further year.

7. *Employment*

   (a) A scholarship holder, with the approval of the Head of Department in which the Masters Degree program is being undertaken, may engage in a limited amount of part-time employment provided that such employment does not interfere with his study program. The employment normally shall not exceed six hours in any one week.

   (b) Subject to the following sub-clause, the maximum permissible employment shall be 180 hours in a calendar year. If the maximum permissible employment in a calendar year is exceeded, the scholarship shall terminate. If the part-time employment consists of tutoring or lecturing, the total of six hours per week or 180 hours per year shall include the time required for preparation and marking.

   (c) In determining the number of hours of employment undertaken, or business engaged in, periods before the commencement of the course or after its completion, during the summer recess (with respect to holders undertaking course work Masters Programs) or during a period of recreation leave or leave of absence shall not be included.

8. *Leave of Absence*

   A scholarship holder shall report any absence from his studies to his Masters Program Supervisor as soon as possible.

9. *Suspension of Awards*

   (a) Unless the Post-graduate Award Committee otherwise decides, if a scholarship holder discontinues full-time study his scholarship shall terminate.

   (b) If a break in study of two weeks or more is required because of personal reasons or illness, a scholarship holder shall apply in writing to the Registrar for a suspension of his scholarship for the relevant period. During the period of approved suspension, a scholarship holder shall not be entitled to receive any benefits under the scholarship.

   (c) A suspension for a period not exceeding twelve months may be granted by the Registrar, to a scholarship holder who wishes to undertake some of his activity at another location. Application for suspension of a scholarship under this sub-clause shall be made in writing to the Registrar. If prior approval of a suspension under this sub-clause is not obtained the scholarship holder shall be deemed to be absent without permission and the scholarship shall terminate.

10. *Rules*

    The Council may make Rules for the carrying into effect of all or any of the provisions of this By-Law.

3

Rules Relating to Student Matters

RULES RELATING TO STUDENT MATTERS

Admission to Courses

The Council may -

1. prescribe the conditions for normal entry to each course offered.
2. limit the number of students who shall be permitted to enrol or continue in any course.
3. appoint an Admissions Committee and approve of rules providing for -
   (a) its membership including the appointment of a Chairman;
   (b) its method of operation;
   (c) the admission of students who do not comply with normal entry;
   (d) the selection of students to be admitted where quotas or restrictions have been imposed upon admissions and enrolments;
   (e) a quorum.

Academic Structure and Content of Courses

The Council may -

4. prescribe the academic structure and content of any courses and amend these at any time provided the reasonable rights of students already enrolled in the course are not prejudiced or are sufficiently safeguarded;
5. prescribe rules for student progression within a course;
6. delegate any or all of its powers under this section.

Assessment of Students

The Council may -

7. approve rules rleating to the examination and assessment of students and the award of grades of passes;
8. delegate any or all of its powers under this section.

Exclusion of Students

The Council may -

9. prescribe rules relating to gross failure;
10. exclude any student who is classified as having achieved gross failure in subjects or courses;
11. delegate any or all of its powers under this section provided that any student shall have a right of appeal to Council against any decision or exclusion.

Appeals

Council shall establish an Appeals Committee to hear student appeals to

the Council against exclusion and approve rules not inconsistent with By-law No. 5 or rules thereof in respect of the duties powers membership and management of the business of such Committee.

RULES FOR ADMISSION

1. Meaning of certain words. Unless the context otherwise indicates or requires -

   'Admission Committee' means a committee appointed by Council to consider applications for admission to Institute courses.

   'Head of School' means a member of the academic staff appointed by Council and so designated. In the case of a Department not attached to a School the Director shall act as Head of School.

   'Senior Student Counsellor' means the Senior Student Counsellor of the Institute.

   'Academic Staff Association' means the Academic Staff Association of the Institute.

   'Ordered Course' means a course in which a student is required, to gain credit in a number of subjects in a particular sequence to acquire an award.

   'Head of Department' means a member of the academic staff appointed by Council and so designated as the senior academic member of staff in a particular Department.

   'Sub-tertiary course' means a course of study leading to the award of a Certificate.

   'Tertiary Course' means a course of study leading to the award of a Degree Diploma or an Associate Diploma.

   'Assistant Registrar' means the Assistant Registrar of the Institute.

   a 'Registered Student' is a student in an ordered course whose first enrolment in that course has been accepted and approved by the Registrar. A student shall remain a registered student until he:
   (a) completes the course, or
   (b) withdraws from the course, or
   (c) is excluded from the course, or
   (d) fails to enrol in the course.

   'Special Student' shall mean any person so accepted other than as a registered student.

2. The membership of the Admissions Committee shall be -

   Registrar (who shall act as Chairman)
   Heads of Schools
   Senior Student Counsellor
   One representative appointed by the Academic Staff Association.

   A member of Committee may be permitted to appoint another person who is not a member to attend and vote on his behalf.

3. The Admissions Committee shall -

   (a) advise the Director and the Academic Assembly on all matters relating to the admission of students including -

      (i) the standards of entry to all courses after consideration of recommendation prepared by the Academic Boards;
      (ii) the assessment of prospective future enrolments following periodic reviews of statistical trends;
      (iii) the recommendation or policies for determining those who should be given priorities for admission or enrolment where quotas or restrictions on admissions or enrolments are in the opinion of the Council necessary.

   (b) determine eligibility for admission in those cases where the applicant does not possess normal entry standards.

4. A person desirous of entering a course shall make application to the Registrar for admission on a form provided for this purpose, and shall lodge such form fully and correctly completed not later than the closing date prescribed by the Council.

   With such application, the person shall produce to the Registrar for verification, sufficient documentary evidence of passes in prerequisite examinations.

   The documentary evidence produced for verification shall be -

   (a) the original documents or facsimile copies thereof;
   (b) such other evidence as the Admissions Committee may require.

5. A person who does not have the normal entry qualifications may make application for special consideration for entry on a form provided by the Registrar.

6. Concurrently with an application for special consideration for entry a person shall lodge with the Registrar an application for enrolment on the form provided for the purpose, and shall lodge such form fully and correctly completed not later than the closing date prescribed.

7. The Registrar shall notify all applicants for admission of the acceptance or rejection of their applications.

8. An application for enrolment may be amended by the Head of Department because of -

   (a) timetable incompatibility;
   (b) non-compliance with the rules applicable to the course of study;
   (c) selection by the applicant of subjects which in the opinion of the Head of Department are more than his capacity or circumstances allow him to study adequately.

   An applicant whose application for enrolment has been amended shall have a right of appeal to the Head of the School. Such an appeal shall be lodged with the Registrar within fourteen (14) days from date of notification of such amended enrolment. The Registrar shall notify the applicant of the result of the appeal as soon as is reasonably possible.

9. Late enrolments may be accepted only if a vacancy exists in classes established on the basis of closing date enrolments, and with the approval of the Head of School.

10. A Head of School may cancel any class in any subject where the number of enrolments in that class is considered to be insufficient.

    Class groups shall be determined on enrolments as at closing date prescribed by Council. In the event of the cancellation of any class the enrolment of a student shall be deemed to be cancelled in respect of such subject provided that such cancellation shall be without prejudice to the right of the student to again apply for admission for enrolment in such subject, subject to the conditions prescribed for entry to such subject at the time of his application.

RULES RELATING TO UNREGISTERED STUDENTS

1. A student may be enrolled to do miscellaneous subjects, as distinct from registering for a complete course. Such students shall be termed 'Unregistered Students' and must obtain the prior approval of the relevant Head of Department to enrol each year. Unregistered Students shall be required to pay the appropriate Union Fee and shall be subject to the rules of the Institute, with the exception of Rules 41 to 46 of the General Examination Rules.

2. A requirement for admission to do a miscellaneous subject will be compliance with the rules as to the normal pre-requisite and co-requisite to that subject, including those subjects of the entrance requirements regarded as pre-requisites to the subject. The Admissions Committee, on the advice of the Head of the Department controlling the subject, has the authority to waive entry requirement pre-requisites.

3. A student will not normally be permitted to take simultaneously subjects from more than two courses either as an unregistered student in both courses or as an unregistered student in one course and a registered student in another course except at the discretion of the appropriate Head(s) of School(s).

4. Where permission is granted to undertake subjects from more than one course, only one Union fee will apply.

5. The maximum number of hours per week which may be attempted is at the discretion of the appropriate Head(s) of School(s).

6. An unregistered student will not be permitted to accumulate credits for more than 20% of the total course hours within a course.

7. Where quotas or other restrictions apply to a subject, a student applying for registration in a course will have precedence over unregistered students.

8. Where a registered student is undertaking miscellaneous subjects offered in another course in which the student is not registered, the application of the Gross Failure Rules in the course for which the student is registered will not be affected in any way by the results obtained in the miscellaneous subject.

9. When a registered student is excluded from his course due to gross failure, he shall not subsequently be eligible for enrolment as an unregistered student in any subject of that course except at the discretion of the appropriate Head(s) of School(s).

RULES RELATING TO EXEMPTIONS

1. Subject to the provisions of Rules 2 and 3 hereof, a student who has completed a program considered by the Head of Department responsible for the course as being an adequate and relevant substitute for a subject or subjects prescribed in the relevant course rules may be granted exemption from the whole or part of that subject or those subjects.
2. Exemptions may be granted for any number of subjects provided that -
   (a) in the case of a course which exceeds two semesters full-time or four semesters part-time, exemptions may be granted up to a limit such that in order to qualify for the award the student must have completed satisfactorily within the Institute the equivalent of at least two semesters of full-time study or where the course is not offered for full-time study four semesters of part-time study in subjects nominated by the Head of Department responsible for the course, irrespective of the course in which the student was registered while undertaking the nominated subjects;
   (b) in the case of a course which does not exceed two semesters full-time or four semesters part-time, exemptions may be granted up to a limit such that in order to qualify for the award the student must complete satisfactorily within the Institute subjects nominated by the Head of Department responsible for the course, the contact hours of which aggregate to 75 percent or more of the prescribed minimum contact hours of the course, irrespective of the course in which the student was registered while undertaking the nominated subjects;
   (c) where a student gains an award in one Institute course, in order to qualify for a second or subsequent Institute award the provisions of 2(a) or 2(b) above must be satisfied subsequent to registering for the second or subsequent course.
3. Exemptions will not be granted in connection with or for the Graduate Diploma in Legal Practice course.
4. Except as specifically provided in individual Course Rules and save in exceptional circumstances as determined by the Registrar all applications for exemption must be made and determined at the time of a student's first Enrolment in the course to which the exemptions refer.

5. Whenever exemptions granted constitute 50% or more of the full course program, the Head of Department responsible for the course shall provide the Registrar with full details of the study program which the student has to complete at the Institute to qualify for the award. The Registrar shall advise the student of such requirements in writing.

RULES RELATING TO STUDENTS WHO SEEK RE-REGISTRATION

1. Subject to the provisions of clauses 2 and 3 below, a student whose registration in a course has lapsed because of withdrawal from the course or failure to re-enrol in the course and who wishes to re-register in that course.
   (a) must apply for registration in the course by submitting a Re-enrolment Form;
   (b) shall be subject to the Course Rules in operation at the time of resumption; and
   (c) must re-enrol as directed.
2. The provisions of clause 1 of this Rule do not apply to students, who, at the time of resumption, have not satisfactorily completed all the subjects listed in the Course Rules for the first and second semesters, full-time, part-time, or external, as the case may be, of the course in which re-registration is sought. Such students are not eligible to re-enrol and must apply for admission to the course in the manner prescribed for new students.
3. Upon withdrawal from a course, or upon failure to re-enrol in a course a student who has not satisfactorily completed all subjects listed in the Course Rules for the first and second semesters, full-time, part-time or external, as the case may be, of that course, may be granted leave of absence upon production to the Registrar of documentary evidence acceptable to the Registrar in the case of medical or other compassionate grounds and acceptable to the relevant Academic Board responsible for the course in any other case. Such leave of absence shall be for a specific period at the expiration of which the student may re-enrol without loss of credit for results awarded prior to the date of withdrawal. A student to whom leave of absence has been granted shall be deemed for the period of leave of absence to be no longer proceeding to an academic award and must, on termination of the leave of absence, re-enrol or apply for an extension of the leave of absence. If a student fails to re-enrol or obtain an extension his registration will lapse.
4. A student whose registration in a course has lapsed as a consequence of exclusion from the course and who wishes to re-register in the course must apply for readmission in accordance with Rule 46 of the General Examination Rules.

GENERAL EXAMINATION RULES

Part I. DEFINITIONS

'Academic Board' means a Board constituted by Council to exercise certain academic functions in relation to a particular School.

'Committee of the Academic Board' means a group of members of the Academic Board constituted by the Academic Board to exercise those particular academic functions prescribed by the Academic Board.

'Award' means a Degree, Graduate Diploma, Diploma, Associate Diploma or Certificate conferred upon a student by the Council.

'Chief Examiner' means an officer appointed and so designated by a Head of Department in relation to an examination in a particular subject for a particular period.

'Examiner' means an officer appointed by the Head of Department to set and mark examination papers in a particular subject for a particular period.

'Supervisor' means an officer appointed by the Registrar or nominated by a Head of Department to supervise the conduct of a particular examination.

'Central Examination' means any examination administered by the office of the Registrar.

'Departmental Examination' means any examination administered by a Department.

'Supplementary Examination' means a further examination given to a student who has failed to pass a subject.

'Deferred Examination' means an examination given to a student in cases where the student has failed to sit for and complete an examination and the reasons for such failure have been accepted by the Head of School.

'Course' means a group of subjects specified by the rules which must be successfully completed in order to qualify for a specified award.

'Subject' means the basic educational unit for which results are awarded within the Institute.

'Result' means the formal indicator of a student's achievement in a subject.

'Assessment Provisions' means the systems of assessment approved for a subject and may include Central Examinations, Departmental Examinations, Assignments, Field Work, Practical Work, Reports, Seminar Participation or other work which a student is required to do and which will be assessed in determining a student's result in the subject.

'Head of School' means a member of the academic staff appointed by Council and so designated.

'Head of Department' means a member of the academic staff appointed by Council and so designated as the senior academic member of staff in a particular Department except that where there is no Department responsible for subjects the Head of School shall be regarded as the Head of Department.

'Registrar' means the Registrar of the Institute.

'Director' means the Director of the Institute.

Part II. DETERMINATION AND NOTIFICATION OF ASSESSMENT PROVISIONS

1. *Authority to Prescribe Assessment Provisions*

   (a) The Assessment Provisions for each subject shall be prescribed by the Department responsible for the subject and shall be approved by the Academic Board of the School to which the Department is attached.

   (b) An Academic Board shall have the power to delegate its responsibility under this rule to a Committee of the Academic Board subject to any conditions the Academic Board may impose. The Academic Board shall resolve any disputes.

2. *Notification of Assessment Provisions in Subjects*

   Within a reasonable period of the commencement of a subject students shall be provided with written advice of the Assessment Provisions in the subject, together with information on the weight and timing of each item of assessment. If a passing grade is required in any or each item of assessment in order to obtain a passing grade in the subject this information must also be included in the advice to students.

Part III. ORGANISATION OF EXAMINATIONS

3. *Periods for Examinations*

   (a) The periods within the academic year to be set aside for Central Examinations, Supplementary Examinations and Deferred Examinations will be determined by Council and published in the Institute Calendar.

   (b) The timing of Departmental Examinations shall be as determined by the Department concerned after agreement with other Departments or Schools which might be affected by any determination and, where appropriate, by agreement with the Registrar.

   (c) Except in exceptional circumstances and with the specific approval of the Registrar no Central Examination or Departmental Examination, other than Deferred or Supplementary Examinations may be held during a period shown on the Institute Calendar as reserved for Examination preparation or for Recess periods.

4. *Accommodation*

   The Registrar shall have first call on Lecture Rooms, Seminar Rooms, Drawing Offices, and other examination accommodation during periods approved for Central Examinations.

5. *Appointment of Examiners*

   (a) The relevant Head of Department shall appoint examiners and, where appropriate, chief examiners each semester for each subject in that semester.

(b) The names of all examiners shall be forwarded by the Head of Department to the Registrar by a date to be prescribed by the Registrar.

6. *Submission of Central Examination Papers*

The Registrar may prescribe the date upon which all Central Examination papers required to be set by examiners are to be forwarded to the Examinations Section within the Registrar's Office and the form in which such papers will be received.

7. *Timetables*

(a) The Registrar shall be responsible for the preparation of a timetable for all Central Examinations and for the publication of this timetable as required by these rules.

(b) Each Head of Department shall be responsible for the preparation of a timetable for Departmental Examinations conducted by the Department and shall place such timetable on appropriate School or Departmental Noticeboards.

(c) A timetable for Central Examinations shall be posted on the main Institute Noticeboards and to external students not less than three weeks prior to the commencement of the relevant semester examination period.

(d) Should any timetable show a clash between subjects for which the student is enrolled, it is the responsibility of the student to notify either the Registrar or the Head of Department as the case may be by the date prescribed for such notification.

(e) No amendment to a timetable for Central Examinations will be accepted following distribution of student examination forms referred to in Rule 8(a).

8. *Student Examination Form*

(a) The Registrar shall forward to each student at least two weeks prior to the commencement of the Central Examination period an examination form showing all the subjects in which the student is enrolled in the current semester, a statement of whether the subject has a Central Examination scheduled and the date and time of the examination in those subjects which are to be centrally examined.

(b) The student shall take this form to all examinations and shall produce the form on request as provided for in Rule 18.

Part IV. ELIGIBILITY TO UNDERTAKE ASSESSMENT PROVISIONS

9. *Eligibility to Undertake Assessment*

Subject to the provisions of Rule 10, a student who holds a current enrolment approval in a subject shall be eligible to undertake the assessment provisions for that subject.

10. *Eligibility to Sit for Examinations*

(a) A student may be declared ineligible by the Head of the Department responsible for the course to sit for an examination as a consequence of having failed to fulfil all the conditions as set out in the rules pertaining to the course for which the student has enrolled.

(b) The Registrar may prescribe the date by which Heads of Department must advise the Registrar of the names of students who are declared to be ineligible under this rule and upon receipt of advice from the relevant departments will so advise the students in writing of their ineligibility inviting them to show cause by a prescribed date why ineligibility should not be confirmed.

(c) Where students show cause why they should not be declared ineligible their cases shall be referred to the Head of School for review and determination.

(d) A student declared by the Head of School to be so ineligible shall have the right of appeal to the Director.

11. *Voluntary Withdrawal from Enrolment in Subjects*

(a) A student who cancels enrolment in a subject on or before the final date for cancellation of subjects without penalty shown in the Institute Calendar shall not receive any result for the subject.

(b) Subject to sub-rule 11(c), a student who cancels enrolment in a subject after the final date for cancellation of subjects without penalty shown in the Institute Calendar *and before the date shown in the Calendar for the end of the relevant semester,* shall be regarded as having presented for assessment and shall receive the result 'Fail - Late Cancellation'.

(c) If the Registrar, on the advice of the School, is satisfied that medical, compassionate, or other exceptional circumstances necessitate a student cancelling a subject, such cancellation may be granted without penalty even though the date of cancellation was after the final date for cancellation without penalty specified in the Institute Calendar.

Part V. DEFERRED EXAMINATIONS AND SPECIAL CONSIDERATION

12. *Failure to Attend for Examination at the Prescribed Date and Time*

Subject to the provisions of Rule 13, a student who fails to attend an examination which is shown on the examination form referred to in Rule 8 will be deemed to have sat for and failed the examination.

13. *Deferred Examination*

(a) A student who for medical or compassionate reasons or other circumstances beyond the student's control, was, or will be, unable to sit for an examination may apply for a

Deferred Examination. An Application for Deferred Examination must be lodged with the Registrar as soon as practicable, and in any case not later than the date prescribed in the Institute Calendar, and must be supported by suitable medical or other evidence in the form specified in Rule 15.

(b) Should the medical or other evidence submitted in support of an Application for Deferred Examination be acceptable to the relevant Head of School, the student shall be granted a Deferred Examination.

14. *Special Consideration of Factors Affecting Examination Performance*

(a) Candidates who consider that their performance in an examination has been adversely affected by illness, disability, bereavement or other exceptional circumstances may apply for special consideration. Such applications must be lodged with the Registrar as soon as practicable, and in any case by the closing dates specified in the current Institute Calendar. Such applications must be supported by medical or other evidence in the form specified in Rule 15.

(b) The Registrar shall forward applications for special consideration to the relevant Head of School for determination. The Head of School may refer the application to the relevant chief examiner who, in consultation with the appropriate examiner or examiners, shall take such account of the information contained therein as is considered appropriate in deciding the result to be recommended for the candidate in the subject in question.

(c) Notwithstanding Section (b) of this rule, Academic Boards may prescribe additional procedures to facilitate consideration of special consideration applications.

15. *Evidence in Support of Applications for Deferred Examinations and Special Consideration*

(a) Medical Evidence: A candidate who applies for a Deferred Examination or for special consideration on medical grounds must submit a medical certificate from a registered medical or dental practitioner stating:

(i) the date on which the student was examined;
(ii) the nature, severity and duration of the complaint;
(iii) the practitioner's opinion of the effect on the students ability to take, or to perform satisfactorily in, the examination.

A statement that the student was not fit for duty, or was suffering from 'a medical condition' will not be accepted.

(b) Evidence other than medical evidence: A candidate who applies for a Deferred Examination or for Special Consideration on other than medical grounds must submit with the application a Statutory Declaration stating the disability or exceptional circumstances, which precluded the candidate from taking the examination in the appointed place and/or at the appointed time or which the candidate considers affected

performance in the examination. The candidate should also furnish any corroborative evidence in support of the application.

(c) A Deferred Examination may not be granted if in the opinion of the relevant Head of School more timely notice of difficulties would have permitted arrangements to have been made for the original examination to be taken close to the original time set down for the examination.

(d) A Deferred Examination will not normally be granted to candidates who misread the Examination timetable.

Part VI. CONDUCT OF EXAMINATIONS

16. *Responsibility for Conduct of Examinations*

(a) The Registrar shall be responsible for the conduct of all Central Examinations in accordance with the rules contained in this Part VI.

(b) The relevant Head of Department shall be responsible to the Registrar for the conduct of Departmental Examinations in accordance with the rules contained in this Part VI.

17. *Entry to Examination Rooms*

(a) All persons entering an examination room must provide proof of identity to the supervisor.

(b) A person other than the candidate, supervisor, chief examiner or chief examiner's nominee, Head of Department, Registrar or Registrar's nominee, may not except with the permission of the supervisor enter an examination room during an examination session.

(c) Except with the permission of a supervisor no person other than a supervisor, the Registrar or the Registrar's nominee may enter an examination room during the period of forty-five minutes immediately preceding an examination session set down for that room.

(d) A person whether a candidate or not, who is given permission to enter or leave an examination room shall comply with all conditions on which the permission is given.

18. *Identification*

A candidate shall bring to the examination room the student examination form and student card provided to each student and shall produce or keep displayed such information in accordance with any direction given by notice displayed in the examination room, by direction on an examination book, by a supervisor or otherwise.

19. *Places*

A candidate for an examination shall upon entering an examination room proceed without delay to such place as the candidate is or has been directed to occupy for that examination by a supervisor or by notice, or other means, and shall not leave that place except

with the permission or by the direction of a supervisor. A supervisor may at any time direct a candidate to leave any such place and to occupy another place specified by the supervisor, and a candidate shall without delay comply with any such direction.

20. *Time for Departure*

(a) A candidate may not leave an examination room before the end of the examination session without the permission of a supervisor.

(b) Except in exceptional circumstances permission to leave an examination room will not be granted before the expiration of half the working duration of the examination.

21. *Candidates Not to Remove Papers*

A candidate shall not remove from the examination room any worked script or other paper provided for use during the course of the examination (other than the question paper supplied where this is authorised by the supervisor on advice from the examiner) or other material the property of the Institute.

22. *Cheating*

(a) A candidate shall not cheat or attempt to cheat in any examination.

(b) A person whether a candidate or not shall not do anything intended to assist any other person sitting for an examination to cheat or otherwise defeat the purposes of the examination.

23. *Candidate not to Communicate with Others*

A candidate shall not during an examination session communicate by word or otherwise with any other person except a supervisor, examiner or examiner's nominee, or assist any other person to communicate with another person, or willingly receive a communication from any person other than a supervisor, examiner or examiner's nominee.

24. *Unauthorised Material not to be brought into the Examination Room*

A candidate shall not bring into an examination room anything whatsoever which conveys or is capable of conveying information concerning or otherwise has reference to any subject or is such that it may reasonably give rise to suspicion that it is capable of conveying information concerning or of having reference to any subject or that it was intended by the candidate to do so. It is immaterial that the subject is not a subject to which the examination relates.

It shall be sufficient answer to any alleged breach of this rule if the candidate establishes that anything brought by the candidate into an examination room was -

(a) declared as permissible by the examiner and is so indicated on the examination paper, or

(b) brought in with the permission of the supervisor, or

(c) deposited by the candidate within the room forthwith after entering it at a place designated by the supervisor as a place where such thing may be deposited.

25. *Candidate to Comply with Directions*

(a) A candidate shall comply with all directions to candidates set forth on the examination book or such other examination material supplied or set out on any notice displayed in the examination room and shall without delay comply with any reasonable direction given by the supervisor.

(b) A candidate's behaviour shall not be such as to disturb or distract or adversely affect any other candidate.

(c) In the event of breach or default by a candidate under or in respect of 25(a) or 25(b) the supervisor may require the offending candidate to leave the examination room and failure by the candidate to do so shall be deemed to be a breach of discipline and the student may be dealt with under By-law 9(2).

(d) All such exclusions shall be reported immediately to the Registrar or in his absence the Deputy Registrar or officer designated by the Registrar to conduct the examination and the Registrar, Deputy Registrar or other officer after hearing the supervisor the candidate and any relevant evidence may either confirm or rescind the exclusion.

26. *Supervisors Powers of Inspection and Enquiry*

(a) A supervisor may require a candidate to show by such means as the supervisor may specify and as the supervisor considers appropriate to the circumstances that the candidate does not possess or in any way have available any such thing as is specified under Rule 24 or that the candidate is not committing or has not committed a breach of Rules 22 or 23 and the candidate shall comply without delay with such requirement.

(b) If a supervisor considers that unauthorised material has been brought into the examination room, the supervisor may confiscate such material together with worked scripts completed to that time. The supervisor shall submit any material so confiscated to the Registrar or the Registrar's nominee for investigation.

Part VII. PLAGIARISM

Plagiarism is the act of taking and using another's work as one's own. Where plagiarism occurs in items of assessment contributing to the result in a subject it shall be regarded as, and treated in the same manner as, cheating in an examination. For the purpose of these rules any of the following acts constitute plagiarism unless the work is acknowledged:

(a) copying the work of another student;

(b) directly copying any part of another's work;

(c) summarising the work of another;

(d) using or developing an idea or thesis derived from another person's work;

(e) using experimental results obtained by another.

27. *Plagiarism*

A student shall not plagiarise in any assessment exercise.

Part VIII. PENALTY FOR BREACH OF RULES

28. *Penalties*

(a) If a candidate commits a breach of any rule contained in Parts VII and VIII of these rules, the candidate shall be deemed to be guilty of a simple breach of discipline and may be dealt with under By-law 9(2).

(b) A candidate who commits a breach of a rule contained in Parts VI and VII of these rules shall be liable in addition to any other penalty to incur the following penalties.

For a first breach -

(i) the award of a low fail result in the subject concerned, or

(ii) the award of low fail results in all subjects in which the student would have received final results in the same academic semester.

For a further breach -

(i) exclusion from the Institute for a period, or

(ii) permanent exclusion from the Institute.

A candidate incurring either of these last mentioned penalties resulting in exclusion from the Institute shall have a right of appeal to the Appeals Committee.

(c) Any complaint that a student allegedly breached a rule contained in Parts VI or VII of these rules shall be referred to the Registrar, or an officer delegated by the Registrar to deal with examination matters, to determine whether the complaint should be investigated. The Registrar, or other officer, shall notify the Director of any alleged breach which it has been resolved should be investigated. The Director may in writing require the student to show cause within not less than seven days from the date of such requirement why penalty should not be imposed under this rule. In the event of the student failing to show cause, acceptable to the Director, the Director may impose a penalty as provided for in this rule 28.

(d) Any penalty imposed under this rule shall be communicated to the relevant Head of School for information.

Part IX. ASSESSMENT OF RESULTS

29. *List of Candidates*

The Registrar shall supply to each examiner or Head of Department a list of candidates for whom a result is required in each subject. Such list shall be referred to as the Examiner's Return.

30. *Duties of Examiners*

The Examiners shall furnish to the Head of Department through the Chief Examiner where such is appointed -

(a) The Examiner's Return amended to show -

(i) such details of each candidate's performance as may be required by the Head of Department or Chief Examiner;

(ii) a statement of those from whom no script was received;

(iii) the name of any candidate who submitted a script and whose name was not included in the list supplied by the Registrar.

(b) the examiner's recommended grade lines.

31. *Powers and Duties of Head of Department*

The Head of Department may approve or vary the percentage or result recommended for each candidate, provided always that, before making such a variation, the Head of Department shall advise the examiner concerned of the variation proposed and consider any representation that the examiner may wish to make.

32. *Provision of Information to Academic Boards*

On the basis of the results furnished by the Head of Department, the Registrar shall provide to each Academic Board -

(a) For each subject offered by a Department within the School and which is being assessed in the current examination period, a list showing the result recommended for each candidate, and an analysis of the recommendations showing the numbers of each grade of pass or failure recommended; and

(b) For each course offered by the School, a list of the students enrolled showing the recommended result for each subject in which the student is enrolled.

33. *Powers and Duties of the Academic Board*

(a) In relation to a Subject -

The Academic Board shall review the recommended grade lines for each subject and the recommended result for each candidate and shall determine the final result in each subject in terms of the grades of result set out in Part IX of these rules.

(b) In relation to a Course -

The Academic Board shall review the results recommended for each student in the course and, in terms of the approved

course rules and such policy as has been set down by the Academic Board, shall determine -

(i) whether the candidate shall be granted conceded passes in subjects in which passes have not been granted;

(ii) whether the candidate shall be granted supplementary examinations or shall be required to submit for such other additional means of assessment as the Academic Board shall determine.

(c) Except as provided for in Rule 33(b) the Academic Board shall not determine a result different from that recommended by a Head of Department or Chief Examiner except after advice to that Head of Department or Chief Examiner of the intended variation and consideration of any matters which that Head of Department or Chief Examiner may wish to place before the Board.

(d) Where an Academic Board responsible for a course has determined a policy in relation to the assessment of examination results it may delegate to a Committee of the Board the authority to exercise its powers under these rules. All such authority exercised on behalf of the Board must be consistent with the policy laid down by the Board and all decisions made by the Committee must be reported at the next meeting of the Board.

34. *Application of Academic Board Policy*

Where an Academic Board has prescribed a policy which requires an adjustment of results the Head of School, before submitting results recommended for each candidate to the Academic Board, shall adjust the recommended grades in any subject in accordance with that policy, and shall report any adjustment so made to the Academic Board.

35. *Powers of Alteration*

A result determined by the Academic Board, and a decision concerning the granting of supplementary examination to a candidate may be altered by the Head of the School controlling the course with the concurrence of the Head of Department or Chief Examiner concerned -

(a) to correct a patent error, or

(b) to make the result or decision accord with the result or decision which the Head of School and the Head of Department, Chief Examiner and where possible the examiner, are satisfied would have been confirmed or made by the Academic Board if it had considered relevant circumstances which were not considered by the Board.

Any such alteration and the reasons therefore shall be reported to the Academic Board at its next meeting, and shall be reported to the Registrar for the purpose of amending the student's academic record.

36. *Grading of Results*

(a) A pass in each subject may be designated as a High Distinction (HD), Distinction (D), Credit (C) or Pass (P).

(b) Where the Academic Board responsible for the course so determines in accordance with Rule 33 a Pass Conceded (Q) may be awarded in a subject.

(c) Where the Academic Board responsible for the course so determines, all candidates gaining a pass in a subject may be awarded with a result of Pass - Non Graded (R).

(d) Where the Academic Board responsible for the course so determines, all candidates in a subject may be assessed as having Satisfactorily Completed (G), or Not Satisfactorily Completed (Z) the subject.

(e) Where students have been granted supplementary examinations in subjects, they may not subsequently be awarded with a grade higher than Pass - Supplementary (T) in those subjects.

(f) Where students have been granted deferred examinations they may be awarded passes in terms of High Distinction (HD), Distinction (D), Credit (C), Pass (P), Non-Graded Pass (R), Satisfactorily Completed (G) or Pass Conceded (Q).

(g) A fail in each subject will be designated as a Fail (N) or Low Fail (L) except that where candidates have no assessment in subjects they will be awarded Fail - No Assessment Undertaken (X) or where students notify of their withdrawal from subjects after the official cancellation date and they are not granted cancellation without penalty they will be awarded Fail - Late Cancellation (K) or where students are not successful at a supplementary examination they will be awarded Fail - Supplementary (M).

37. *Withheld Results*

Where candidates have failed to comply with the Rules pertaining to a particular subject or course, irrespective of whether they have been permitted to sit for the relevant examinations or not, or where the Academic Board responsible for the course decides that further assessment is desirable before release of candidates final results, such results in either a particular subject or all of the subjects may be withheld at the discretion of the Academic Board until the candidates have fulfilled all requirements to the satisfaction of the Academic Board.

In such cases, the Registrar shall advise the student in writing to contact the Head of Department responsible for the conduct of the subject to ascertain exact requirements to enable the final result to be issued. Except in the case of the Academic Board responsible for the course having decided that further assessment is desirable before release of a final result, the student shall be given the opportunity to show cause to the Registrar why the result should not be withheld.

The Academic Board responsible for the course in which the student is enrolled must notify the Registrar of a final result no later than two weeks (or six weeks with the approval of the Academic Board) after the commencement of the next semester.

38. *Approval of Release of Results*

(a) The Head of School shall certify to the Registrar the final results in respect of each candidate in the School after all authorities have carried out their functions and exercised any powers given them under these Rules.

(b) Following certification of results by the Head of School these will be released at the direction of the Registrar.

Part X. REVIEW OF RESULTS

It is Institute policy that students may seek a Review of Results in final examinations. Final examinations include Central Examinations, Supplementary Examinations, Deferred Examinations and end of semester/end of year Departmental Examinations.

The Institute's minimum requirements to be applied in any such review are that marks originally given for each part of each question are consistent with the answer (as opposed to the Lecturer making a new judgement in isolation), that all sections have been marked, and that the aggregate marks for the paper were accurately compiled.

39. *Application for Review of Results in Central Examinations and End of Semester/End of Year Departmental Examinations*

The papers submitted by a candidate in any Central Examination, Supplementary Examination, Deferred Examination, end of semester/end of year Departmental Examination shall be reviewed on request lodged by the candidate with the Registrar not later than the date prescribed in the Calendar in the case of end of semester/end of year examinations, or within seven days of posting results in the case of Deferred or Supplementary Examinations, and on payment of a fee prescribed by the Council.

40. If, on review, a higher grade of pass or a pass in place of a failing grade is awarded to the candidate, the fee so paid shall be refunded.

Part XI. GROSS FAILURE

The following Rules 41 to 46 apply only to students who are registered in an approved course of study. Unregistered Students must apply for enrolment each year and their applications may be accepted or rejected by the Registrar on the recommendation of the relevant Head of Department.

41. *Student to be Classified as a Gross Failure*

A student MAY be classified as a gross failure under the following circumstances -

(a) where a student has failed twice in the same subject or unit;

or

(b) where a student has not maintained over the most recent two semesters while registered in any course, exclusive of any period of approved leave of absence, a rate of progress at least equal to fifty percent of the formal hours as set out in the relevant course rules for normal progression;

or

(c) where a student having been re-admitted to a course after a previous exclusion on the grounds of gross failure, has failed to pass the subjects stipulated by the Academic Board under rule 46(d).

For the purpose of Rule 41(a), a subject is uniquely identified by the subject code. Where a subject code has been changed to indicate a change in the school or department responsible for the subject, the subject will be deemed to be the same subject for the purpose of Rule 41(a)

The provisions of Rule 41(b) apply irrespective of whether the student was registered in different courses in the most recent two semesters.

42. *Procedure to be Adopted*

(a) Following the certification of final results as required under Rule 38, the Academic Board responsible for the course will forward to the Registrar a list showing those students who are classified by the Academic Board as gross failures.

(b) The Registrar shall notify all such students that they have been so classified and shall give them the opportunity to show cause by a prescribed date which is not more than four weeks from the date of posting the notification, why they should not be dealt with as provided for in these rules.

(c) Students who wish to show cause why they should not be dealt with under the rules may do so in writing to the Registrar.

(d) When the date prescribed for showing cause has elapsed the Registrar will forward to the Head of School all submissions received and these will be considered by the Academic Board responsible for the course and the penalties to be imposed, if any, will be determined.

43. *Penalties for Gross Failure*

Where it is confirmed under Rule 41 that a student has been classified as a gross failure and the student has failed under Rule 42 to show cause the following penalties may be imposed by the Academic Board responsible for the course -

(a) The student may be required to undertake a program determined by the Academic Board;

(b) The student may be refused enrolment in a particular subject which gave rise to the classification of gross failure under Rule 41(a), but allowed to proceed with the course provided that subject is not mandatory to the course;

(c) The student may be refused enrolment in the course which was being followed when classsification as a gross failure was imposed;

(d) The student may be refused enrolment in a course or courses offered by a school;

(e) On recommendation of an Academic Board the Academic Assembly may refuse a student enrolment in any course offered by the Institute.

44. *Right of Appeal*

Where a penalty is imposed under Rule 43, a student shall have the right of appeal to the Appeals Committee. All appeals against the imposition of penalties under the provisions of Rule 43 - Penalties for Gross Failure - shall be lodged in writing with the Registrar. Each letter of appeal must state the grounds and reasons for appeal and must be delivered or posted so as to reach the Registrar within fourteen (14) calendar days of the date appearing on the Registrar's letter advising the student of the penalties imposed.

45. *Appointment of Committee of Academic Board*

An Academic Board may appoint a Committee of the Academic Board to make recommendations to the Academic Board.

46. *Re-admission after Exclusion*

(a) A student excluded under these Rules may apply for and be considered for re-admission. Such re-admission shall not take place until at least four semesters have elapsed since exclusion.

(b) An application for re-admission after exclusion should be made in writing to the Registrar no later than two months prior to the commencement of the semester for which re-admission is sought.

(c) Applications for re-admission shall be considered by the Academic Board responsible for the course from which the student was excluded. In considering applications the Academic Board may take into account changed circumstances; e.g. academic and/or vocational performance since exclusion, maturity and motivation.

(d) An Academic Board may require an applicant who has been re-admitted under these Rules to enrol for a stipulated program either in the first semester of re-enrolment or in the first two semesters of re-enrolment as long as this program does not exceed the normal program of the course.

(e) A student re-admitted under these Rules may, at the discretion of the Academic Board, be regarded as being exempt in any subject or subjects which the student has passed prior to or since exclusion or be required to re-enrol or be assessed in any subject or subjects which the student has passed prior to exclusion.

QUEENSLAND INSTITUTE OF TECHNOLOGY

LIBRARY RULES

QIT MAIN LIBRARY

RULES

1. *Authority of the Chief Librarian*

   The Library shall be administered by the Chief Librarian. Subject to the overall control of the Director and the Institute Council, the Chief Librarian shall -

   (a) Prescribe the procedures to be followed by Library users;

   (b) Exercise disciplinary authority with respect to the behaviour of users of the Library;

   (c) Exercise disciplinary authority with respect to the preservation, consultation and loan of library materials.

2. *Library Usage*

   (a) *Entitled Users*

      (i) Subject as below, the Chief Librarian may permit any person to use any facility of the Library and determine

the conditions under which such use is permitted. Failure to comply with any such conditions shall be a breach of these Rules.

(ii) The following are entitled to use the Library for study and research -
- Students of the Institute;
- Staff of the Institute;
- Members of the Institute Council;
- Special users who are -
  - reciprocal users (as defined in written agreements with QIT);
  - any other person or group approved by the Chief Librarian.

(iii) The Chief Librarian may make a charge to any user or users for library materials, services or other facilities, in accordance with the Schedule of Charges attached to these Rules. Any amendment to the Schedule of Charges is to be approved by the Director and the Institute Council.

(iv) Any person entitled or given approval to use any facility of the Library may be required to complete and sign a registration card undertaking to comply with the Rules.

(v) Any person entitled or given approval to use any facility of the Library, and wishing to do so, must obtain a QIT Library Membership Card or a QIT Identity Card, whichever is appropriate.

(b) *Hours of Opening*

The hours during which the Library shall be open shall be prescribed by the Chief Librarian, subject to the approval of the Director, and posted at the entrance to the Library. Prior notice through normal Institute channels will be given of any change in the hours of opening.

(c) *Rules for General Conduct*

(i) No person shall in the Library conduct himself in a manner which, in the reasonable opinion of any Librarian on duty is not a proper manner and a proper use of the Library, or which interferes with the comfort or convenience of, or the use of the Library by other persons.

(ii) No person may smoke, eat or drink in the Library except in such areas as are specifically set aside by the Chief Librarian for any of these purposes. No animals may be brought into the Library.

(iii) Bags, cases or other material may be brought into the Library, but must be offered for inspection on leaving the Library if requested by a member of the Library staff.

(iv) No person may reserve a seat in a general reading area, except in Closed Carrels. Articles left unattended in the Library for more than 30 minutes may be removed by Library staff. The Institute, Chief Librarian and Library staff shall have no responsibility for personal belongings left in the Library.

(v) An atmosphere of quiet must be maintained in the Library so that it is at all times a place conducive to independent study and quiet reading. Silence must be kept in the main reading areas and conversation restricted to the Seminar rooms and other specified areas.

(d) *Borrowing Responsibilities*

(i) A current Identity Card is necessary for borrowing Library materials and should be carried at all times.

(ii) A borrower is responsible for safe-keeping and return of the materials borrowed by him or her from the Library.

(iii) All borrowers must complete the appropriate procedures for each item borrowed.

(iv) All items on loan must be returned on or before the last date stamped on the date due slip or where appropriate, before the expiration of a recall notice.

(v) Names of borrowers will not be revealed without the borrower's consent.

(e) *Loans*

(i) Restrictions may be placed on the number of items which a user may have on loan at any one time.

(ii) *Books*
The normal loan period for books is four (4) weeks. A four week loan may be renewed once, provided that another borrower has not reserved the item, that it is not overdue, and that it is not a new addition to the Library stock. From time to time certain books may be placed in the Limited Access Collection or on short term loan. Short term loans are not renewable.

(iii) *Extended Book Loans*
With the approval of the Chief Librarian, full-time academic staff may borrow, for one extended period only, books required in the planning of courses or subjects. Requests for extended loans must be submitted in writing. Extended loans will not be renewed. Extended loans normally will be from 1st December to 31st July of the following year, or from 1st June to 30th November of the same year.

(iv) *Periodicals*
Unbound issues of periodicals (other than current issues or issues on display) may be borrowed by full-time staff for one week. Loans of periodicals are not renewable.
Monographic Series (e.g. Advances in . . .) may be borrowed by staff and students for one week. Loans of Monographic Series are not renewable.

(v) *Audio-Visual*
Most types of audio-visual materials, with the exception of films and video, may be borrowed for two (2) weeks by staff and students.
Films and video may be borrowed by staff only for a period of one (1) week.

Audio-visual loans are not normally renewable.

(f) *Limited Access Collection*

(i) Only QIT students and staff and other persons approved by the Chief Librarian may use the Limited Access Collection.

(ii) No items borrowed from the Limited Access Collection may be removed from the Library, except as specified in Clause 2(f)(iv) below.

(iii) Only one item at a time may be borrowed from the Limited Access Collection.

(iv) The normal loan period is two (2) hours. Overnight loans are permitted from half an hour before closing time until an hour after opening time the next day.

(v) Students and staff must leave their QIT Identity Card as a deposit before being permitted to remove any item from the Limited Access Collection.

(g) *Non-Loanable Materials*

Non-loanable materials are as follows -

(i) Reference works;
(ii) Maps and Charts;
(iii) Theses;
(iv) Bound volumes of periodicals;
(v) Newspapers.

3. *Penalties etc.*

(a) *General*

(i) A charge under these Rules shall be a debt to the Institute.

(ii) For the purpose of these rules, 'fine' means any sum of money which a student or other user is required to pay pursuant to these rules.

(iii) A fine is payable within 14 days of its imposition.

(iv) Subject as below, penalties ie. reprimand, fines, withdrawal of borrowing privileges, exclusion from the library or other specified sanction, for breaches of these Rules may be imposed by the Chief Librarian on any user.

(v) Penalties (as specified in 3(a)(iv) above) may be waived by the Chief Librarian in special circumstances.

(b) *Reprimand*

(i) Failure to observe these Rules may incur a reprimand from the Chief Librarian or the Senior Librarian on duty, together with a warning against repetition of the offence.

(c) *Fines for Late Returns*

(i) *Fortnightly, Four(4) Week and Extended Loans*

- When an item is overdue, an overdue notice will be sent to the borrower;
- If an item is returned late, a fine will be imposed at the rate of 25c. for each day that the item is overdue from the date due, up to a maximum of $25.00.

(ii) *Limited Access Collection Loans*

A fine of 50c. per hour will be imposed for each hour or part thereof that an item is late, up to a maximum of $25.00.

(iii) *Short Term Loans (3 days or 1 week)*

A fine of 50c. per day, per item, will be imposed for each day the item is late, up to a maximum of $25.00.

(d) *Loss of Borrowing Rights*

A user's borrowing rights may be withdrawn for a period not exceeding the equivalent of one full semester if more than one item is overdue or if fines exceeding $2.00 have accrued. Once borrowing rights have been removed they will not be restored until the overdue item/items are returned and the accrued fines are paid.

(e) *Lost Library Material*

If an item appears to be lost, the loss must be reported to the Lending Services Desk Clerk or the Lending Services Librarian. If an item is not returned within 5 weeks of the date stamped on the due date slip, the item is presumed lost. If after a reasonable search by both Librarian and borrower the item cannot be found and proof of return cannot be shown, the borrower shall be responsible for the replacement cost plus a processing charge of $10.00 per item, up to a maximum of $100 per item, to be paid within 14 days of date of notification.

(f) *Exclusion*

(i) Any person who fails to observe these Rules or who disfigures or damages any document or other Library

facility may be excluded from the Library for up to one semester and shall be responsible for any damage caused.

(g) *Refusal to Release Examination Results and to Permit Re-enrolment*

(i) A student of the Institute who fails to pay a fine within the time limit for its payment shall not be awarded any result in any examination or be granted credit for any subject or course or receive any degree or other award of the Institute or be permitted to re-enrol for any subject or course offered by the Institute until the fine is paid in full.

4. *Appeals*

(a) Any person upon whom a penalty (as defined in 3(a)(ii) hereof) has been imposed may, within fourteen (14) days of the imposition, challenge the imposition of the penalty and/or appeal against the imposition of the penalty, and any action which may be taken under Section 3 will be suspended pending determination of the challenge or appeal.

(i) Any challenge or appeal should in the first instance be made in writing to the Registrar.

(ii) An appeal against a decision of the Registrar must be made in writing within seven (7) days to the Director.

(iii) On appeal, the Registrar or the Director, as the case may be, if there are extenuating or exceptional circumstances, may allow the appeal or reduce or waive the penalty.

5. *Library Copying and Copyright* *

(a) *Permissable Copying*

For 'purposes' of Research and Study it is necessary that the copying be restricted to a reasonable proportion of the work and that only single copies are obtained. A 'reasonable proportion' will be interpreted in this Library as a Chapter or 10 percent of a book, whichever is less, and one article from a periodical. Exceptions to these guidelines may be approved only by the Chief Librarian, Lending Services Librarian or those acting in these capacities.

(b) *Non-Copyright Material*

There is no restriction on the copying of non-copyright material. Aside from personal papers, readers may be required to establish that the copies they have made are non-copyright matter. In some cases a statement is made on a publication permitting copying. Otherwise readers should assure themselves BEFORE making copies that they have the necessary authority OR are acting within the exclusion of the Copyright Act 1968 (CWTH).

* *Under Review*

6. *Notices*

Any notices to be given to a person under these Rules shall be deemed to be sufficiently given if sent to him or her by mail at his or her address registered with the Library and shall be deemed to have been received by the person to whom it is addressed in the ordinary course of the post.

7. *Schedule of Service Charges*

Service	User Category	Conditions
Comprehensive Literature Searching & bibliographies	QIT Staff	No charge, subject to the search being for QIT teaching or research.
	QIT Post-Graduate Students	No charge, provided searches approved by the Head of Department as being an essential part of a program of study.
	QIT Undergraduates	Not available
	Non-QIT (including private QIT staff and student searches)	(a) *Online* - Overseas system $4 per minute plus prints; AUSINET - $3.50 per minute plus prints; BIOSIS - $15 per search; MEDLINE retrospective to 1979 - $12 per search. MEDLINE - retrospective to 1966 - $15 per search. (b) *Manual* - By negotiation.
Online mini-search	Available to anyone	$12 per search
(a) Loans-print materials	QIT Staff and students	No charge
	Non-QIT individuals	$10 annual subscription (January - December)
	Non-QIT organisations	$20 annual subscription (January - December)
	Other libraries	LAA Inter-Library Loan vouchers used
(b) Loans-films	QIT Staff	No charge
	Other tertiary educational institutions	No charge
	Other organisations	$10 transaction fee per loan
	QIT students	Not available
	Non-QIT individuals	Not available
Obtaining materials not held by QIT Library	QIT staff	No charge, subject to loan being for QIT teaching or research
	QIT students	No charge. (Request must be supported by supervising academic staff member).
	Non-QIT	$5 minimum per request.

Service	User Category	Conditions
Comprehensive Literature Searching and bibliographies	QIT Post-Graduate Students	No charge
	QIT Undergraduates	No charge
	Non-QIT (including private QIT staff and student searches)	(a) *Online* - Overseas system $4 per minute plus prints; AUSINET - $3.50 per min. plus prints; MEDLINE - retrospective to 1977 $22; to 1972 $26; to 1966 $30; BIOSIS - retrospective to 1977 $25; to 1973 $30.

LAW SCHOOL LIBRARY RULES

1. *Definition*

   In these rules the word 'Library' means the Law School Library.

2. *Administration*

   The Library shall be administered in accordance with these Rules by the Law School Librarian under the direction of the Head of the School of Law.

3. *Reference Library*

   The Library shall be a reference Library and, except in the case of material required for use in a Law School Moot, or in any case approved by the Head of the School of Law, Library material or equipment shall not be removed from the Library.

4. *Hours of Opening*

   The hours during which the Library shall be open shall, after consultation with the Chief Librarian, be prescribed by the Head of the School of Law, subject to the approval of the Director, and shall be posted at the entrance to the Library. Prior notice shall be given of any change in the hours of opening.

5. *Library Users*

   (a) The following persons shall be entitled to use the Library for study and research -

   (i) students of the Institute;
   (ii) staff of the Institute;
   (iii) members of the Council of the Institute;
   (iv) any other person approved in advance by the Head of the School of Law.

   (b) Any person seeking approval to use the Library under Rule 5(a)(iv) must apply in writing to the Head of the School of Law.

(c) Any person wishing to use the Library must possess a QIT identity card or the written approval of the Head of the School of Law, whichever is appropriate, and must produce such card or approval upon request by the person on duty at the Reader Assistance desk.

6. *Conduct of Library Users*

(a) Briefcases, bags, folders, books, etc., may be taken into the Library but must be offered for inspection at the request of the person on duty at the Reader Assistance desk.

(b) No person shall reserve a seat in the Library except in the discussion rooms. Articles left unattended in the Library for more than one hour may be removed by any member of the staff on duty in the Library.

(c) No person shall use more than five items of Library material at any carrel or table at a time.

(d) Neither the Council of the Institute nor any of its employees shall be responsible for the safekeeping of personal belongings of Library Users.

(e) No person shall smoke, eat or drink in the Library.

(f) No person shall in the Library conduct himself in a manner which, in the opinion of the Law School Librarian, the Assistant Librarian or the person on duty at the Reader Assistance desk, is not a proper manner and a proper use of the Library, or which interferes with the comfort or convenience of, or the use of the Library by, other persons.

(g) No person shall mark, deface or otherwise damage or destroy any Library material, equipment, furniture or other property, or any part of the Library.

7. *Reserve Collection*

Subject to Rule 3, a person entitled to use the Library may, upon application to the person on duty at the Reader Assistance desk and upon surrendering his QIT identity card or the written approval referred to in Rule 5(c), whichever is appropriate, as a deposit, use not more than two items from the Reserve Collection for up to two hours at a time.

8. *Moots*

In the case of a Law School Moot, authorised by the Head of the School of Law, the Law School Librarian or the Assistant Librarian may allow material to be removed from the Library for use in such Moot.

9. *Copying and Copyright*

No person shall use any photocopier in the Library for a purpose which infringes copyright under the Copyright Act, 1968 (Cth). (The relevant sections of such Act are posted near each photocopier and a copy of the Act may be obtained on application at the Reader Assistance desk).

10. *Penalties*

(a) Any person who commits a breach of any of Rules 3, 5, and 6 may be reprimanded and warned against repetition of the breach, and/or excluded from the Library for a specified period not exceeding seven days, by the Law School Librarian, the Assistant Librarian or the person on duty at the Reader Assistance desk.

(b) Any person who commits a breach of Rule 7 may be reprimanded and warned against repetition of the breach, and/or his privilege of useing items from the Reserve Collection may be withdrawn for a specified period not exceeding seven days, by the Law School Librarian, the Assistant Librarian or the person on duty at the Reader Assistance desk.

(c) Any person who marks, defaces or otherwise damages, or destroys, any Library material, equipment, furniture or other property, or any part of the Library shall be liable for the cost of making good the damage or replacing the property up to $100, such cost to be determined by the Law School Librarian.

(d) Any person who imposes any penalty under Rule 10(a), (b) or (c) must, as soon as practicable thereafter, notify the Head of the School of Law in writing.

11. *Appeals*

(a) Any person who is excluded from the Library or whose privilege of using items in the Reserve Collection is withdrawn or who is liable for the cost of making good damage or replacing property under Rule 10 may, within seven days thereafter, appeal to the Head of the School of Law against the penalty, whereupon the penalty shall be suspended pending the determination of the appeal.

(b) On such an appeal as is provided for by Rule 11(a) the Head of the School of Law may allow the appeal or dismiss the appeal or reduce or waive the penalty.

(c) Any person who is excluded from the Library or whose privilege of using items in the Reserve Collection is withdrawn or who is liable for the cost of making good damage or replacing property under Rule 10 who appeals to the Head of the School of Law and is dissatisfied with the decision of the Head of School may, within seven days thereafter, appeal to the Director against such decision, whereupon the penalty shall be suspended pending the determination of the appeal.

(d) On such further appeal as is provided for by Rule 11(c) the Director may allow the appeal or dismiss the appeal or reduce or waive the penalty.

UNION FEE RULES

1. *Interpretation*

   In these Rules unless the context otherwise indicates or requires:

   'Full-time Student' means a student, including a member of staff of the Institute, who is enrolled at the Institute as a full-time student or such other person or persons as the council may from time to time determine.

   'Part-time Student' means a student, including a member of staff of the Institute, who is enrolled at the Institute as a part-time student or such other person or persons as the council may from time to time determine.

   'Sandwich Student' means a student, including a member of staff of the Institute, who in a particular academic year is enrolled at the Institute on the basis of attendance on a full-time basis for one of two semesters, and is required to undertake specified practical training, with or without, part-time study for the remaining semester.

   'Union Fees' means such fees as may be prescribed by the Council for membership of the Queensland Institute of Technology Union.

   'Enrolment' means application for registration as a student of the Institute, and includes both New Enrolments and Re-enrolments.

2. *Fees to be Paid*

   Unless the council otherwise directs, Union Fees shall be paid at the time of submitting an enrolment or re-enrolment, on or before the following dates:

   (a) in the case of a student applying for re-enrolment or of a student applying for enrolment for the first time in a Post-graduate or Certificate course - by the date indicated in the Institute Calendar.

   (b) in the case of a student applying for enrolment for the first time in a degree, diploma, or associate diploma course - by the date specified on the Acceptance of Offer Form forwarded to the student.

3. *Consequences of Non-payment*

   (a) If Union Fees payable by a student have not been paid at the time of lodging an enrolment, the Registrar may refuse to accept such enrolment.

   (b) Any student whose enrolment is not accepted under the provisions of Sub-Rule (a) of this Rule may re-apply for enrolment, up to and including the final date for submission of late enrolments as specified in the Institute Calendar, subject to the conditions specified in Sub-Rule (a) of this Rule.

   (c) Without limiting the effect of Sub-rule (a) of this Rule, a student who has not paid all Union Fees due and payable by him and who satisfies the Registrar that he is unable to make payment by the date specified for fees to be paid, may be

granted an extension of time in which to pay such fees, and may have his enrolment accepted, subject to his agreeing to pay all fees not later than the extended date indicated by the Registrar.

(d) Where a student has lodged an enrolment with the Enrolments Section of the Institute and Union Fees due and payable by the student have only been paid in part, the Registrar may refuse to accept or process such enrolment, unless the balance of fees, notified to the student on a Fee Payment Form, have been paid by a date determined by the Registrar and notified to the student.

(e) Without limiting the effect of any of the preceding Sub-Rules of this Rule, if Union Fees payable by a student remain unpaid within five weeks of the commencement of the first semester of the academic year in respect of which they are payable, the Registrar may cancel such students enrolment at any time thereafter.

4. *Refund of Fees on Voluntary Cancellation of Enrolment*

A student who not later than six weeks after the first day of a semester gives proper written notice to the Registrar of withdrawal of his enrolment shall be entitled to a refund of the Union Fees. Such refund shall be made by the Institute on behalf of the QIT Union upon the surrender of any current QIT Student Card.

SCHEDULE OF CHARGES AFFECTING STUDENTS

1. *Union Fees* - By-law No. 11 specifies the following Schedule of Union Fees.

Full-time students ..... $80.00 p.a.
Part-time internal students ..... $40.00 p.a.
Part-time external students ..... $5.00 p.a.
Sandwich course students ..... $40.00 p.a.
All other members ..... $40.00 p.a.
An unregistered student shall be required to pay the appropriate full-time or part-time fee corresponding to his attendance status.

A student undertaking a thesis only shall be required to pay the appropriate full-time or part-time fee corresponding to his attendance status.

2. *Admission, Enrolment and Examination:* Council has approved the following Schedule of Charges -

Late lodgement of Enrolment Application -
within two (2) weeks of closing date set out in the Institute Calendar $5.00
for applications received more than two (2) weeks after the closing date set out in the Institute Calendar $20.00
Refundable Deposit for review of Special Consideration decision $10.00

Review of Examination Results ..... $5.00 per paper with a maximum of $10 per subject
Statement of Results $2.00
Re-Issue of Identity Card $2.00
Re-Issue of Award Certificate $10.00

3. *Deposit System for Use of Laboratory Facilities*

   (a) A student enrolled in any subject included in the 'Schedule of Subjects relating to Laboratory Deposits' which the Registrar may vary from time to time, shall deposit $30 for the use of laboratory facilities.

   (b) A student shall be required to pay only one deposit irrespective of the number of such subjects included in an enrolment.

   (c) At the end of the year the deposit shall be refunded to the student less the cost of any breakages which have not been made good.

At the time of printing these charges are under review for the 1984 academic year.

PARKING REGULATIONS

Council has approved regulations relating to the parking of motor vehicles on campus.

(a) A member of staff or a student shall not be permitted to park a vehicle within the grounds of the Institute unless such person has previously made application for a parking permit and this permit has been granted.

(b) The privilege of parking within the grounds shall be subject to such conditions as may be imposed at the time the permit is issued to the applicant.

(c) An application for permission to park a vehicle within the grounds of the Institute shall be made on a form prescribed and available at the Institute Security Office.

(d) For a breach in the parking of a vehicle the Director may revoke the permit for a specified period or for the remainder of the academic year.

(e) For a breach by a person not possessing a parking permit in the parking of a vehicle, the Director may arrange for the vehicle to be removed from the grounds of the Institute and the person shall be required to pay the cost of such removal.

PARKING APPLICATIONS

In accordance with paragraph headed 'Parking Regulations' section (a), the priority criteria for the granting of parking permits to be applied is as follows:

Staff

(a) Any person who, because of physical disability, must use private transport to commute to the Institute shall be granted a permit.

(b) All full-time or part-time members of the teaching staff (and those on academically equated salaries including Director, Deputy Director and Heads of Schools) shall be granted a permit.

(c) All other full-time and part-time staff shall be considered for a permit on the basis of need, having regard to the following factors -

  (i) Special work circumstances (such as rostered overtime) which may make use of public transport inappropriate;

  (ii) Inaccessibility to direct public transport and distance to be travelled;

  (iii) Willingness to provide transport for other Institute staff or students;

  (iv) In cases judged as being of equal merit on the basis of need, seniority according to years of continuous service irrespective of the staff member's employment classification.

Students

(a) Any student who, because of physical disability, must use private transport to commute to the Institute shall be granted a permit.

(b) Inaccessibility to direct public transport and distance to be travelled.

(c) Willingness to provide transport for other Institute students or staff.

(d) In cases judged as being of equal merit on the basis of need, seniority - a final year student shall have priority over a student who is in the second last year of his/her course and so on.

4

Central Services

CENTRAL SERVICES

ADMINISTRATION

The central administration is responsible for the implementation of policy decisions, and for the provision of administrative support in the operation and future decision making of the Institute.

The sections of Administration responsible for matters relating to students attendance and performance at the Institute are grouped within a subdivision known as Academic Administration, which itself has two major sub-sections.

The Student Affairs Section comprises Enrolments, Examinations, and Student Records. These sub-sections are responsible for: checking enrolments having regard to Course and Institute rules; accurately recording the subjects undertaken by students; conducting central examinations; and the maintenance of academic records. Students experiencing difficulty with any aspect of their enrolment are encouraged to discuss such problems with officers from these sections. An interview can be arranged through the Enquiries Officer at the Enquiry Counter in 'U' Block.

The Admissions and Administrative Services Section has a major responsibility for the provision of information for students and potential students, and the admission of students to the Institute. This section also organises functions such as Orientation, Graduation, QIT-in-Action. Enquiries relating to these activities may be directed through the Enquiries Officer or the Section's Secretary.

Principal Officers

Registrar ..... B.S. Waters, BCom(Qld), AAUQ(Prov).

Deputy Registrar ..... D.G. Greenwood, BEcon(Hons)(Qld).

Senior Administration Officer (Student Affairs)
..... L.R. Holman, BSc(Hons), PhD(Adel), DipTertEd(UNE).

Enrolments Officer ..... B.J. Cheales

Examinations Officer ..... J.S. Stevenson

Student Records Officer ..... D.S. Drury

Senior Administration Officer (Admissions and Administrative Services)
..... G.P. Abernethy, BA(Qld), GradDipBusAdmin(QIT).

Course Administration Officer ..... D.K. Hall

Admissions Officer ..... C.S. Hunter, BBus(QIT).

Admissions Officer ..... P.W. Kruger, BSc(Qld).

Enquiries Officer ..... K.L. Mitchell

QIT - ACADEMIC DRESS

Chairman of Council

Black silk damask gown with gold edging continuing around the hem of the gown. The gown to have a gold lace and taffeta facing taken around the neck and over the yoke and gold lace encircling brown taffeta shoulder wings.

Director

Black corded silk gown with gold trimming consisting of vertical gold edging and gold facings and brown taffeta on the shoulder wings.

Master of Engineering by Thesis

Gown: Black gown of Cambridge pattern.
Hood: Black hood fully lined silk of school colour.

Master of Applied Science by Research and Thesis

Gown: Black gown of Cambridge pattern.
Hood: Black hood fully lined with silk of school colour.

Master of Applied Science - Medical Physics

Gown: Black gown of Cambridge pattern.
Hood: Black hood fully lined with silk of school colour with a 20mm wide edge of orange (557) braid.

Graduate Diploma

The academic dress appropriate to the University or Institution whose award enabled entry into the Graduate Diploma.

In addition a horizontal shoulder strap 100mm in length and 50mm wide shall be fixed to the academic gown in the colour of the school in which the Graduate Diploma has been received. The horizontal strap will be affixed to the gown between shoulder and neck.

Bachelor

Gown: Black gown of Cambridge pattern.
Hood: Black hood lined with 100mm band of silk in the school colour.

Diploma

Gown: Black gown of Cambridge pattern.
Hood: Black hood with a 50mm band of silk in the school colour placed 50mm from the inside edge of the hood.

Associate Diploma

Gown: Black gown of Cambridge pattern.
Hood: Black hood with a 25mm band of silk in the school colour placed 50mm from the inside edge of the hood.

Undergraduate

Gown: Black gown of Cambridge pattern.

Distinguishing colours for the Schools are -

School of Applied Science - Yellow 356
School of the Built Environment - Red 593
School of Business Studies - Blue 175
School of Computing Studies - Emerald Green 228
School of Engineering - Claret 540
School of Health Science - Orange 557
School of Law - Grey 637

CONTINUING EDUCATION PROGRAM

The Queensland Institute of Technology offers, through its academic departments, programs of continuing education which are largely self-supporting and which lie outside the range of those courses formally accredited as leading to undergraduate or postgraduate degrees and diplomas. Thus continuing education encompasses those units, courses, seminars and vacation schools which do not constitute, of themselves, a formalized course of study leading to a qualification. These include diversifying courses, refresher courses, updating courses, professional short courses, extension and special courses.

Continuing education courses are closely related to and flow from the expertise and experience within the Institute's academic departments. They represent an extension of the Institute's total resource usage for the further benefit of the community at large. The courses offered vary in length and time of presentation according to the needs of the community or professional groups for which they are designed.

Details of courses to be offered in 1984 are set out in the QIT Continuing Education Program Booklet which is widely distributed or which may be obtained by writing to the Registrar. Although this program includes all those courses which are known to be planned by departments for 1984; because of the need for flexibility in response to consumer demand, courses additional to those listed may well be offered during 1984. These will be advertised by the appropriate departments or schools as they arise.

Unregistered Students

A further part of the Institute's policy on continuing education is to allow suitably qualified persons to enrol as Unregistered Students. An Unregistered Student may enrol in miscellaneous subjects chosen from any course offered by the Institute as distinct from enrolling in the course proper.

The enrolment procedures for Unregistered Students are rather more formal than is the case for the programs outlined in this booklet. Persons seeking admission as an Unregistered Student must do so on an Application for Admission Form available from the Admissions Section.

Applicants must satisfy the normal entry requirements, and admission may also be dependent upon such factors as class sizes and quotas. Although tuition fees do not apply, Unregistered Students are required to pay the normal Part-time Student Fee of $30.00 p.a

EDUCATIONAL SERVICES

COMPUTER CENTRE FACILITIES

1. *General*

   The Computer Centre exists primarily to provide computing facilities for students and academic staff.

   The major computing facility in the Institute consists of a DECsystem-1091, which was purchased in 1979 as part of a re-equipment program costing in excess of $1,000,000. This system is supplied and maintained by DEC Australia Pty. Ltd., a subsidiary of the American computing company, Digital Equipment Corporation.

   In association with the new DECsystem-10, the Computer Centre has a small special purpose graphic system for the input, output and editing of graphical data.

   $450,000 has been allocated for the purchase of a new computer and software particularly for the Computer Aided Design, Drafting and Manufacture, and $200,000 has been allocated for a computer specifically for the School of Computing Studies. Purchase of these machines is proceeding and it is hoped to have the systems available for 1985.

   There is an online data entry system for the use of professional keypunch operators.

   The Institute also has an HP3000 Series III computer not managed by the Computer Centre.

   The Computer Centre is sited in a specially commissioned section of the Library and Computer Centre complex, where it occupies a total space of nine hundred sq.m. This area includes, as well as the Computer Room and Staff Room, a Classroom overlooking the computer equipment, where demonstrations can be given, a Terminal Room where a number of terminals and card punches are available to students, and Graphics Room.

2. *Management*

   The Computer Centre provides a service to the whole Institute. It is under the management of the Institute Computer Manager, Mr W J G Fisher. He and the Directorate of the Institute are advised on computing matters by the Computer Centre Advisory Committee. The Committee consists of the Deputy Director, the Computer

Manager (Chairman), representatives from each department wishing to be so represented, the Academic Staff Association and the QIT Union.

3. *Staff*

Computer Centre staff are available to advise lecturers and through them the students on the use of the Computer Centre facilities to their advantage as well as supporting and operating the equipment.

Current staff are:

Manager: Mr W J G Fisher, MSc, DipTchg.

Deputy Manager: Mr W Tealby, BSc, GradDipBusAdmin.

Senior Systems Programer: Mr P Mottram, MSc, DipCompSci.

Programers:

Mr C Campbell, BE.
Mr T Farr, BSc.
Mr W Goodman, BSc.
Mr R Heard, BSc, DipEd, DipCompSci.
Mr J Reye, BSc.
Mr R Watson, BE, MEngSc, DipCompSci.

Operations Manager: Mr M Franklin

Technologist: Mr T Mync, BE.

Operations Staff:

A further fourteen members of staff are employed as Shift Leaders, Computer Operators, Key Punch Operators, Technical Assistant, and Secretary.

4. *Hardware*

(a) *DEC Equipment*

The central processor is a DECsystem-1091 with 768K words of memory (1 word = 36 bits).

The main peripherals are:

1 fixed disc store unit with a capacity of 500 megabytes;
5 exchangeable disc store units, each with a capacity of 200 megabytes;
2 magnetic tape drives (9 tracks at 1600/800 bpi); 120/60 Kch/s.
1 card reader capable of reading both punched and marked cards at 600 cards per minute;
2 line printers with speeds of 1220 and 660 lines per minute.

There are currently 128 asynchronous communication ports, two of which are dial-up lines. There are also 3 synchronous ports for the connection of other computers.

(b) *Communications Equipment*

There are currently more than 140 terminals of various types. These include microcomputers, hard copy terminals, graphical display terminals, a word processing terminal, and may

VDU's of various types. They can be located at more than 250 different points throughout the campus. Included is a pool of 24 terminals available to anyone in the Terminal Room or Classroom at the Computer Centre.

(c) *Graphics Equipment*

PDP-11/34 Minicomputer with 256K bytes of memory. It has 2 RLO2 disk drives each holding 10 Mbytes, and 1 RLO1 of 5 MBytes.
Tektronix 4014-1 Graphics Terminal.
Visual 500 Graphics Terminal.
Visual 550 Graphics Terminal.
Summagraphics ID-2-11/48 digitizer (36" x 48") with menu tablet (11" x 11").
HP7221A A3 size graphics plotter.
Benson 2222AO size flat bed plotter.

(d) *Data Preparation Equipment*

The Institute has data preparation equipment as follows:

8 keystations attached to an AWA XL40 Data preparation system for use by Computer Centre staff;
4 card punch/verifieds for use by Computer Centre staff;
2 keystations attached to the AWA XL40 used by the Finance Department;
3 card printing punches available to students and academic staff.

5. *Software*

A large and increasing library of software is available at the Computer Centre to compile or interpret various computer languages and to provide for a wide range of applications.

(a) *Operating System*

The operating system for the DECsystem-10 is TOPS-10.

(b) *Languages*

The following languages are available on the DECsystem-10.

COBOL-74
FORTRAN 77
BASIC
ALGOL 60
ALGOL 68C
PASCAL
SIMULA
LISP
SNOBOL
An assembly language (MACRO-10)
C

(c) *Application Packages*

Users should refer to the Program Library Catalogue for details of the broad range of packages available.

Programs are categorized into the following broad areas:

Engineering
Languages
Mathematics
Forecasting/Operations Research/Project Management
Graphics
Science
Simulation
Statistics
Teaching
Business/Financial/Management
Word Processing
Data Base
Cross Assemblers
Editors and Utilities
Software Libraries (including Microcomputer software)

(d) *Graphics System Software*

The Graphics System runs under the RSX11-M operating system. The main graphics package is the PALETTE drafting system from McLean Computer Consultants Pty. Ltd.

6. *Operations*

The DECsystem-10 is normally run 24 hours a day 7 days a week.

During semesters the counter of the Centre is open from 8.00 am. to 11.30 pm. Monday to Friday and from 8.00 am. to 12.30 pm. Saturday. The Terminal Room is available 24 hours a day, 7 days a week. The machine may be unavailable prior to 8 am. for preventative maintenance and after 11.00 pm. for testing purposes. During semester breaks the Centre is not open on Saturday mornings and the Terminal Room may close at 6.30 pm. The system may not be available after 6.30 pm.

THE INSTITUTE BOOKSHOP

Bookshop Manager ..... Mr R Goos

The Institute Bookshop was established in 1971 and commenced trading in January, 1972. It is located on the second level of the Community Building. In 1981, the Bookshop was considerably enlarged and refurbished providing the campus with a more efficient and attractive facility.

While the Bookshop is conducted as a self-supporting, semi-autonomous business, it is controlled by a Bookshop Advisory Board which advises the Director of reports to QIT Council through the Finance Committee. The prime aim of the Bookshop is to service the QIT community's needs and a full range of textbooks, stationery and other requisites are stocked as well as an increasing range of peripheral texts and general books. Agencies conducted by the Bookshop include sources for postage stamps, newspapers and magazines, customised rubber stamps and book tokens. Cash discounts are available on many lines and personal

and corporate 30 day charge accounts may be opened. Mail orders and special orders are welcomed. Telephone orders or shop enquiries may be made to 223 2433 or 223 2391, while managerial matters should be directed to 223 2402.

The Bookshop works closely with academic staff in the textbook adoption process and feedback on performance is provided to departments before, during and after each semester. Assistance in the tracing and selection of textbooks and, indeed, all books is available.

During semesters, the usual trading hours are between 8.45 am. and 6.00 pm. from Monday to Thursday and between 8.30 am. and 5.15 pm. on Friday. Vacation hours are between 8.30 am. and 5.15 pm. from Monday to Friday. Special arrangements for longer hours are made for the commencement of semesters, and are advised by notices displayed at the Bookshop entrance.

EDUCATIONAL RESEARCH AND DEVELOPMENT UNIT

Head of Unit ..... Mr. Derick Unwin, BSc, MA.

The Educational Research and Development Unit (ERDU) was established in 1976 with a responsibility for fostering and maintaining good educational practices within the Institute. ERDU personnel involve themselves in close collaboration with academic staff, particularly in the areas of teaching methods and materials, computer assisted learning, assessment and examination techniques, and studies of student characteristics and performance.

In order to further the effective use of modern teaching aids ERDU operates sound and vision recording studios, and provides assistance in the graphic design and photographic fields. The Unit is housed in purpose-built accommodation which greatly facilitates the provision of media services.

Other major activities of ERDU include the collation and publication of educational information (an occasional newsletter is published); organisation of staff develoment seminars and workshops; and research into educational developments appropriate to the work of QIT.

Location

The Unit is accommodated in 'V' Block. The technical area, comprising studios, graphics workshop, and darkrooms is on Level 1. The office suite, seminar room and self-service workroom is on Level 2.

LIBRARY

Chief Librarian ..... C.F. Cayless, MLS (Loughsborough Univ.), ALA, MInstInfSc.

The Library's collections, primarily books and journals plus a significant collection of films and other media, have been developed mainly to support teaching and research at the Institute. The collections reflect therefore, the courses taught and the research orientations of the college staff. The main collection had, at the end of 1983, approximately 130,000 volumes found on three levels, with about 4,600 periodical titles on another. About 1,000 sixteen millimetre films and videotapes, with several thousand other media, and a large map collection, comprise the audio visual collection. Other important collections are that of the Law School Library (found in the same building), and the Library's main Reference Collection, which amongst many specialized books, contains special collections of manufacturer's catalogues, and Australian, British and American Standards. The collections are classified and arranged by the Dewey system. From 1984, the QIT Library has also housed the collection of the Royal Society of Queensland.

The Library is staffed by teams of professional librarians responsible for technical and reader services, with support from administrative staff for the various services provided. A number of computerised applications for the assistance of readers have been introduced. The complete catalogue is in machine readable form, and recently has been added to the National Bibliographic database, the Australian Bibliographic Network. In 1984, it has become available to users as an online catalogue, a major innovation.

Services to readers offered by the Library include: (note: some services are mainly for Institute staff)

(a) loans, including interlibrary loans of books, journal articles and films;

(b) copying (from paper and microform);

(c) reference (answer) services, including an extensive computerised information service retrieving data from remote bibliographic, text, and numeric (e.g. statistical) databases;

(d) instructional services, normally, education and guidance in the use of library resources, and information sources generally. Some of this activity has been embedded within first year courses at the Institute. This instruction extends to lectures and demonstrations of more recent developments in computerised information retrieval;

(e) workspace services - these include, in addition to the normal provision of study facilities, seminar room and audio visual media viewing and listening areas;

(f) additional services - tracing and obtaining translations, and mounting displays relating to library materials and information.

The Library is open during semester from 7.30 am. until 10.00 pm. Monday to Friday, and on weekends from 10.00 am. to 4.00 pm. (subject to review). In breaks between semesters, the hours are 8.00 am. to 6.00 pm. Monday - Friday, and closed on weekends.

Q SEARCH

Q SEARCH is an internal agency of the Queensland Institute of Technology which provides a formal channel through which the resources of the Institute may be applied to the solution of problems arising in commerce, industry, government and the community generally.

Q SEARCH was established by the Institute Council in November 1981 and operated on a part-time basis until July 1984 when a full-time manager was appointed together with supporting staff and facilities.

Q SEARCH is able to provide particular assistance to organisations and individuals in dealing with problems where the solution calls for -

(a) highly specialised facilities
(b) multi-disciplinary skills and resources
(c) experience and facilities not normally available commercially.

Q SEARCH has at its disposal some 600 academic and technical staff of the Institute and a large number of well equipped laboratories and analytical facilities. It can thus provide professional services, consultancy and research facilities across a wide range of disciplines.

The role of Q SEARCH is to act as a central resource agency for industry, commerce and the professions so that the community may benefit from the application of the best available expertise to the solution of real life problems. Enquiries arising from external bodies are assessed by Q SEARCH and by utilising its substantial database of available skills and facilities, Q SEARCH refers these to the appropriate departments, staff or groups. Should any contracts or business result, Q SEARCH will then co-ordinate and administer the work.

All work carried out by Q SEARCH is independent and strictly confidential in accordance with accepted professional ethical standards. The fees charged are likewise consistent with those which would apply for professional consultants and there is full cost recovery for the use of Institute services and facilities.

As well as its problem solving role, Q SEARCH can assist with a range of other services such as negotiation for software, courseware and publication rights, interfacing with venture capital markets, and development of innovative joint venture proposals. Q SEARCH can also provide specially packaged courses for professional, technical and supervisory personnel and its support services are available for conference and extension course programs. As part of the Institute's commitment to technological development, Q SEARCH is also responsible for co-ordinating Institute courses and programs associated with national and international funding agencies for underdeveloped nations.

For general advice and enquiries or to arrange an obligation free discussion, contact:

The Manager,
Q SEARCH,
Queensland Institute of Technology,
GPO Box 2434, Brisbane, Qld, 4001.

Telephone: (07) 223 2747 Telex: 44699

STUDENT SERVICES

ACCOMMODATION

The Institute does not have its own on-campus accommodation, however, it does provide an accommodation service for students. An information brochure is available on request to the Institute on the various types of accommodation suitable for students. The Counselling Centre can assist students who are seeking accommodation and/or who may be experiencing difficulties with their existing accommodation arrangements. Students or intending students of the Institute are invited to call in at the Counselling Centre to discuss with the Information Officer any matter related to accommodation. In addition, the Counselling Centre and the Contact Office of the Student Union both provide accommodation noticeboards at their respective locations on campus.

FINANCIAL AID

Students who are seeking information or advice on any financial aspect of their studies at QIT, are invited to discuss their concerns in confidence with the Information Officer at the Counselling Centre.

1. *TEAS (Tertiary Education Assistance Scheme)*

   This scheme is administered by the Commonwealth Department of Education, 167 Eagle Street, Brisbane (Phone: 07 - 226 9111). Assistance under this scheme is available only to **Full-time** students enrolled in approved courses and is subject to a **Means Test.**

   For those eligible in 1985 the maximum allowance for independent students and dependent students living-away-from-home is $3580 p.a. (1985), and for dependent students living at home $2331 p.a. (1985). In addition, an incidentals allowance for QIT students is $70 for the year.

   All applications for TEAS should be submitted to the Commonwealth Department of Education **before** 31 March, 1985, otherwise applications received by the Department will result in allowances being paid from the date of receipt and **not** from 1 January, 1985. Even if all information requested by the Department is not available before 31 March, the application forms can be submitted before that date and the 'missing' information can be forwarded at a later date when it becomes available.

2. *NSAS (Needy Students Assistance Scheme)*

   This scheme is operated by the Institute through the Needy Students Assistance Committee and is available to assist students whose financial situation may place their study in jeopardy. Both full-time and part-time students may apply and each student is considered on his or her own individual circumstances. Should you experience financial problems, no matter how large or small, call in at the Counselling Centre and discuss your financial concerns with the Information Officer.

THE GARDENS POINT CAMPUS CLUB

This Campus Club, situated on Level 3 of the Community Building, provides a pleasant social atmosphere for mixed drinking. It trades between the hours of 12 noon to 4 pm. and 5 pm. to 10 pm., Monday to Friday.

The Club is open to any person who in the past has been or who is currently involved with the activities of the QIT. It was formed with the basic aim of providing a social facility to QIT students and staff. The Club is run by professional staff under the guidance of a Management committee.

CREDIT UNION

The College Credit Union, situated on Level 3 of the Community Building was established by college staff and managed by them to serve the particular needs of all members of the college sector whether staff or student.

QIT UNION

The Aims of the Queensland Institute of Technology Union -

The basic aim of the Union is to involve its members in all activities which are associated with campus life, to represent its members on the various boards and committees, and to provide services and facilities to its members.

Union Council -

The QIT Union Council comprises the President, five Executive Directors and up to thirty-five Representative members elected from the various schools. Elections are held annually.

Union Council meets every four (4) weeks during semesters. All members who wish to attend Council meetings are cordially invited to do so. Even though they are not Council members, they may ask questions of any of the Director, Student Representative or Academic Board Representatives.

Union Facilities and Services -

Since the Union has a major say in the day-to-day operations of the Community Building and provides large grants to subsidise Clubs and activities, the facilities available to you as members are both beneficial and varied.

Union Office (Level 3, Community Building) which is staffed full-time to provide continuity of service to all students, 9.00 am. to 6.00 pm.

Union Shop (Level 2, Community Building) sells a large range of calculators and other goods and is a market place for student made products. The shop is open 8.00 am. to 6.00 pm.

QIT Travel: The Students Union and World Travel Headquarters set up a full travel agency on campus. It operates between the hours of 10.00 am. and 6.00 pm. Monday to Friday.

Record Shop: A record shop is located on Level 3 of the Community Building.

Discount List: A wide range of discounts is available to Union Members. A list of organizations offering such discounts is available from the Union Office.

Billiard, amusement machines and table tennis facilities are available for Union members use in the Games Room on Level 1 of the Community Building from 8.30 am. to 6.00 pm.

A Gymnasium operates on the 1st Level, Community Building, hours 8.00 am. to 8.00 pm.

The QIT Union Child Care Centre's facilities are available in the old Bakehouse and operates from 8.30 am. to 5.15 pm. Phone 221 6993.

General Information -

For all enquiries about Union activities, services, clubs and societies and complaints ring Union Office on 221 3144 during office hours. Answers that are not available immediately are provided on a call back basis. Alternatively a personal call at the Union Office will find staff available to service any difficulties.

A Contact Service is available on the Ground Floor of the Community Building. This office helps provide employment, accommodation and general information for the students.

The Union Newspaper PLANET provides general information and also acts as a forum for a wide range of topics of student interest. All members of the Union are free to contribute any articles, poetic masterpieces etc., to your newspapers.

Clubs and Societies -

Since the formation of the Union there has been a gradual increase in the number of Clubs and Societies. These are listed below:

AQITLS (Law Students)
BAPTSA (P/T Architecture Students)
Baseball Club
BSA (Business Students)
Built Environment Students Group
Bushwalking Club
Chemistry Students Association
Chess Club
Child Care Club
Christian Fellowship
Communications Students Assn.
Computing Studies Social Club
Cricket Club
Debating Society
Dramatic and Visual Arts Society
Engineering Students Club
Gamers Guild
Geological Society
Golf Club
Health Science Students Assn.
IPMAS
Karate Club
Labor Club
Overseas Students Association
QOSS (Optometry)
QPODS (Podiatry)
Peace and Justice Group
Rowing Club
Sailing Club
Soccer Club
Softball Club
Surveying Students Association
Table Tennis Club
Underwater Club
Volleyball Club
Waterski Club
Women's Collective
Yoga Club

These clubs are funded by the Union. Any enquiries regarding the Clubs may be made at the Union Office.

The success of all Union ventures is dependent on the continuing involvement of members.

President ..... Ken Fussell

Director of Admin/Finance ..... David Williams

Director of Student Services ..... Jane Folliott

Director of Activities ..... Michael Powell

Director of Sport ..... Steven Pyman

Director of Education ..... Susan Sheppard

COUNSELLING CENTRE

The Counselling Centre is an autonomous professional service department of the Institute playing an integral role with both the academic and administrative staff in promoting the personal and educational development of students on campus.

It operates to assist students with concerns related to their normal development needs - problems with personal and social functions, educational difficulties, and decision on future career and personal planning. As well it offers programs designed to aid the development of personal maturity and effective patterns of living, working and studying. These include human relations groups, job hunting skills and career planning workshops, stress management groups, interpersonal communication workshops, and study skills and reading efficiency programs.

Complementing these are a range of general welfare and guidance services, including accommodation, financial aid, course and career information. The Centre also provides contact with many other agencies in the community which offer services to students.

Services are provided by professionally qualified staff. Facilities include consultation rooms, a group room, a Relaxation Training Room, an Educational skills clinic, and a library of Career and Welfare information.

The service is free and available to both day and evening students, currently enrolled at the Institute and to those intending to enrol in the future. All consultations are STRICTLY CONFIDENTIAL.

The Centre is located on the Lower Ground Level of the Community Building. Telephone: 223 2383. It is advisable to make an appointment, especially for part-time students, but feel free to call in at any time.

STUDENT HEALTH SERVICE

The Student Health Service is a FREE service available to both full-time and part-time QIT students and is located in the south-west corner of Old Government House - opposite the Library, Main Entrance.

A nursing sister is in attendance from 8.30 am to 4.30 pm. on Monday, Tuesday, Thursday and Friday and from 10.00 am. to 6.00 pm. on Wednesday.

Appointments may be made for consultation with a Doctor, who will be in attendance for 3½ hours each day. The hours are as follows:

Monday: 10.00 am. to 1.30 pm.
Tuesday: 9.30 am. to 1.00 pm.
Wednesday: 2.30 pm. to 6.00 pm.
Thursday: 9.30 am. to 1.00 pm.
Friday: 10.00 am. to 1.30 pm.

Students are welcome at the Health Service for discussion and treatment of all conditions pertaining to their well being including:

First Aid and Dressings
Psychological Problems (in Liaison with Student Counselling Centre)
Skin Care and Conditions
Gynaecological Complaints
Contraception - Advice and Counselling
Vaccinations
Hearing Tests
Health Education

All records are, of course, STRICTLY CONFIDENTIAL.

To facilitate treatment in a crisis, sufferers of recurring conditions (asthma, diabetes, epilepsy, etc.) are requested to make themselves known to the nursing sister.

A Recovery Room is available for patients needing temporary bedrest.

The Service is on telephone 223 2321 and this number should be called in all cases of emergency.

Medical Officer ..... Dr. L.B. Johnson, MBBS(Qld), DOH(Syd).

Sister ..... M. Gough

The facilities and services of the Optometry, Podiatry, and Weight Control Clinics in the School of Health Science are also available to students.

Optometry, ext. 2352, 'U' Block
Podiatry, ext. 2609, 'A' Block
Weight Control, ext. 2352, 'U' Block

CHAPLAINCY CENTRE AND CHAPEL

Chaplain ..... Rev. Dr. Noel Preston

The Chaplaincy Centre is Ecumenical and available to members of all faiths to make the drop-in-room the centre point of worship, discussion, clarification and search. The Centre will foster and encourage formation and growth of religious study groups.

The Centre exists to help staff and students take a great deal of responsibility for their own decisions and be free enough inside to use this power to give and to serve; and in so doing, to discover Christ in their neighbour and Christ's living-dying-living power in themselves.

The Centre seeks to strengthen the Christian Community at the Institute and enable it to express its spirituality forcefully and in a generative way. To develop a Eucharistic Community the Chapel is always open for private prayer. Eucharist (Mass) service times will be advertised on notice boards in the Chaplaincy Centre.

The Chaplain is available to help free staff and students from pressures that weigh them down and assist them to make their own decisions in their personal life.

Parental and personal problems, questions in faith and prayer will be counselled in strictest confidence.

The Chaplain (co-ordinating for other churches) is available on Mondays, Wednesdays and Thursdays at the Centre. Telephone: 223 2111 ext. 2700 or appointments may be made with the secretary at the Counselling Centre ('V' Block) ext. 2383.

The Chaplaincy Centre is temporarily situated in 'V' Block. There is a chapel for private devotions and worship and a drop-in-room for private reading and rest available at all times.

CAMPUS INTERVIEW PROGRAM

The Campus Interview Program is conducted annually by the Institute with the two-fold purpose of assisting final year students to gain employment and of creating an awareness in them of career opportunities. The program is held over a three week period, normally in September.

Employers who participate in the program are provided with Secretarial assistance during the period of their attendance and pre-arranged individual or limited group interviews take place in amenible surroundings.

Employers who consider a September date inapplicable to their needs are encouraged to make alternative arrangements.

Full details of future Interview Programs may be obtained through the QIT Admissions and Administative Services Section.

INSTITUTE FUNCTIONS

The Admissions and Administrative Services Section of central administration is responsible for the organisation of the following annual programs for students and potential students -

- Orientation Program
- Graduation Ceremonies
- QIT-in-Action Program

ORIENTATION PROGRAM

The orientation program has a three-fold purpose. It is designed to familiarise intending students with the Institute, to give new students an opportunity to discuss their course and future career opportunities with staff members, and to introduce students to the services, facilities and activities available to them.

The orientation program is conducted during the week prior to the official commencement date for Autumn Semester classes. All new full-time and part-time students are welcomed to the campus by the Director, the Registrar, the Senior Student Counsellor and the President of the Students' Union, at an official orientation ceremony. Separate functions are conducted by the various schools with departmental orientation following.

The QIT Union organises various activities on campus to familiarise students with the activities of the various clubs and societies, and to introduce students to the social life of the campus.

GRADUATION CEREMONIES

Degrees and Diplomas etc. are conferred at official Graduation Ceremonies which are conducted bi-annually in April and October each year. Eight ceremonies are conducted in April at which awards are conferred in separate ceremonies to graduates in the Schools of Engineering, Applied Science, Business Studies, Built Environment, Computing Studies, Health Science and Law. A separate ceremony is held in October for graduates from all Schools who complete their studies in mid-year.

Graduands are required to make application for admission to Graduate status by dates specified in the Institute Calendar, and each award is authorised by the Institute Council prior to the official ceremony. At the Graduation Ceremonies the Chairman of Council or his nominee, confers the award on behalf of the Institute to each graduating student in the presence of graduates, staff, parents and friends, official guests representing Industry and Commerce, particularly those persons who have contributed their time to Advisory Committees and Academic Boards, and representatives of organisations which have donated prizes and other awards to successful students.

QIT-IN-ACTION

QIT-in-Action aims to develop a greater awareness and understanding of the Institute, its courses, careers and to enable the public to view its facilities.

It is specifically directed towards secondary school students in an endeavour to make early contact with them, and assist career development and decision making.

The program is generally run in conjunction with the annual 'Careers Information Evening Talks Program' conducted by the Commonwealth Employment Service, for school leavers.

QIT-in-Action is the extension of these evening career talks into a day time program based on the open campus concept.

The QIT has programed an Open Day to be held in August. The campus will be open to the public and groups of school students. It has purposely been programed during the semester so that QIT students will be attending their normal lectures, with laboratories, workshops, and studios all functioning normally.

In addition, special displays, demonstrations, activities, and guided tours are conducted with staff available for consultation. Details on the activities which will be conducted on that day will be advertised by radio and televison and also in Institute publications.

INSTITUTE PUBLICATIONS

The QIT Admissions and Administrative Services Section under the direction of the Deputy Registrar is responsible for the publications which provide readily accessible information to the general public. These general publications include -

- QIT Handbook
- QIT School and Department Handbooks
- Admission Procedures Booklet
- Career Brochures

Other publications which relate to specific functions of the Institute are -

- The Queensland Tertiary Courses Booklet
- The Continuing Education Program
- The QIT Newsletter

QIT Handbook:

The General Handbook is regarded as the Institute's official publication of its governing structure and authority, to be retained as an historical record of its operations for the future, and is seen as a public relations publication to be circulated widely to other institutions, education authorities, government departments, and to libraries.

It is a publication which contains a variety of information from the Institute's Schools and Departments, and collectively produced into a more formal publication.

QIT School/Department Handbooks:

The following handbooks for the Schools/Departments at QIT are produced for sale to students and the general public -

- School of Applied Science
- School of the Built Environment
- School of Business Studies
- School of Computing Studies
- School of Engineering
- School of Health Science
- School of Law

The contents of each handbook take the following format -

- Introduction to School/Department
- Calendar
- By-Laws of QIT
- Rules Relating to Student Matters
- Central Services
- Admission Procedures and Entry Requirements -Undergraduate Courses
- Subject and Course Numbering System
- Academic Board and Advisory Committees
- Staff
- Course Structures and Course Rules listed in decending order of highest qualification to lowest qualification
- Continuing Education Program
- Schedule of Subject Pre- and Co-requisites
- Changes to Subject Title
- Prizes and Awards
- Synopses of Subjects.

Admission Procedures Booklet:

The Admission Procedures Booklet is a publication designed to inform all intending students at QIT regarding specific requirements when applying for a course. It is forwarded to all matriculating students in Queensland and selected Northern New South Wales schools.

It incorporates in detail the admission procedures, the courses which are available, the admission policy of the Institute, the Enrolment procedures, and the requirements necessary to be eligible for entry.

Career Brochures:

Career Brochures are produced for all courses conducted by QIT. The brochure generally indicates the following information -

- what the profession entails
- nature of work
- the professional recognition of the award
- the employment opportunities
- the areas of employment
- the entry requirements to the course
- further courses of study after completion of award.

Queensland Tertiary Courses Booklet:

The Queensland Tertiary Courses Booklet is a publication produced by the Queensland Tertiary Admissions Centre. The QIT provides information on all undergraduate courses conducted by the Institute both full-time and part-time.

It gives an indication of the duration of the course, the nature and scope for employment, the areas of specialisation, and the specific entry requirements.

It is a booklet which provides information on all courses available at any College of Advanced Education or University in Queensland. It is made freely available to school leavers and is able to be purchased by others who wish to pursue an undergraduate career.

5

Admission Policy
Entry Requirements
(Undergraduate Courses)
Tables

ADMISSION POLICY and ENTRY REQUIREMENTS

Offers of admission to any course shall be made only by the Queensland Tertiary Admissions Centre or by the Registrar or in his name by an officer of the Institute expressly authorised by him to do so, or by the Queensland Tertiary Admissions Centre acting on behalf of the Institute.

The Institute has set certain minimum entry requirements which must be met by all applicants.

MINIMUM ENTRY REQUIREMENTS

Undergraduate Courses

1. *Normal Entry*

   (a) *Students undertaking year 11 and year 12 under the semester rating system*

   To qualify for normal entry, an applicant must fulfil the requirements listed against the particular course in Table 2 of this section.

   (b) *Students undertaking the External Senior Examination*

   To qualify for normal entry, an applicant must fulfil the requirements listed against the particular course in Table 3 of this section.

2. *Entry for students undertaking the External Senior Examination who are 21 years of age or over*

   (a) The applicant must fulfil the requirements listed against the particular course in Table 3 of this section.

   (b) Applicants seeking entry under the provisions of part (a) of this requirement must have attained the age of 21 years on or prior to 31 December of the year in which the examination leading to the last relevant result was taken.

Post-Basic Nursing Diploma Courses

Details of the requirements for entry to post-basic nursing courses at QIT are contained in a separate information booklet available upon request from the Registrar.

Postgraduate Courses

To qualify for entry to a postgraduate course an applicant must normally have completed an acceptable tertiary undergraduate course, in the appropriate field if applicable. In some courses relevant work experience may be required. Details listed in Table 4 of this section serve as a guide only.

Offers are usually made on the basis of academic merit; however, applications received prior to the closing date for receipt of applications i.e. 10 December 1984 may be given priority.

THE QUOTA SELECTION PROCESS

Quota selection is necessarily competitive. The minimum Selection Score required to negotiate successfully a place in the quota for a particular course varies from year to year according to the number of qualified applicants competing for that quota. There can be significant differences between the Selection Score necessary to meet the entry requirements for a course and the actual Selection Score necessary to gain a place in the quota.

In order to select the quota from the large number of academically eligible applicants for any course (i.e. those who have met the minimum entry requirements) a number of criteria may be considered.

Criteria for Selecting Applicants

1. *Academic Merit*

   Except for courses referred to in sub-section 2 of this section, selection for quota places from among eligible applicants shall normally be made in strict order of academic merit as indicated either by the applicant's actual *Tertiary Entrance Score* or by a *Notional Selection Score* calculated by the Institute on such basis as the Admissions Committee may from time to time determine.

2. *Special provisions relating to selection in certain courses*

   (a) *Part-time internal and part-time external Bachelor of Laws courses*

   Except with the consent of the Head of the School of Law, applicants for the part-time external Bachelor of Laws course must be resident in Queensland outside the Brisbane statistical region.

   In determining the quotas for the part-time internal and part-time external Bachelor of Laws course, a preferred position will be given to the following academically qualified applicants.

   (i) Ten officers of the Magistrates Court Service and ten other officers who are Public Servants in offices set forth in Section 7 of the Legal Practitioners Acts Amendment Act 1968, and who have a TE Score of at least 830 including 16 points over four semesters in English (or under the ROSBA Scheme, a level of sound achievement in English). Students wishing to apply for appointment to one of the offices specified in Section 7 of the 1968 Act should contact the Public Service Board, Executive Building, 100 George Street, Brisbane, Q, 4000. These offices comprise:

   - the Solicitor-General's Office;
   - the Crown Solicitor's Office;
   - the Public Defender's Office;
   - any branch or section of the Chief Office of the Department of Justice;
   - the Parliamentary Counsel and Draftsman's Office;

- a Registry of the Supreme Court;
- a Registry of the District Court;
- the Public Trust Office (including any branch thereof);
- an Office of a Clerk of a Magistrates Court.

(ii) Subject to section 1 applicants who are serving articles of clerkship to a solicitor or undertaking some other form of practical training referred to in Rule 18(3) of the Solicitors' Admission Rules 1968 as amended and who have a TE Score of at least 880 including 16 points over four semesters in English (or under the ROSBA Scheme a level of sound achievement in English).

Applicants must forward to the Registrar no later than the end of the second week in December documentary evidence that they will be in appropriate employment by the commencement of classes in Autumn Semester.

(b) *Diagnostic radiography and therapeutic radiography diploma courses*

Places are offered only to academically eligible applicants who have been granted a cadetship or other form of appropriate training with an approved department or practice.

(c) *External Bachelor of Business Health Administration course*

Except with the consent of the Head of the Department, applicants for the external B.Bus. Health Administration course must be resident in Queensland outside the Brisbane statistical region.

Method of Calculation of Notional Selection Scores

1. Where an applicant relies on qualifications obtained in the State of Queensland arising from:

   (a) results obtained by full-time study in any year other than the year immediately preceding that in which he/she seeks entry;

   (b) results obtained entirely by part-time or full-time study;

   (c) results obtained by combining full-time and part-time study; or

   (d) results obtained by undertaking examinations for persons 21 years of age or over,

   the results obtained by the applicant will be converted into a Notional Selection Score in accordance with Table 1.

2. Subject to the provisions of paragraph 3 below, the basis on which results will be converted in accordance with Table 1 shall be:

   (a) Applicants with actual TE Scores awarded in the years 1974 to 1983 may be allocated the nearest Notional Selection Score.

   (b) *Normal Entry*

   Applicants may fulfil the requirements for entry either by undertaking all subjects on a part-time or full-time basis, or

by a combination of results obtained by full-time and part-time study. In such cases a Notional Selection Score shall be calculated on the basis of the applicant's best results in five different subjects, and applied to the year in which the last examination was taken.

(c) *Entry for persons 21 years of age of over*

Except for applicants for degree courses in engineering, who require five (5) subjects, applicants who are 21 years of age or over shall be assigned a Notional Selection Score on the basis of their best results in four different subjects and applied to the year in which the last examination was taken. Applicants must have attained the age of 21 years on or prior to 31 December of the year in which the examination leading to the last relevant result was taken.

3. Actual Tertiary Entrance Scores or Notional Selection Scores assigned in accordance with the provisions of Table 1, may be modified by performance in tertiary studies.

Authority to Make Offers

Offers of admission to any course shall be made only by the Registrar or in his name by an officer of the Institute expressly authorized by him to do so, or by the Queensland Tertiary Admissions Centre, acting on behalf of the Institute.

Authority to Cancel Offers

The Registrar reserves the right to withdraw any offer of admission and cancel the enrolment of any person, where such offer was made on the basis of incomplete or inaccurate information supplied by the applicant or a certifying authority.

Exclusion from a Tertiary Institution

The Institute reserves the right to refuse entry to any applicant who has been excluded from any course within a tertiary institution or who becomes liable for such exclusion while his application is being considered.

Entry to Associate Diploma Courses in Engineering from a Bridging Course

Applicants who have successfully completed the two year part-time engineering bridging course for associate diploma (course code CN649) which is offered at various colleges of technical and further education shall be regarded as meeting the requirements for entry to the associate diploma in engineering courses at QIT.

Special Consideration

Applicants who do not meet requirements for normal or other entry may present documentary evidence of qualifications, experience and other relevant information for special consideration by the Admissions Committee.

Applicants seeking special consideration should complete the relevant section of the application form and attach the required evidence, or if space is insufficient, include a detailed letter outlining the points for consideration. Such applications will normally be referred by QTAC to QIT for consideration.

Mature Age Entry

A mature age entry scheme operates in several schools within the Institute. Applicants must be 25 years of age or older and must never have completed matriculation or higher level studies. Through this special scheme, the Institute enables persons of mature age lacking formal qualifications to establish their eligibility to enrol. The criteria upon which selection is based vary for different courses, but may include such factors as assessment by interview or satisfactory performance in a number of specially designed aptitude tests.

Application is made through the Queensland Tertiary Admissions Centre in the normal way and *well in advance of the closing date* so that a fair assessment can be made. Applicants applying late may not be referred to QIT for consideration. Special admission applicants should note that it is their responsibility to present a fully documented case upon which their eligibility can be assessed. The following should be included with the application:

(a) *Details of formal education* including level reached; state/country; year; subjects and results. Documentary evidence should be provided if possible.

(b) *Details of other study, training or development programs* attempted or completed since leaving school. Applicants should provide a full description of the program(s) including purpose, structure and other information on the organising body; duration and location of classes, seminars, workshops; results obtained and the perceived benefits of having participated or reasons for non-completion (where appropriate). Documentation should be provided.

(c) *Details of employment history* with particular emphasis on the preceding five years, including information on employer(s), duration of service, positions held, duties and salary ranges. Details of current employment status and other employment information considered relevant to the course into which admission is sought should be included. Copies of duty statements, employment-related references and other forms of documentation should be provided.

(d) *Details of proof of memberships and affiliations* with recognised professional and semi-professional bodies e.g. ICSA, ASA etc.

(e) *A statement* indicating the reasons for wishing to pursue tertiary study.

(f) *Any other factors* which may indicate an ability to successfully complete a tertiary level course.

QUOTA CUT-OFF LEVELS

The following is a list of courses for which the quota cut-off level in 1984 was significantly higher than the minimum. Selection Score for consideration, specified in the entry requirements.

	1984 Quota	1984 Cut-off
BAppSc- Medical Laboratory Science	40	900
BAppSc - Optometry	25	920
BArchitecture	25	910
BAppSc - Built Environment	75	875
BBus - Accountancy (full-time)	115	890
BBus - Accountancy (part-time)	105	875
BBus - Management (full-time)	60	850
BBus - Management (part-time)	60	860
BBus - Communication (full-time)	75	910
BBus - Communication (part-time)	55	865
BEngineering (full-time)	170	865
BLaws (full-time)	110	935
BLaws (part-time internal, without Articles of Clerkship or other approved employment)	85	940
BLaws (part-time external, without Articles of Clerkship or other approved employment)	55	940
BBus - Computing (full-time)	45	850
BAppSc - Computing (full-time)	75	875
Assoc Dip Business (full-time)	45	765
Assoc Dip Built Environment Tech.	35	785

TABLES OF ENTRY REQUIREMENTS

TABLE 1: SELECTION SCORES FOR APPLICANTS WITH QUEENSLAND SENIOR RESULTS[a]

	Senior Examination (best 5 subjects)				Year 12 by school assessment		Entry for persons 21 years of age or over[b] (best 4 subjects)	
Notional Selection Score	1959 and earlier[c]	1960 – 66[c]	1967–70	1971 and later	1973 Aggregate Score over 20 Semester Units	1974 and later	1967 – 70	1971 and later
987	28	30	31	32	128		23	26
982					125		22	25
977	27	29	30	31	122			
972					120		21	24
967	26	28	29	30	118			
962					116			
957	25	27	28	29	115		20	23
952					113			
947	24	26	27	28	112			
942					110		19	22
937	23	25	26	27	108			
932					107			
927					106	THE		
922					105	ACTUAL	18	21
917	22	24	25	26	104	TE SCORE[d]		
912					103	AWARDED		20
907					101	BY THE		
902	21	23	24	25	100	BOARD	17	19
897					99	OF		
892	20	22			98	SECOND-		18
887	19	21	23		97	ARY		
882	18	20	22	24	96	SCHOOL	16	17
872					94	STUDIES		
862	17	19	21	23	92		15	16
857					91			
852					90			
842	16	18	20	22	88			
832					86		14[e]	15[e]
822	15	17	19	21	84			
812		16	18	20	80			
802			17	19	76		13	14
792	14	15						
787								
782								
777	13	14	16	18	72			13
767								
757								
747	12	13	15	17	70		12	12

a All applicants must satisfy the subject pre-requisites as set out in Tables 2 and 3 of this booklet, except that applicants relying on Senior Examination results obtained prior to 1967 will be regarded as meeting the requirements if they have gained the equivalent of a score of 3 in each pre-requisite subject.

b Applicants seeking entry under this provision must have attained the age of 21 years prior to completing the last External Senior Examination which is necessary to meet course entry requirements irrespective of when the first Senior subject was undertaken.

c Based on A = 6; B = 5; C = 4; P or Q = 3; N = 0.

d **Current year 12 students cannot extrapolate actual TE scores from any information contained in this table.**

e Applicants who have only this level of aggregate points over their best four subjects DO NOT satisfy the requirements for entry to degree or diploma courses at QIT.

TABLE 2: MINIMUM ENTRY REQUIREMENTS FOR YEAR 12 STUDENTS

QTAC COURSE CODE Full-time (F) Part-time (P) External (E) Sandwich (S)	COURSE	Minimum TE Score	Semester Duration Full-time (F) Part-time (P) External (E) Sandwich (S)	Prescribed Subjects	Minimum Semester Units Required	Minimum No. of Points Required	Specific Units Required
SCHOOL OF APPLIED SCIENCE							
Degree (Bachelor) Level Courses							
IT01F IT01P	B.App.Sc. Biology		6F 12P	Maths[a]	3	–	–
IT02F IT02P	B.App.Sc. Applied Chemistry		6F 12P	Chemistry			
IT03F IT03P	B.App.Sc. Chemistry	810	6F 12P	Physics or	3	–	–
IT04F –	B.App.Sc. Applied Geology		6F	3 additional			
IT05F IT05P	B.App.Sc. Physics		6F 12P	Maths units			
IT07F IT07P	B.App.Sc. Mathematics	810	6F 12P	Maths[a]	8	32[b]	1, 2, 3
Diploma Level Courses							
IT18S –	Dip.App.Sc. Diagnostic Radiography[c]		6S	Chemistry	3	–	–
IT19S –	Dip.App.Sc. Therapeutic Radiography[c]	810	6S	Maths[a]	3	–	–
				Physics	3	–	–
Associate Diploma Level Courses							
IT15F IT15P	Assoc.Dip. Applied Biology		4F 8P	Maths[f]	3	–	–
IT16F IT16P	Assoc.Dip. Applied Chemistry	745	4F 8P	Chemistry			
				Physics or	3	–	–
				Biology			
SCHOOL OF HEALTH SCIENCE							
Degree (Bachelor) Level Courses							
IT20F IT20P	B.App.Sc. Medical Laboratory Science		6F 12P	Chemistry	3	–	–
IT21F –	B.App.Sc. Optometry	810	8F	Maths[a]	3	–	–
				Physics	3	–	–
Diploma Level Courses							
IT22F –	Dip.App.Sc. Podiatry	810	6F	Chemistry	3	–	–
				Maths[a]	3	–	–
				Physics	3	–	–
IT23F –	Dip.App.Sc. Nursing	810	6F	English	4	–	–
				Chemistry	3[e]	–	–
Associate Diploma Level Courses							
IT25F IT25P	Assoc.Dip. Clinical Laboratory Techniques		4F 8P	Chemistry	3	–	–
IT26F –	Assoc.Dip. Health Surveying	745	4F	Maths[a]	3	–	–
				Physics	3	–	–
SCHOOL OF THE BUILT ENVIRONMENT							
Degree (Bachelor) Level Courses							
– IT30P	B. Architecture		12P	English	4	–	–
IT31F[f] –	B.App.Sc. Built Environment	810	6F	Maths[a]	2	–	–
IT32F IT32P	B.App.Sc. Building		4F+4P 12P	English	4	12[b]	–
IT33F IT33P	B.App.Sc. Quantity Surveying	810	4F+6P 12P	Maths[a]	4	12[b]	–
Associate Diploma Level Course							
IT35F –	Assoc.Dip. Built Environment Technician	745	2F+4P	English	4	–	–
				Maths[a]	2	–	–
SCHOOL OF BUSINESS STUDIES							
Degree (Bachelor) Level Courses							
IT40F IT40P	B.Bus. Accountancy		6F 12P	English	4	16[b]	–
IT41F IT41P	B.Bus. Management	810	6F 12P	Maths[a]	4	16[b]	–
IT42F IT42P	B.Bus. Communication		6F 12P				
– IT43P	B.Bus. Health Administration		12P				
– IT43E	B.Bus. Health Administration		12E				
IT44F IT44P	B.Bus. Public Administration	810	6F 12P	English	4	16[b]	–
IT49F IT49P	B.Bus. Health Administration – Medical Record Administration Strand		6F 12P				
Associate Diploma Level Course							
IT45F IT45P	Assoc.Dip. Business	745	4F 8P	English	4	13(–)	–
				Maths[a]	4	13(–)	–

QTAC COURSE CODE Full-time (F) Part-time (P) External (E) Sandwich (S)		COURSE	Minimum TE Score	Semester Duration Full-time (F) Part-time (P) External (E) Sandwich (S)	Prescribed Subjects	Minimum Semester Units Required	Minimum No. of Points Required	Specific Units Required
SCHOOL OF ENGINEERING								
Degree (Bachelor) Level Courses								
IT50F	IT50P	B.Eng.[g]	810	8F 12P	English	4	14[h]	–
					Physics	4	14[h]	–
					Chemistry	4	14[h]	–
					Maths[a]	8	28[h]	1, 2, 3[h]
IT53S	–	B.App.Sc. Surveying[g i]	810	6S	English	4	14[h]	–
					Maths[a]	8	28[h]	1, 2, 3[h]
					Physics	4	14[h]	–
					One other	4	14[h]	–
Associate Diploma Level Courses								
IT55F	IT55P	Assoc.Dip. Civil Eng.		4F 8P	English	4	–	–
IT56F	IT56P	Assoc.Dip. Electrical Eng.	745	4F 8P	Maths[a]	4	–	1, 2, 3
IT57F	IT57P	Assoc.Dip. Mechanical Eng.		4F 8P	Physics	4	–	–
					Chemistry	4	–	–
–	IT58P	Assoc.Dip. Cartography	745	8P	English	4	–	–
					Maths[a]	4	–	1, 2, 3[j]
					One other	4	–	–
–	IT59P	Assoc.Dip. Surveying	745	8P	English	4	–	–
					Maths[a]	4	–	1, 2, 3[j]
					Physics	4	–	–
SCHOOL OF LAW								
Degree (Bachelor) Level Courses								
IT60F	IT60P IT60E	B. Laws[k]	830	8F 12P 12E	English	4	16[h]	–
SCHOOL OF COMPUTING STUDIES								
Degree (Bachelor) Level Courses								
IT71F	IT71P	B.Bus. Computing	810	6F 12P	English	4	16[b]	–
					Maths[a]	4	16[b]	–
IT72F	IT72P[f]	B.App.Sc. Computing	810	6F 12P	Maths[a]	8	32[b]	1, 2, 3
COMBINED COURSES								
Degree (Bachelor) Level Courses								
IT51F	IT51P	B.Eng/B.App.Sc. Electronic Systems and Computing[g m]	810	10F 14P	English	4	14[h]	–
					Chemistry	4	14[h]	–
					Maths[a]	8	32[b]	1, 2, 3[h]
					Physics	4	14[b]	–
IT61F	–	B.Bus. Accountancy/B. Laws[m]	830	10F	English	4	16[h]	–
					Maths[a]	4	16[b]	–

a Social Mathematics is not acceptable.

b For students completing year 12 under ROSBA the minimum requirement is Sound Achievement.

c Applicants must have gained a cadetship with a recognised department or practice.

d Applicants who have completed the subjects Man and Mathematics, Social Mathematics or Mathematics in Society may be granted special consideration.

e For entry in 1985, 4 semester units of Biological Science or 4 semester units of a combination of Biological Science and Chemistry will be accepted in lieu of 3 semester units of Chemistry.

f While this course has a common first year, separate quotas will be applied for entry into the second year for each of the strands – Architecture; Industrial Design; Planning and Landscape Architecture.

g A total of 80 points must be obtained over 20 semester units in the nominated pre-requisite subjects for entry to these courses.

h Students who completed units 1, 2, 3 prior to 1978 must also have satisfactorily completed units 8 and 11.

i Applicants should note that this is a sandwich course requiring alternate semesters of full-time study and approved employment. Students may however, enter the first semester of full-time study without employment experience. Students who are commencing their studies in this course in second semester 1985, must submit an application for quota entry by 10 October 1984.

j Students who completed units 1, 2, 3 prior to 1978 must also have satisfactorily completed unit 11.

k No quota preference will be given to applicants for part-time or external law, who fall within the special provisions listed in Section 4 of this booklet, unless evidence, in an appropriate form, is received by 14 December 1984.

l Whilst the academic segment of this course does not commence until spring semester, applications must be submitted by 10 October 1984, and enrolment forms submitted and fees paid by the lapse date indicated on the Response to Offer Form.

m To be offered subject to final approval.

TABLE 3: MINIMUM ENTRY REQUIREMENTS FOR STUDENTS QUALIFYING BY EXTERNAL SENIOR EXAMINATION

QTAC COURSE CODE (Full-time (F) Part-time (P) External (E) Sandwich (S))		COURSE	Semester Duration (Full-time (F) Part-time (P) External (E) Sandwich (S))	Minimum Points: Persons under 21 years of age over five subjects unless stated	Minimum Points: Persons 21 years of age and over [p] over four subjects unless stated	PLUS the following pre-requisite subjects: SPECIFIC SUBJECTS	PLUS the following pre-requisite subjects: LEVEL REQUIRED IN SPECIFIC SUBJECTS
SCHOOL OF APPLIED SCIENCE							
Degree (Bachelor) Level Courses							
IT01F	IT01P	B.App.Sc. Biology	6F 12P			Maths I	Subjects must be sat for
IT02F	IT02P	B.App.Sc. Applied Chemistry	6F 12P			Chemistry	
IT03F	IT03P	B.App.Sc. Chemistry	6F 12P	20	16	Physics or	
IT04F	–	B.App.Sc. Applied Geology	6F			Maths II } one of	
IT05F	IT05P	B.App.Sc. Physics	6F 12P				
IT07F	IT07P	B.App.Sc. Mathematics	6F 12P	20	16	Maths I Maths II	Subjects must be sat for [q]
Diploma Level Courses							
IT18S	–	Dip.App.Sc. Diagnostic Radiography[c]	6S	20	16	Chemistry Maths I Physics	Subjects must be sat for
IT19S	–	Dip.App.Sc. Therapeutic Radiography[c]	6S				
Associate Diploma Level Courses							
IT15F	IT15P	Assoc.Dip. Applied Biology	4F 8P	14	12	Maths I	Subjects must be sat for
IT16F	IT16P	Assoc.Dip. Applied Chemistry	4F 8P	(in 4 subjects)		Chemistry Physics or Biology } one of	
SCHOOL OF HEALTH SCIENCE							
Degree (Bachelor) Level Courses							
IT20F	IT20P	B.App.Sc. Medical Laboratory Science	6F 12P	20	16	Maths I Chemistry Physics	Subjects must be sat for
IT21F	–	B.App.Sc. Optometry	8F				
Diploma Level Courses							
IT22F	–	Dip.App.Sc. Podiatry	6F	20	16	Maths I Chemistry Physics	Subjects must be sat for
IT23F	–	Dip.App.Sc. Nursing	6F	20	16	English Chemistry [s]	Subjects must be sat for
Associate Diploma Level Courses							
IT25F	IT25P	Assoc.Dip. Clinical Laboratory Techniques	4F 8P	14	12	Maths I	Subjects must be sat for
IT26F	–	Assoc.Dip. Health Surveying	4F	(in 4 subjects)		Chemistry Physics	
SCHOOL OF THE BUILT ENVIRONMENT							
Degree (Bachelor) Level Courses							
–	IT30P	B. Architecture	12P	20	16	English	Subjects must be sat for
IT31F	–	B.App.Sc. Built Environment [f]	6F			Maths [d]	
IT32F	IT32P	B.App.Sc. Building	4F+4P 12P	20	16	English	Grade of 3 in pre-requisites
IT33F	IT33P	B.App.Sc. Quantity Surveying	4F+6P 12P			Maths [d]	
Associate Diploma Level Course							
IT35F	–	Assoc.Dip. Built Environment Technician	2F+4P	14 (in 4 subjects)	12	English Maths I	Subjects must be sat for
SCHOOL OF BUSINESS STUDIES							
Degree (Bachelor) Level Courses							
IT40F	IT40P	B.Bus. Accountancy	6F 12P	20	16	English	Grade of 4 [r] in pre-requisites
IT41F	IT41P	B.Bus. Management	6F 12P			Maths [d]	
IT42F	IT42P	B.Bus. Communication	6F 12P				
–	IT43P	B.Bus. Health Administration	12P				
–	IT43E	B.Bus. Health Administration	12E	20	16	English	Grade of 4 [r] in pre-requisites
IT44F	IT44P	B.Bus. Public Administration	6F 12P				
IT49F	IT49P	B.Bus. Health Administration — Medical Record Administration Strand	6F 12P				
Associate Diploma Level Course							
IT45F	IT45P	Assoc.Dip. Business	4F 8P	14 (in 4 subjects)	12	English Maths [d]	Grade of 3 in pre-requisites

QTAC COURSE CODE Full-time (F) Part-time (P) External (E) Sandwich (S)	COURSE	Semester Duration Full-time (F) Part-time (P) External (E) Sandwich (S)	Minimum Points Persons under 21 years of age over five subjects unless stated	Minimum Points Persons 21 years of age and over[p] over four subjects unless stated	PLUS the following pre-requisite subjects SPECIFIC SUBJECTS	PLUS the following pre-requisite subjects LEVEL REQUIRED IN SPECIFIC SUBJECTS
SCHOOL OF ENGINEERING						
Degree (Bachelor) Level Courses						
IT50F IT50P	B. Eng.	8F 12P	20	20 (in 5 subjects)	English Physics Chemistry Maths I & II	Grade of 4 in pre-requisites
IT53S –	B.App.Sc. Surveying[j]	6S	20	16	English Maths I & II Physics	Grade of 4 in pre-requisites
Associate Diploma Level Courses						
IT55F IT55P IT56F IT56P IT57F IT57P	Assoc.Dip. Civil Eng. Assoc.Dip. Electrical Eng. Assoc.Dip. Mechanical Eng.	4F 8P 4F 8P 4F 8P	14 (in 4 subjects)		English Maths I Physics Chemistry	Subjects must be sat for
– IT58P	Assoc.Dip. Cartography	8P	14 (in 4 subjects)		English Maths I	Subjects must be sat for
– IT59P	Assoc.Dip. Surveying	8P	14 (in 4 subjects)		English Maths I Physics	Subjects must be sat for
SCHOOL OF LAW						
Degree (Bachelor) Level Courses						
IT60F IT60P IT60E	B. Laws[k]	8F 12P 12E	22	18	English	Grade of 4 in pre-requisites
SCHOOL OF COMPUTING STUDIES						
Degree (Bachelor) Level Courses						
IT71F IT71P	B.Bus. Computing	6F 12P	20	16	English Maths[a]	Grade of 4[r] in pre-requisites
IT72F IT72P[l]	B.App.Sc. Computing	6F 12P	20	16	Maths I Maths II	Subjects must be sat for[q]
COMBINED COURSES						
Degree (Bachelor) Level Courses						
IT51F IT51P	B.Eng/B.App.Sc. Electronic Systems and Computing[m]	10F 14P	20	20 (in 5 subjects)	English Maths I & II Chemistry Physics	Grade of 4 in pre-requisites
IT61F –	B.Bus. Accountancy/B. Laws[m]	10F	22	18	English Maths[a]	Grade of 4 in pre-requisites

a see note *a* previous table (Table 2).

c see note *c* previous table (Table 2).

f see note *f* previous table (Table 2).

i see note *i* previous table (Table 2).

k see note *k* previous table (Table 2).

l see note *l* previous table (Table 2).

m see note *m* previous table (Table 2).

p For entry under this provision applicants must have attained the age of 21 years prior to completing the last External Senior Examination which is necessary to meet course requirements irrespective of when the first Senior subject was undertaken.

q Applicants seeking to qualify for entry under the provision for persons 21 years of age or over must have gained a total of 8 points in the subjects Mathematics I and Mathematics II.

r Applicants with a score of 3 points in one of the prescribed subjects may be allowed to enrol if the total score over all subjects required is sufficiently in excess of the minimum points requirement.

s For entry in 1985, study in Biological Science will be accepted in lieu of Chemistry.

TABLE 4: MINIMUM ENTRY REQUIREMENTS FOR POSTGRADUATE COURSES[a]

COURSE CODE Full-time (F) Part-time (P) External (E)	COURSE	SEMESTER DURATION Full-time (F) Part-time (P) External (E)	MINIMUM ENTRY REQUIREMENTS
SCHOOL OF APPLIED SCIENCE			
ASN184F ASN184P	Master of Applied Science by Research and Thesis Master of Applied Science by Research and Thesis	) see) School) handbook	Degree in applied science from QIT or equivalent institution; OR such other evidence of qualifications as will satisfy the Graduate Studies Committee that the applicant possesses the capacity to pursue the course of study.
PHN176F PHN176P	Master of Applied Science - Medical Physics Master of Applied Science - Medical Physics	4F 8P	Degree from a recognised university or CAE with a major in physics. Applicants with other qualifications may be enrolled subject to the approval of the Head of the Department of Physics and may be required to undertake a bridging programme.
CHN217P	Master of Applied Science - Analytical Chemistry [b]	8P	Completion of a tertiary course at professional level with chemistry or biochemistry as a major field of study, at a level of achievement considered satisfactory by the Head of the Department of Chemistry; OR satisfactory completion of a qualifying examination at the discretion of the Head of the School of Applied Science. Applicants should normally have had some relevant professional experience.
MAM221P	Graduate Diploma in Data Analysis [b]	4P	Degree or equivalent including study in introductory statistics and computer programming.
SCHOOL OF THE BUILT ENVIRONMENT			
ARM145P	Graduate Diploma in Architecture	6P	Degree or diploma from a recognised university, CAE, approved equivalent tertiary institution; OR Professional recognition by an equivalent course of study or examination. Where an equivalent course of study or examination cannot be readily established, an applicant, at the discretion of the Head of School, may be permitted to undertake a qualifying examinaton, the satisfactory completion of which will entitle him to the status of a graduate or diplomate for the purpose of admission.
BGM146P	Graduate Diploma in Building	6P	
ARM142F	Graduate Diploma in Industrial Design	4F	
ARM142P	Graduate Diploma in Industrial Design	6P	
LPM141F	Graduate Diploma in Landscape Architecture	4F	
LPM141P	Graduate Diploma in Landscape Architecture	6P	
ARM147P	Graduate Diploma in Quantity Surveying	6P	
LPM140F	Graduate Diploma in Urban and Regional Planning	4F	
LPM140P	Graduate Diploma in Urban and Regional Planning	6P	
SCHOOL OF BUSINESS STUDIES			
BSN218F	Master of Business - Accountancy [b]	4F	Degree in business at QIT with a level of attainment in an appropriate discipline or disciplines considered acceptable by the Academic Board; OR Tertiary qualifications approved by the Graduate Studies Committee on the recommendation of the Head of the relevant department as equivalent; AND At least two years appropriate work experience.
BSN218P	Master of Business - Accountancy [b]	8P	
BSN218F	Master of Business - Communication [b]	4F	
BSN218P	Master of Business - Communication [b]	8P	
ACM174P	Graduate Diploma in Advanced Accounting	4P	Degree or diploma from a recognised university or CAE with an appropriate major in accounting, provided that in the case of a diploma, additional work may be required by the Head of the Department of Accountancy.
MNM155P	Graduate Diploma in Business Administration	4P	Degree or diploma from a recognised university or CAE provided that in the case of a diploma, additional work may be required by the Head of the Department of Management; AND One years appropriate experience in commerce, industry or government.
LBM165F	Graduate Diploma in Library Science	2F	Degree from a recognised university or CAE in a field other than librarianship.
LBM165P	Graduate Diploma in Library Science	4 or 6P	
LBM165E	Graduate Diploma in Library Science	6P	
SCHOOL OF COMPUTING STUDIES			
ASN184F ASN184P	Master of Applied Science by Research and Thesis Master of Applied Science by Research and Thesis	) see) School) handbook	Degree in applied science from QIT, or equivalent qualification from a university or CAE; OR Such other evidence as will satisfy the School of Computing Studies Academic Board that the applicant possesses the capacity to pursue the course of study.
BCM204P	Graduate Diploma in Commercial Computing	4P	Degree or diploma from a recognised university or CAE provided that in the case of a diploma, additional work may be required by the Head of Department.
CSM219P	Graduate Diploma in Computing Science [b]	4P	Degree from a recognised university or CAE in a field other than computing but including an introductory level subject in each of mathematics and computing. Applicants lacking such studies may be deemed eligible on completion of approved undergraduate bridging subjects. Whilst the course does not commence until Spring Semester, prospective students must lodge application forms prior to the closing date as published.

COURSE CODE Full-time (F) Part-time (P) External (E)	COURSE	SEMESTER DURATION Full-time (F) Part-time (P) External (E)	MINIMUM ENTRY REQUIREMENTS
SCHOOL OF ENGINEERING			
ENN191F ENN191P	Master of Engineering by Thesis Master of Engineering by Thesis	) see) School) handbook	Minimum of three years experience as a graduate engineer in the field in which the proposed work lies; PLUS B.Eng. QIT or equivalent. The Graduate Studies Committee will take into account an applicant's performance as an undergraduate, particularly in those subjects directly related to the area in which the masters programme will be undertaken; OR Satisfactory completion of masters qualifying examinations following formal course work and a reading programme in related fields stipulated by the Graduate Studies Committee; OR The submission of technical publications or other appropriate evidence which satisfies the Graduate Studies Committee that advanced knowledge has been acquired in a division of engineering in which the applicant has worked as a professional engineer in a position of responsibility. This knowledge should be relevant to the field of study proposed.
EEM164P	Graduate Diploma in Automatic Control	4P	Tertiary qualifications in a technological field or equivalent professionally acceptable qualifications OR Satisfactory completion of appropriate qualifying subjects determined by the Head of the Department of Electrical Engineering.
CEM213P	Graduate Diploma in Environmental and Municipal Engineering	4P	Qualification in engineering from a recognised tertiary institution; OR Tertiary qualification in a technological field or professional recognition PLUS Such prerequisite engineering subjects as may be determined by the Head of the Department of Civil Engineering.
SVM214P	Graduate Diploma in Land Development Surveying	4P	Degree or diploma in surveying or civil engineering from a recognised tertiary institution; OR Registration as a surveyor under the Surveyors Act 1977; OR Degree or diploma in a discipline other than surveying or civil engineering from a recognised tertiary institution or equivalent PLUS Such prerequisite subjects as may be determined by the Head of the Department of Surveying.
MEM203P	Graduate Diploma in Mechanical Engineering	4P	Degree or diploma in engineering from a recognised tertiary institution; OR Eligibility for graduate membership of The Institution of Engineers, Australia; OR Degree or diploma in science or applied science or equivalent qualification PLUS Such prerequisite undergraduate engineering subjects as may be determined by the Department of Mechanical Engineering.
SCHOOL OF HEALTH SCIENCE			
ASN184F ASN184P	Master of Applied Science by Research and Thesis Master of Applied Science by Research and Thesis	) see) School) handbook	Degree in applied science from QIT, or equivalent qualification from a university or CAE; OR Such other evidence as will satisfy the Health Science Academic Board that the applicant possesses the capacity to pursue the course of study.
MSN220P	Master of Applied Science - Medical Laboratory Science[b]	8P	Completion of an acceptable tertiary qualification. Applicants with qualifications not satisfying the subject requirements may be admitted upon completion of a bridging course prescribed by the Head of Department; OR Satisfactory completion of a qualifying examination at the discretion of the Head of the Department of Medical Laboratory Science; PLUS Two years employment experience in a professional practice.
PNM175F	Graduate Diploma in Nutrition and Dietetics	3F	Degree or diploma from a recognised university or CAE which must include biochemistry and physiology, one of which must have been studied at third year level.
SCHOOL OF LAW			
LWM196F	Graduate Diploma in Legal Practice	2F	Completion of an approved degree course in law.

a This table is a summary of entry requirements. Full details are contained in the relevant School handbook.

b To be offered subject to final approval.

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Subject and Course Numbering System

SUBJECT AND COURSE NUMBERING SYSTEM

Subject Numbering
The subject code is of the format XXX999. The first two characters indicate the Section, Department or School administering the subject.

AC	Accountancy
AR	Architecture and Industrial Design
AS	Applied Science
BC	Business Computing
BE	Biology and Environmental Science
BG	Building and Quantity Surveying
CE	Civil Engineering
CH	Chemistry
CM	Communication
CS	Computing Studies
EE	Electrical Engineering
EN	Engineering
ES	Applied Geology
LB	Librarianship
LP	Planning and Landscape Architecture
LW	Law
MA	Mathematics
ME	Mechanical Engineering
MN	Management
MS	Medical Laboratory Science
NS	Nursing Studies
OP	Optometry
PH	Physics
PN	Public Health and Nutrition
PO	Podiatry
SE	School of Engineering
SV	Surveying

The third character indicates the level of the course in which the subject is taught.

N	Masters Degree
P	Graduate Diploma
B	Bachelors Degree
A*	Diploma in Architecture
D	Diploma (other than Diploma in Architecture)
A	Associate Diploma (all schools except Engineering)
T	Associate Diplomas in Engineering School
C	Certificate
S	Unregistered Student

* *Note: This course is being phased out. The symbol 'A' will then only apply to Associate Diploma subjects.*

The remaining characters identify the subject within the course.

Course Numbering System
The course code is of the format XXX999. The first two characters indicate the Department administering the course as above for subjects. The third character indicates the level of the course - Bachelors Degree J, Diploma K, Associate Diploma L, Postgraduate Diploma M, Master's Degree N, Certificate C, Unregistered Student S.

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Course Assessment Committees Academic Board and Advisory Committees

COURSE ASSESSMENT COMMITTEES

COURSE ASSESSMENT COMMITTEE FOR THE GRADUATE DIPLOMA IN ENVIRONMENTAL AND MUNICIPAL ENGINEERING

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT.
Dr K B Davidson	Manager, Transport Department, Brisbane City Council.
Mr E F F Finger	Commissioner for Main Road, Main Roads Department.
Mr P Hollingsworth	Managing Director, Peter Hollingsworth and Associated Consultants.
Mr P Hughes	Managing Director, Peter R Hughes and Partners Pty Ltd.
Mr B Rigden	Senior Lecturer, Department of Civil Engineering, QIT.
Mr N Traves	Director and Manager for Queensland and Northern Territory, Gutteridge Haskins and Davey, Consulting Engineers.

COURSE ASSESSMENT COMMITTEE FOR THE BACHELOR OF ENGINEERING (CIVIL)

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT.
Mr R F Bange	Head of Department, Civil Engineering, QIT.
Mr G R Curnow	Chief Construction Engineer, John Holland (Constructions) Pty Ltd, Melbourne.
Dr K B Davidson	Manager, Transport Department, Brisbane City Council.
Professor K Faulkes	Head of School of Civil Engineering, New South Wales Institute of Technology.
Mr E F F Finger	Commissioner for Main Road, Main Roads Department.
Mr J Leddy	Senior Structural Engineer, Maunsell and Partners.
Mr A Wickham	Deputy Commissioner, Queensland Water Resources Commission.

COURSE ASSESSMENT COMMITTEE FOR THE ASSOCIATE DIPLOMA IN CIVIL ENGINEERING

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT.
Mr P Agapow	Chief Draftsman, Queensland Electricity Generating Board.
Mr W L Grigg	Head of Department of Civil Engineering, Capricornia Institute of Advanced Education.
Mr P Hollingsworth	Managing Director, Peter Hollingsworth and Associated Consultants.
Mr M Iliff	Construction Manager, PBM Queensland Pty Ltd.
Mr J James	Associate, Cameron McNamara Pty Ltd.
Mr J Leddy	Senior Structural Engineer, Maunsell and Partners.
Mr A J Winter	Lecturer, Department of Civil Engineering, QIT.

COURSE ASSESSMENT COMMITTEE FOR THE GRADUATE DIPLOMA IN AUTOMATIC CONTROL

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT.
Professor P Arlett	Professor of Electrical Engineering, James Cook University of North Queensland.
Dr C J Chesmond	Senior Lecturer, Department of Electrical Engineering, QIT.
Mr S Durrington	Manager, Generation Operations, Central Region, Queensland Electricity Generating Board, Gladstone.
Mr M Kerr	Senior Instrument Engineer, MIM Holdings Ltd.
Dr M A Sargent	Chief Engineer, Sub-stations, SEQEB.
Mr P Wright	Senior Engineer, Transmission Planning, State Electricity Commission of Queensland.

COURSE ASSESSMENT COMMITTEE FOR THE BACHELOR OF ENGINEERING (ELECTRICAL)

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT.
Professor P Arlett	Professor of Electrical Engineering, James Cook University of North Queensland.
Mr S Durrington	Manager, Generation Operations, Central Region, Queensland Electricity Generating Board, Gladstone.
Mr R S L Howe	Senior Lecturer, Department of Electrical Engineering, QIT.

Mr M Kerr	Senior Instrument Engineer, MIM Holdings Ltd.
Dr M A Sargent	Chief Engineer, Sub-stations, SEQEB.
Mr P Wright	Senior Engineer, Transmission Planning, State Electricity Commission of Queensland.

COURSE ASSESSMENT COMMITTEE FOR THE ASSOCIATE DIPLOMA IN ELECTRICAL ENGINEERING

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT
Professor P Arlett	Professor of Electrical Engineering, James Cook University of North Queensland.
Mr D Birtwhistle	Senior Lecturer, Department of Electrical Engineering, QIT.
Mr S Durrington	Manager, Generation Operations, Central Region, Queensland Electricity Generating Board, Gladstone.
Mr M Kerr	Senior Instrument Engineer, MIM Holdings Ltd.
Dr M A Sargent	Chief Engineer, Sub-stations, SEQEB.
Mr P Wright	Senior Engineer, Transmission Planning, State Electricity Commission of Queensland.

COURSE ASSESSMENT COMMITTEE FOR THE GRADUATE DIPLOMA IN MECHANICAL ENGINEERING

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT
Mr M E Brice	Assistant Commissioner, Policy and Planning, Department of Transport.
Professor K Bullock	Dean, Faculty of Engineering, University of Queensland.
Dr E D Doyle	Senior Research Scientist, Defence Support Department, Materials Research Laboratories, Victoria.
Mr J R Hamilton	Deputy State Electricity Commissioner, State Electricity Commission of Queensland.
Mr J F Jeffcoat	Chief Mechanical Engineer, Railways Department.
Dr T J Ledwidge	Dean, School of Engineering, Darling Downs Institute of Advanced Education.
Mr R G Mudge	Assistant General Manager (Design and Construction), Evans Deakin Industries Ltd.
Dr W Scott	Senior Lecturer, Department of Mechanical Engineering, QIT.
Mr J Wilson	Manager, Technical Services Department, Evans Deakin Industries Ltd, and Manager, X-Ray Industrial Pty Ltd.

COURSE ASSESSMENT COMMITTEE FOR THE BACHELOR OF ENGINEERING (MECHANICAL)

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT
Mr M E Brice	Assistant Commissioner, Policy and Planning, Department of Transport.
Professor K Bullock	Dean, Faculty of Engineering, University of Queensland.
Dr E D Doyle	Senior Research Scientist, Defence Support Department, Materials Research Laboratories, Victoria.
Mr J R Hamilton	Deputy State Electricity Commissioner, State Electricity Commission of Queensland.
Mr J F Jeffcoat	Chief Mechanical Engineer, Railways Department.
Dr T J Ledwidge	Dean, School of Engineering, Darling Downs Institute of Advanced Education.
Mr R G Mudge	Assistant General Manager (Design and Construction), Evans Deakin Industries Ltd.
Mr R W Nicol	Senior Lecturer, Department of Mechanical Engineering, QIT.
Mr J Wilson	Manager, Technical Services Department, Evans Deakin Industries Ltd, and Manager, X-Ray Industrial Pty Ltd.

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Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT
Mr M E Brice	Assistant Commissioner, Policy and Planning, Department of Transport.
Dr E D Doyle	Senior Research Scientist, Defence Support Department, Materials Research Laboratories, Victoria.
Mr J R Hamilton	Deputy State Electricity Commissioner, State Electricity Commission of Queensland.
Mr J F Jeffcoat	Chief Mechanical Engineer, Railways Department.
Mr J W Laracy	Head, Department of Mechanical Engineering, QIT.
Dr T J Ledwidge	Dean, School of Engineering, Darling Downs Institute of Advanced Education.
Mr R G Mudge	Assistant General Manager (Design and Construction), Evans Deakin Industries Ltd.

Mr J. Wilson	Manager, Technical Services Department, Evans Deakin Industries Ltd and Manager, X-Ray Industrial Pty Ltd.

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Mr J T C Glasscock	Senior Lecturer, Department of Surveying, QIT.
Mr G D Heilbronn	Principal, G D Heilbronn and Partners Pty Ltd.
Mr R S Jones	Principal, Jones Flint and Pike, Consulting Surveyors and Town Planners.
Mr D Simmonds	Chief Surveyor, Main Roads Department.
Mr G H V Thomson	Head, Department of Surveying, Royal Melbourne Institute of Technology.
Mr I Williams	Chief Cartographer, CSR Limited.

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Mr R S Jones	Principal, Jones Flint and Pike, Consulting Surveyors and Town Planners.
Mr D Simmonds	Chief Surveyor, Main Roads Department.
Mr G H V Thomson	Head, Department of Surveying, Royal Melbourne Institute of Technology.
Mr I Williams	Chief Cartographer, CSR Limited.

COURSE ASSESSMENT COMMITTEE FOR THE ASSOCIATE DIPLOMA IN SURVEYING

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Mr D Simmonds	Chief Surveyor, Main Roads Department.
Mr G H V Thomson	Head, Department of Surveying, Royal Melbourne Institute of Technology.
Mr I Williams	Chief Cartographer, CSR Limited.

COURSE ASSESSMENT COMMITTEE FOR THE ASSOCIATE DIPLOMA IN CARTOGRAPHY

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Mr J R Barclay	Lecturer, Department of Surveying, QIT.
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Mr G D Heilbronn	Principal, G D Heilbronn and Partners Pty Ltd.
Mr R S Jones	Principal, Jones Flint and Pike, Consulting Surveyors and Town Planners.
Mr D Simmonds	Chief Surveyor, Main Roads Department.
Mr G H V Thomson	Head, Department of Surveying, Royal Melbourne Institute of Technology.
Mr I Williams	Chief Cartographer, CSR Limited.

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Dr J M Fenwick	Deputy Bridge Engineer, Main Roads Department.
Mr J T C Glasscock	Senior Lecturer, Department of Surveying, QIT.
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Mr I R Keilar	Principal, Keilar Fox and McGhie Pty Ltd.
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Mr G E Littler	Head, Department of Electrical Engineering, QIT.
Mr M D Norman	General Manager - Engineering Services, MIM Holdings Ltd.
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Mr B Rigden	Senior Lecturer, Department of Civil Engineering, QIT.
Mr D White	Student Representative.
Mr G J Winstanley	Lecturer, Department of Electrical Engineering, QIT.

Ex-Officio:
Director, QIT.
Deputy Director, QIT.
Representative, School of Applied Science, QIT.
Representative, School of Built Environment, QIT.
Representative, School of Business Studies, QIT.
Representative, School of Computing Studies, QIT.
Representative, School of Health Science, QIT.
Representative, School of Law, QIT.

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ADVISORY COMMITTEE - CIVIL

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Mr J Abercrombie	SEQEB
Mr D Birtwhistle	Senior Lecturer, Department of Electrical Engineering, QIT.
Mr G M Bissell	Supervising Engineer, Training and Industrial Engineering Section, Telecom Australia.
Mr P K Boddington	Senior Lecturer, Department of Electrical Engineering, QIT.
Dr C J Chesmond	Senior Lecturer, Department of Electrical Engineering, QIT.
Mr T J Ellis	Communications Engineer, Queensland Railways Department.
Mr N J Gibson	Electronic Design & Manufacturing (Qld).
Mr J Hinton	Senior Electrical Engineer, MIM Holdings Ltd.
Mr R S L Howe	Senior Lecturer, Department of Electrical Engineering, QIT.
Mr J S Lyall	Senior Lecturer, Department of Electrical Engineering, QIT.
Mr F Miller	Senior Technical Training Officer, QEGB.

Mr M P Moody	Senior Lecturer, Department of Electrical Engineering, QIT.
Mr R J Truce	Electrical Control Engineer, QEGB.
Mr J Woodbridge	Systems Software Manager, David Hartley Computers Aust. Pty Ltd.

ADVISORY COMMITTEE - MECHANICAL

Mr J W Laracy (Chairman)	Head, Department of Mechanical Engineering, QIT.
Mr A E Anderson	Manager of Engineering, Amoco Australia Limited.
Mr D Baguley	Operations Resources Engineer, QEGB.
Mr R Beale	Consulting Engineer.
Mr R Cullen	Deputy Director, Sugar Research Institute.
Dr V C Deeble	Lecturer, Department of Mechanical Engineering, QIT.
Mr N Herriman	Senior Engineer - Mechanical, State Works Department.
Mr T Hume	Chief Engineer (Milk Division), QUF Industries Ltd.
Mr T. Meakin	Consulting Engineer, Sedgeman and Associates.
Mr G O'Brien	Student Representative.
Mr M Pettigrew	Graduate Representative - Junior Engineer, Wolf Electric Co Pty Ltd.
Mr I Ross	General Manager, Design and Construction Division, Evans Deakin Industries Ltd.
Mr A Spalding	Queensland Manager, PA Australia.
Mr B Withnall	Manager, Engineered Products, Rheem Australia Pty Ltd.

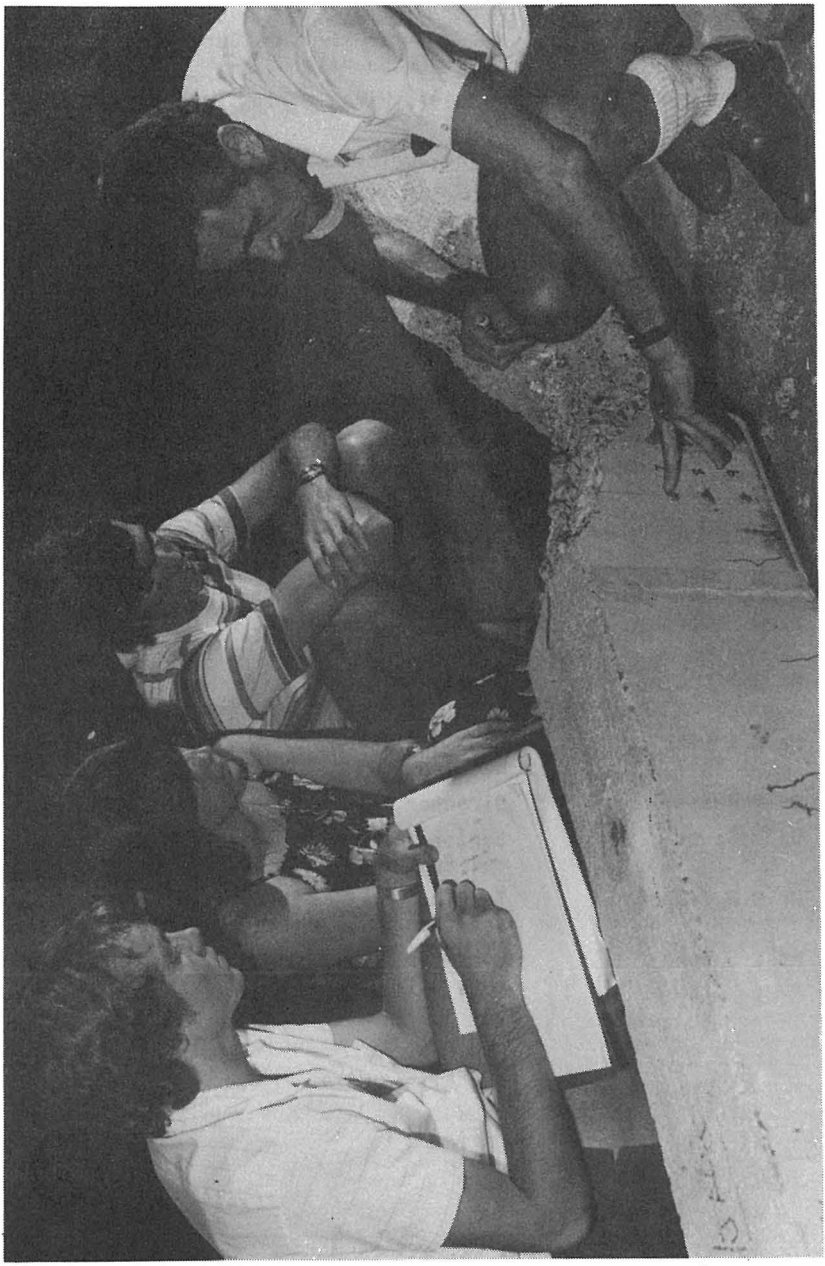
ADVISORY COMMITTEE - SURVEYING

Dr E Clerici (Chairman)	Head, Department of Surveying, QIT
Mr J R Barclay	Acting Senior Lecturer, Department of Surveying, QIT.
Mr P W Dawson	Managing Director, Bennett and Francis Pty Ltd, Consulting Surveyors.
Mr J T C Glasscock	Senior Lecturer, Department of Surveying, QIT.
Mr J H Hunter	Chief Surveyor, Australian Survey Office, Department of Administrative Services.
Mr A M Kenardy	Chief Surveyor, Department of Harbours and Marine.

Mr C Lucy	Chief Cartographer, Department of Mines.
Dr K G Lyons	Head, Department of Surveying, University of Queensland.
Mr J McKnoulty	Partner, Pike, Mirls, McKnoulty, Clarke Pty Ltd.
Mr D Simmonds	Chief Surveyor, Main Roads Department.
Mr K H Smith	Director of Mapping, Department of Mapping and Surveying.

MASTER'S DEGREE STANDING COMMITTEE

Dr H J B Corderoy (Chairman)	Head, School of Engineering, QIT.
Mr D T Baddeley	Lecturer, Department of Mechanical Engineering, QIT.
Mr D Birtwhistle	Senior Lecturer, Department of Electrical Engineering, QIT.
Mr W H Boyce	Structures Manager, Cameron McNamara Pty Ltd.
Mr R J Clatworthy	Lecturer, Department of Surveying, QIT.
Mr J P Corner	Lecturer, Department of Civil Engineering, QIT.
Mr J T C Glasscock	Senior Lecturer, Department of Surveying, QIT.
Mr G E Littler	Head, Department of Electrical Engineering, QIT.
Dr G Russell	Director, Queensland Rubber Co Pty Ltd.
Dr W Scott	Senior Lecturer, Department of Mechanical Engineering, QIT.
Mr D R Turner	Testing and Development Engineer, Tests and Standards Department, SEQEB.
Mr L S Wong	Lecturer, Department of Civil Engineering, QIT.



Civil Engineering students observing results of stress upon beams

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Staff
School of Engineering

STAFF - SCHOOL OF ENGINEERING

Head of School: H J B Corderoy
BSc(Tech)(Merit)(NSW), MSc(NSW), PhD(NSW), Barrister of the Supreme Court, NSW, MIEAust.

School Administration Officer: S M Leuthner
BA(Augustana), MA(OregonState), GradDipBusAdmin(QIT), AAIM.

DEPARTMENT OF CIVIL ENGINEERING

Head of Department: R F Bange
BE(Hons)(Qld), MEngSc(Qld), GradDipBusAdmin(QIT), LGE, FIEAust, FASCE, FAIM, MAWWA, RPEQ.
(on secondment to Q Search from 1.7.84).

Senior Lecturers:
D L Beal, BE(Qld), MEngSc(NSW), DIC, MSc(London), MIEAust.
R G Black, BE(Qld), MEngSc(Qld), MIEAust, MAWWA, MIAHR.
B T Boyce, MEng(Canterbury), MSc(London), DIC, MIEAust, MNZIE, CEng, MICE.
G H Brameld, BE(Hons)(Qld), MEngSc(Qld), BCom(Qld), MIEAust, MIABSE.
T L Piggott, BE(NSW), MSc(Dublin), MIEAust, MAWWA.
B Rigden, BSc(Eng)(S'hampton), MIEAust, CEng, MICE, MIWPC(Dip), MAWWA.

Lecturers:
P Brown, BE(Hons)(Qld), MEngSc(Qld), MIEAust
C R Button, BE(Qld), MUrb&RegPlg(Qld), LGE, MIEAust.
J P Corner, BE(Qld), MEngSc(NSW), MIEAust, ACIT.
K J Fabian, MEng(Budapest), MIEAust.
W C Hodgson, DipCE, MIEAust.
J Pierce, BE(Hons)(Qld), MEngSc(Qld), MIEAust, RPEQ.
C W Whitney, BE(Syd), MIEAust, MRAeS.
A J Winter, DipCE, BEcon(Hons)(Qld), MSc(Griffith), MIEAust.
H Wong, DipCE, MSc(Leeds), MIEAust, CEng, MIStructE, MASCE.
L S Wong, BE(NSW), MEngSc(Malaya), MIEAust, CEng.

Instructor: E L Perkins, Land&EngSurvDraftingCert.

Tutor: M W Choi, BE(Qld), MIEAust

Support Staff: D Bridges, G Brown, C Bynon(Carpenter) J Davidson(BAppSc(AppChem), GradDip Teach(Sec), ARACI), J Eaton (Elec Mech, CertCivilEng), W Gidley, D Gittins (MIQA,GradIERE), J Grandy, M Johnston, K Moore, L Nichol (BE(Qld)), G Rasmussen (CertCivilEng), M Rosoman, J Shaw, N Tooth (AircraftEng), G Walker (CertCivilEng), B Watson (HNC, BEng(QIT), P Watson (BSc(Hons)(ANU)).

DEPARTMENT OF ELECTRICAL ENGINEERING

Head of Department: G E Littler
ME(Qld), MIEAust.

Administrator of Combined Degree: R S L Howe
BSc(St Andrews), MSc (S'hampton), CEng, MIEE.

Senior Lecturers:
D Birtwhistle, BTech(Bradford), MSc (Bradford), CEng, MIEE, MIEAust.
P K Boddington, MSc(Warwick).
C J Chesmond, BSc(Eng)(Hons)(London), PhD(London), MIEAust, CEng, MIEE.
J S Lyall, ME(Qld), BSc(Qld), MIEAust, MIEEE.
M P Moody, BE(Hons)(Qld), MEngSc(Qld), BA(Qld), MIEAust, SMIREE.

Lecturers:
G N Beikoff, BSc(Qld), AssDipEE, MIEAust, MACS.
I R Brown, BSc(Qld), BE(Qld), CEng, MIEEE.
T W Cooper, MTech(Brunel), CEng, MIEE.
K R Curwen, MA(Cambridge), GradDipAuto Control(QIT), MIEAust.
J Edwards, MSc(Bath), CEng, MIEE, MIREE.
W G Feige, BSc(Qld), ME(Qld), MIEAust, MIREE.
D Hainsworth, BE(Hons)(Qld), PhD(Qld), MIEEE, MIREE.
J Koranski, BScTech(Manch), MEng (WarsawPolytech), MIEAust.
I K Vosper, AssDipEE, MEngSc(Qld). GradDipBusAdmin(QIT), MIEAust.
P A Wilson, BSc(Salford).
G J Winstanley, BEng(QIT), GradDipAuto Control(QIT), DipCompSc(Qld), MIREE, MIEEE.

Tutors:
B Buckley, BEng(QIT).
C Stephenson, BEng(DDIAE)
K Thompson, BEng(QIT)
P Wills, BEng(QIT).

Instructors:
M F McManus, CertElecEng(DDIAE).
D Rawson, BAppSc(Physics)(QIT), DipEd(Qld).

Support Staff: K McIvor (BEng(QIT)), P J Alick (Assoc DipElecEng(QIT)), A Barlow (AssocDip ElecEng(QIT)), N Bell, R Binger, H Bishop, R Christie, P Freeman, N P Harris (AMIREEAust), R Hinckley (ONC), J Lewis, I McNeill, W Nielsen, P Pearl, W Rail, A Tomkins, H J Van Der Weerd.

DEPARTMENT OF MECHANICAL ENGINEERING

Head of Department: J W Laracy
ME(Qld), MEngSt(Qld), FIEAust, MAIRAH.

Senior Lecturers:
K T Greenham, BE(Qld), MIEAust, FAIE.
D L Muir, BE(Hons)(Qld), MSc(B'ham), BEdSt(Qld), CEng, MIMechE.
R W Nicol, BE(Hons)(Qld), MEngSt(Qld), MIEAust.
D J Nuske, DipM&EEng, MSc(Manch), PhD (Manch).
W Scott, MSc(Leeds), PhD(Leeds), CEng, MIMechE.

Associate of QIT:
K D Lakeland, BSc(Hons)(Qld), PhD(Qld) Senior Metallurgist, Connellan and Son Foundry.

Lecturers:
D T Baddeley, BSc(Qld), MSc(Cranfield) ARMIT(Metall), CEng, MIM.
A G Crooks, ARMIT(Metall), MSc(Qld), FWI, CEng, MIM.
V C Deeble, BSC(Htfld), MSc(B'ham), PhD(Cranfield), GradDipBusAdmin(QIT) MIEAust, CEng, MIMechE.
A DeJong, AssDipME, DipM&EEng, MIEAust
R E Hall, CertMechEng, BSc(NSW), ME (W'gong), MIEAust.
G M Kassay, HNC, BTech(QIT), CertEd (Leeds).
J M Kelly, AssDipME, DipM&EEng, MEngSc (NSW).
R K Kirkcaldie, BE(Qld), MEngSc(Qld), AMAustIMM.
G Y O'Sachy, AssDipME, MEngSc(Newcastle), GradDipBusAdmin(QIT), MIEAust.
R Paull, BSc(Hons)(Qld), PhD(Qld).
K Travers, HND, BTech(QIT), MIEAust, GradIMechE.

Tutors:
B Fiddes, DipMechEng, MIEAust.
S A Mahkri, LME, Dipl-Ing(Siegen), GradIEAust, VDI

Instructors and Demonstrators:	D H Farmer, DipM&EEng, MIDE, MIEA, MID K A Gilliland. N F Munro, CertMechEng. K Palmer, CertIndMetall, AIM(Tech).
Support Staff:	R Magnus (ONC), D R Allen (CertInd Metall), S A Bihari, M Cassola, G J Duce, R Fielding, S Gibard, N Gilliland, D Gordon (HNC), M Halliday (CertMetall), K G Lipp (MSAEAust), W R Luckhoff, B D Mathiesen (AssocDipMechEng, GradIEAust), W J Maxwell, D J McIntosh, G E Mills (HNC), I Peterson (AssocDip MechEng(QIT)), M Todd, J W Turnbull, G N C Williams.

DEPARTMENT OF SURVEYING

Head of Department:	E Clerici BSc(Delft), MSc(Enschede), Dr Ing (Hannover), Registered Surveyor(Qld).
Co-ordinator of Surveying Subjects:	J R Barclay BA(Qld), CertPubAdmin, CertSurv Drafting, MISAust, FAIC.
Senior Lecturers:	J T C Glasscock, BSurv(Qld), MUrbSt (Qld), MSc(Oxon), DipT&CP(QIT), MISAust, MAIC, Licensed Surveyor (Qld). S H Pearse, BEcon(Hons)(Qld), MUrbSt (Qld), DipPubAdmin(Qld), FISAust, Licensed Surveyor(Qld), MAIC. E Walker, BSc(PhEng)(ITC), FRICS, MISAust, FAIC, Chartered Surveyor (UK), Registered Surveyor (Qld and Fiji).
Lecturers:	J R Barclay, BA(Qld), CertPubAdmin, CertSurvDrafting, MISAust, FAIC. R J Clatworthy, BSurv(NSW), MSurv(Qld), MISAust, Licensed Surveyor (Qld and NSW), Registered Mining Surveyor (NSW). P J Griep, IrGeodesy(Delft), MISAust. B J Hannigan, BA(Macq), MISAust, MAIC, Licensed Surveyor (Qld and NSW). M Harris, BSurv(Qld), MSurv(Qld), MISAust, MIESQ. J Venn, BAppSc(Surv)(QIT), CertLESD (NSW), CertHyd(NSW), AssocS, AMISAust, MAIC
Senior Instructors:	B Chapman, CertCartog(QIT), AMAIC. B R Pathe, GradDipEComp(Bendigo), MISAust, Registered Surveyor(Vic), Licensed Surveyor (Qld).

Support Staff: C J Cook (CertSurv(DDIAE)), M Friend (CertCartog(QIT), MAIC), C F Lea (FGofS), M Seydel.

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Courses Offered by each Department

COURSES OFFERED BY DEPARTMENTS IN THE SCHOOL OF ENGINEERING

Department of Civil Engineering -

ENN191	Master of Engineering by Thesis
CEM213	Graduate Diploma in Environmental and Municipal Engineering
CEJ156	Bachelor of Engineering - Civil
CEL187	Associate Diploma in Civil Engineering
*	Certificate in Civil Engineering
CEC114	- Laboratory Technician

Department of Electrical Engineering -

ENN191	Master of Engineering by Thesis
EEM164	Graduate Diploma in Automatic Control
EEJ157	Bachelor of Engineering - Electrical
ECJ222	Bachelor of Engineering/Bachelor of Applied Science (Electronic Systems and Computing)
EEL188	Associate Diploma in Electrical Engineering

Department of Mechanical Engineering -

ENN191	Master of Engineering by Thesis
MEM203	Graduate Diploma in Mechanical Engineering
MEJ158	Bachelor of Engineering - Mechanical
MEL189	Associate Diploma in Mechanical Engineering

Department of Surveying -

SVM214	Graduate Diploma in Land Development Surveying
SVJ159	Bachelor of Applied Science (Surveying)
SVL190	Associate Diploma in Surveying
SVL212	Associate Diploma in Cartography
SVC122	* Certificate in Cartography
SVC209	* Certificate in Cartography

*Courses being discontinued. No new enrolments accepted.

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Master of Engineering by Thesis

The following rules relate to the Master of Engineering by Thesis and are made by resolution of the Institute Council.

ENN191 MASTER OF ENGINEERING BY THESIS

This program is administered by the Academic Board of the School of Engineering through its Master's Degree Standing Committee. The program is offered in Civil, Electrical and Mechanical Engineering.

OBJECTIVES

(a) to provide for postgraduate educational opportunities in design, investigation, development, research or any combination thereof, directly related to professional engineering practice;

(b) to provide for increased relationships between the Institute and industry or other external agencies involved in engineering, to their mutual advantage;

(c) to provide formal recognition of work of an advanced and/or original nature.

APPROVAL OF PROJECTS

All projects should be sponsored by outside agencies such as industry, government authorities and professional organisations, or by the QIT itself. This provision is to ensure that programs are relevant to the aims of the Institute and the community. It is important that the research be primarily directed towards industry need.

The course is offered on a full-time and a part-time basis. Part-time students will normally be employed in some professional engineering capacity during the day and carry out their research on a part-time basis at the QIT or in their place of employment or in a sponsoring institution.

Full-time students may be on a scholarship from industry and may carry out their research at the QIT or in a sponsoring institution. Normally full-time students would be expected to be working on their research at the QIT for at least twenty-one hours a week during normal office hours.

COURSE RULES

1. Entry

   Normal admission will require a minimum of three years' experience as a graduate engineer in the general field in which the proposed work lies, together with -

   (a) A Bachelor's Degree in Engineering from the Queensland Institute of Technology or a qualification judged equivalent by the Engineering Academic Board.

   The basic qualification itself will not be sufficient requirement for admission, as the Engineering Academic Board will also take into account an applicant's performance as an undergraduate, particularly in those subjects directly related to the area in which the Master's program will be undertaken.

or

(b) Satisfactory completion of an appropriate Master's qualifying program including formal course work and/or reading program in related fields stipulated by the Engineering Academic Board.

or

(c) The submission of technical publications or other appropriate evidence which satisfies the Engineering Academic Board that advanced knowledge has been acquired in a division of engineering in which the applicant has worked as a professional engineer in a position of responsibility. This knowledge should be relevant to the field of study proposed.

Special admission may be granted to students with an outstanding performance in their first degree or in subsequent tertiary study in a relevant area and who have less than three years' experience. The requirement of three years minimum experience as a graduate engineer in the general field in which the research lies may be reduced having regard to the degree of industry support and sponsorship for the program and student and the degree to which the student will be working with industry during the course of the program.

2. Enrolment

(a) Applications shall be accepted subject to the availability of facilities and supervision.

(b) Applications shall be lodged with the Registrar. No closing dates apply to this course as it may commence at any time since no formal class work will normally be involved.

(c) The following documents should be lodged with the application:

(i) details of academic qualifications and supporting evidence, including copies of results for each year of courses;

(ii) a brief account of industrial experience;

(iii) a list of publications;

(iv) a supporting statement from the Head of the QIT Department supervising the program that in their opinion, the applicant is a suitable person to undertake a research program leading to the Master's degree, that they support the program, and that the Department is willing to undertake the responsibility of supervising the work of the applicant;

(v) a supporting statement from the employer, stating that they are aware of the course rules and are prepared to sponsor and support the candidate. The employer should also state the extent of facilities available for the research project, the extent to which supervision could be given for this work and the extent to which time will be made available to the candidate for the project;

(vi) a summary of the work to be undertaken in the proposed program, which this work will be undertaken, and the amount of time which will be devoted to it;

(vii) any other relevant material.

3. **Registration**

(a) An applicant shall be registered initially as

(i) a graduate student (provisional) if they are to undertake an appropriate qualifying program;

or

(ii) a graduate student if they are considered by the Engineering Academic Board to meet the requirements of entry.

(b) In considering an applicant for registration, the Engineering Academic Board shall, in addition to assessing the applicant's suitability, be satisfied that

(i) the proposed program has relevance to the aims and objectives of the Institute;

(ii) the proposed program has relevance to the needs of industry;

(iii) the applicant can devote sufficient time to their planned program.

4. **Duration of the Program**

(a) Registered graduate students shall be eligible for admission to the award of a Master of Engineering by Thesis if they:

(i) have completed the approved program involving advanced and/or original work under the supervision prescribed by the Engineering Academic Board, and

(ii) submit and the Engineering Academic Board accepts a thesis, together with reports, and/or documents where applicable, prepared under the supervision of the supervisor, and

(iii) have completed such other work as may be prescribed by the Engineering Academic Board.

(b) Registered graduate students shall not be eligible for the award of a degree until a period of at least two years for a part-time student and one year for a full-time student has elapsed from the time of their confirmed registration, except in the case of special permission granted under (d).

(c) Registered graduate students shall present their thesis for examination no later than four years from the date of their confirmed registration.

(d) Registered graduate students who have obtained normal admission to the Master's program may apply to the Engineering Academic Board for permission to submit their thesis in less than two years for part-time students and less than one year for full-time students after commencement, for an extension of time, or for leave of absence from the program.

Registered graduate students who have obtained special admission to the Master's program shall not be eligible for the award until a period of at least two years has elapsed from the time of their confirmed registration.

5. Content of Program

(a) Students pursuing a Master of Engineering degree by Thesis will undertake necessary project work in design, investigation and research and/or development work on a topic as approved by the Engineering Academic Board.

(b) Where advised, candidates may be required to satisfactorily complete formal course work in subjects relevant to their field of study up to a total class contact time of 180 hours.

(c) The supervisor shall require candidates to participate in graduate seminars and may require them to attend specialist lectures. Candidates will be encouraged to attend conferences, where these are related to the field of the project, provided this is at no cost to the Institute.

6. Supervision

(a) The Engineering Academic Board shall appoint one or more supervisors in respect of each student, provided that, where more than one supervisor is appointed, one shall be nominated as the Principal Supervisor and others as Associate Supervisors.

(b) The Principal Supervisor shall normally be from the academic staff of the QIT Department in which the student is enrolled.

(c) Students shall present six-monthly progress reports to their Principal Supervisor, who will submit these to the Engineering Academic Board with their comments.

7. Thesis

(a) No later than six months' after confirmed registration, students shall submit the title of their thesis for approval by the Engineering Academic Board, and after approval has been granted, no change will be made except with the permission of the Engineering Academic Board.

(b) Students shall give two months' written notice of their intention to submit their thesis and such notice shall be accompanied by the appropriate fee, if any.

(c) The thesis shall comply with the following requirements:

(i) a significant proportion of the work described (as determined by the Engineering Academic Board) must have been completed subsequent to initial registration for the Master's degree; and

(ii) there must be an advanced and/or original contribution to the knowledge of the subject; and

(iii) it must be written in English or in a language approved by the Engineering Academic Board and reach a satisfactory standard of literary presentation; and

(iv) it shall be the candidate's own account of their work. Where work is carried out conjointly with other persons, the Engineering Academic Board shall be advised as to the extent of the candidate's contribution to the joint work; and

(v) the thesis shall not contain as its main content any work or material which the student has previously submitted for another degree or similar award; and

(vi) the thesis may consist primarily of reports, plans and/or documents or may be supported by these if they have a bearing on the subject of the thesis.

(d) In form of presentation, the thesis shall comply with all the requirements listed in the QIT Thesis Presentation Booklet.

(e) Assessment of Thesis

(i) The Engineering Academic Board shall appoint three examiners, of whom at least two shall be from outside the Institute. No supervisor of the candidate shall be appointed as one of the examiners.

(ii) On receipt of the reports from the examiners, the Engineering Academic Board shall:

(a) recommend to Council that the student be awarded a Master of Engineering degree, after any minor amendments requested by the examiners have been made;

or

(b) permit the student to resubmit his thesis for re-examination within one year;

or

(c) cancel the student's registration.

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Postgraduate Courses

The following rules relate to the Graduate Diploma in Environmental and Municipal Engineering and are made by resolution of the Institute Council.

CEM213 GRADUATE DIPLOMA IN ENVIRONMENTAL AND MUNICIPAL ENGINEERING

PART-TIME

1. Entry

(a) Normal Entry

To be eligible to enrol for the Graduate Diploma in Environmental and Municipal Engineering, an applicant must possess an acceptable qualification in engineering from a recognised tertiary institution.

(b) Qualifying Entry

Applicants who do not meet the requirements for normal entry but who hold a tertiary qualification in a technological field or other equivalent qualifications or hold professional engineering recognition may be required to complete such pre-requisite engineering subjects as may be determined by the Department of Civil Engineering prior to enrolment in the course.

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed, within the constraints of timetabling, pre- and co-requisites. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

(b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that semester of their course. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

Maximum benefits will be derived from the course by persons engaged in appropriate employment.

5. Exemptions

Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters' see page 30.

6. Attendance

Students are expected to attend scheduled lectures, practical work, and other work, and seek leave of absence if they cannot maintain adequate attendance.

Field trips or field projects as detailed in the synopses have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work, projects and field visits.

8. Course Structure

To be awarded a Graduate Diploma in Environmental and Municipal Engineering a registered student must completed a minimum of 33 semester hours of approved subjects in a program endorsed by the Head of Department to the satisfaction of the Engineering Academic Board.

Normal Course Program

All subjects are one semester		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
CEP170	Technology and the Environment	2
CEP122	Municipal Planning A	2
CEP272	Hydrology	2
	ONE Elective Subject	2 - 3
Semester 2 - Spring		
CEP123	Municipal Planning B	2
	THREE Elective Subjects	6 - 9
Semester 3 - Autumn		
CEP380	Water Supply and Sewerage	2
BEP388	Environmental Impact Studies	2
CEP290*	Project	2
	ONE or TWO Elective Subjects	2 - 6
Semester 4 - Spring		
CEP290*	Project	2
CEP275	Solid Waste Disposal	2
	TWO or THREE Elective Subjects	4 - 9

* CEP290 Project may be taken in either Semester 3 or Semester 4.

		Approx. Formal Hrs/wk.
Elective Program - Autumn		
BEP180	Environmental Science	2
CEP107	Powers and Duties of a Municipal Engineer II	2
CEP210	Municipal Traffic Engineering	2
CEP214	Transport Engineering I	2
CEP273	Water Quality Engineering II	2
CEP375	Industrial Liquid Wastes	2
CEP377	Pollution Monitoring	2
CEP378	Water Resources Development	2
CEP381	Air Pollution II	2
CEP383	Storage-Yield Estimation	2
CHP144	Environmental Chemistry	2
	ONE approved subject from other Graduate Diploma courses conducted by the QIT available only on individual application to the Head of Department	3
Elective Program - Spring		
BEP280	Biology and Water Quality Control	2
CEP101	Professional Practice	2
CEP108	Powers and Duties of a Municipal Engineer III	2
CEP124	Municipal Planning C	2
CEP172	Water Quality Engineering I	2
CEP211	Roadworks Practice I	2
CEP221	Subdivision Engineering	2
CEP270	Air Pollution I	2
CEP274	Water Quality Engineering III	2
CEP300	Civil Engineering Practice	2
CEP310	Urban Transportation Planning	2
CEP361	Urban Drainage	2
CEP362	Irrigation Engineering	2
CEP376	Systems Modelling	2
CEP379	Resource Conservation and Management	2
CEP382	Flood Estimation	2
MNP510	Powers and Duties of a Municipal Engineer I	2
	ONE approved subject from other Graduate Diploma courses conducted by the QIT available only on individual application to the Head of Department	3

The number of electives available in any year will be dependent upon a sufficient number of students being enrolled. A maximum of four subjects may be taken from other Graduate Diploma courses.

The following rules relate to the Graduate Diploma in Automatic Control and are made by resolution of the Institute Council.

EEM164 GRADUATE DIPLOMA IN AUTOMATIC CONTROL

PART-TIME

1. Entry

   (a) **Normal Entry**

   To be eligible to enrol for the Graduate Diploma in Automatic Control an applicant must possess a tertiary qualification in a technological field or other qualification considered to be professionally acceptable.

   (b) **Qualifying**

   Applicants who do not meet the requirements for normal entry may be required to satisfactorily complete appropriate qualifying subjects, to be designated by the Department, before enrolling in the Graduate Diploma course.

2. Enrolment

   (a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed, within the constraints of timetabling, pre- and co-requisites. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

   (b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that semester of their course. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

3. Unregistered Students

   A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

   Maximum benefits will be derived from the course by persons engaged in appropriate employment.

5. Exemptions

   Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters' see page 30.

6. Attendance

Students are expected to attend scheduled lectures, practical work, and other work, and seek leave of absence if they cannot maintain adequate attendance.

Field trips or field projects as detailed in the synopses have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work, and projects.

8. Course Structure

To be awarded a Graduate Diploma in Automatic Control, a registered student must complete, to the satisfaction of the Engineering Academic Board, the following subjects and other work for two years part-time study.

Normal Course Program

All subjects are one semester

			Approx. Formal Hrs/wk.
Semester 1 - Autumn			
EEP102	Linear Control Theory I		3
EEP101	Computer Aided System Design		2
EEP100	Process Control		3
		TOTAL	8
Semester 2 - Spring			
EEP104	Linear Control Theory II		3
EEP103	Computer Control		3
MEP140	Hydraulic and Pneumatic Control	OR)	2
EEP112	Software for Industrial Control	)	
		TOTAL	8
Semester 3 - Autumn			
EEP106	Analysis and Design of Systems I		3
EEP107	Digital Control Systems		3
EEP108	Sampled Data Control Systems		2
		TOTAL	8
Semester 4 - Spring			
EEP109	Analysis and Design of Systems II		3
EEP110	Microcomputer Control		3
EEP111	Optimization and Extremum Control		2
		TOTAL	8

The following rules relate to the Graduate Diploma in Mechanical Engineering and are made by resolution of the Institute Council.

MEM203 GRADUATE DIPLOMA IN MECHANICAL ENGINEERING

PART-TIME

1. Entry

To be eligible to enrol for the Graduate Diploma in Mechanical Engineering an applicant requires -

Existing Qualifications		Requirements to Enrol in Course
(a)	Recognised degree or diploma in engineering	Direct entry into course
OR		
(b)	Eligibility for graduate membership of The Institution of Engineers, Australia	Direct entry into course
OR		
(c)	Degree or diploma in science or applied science	Such pre-requisite undergraduate engineering subjects as may be determined by the Department of Mechanical Engineering
OR		
(d)	Other equivalent qualifications	Such pre-requisite undergraduate engineering subjects as may be determined by the Department of Mechanical Engineering

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed, within the constraints of timetabling, pre- and co-requisites. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

(b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that semester of their course. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

Maximum benefits will be derived from the course by persons engaged in appropriate employment.

5. Exemptions

Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters' see page 30.

6. Attendance

Students are expected to attend scheduled lectures, practical work, and other work, and seek leave of absence if they cannot maintain adequate attendance.

Field trips or field projects as detailed in the synopses have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work, projects and field visits.

8. Course Structure

To be awarded a Graduate Diploma in Mechanical Engineering, a registered student must complete, to the satisfaction of the Engineering Academic Board, the following subjects and other work for two years part-time study.

Normal Course Program

All subjects are one semester		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
LWS002	Contract and Industrial Law	3
MNP108	Engineering Management	3
ACP181	Engineering Investment Analysis	3
	TOTAL	9
Semester 2 - Spring		
MEP240	Principles of Plant Operation	3
MEP210	Noise and Vibration Control	3
MEP251	Energy Management	3
	TOTAL	9
Semester 3 - Autumn		
MEP373	Maintenance Strategies	3
MEB463	Tribology	3
MEP381	Design for Reliability and Safety	3
	TOTAL	9

		Approx. Formal Hrs/wk.
Semester 4 - Spring		
MEP400	Case Studies	3
	TWO Elective Subjects	6
	TOTAL	9

Elective Program

MEB450	Air Conditioning	3
MEB451	Thermal Plant	3
MEP330	Joining Materials	3
MEP430	Materials Selection for Reliability	3
MEP451	Air and Water Pollution Control	3
MEP471	Bulk Materials Handling	3
	ONE approved subject from another appropriate course conducted by the QIT available only on individual application to the Head of Department	3

The number of electives available in any year will be dependent upon a sufficient number of students being enrolled.

The following rules relate to the Graduate Diploma in Land Development Surveying and are made by resolution of the Institute Council.

SVM214 GRADUATE DIPLOMA IN LAND DEVELOPMENT SURVEYING

PART-TIME

1. Entry

To be eligible to enrol for the Graduate Diploma in Land Development Surveying an applicant requires -

Existing Qualifications		Requirements to Enrol in Course
(a)	Degree or diploma in surveying from a recognised tertiary institution	Direct entry into course
OR		
(b)	Degree or diploma in civil engineering from a recognised tertiary institution	Direct entry into course
OR		
(c)	Registered Surveyor under the Surveyors Act 1977	Direct entry into course
OR		
(d)	Degree or diploma in a discipline other than surveying or civil engineering from a recognised tertiary institution	Such pre-requisite introductory subjects as may be determined by the Head, Department of Surveying
OR		
(e)	Other equivalent qualifications	Such pre-requisite introductory subjects as may be determined by the Head, Department of Surveying

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed, within the constraints of timetabling, pre- and co-requisites. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

(b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that semester of their course. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

Maximum benefits will be derived from the course by persons engaged in appropriate employment.

5. Exemptions

Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters' see page 30.

6. Attendance

Students are expected to attend scheduled lectures, practical work, and other work, and seek leave of absence if they cannot maintain adequate attendance.

Field trips or field projects as detailed in the synopses have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work, projects and field visits.

8. Course Structure

To be awarded a Graduate Diploma in Land Development Surveying, a registered student must complete, to the satisfaction of the Engineering Academic Board, the following subjects and other work for two years part-time study.

Normal Course Program

All subjects are one semester		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
CEP106	Engineering for Development	3
SVP150	Land Studies I	3
BEP182	Ecology for Development	3
	TOTAL	9
Semester 2 - Spring		
LPP101	Built Environment I	3
SVP260	Development Control	3
SVP261	Land Design I	3
	TOTAL	9
Semester 3 - Autumn		
LPP102	Built Environment II	3
ACP881	Finance and Law	3
SVP361	Land Design II	1½
MNP037	Introductory Economics	1½
	TOTAL	9

		Approx. Formal Hrs/wk.
Semester 4 - Spring		
SVP461	Land Design III	1½
MNP042	Land Development Management	1½
ACP882	Development Finance	3
	ONE Elective	3
	TOTAL	9

Elective Program

ACB151	Australian Capital Markets	3
ACP354	Finance A	3
ACP454	Finance B	3
BEP766	Legislation and the Environment	3
BEP868	Environmental Impact Studies I	3
CEP420	Transportation Engineering	3
CEP460	Flood Plain Management	3
ESP419	Terrain Analysis	3
MAB342	Mathematics of Finance	3
MAB626	Topics in Mathematics I	3
MAB641	Actuarial Mathematics	3
MNP102	Managerial Psychology	3
MNP106	Managerial Economics	3
MNP204	Marketing Methods and Practices	3
MNP305	Research Design in Marketing	3
MNP403	Managerial Strategy	3
MNP506	Promotional Policies and Methods	3
MNP607	Consumer Behaviour	3
SVP450	Land Studies II	3
SVP462	Land Design IV	3

The number of electives available in any year will be dependent upon a sufficient number of students being enrolled.

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Bachelor Courses

The following rules relate to the Bachelor of Engineering degree and are made by resolution of the Institute Council.

BACHELOR OF ENGINEERING

The degree may be awarded with Honours. First Class Honours, Second Class Honours Division A and Second Class Honours Division B may be awarded. Candidates for the degree with Honours must fulfil the requirements for the pass degree and achieve such standard of proficiency in the subjects of the course as may from time to time be determined by the Academic Board and approved by the Academic Assembly.

FULL-TIME AND PART-TIME

1. Entry

(a) Normal Entry

To be eligible to enrol for courses leading to the Bachelor of Engineering an applicant -

(i) shall have reached a Tertiary Entrance score of 810 or better, and in addition shall have obtained

either

(a) a minimum of fourteen points over four semester units in each of the Board subjects English, Physics and Chemistry, plus a minimum of twenty-eight points over eight semester units of Mathematics, together with a minimum of eighty points total in these subjects.

or

(b) a minimum of Sound Achievement over four semester units in each of the Board subjects English, Physics and Chemistry and over eight semester units in the Board subject Mathematics.

In both (a) and (b), the Mathematics subject must include units I, II and III (Social Mathematics and Mathematics in Society are not acceptable). For students who completed Senior prior to 1979, the Mathematics units I, II, III, VIII and XI must be included.

OR

(ii) who has sat for the external Senior examination must attain a minimum total score of twenty points in English, Mathematics I, Mathematics II, Physics and Chemistry. A minimum score of four points is required for each subject.

(b) Special Entry

Students who do not meet the requirements for normal entry may present documentary evidence of qualifications and experience and other relevant information for special consideration by the Admissions Committee.

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed, within the constraints of timetabling, pre- and co-requisites. In special circumstances, the Head of School may waive this rule, after consideration of a written application to the Registrar.

(b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that semester of their course. Where a student is straddling two years, the maximum hours shall be that of the semester with the greater number of recommended hours. In special circumstances, the Head of School may waive the maximum hours rule, after consideration of a written application to the Registrar.

Part-time Students:

Students who wish to complete the course by part-time study in six years must obtain one full day per week release from their place of employment to attend that part of the course which is scheduled during the day.

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

(a) Part-time Students
Students who will be in a full-time occupation throughout any semester, may register as part-time students if they can produce satisfactory evidence that they are so employed.

(b) Full-time and Part-time Students
A student shall have engaged in at least five weeks approved employment in conjunction with each of first, second and third years of the full-time course or, first, third and fifth years of the part-time course.

For the employment to be recognized, the student must submit an industrial experience record form, provided for the purpose, which has been completed by both the student and the employer.

5. Exemptions

(a) Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters'. See page 30. In special circumstances, the Head of School may waive these rules, after consideration of a written application to the Registrar.

(b) A registered student, who is enrolled as a part-time student and is in an appropriate occupation, may make written application, on the special form provided, to be exempted the following subjects if offered in the particular course chosen:

Design Project	Mechanical Design Project
Group A Subject	Technical Writing
Seminars	Civil Engineering I
Seminars and Technical Communication	Electrical Engineering I
	Manufacturing I
	Design I (Mechanical)
Field Trip	Industrial Visits

Note: Application to the Head of Department may be made to study the subject 'Project' externally.

Exemptions will only be granted from subjects for which students can produce evidence that their occupation provides skill, experience and training which is equivalent, in the opinion of the Board, to the subject/s exempted. The Board may delegate the approval of such evidence to the Head of the Department responsible for the course.

(c) Prior approval must be received to obtain an exemption in a QIT subject, if while registered at the Institute, a student wishes to study an equivalent subject elsewhere or in another course at the Institute. Application for approval must be made in writing to the Registrar.

(d) The Head of Department, may, where a student who has previously enrolled for a subject but has not been given credit for a pass in such subject, exempt such candidate from such of the requirements of that subject as deemed fit.

6. Attendance

A student who in any subject fails to attend 80% of the total instruction, or to submit 80% of all practical or assignment work required in any subject may be deemed by the Head of School ineligible to sit for the semester examination.

Field trips or field projects, as detailed in the subject synopses, have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work and projects. Supplementary examinations may be offered.

8. Dress

The Engineering Academic Board may require students to wear appropriate attire during industrial visits to firms and government departments and field trips and whilst engaged on field survey projects and practical work.

Students must also comply with any particular safety requirements with respect to dress that may be applicable to an industrial visit, field trip, field survey project or practical assignment.

9. Course Structure

A registered student admitted under these rules shall elect to specialise in one of Civil, Electrical or Mechanical Engineering.

Most subjects in the Bachelor of Engineering courses will be available from both day and evening study, based on demonstrated demand. The subjects designated (D) in the part-time program will be available only during the day, so that day release is necessary for part-time students to complete the course. A full-time student may be required to attend classes given in the evening.

To be awarded a Bachelor of Engineering - Civil degree, a registered student must complete to the satisfaction of the Engineering Academic Board, the following subjects and other work for four years full-time study or six years part-time study.

CEJ156 BACHELOR OF ENGINEERING - CIVIL

Normal Course Program for Four Years FULL-TIME Study.

All subjects are one semester except those indicated (*) which extend over two semesters.

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students and are available from the respective department office.

		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
MAB193	Engineering Mathematics I*	3
PHB131	Engineering Physics I*	3
CEB100	Civil Engineering I	3
CEB183	Engineering Mechanics*	3
CSB190	Computing*	1½
MEB121	Engineering Graphics	3
MEB100	Manufacturing I	3
CMB108	English for Technologists*	1½
EEB110	Electrical Engineering I	3
EEB111	Electrical Engineering II*	3
	TOTAL	27
Semester 2 - Spring		
MAB193	Engineering Mathematics I*	3
PHB131	Engineering Physics I*	3
CEB183	Engineering Mechanics*	3
CSB190	Computing*	3
MEB111	Dynamics	3
MEB133	Materials I	3
MEB101	Design I (Mechanical)	3
CMB108	English for Technologists*	1½
EEB111	Electrical Engineering II*	3
CEB192	Vacation Practice I	5 weeks
	TOTAL	25½
Semester 3 - Autumn		
MAB493	Engineering Mathematics II*	3
CEB281	Strength of Materials	3
CEB252	Structural Engineering I*	3
CEB240	Soil Mechanics I	3
CEB201	Steel Structures	3
CEB202	Concrete Structures*	3
CEB331	Concrete Technology*	1
SVB306	Surveying I	3
	TOTAL	22

Semester 4 - Spring			Approx. Formal Hrs/wk.
MAB493	Engineering Mathematics II*		3
CEB252	Structural Engineering I*		3
CEB241	Soil Mechanics II		3
CEB202	Concrete Structures*		3
CHB346	Engineering Chemistry C		2
CEB260	Fluid Mechanics		3
CEB331	Concrete Technology*		1½
CEB291	Civil Engineering Materials		3
BEB506	Basic Ecology		1
	ONE Group A Elective		2
CEB292	Vacation Practice II		5 weeks
		TOTAL	24½

Semester 5 - Autumn			
MAB893	Engineering Mathematics III		3
CEB390	Engineering Investigation & Reporting*		3
CEB360	Hydraulic Engineering I		3
CEB304	Civil Engineering Design I*		4
CEB312	Highway Engineering		3
CEB352	Structural Engineering II*		3
ESB519	Geology		3
		TOTAL	22

Semester 6 - Spring			
CEB390	Engineering Investigation & Reporting*		1
CEB370	Public Health Engineering I		3
CEB313	Traffic Engineering		3
CEB304	Civil Engineering Design I*		4
CEB361	Hydrology		3
CEB352	Structural Engineering II*		3
CEB305	Construction Management & Economics		3
CEB340	Geomechanics		3
CEB392	Vacation Practice III		5 weeks
		TOTAL	23

Semester 7 - Autumn			
CEB470	Public Health Engineering II		3
CEB440	Geotechnical Engineering I		3
CEB460	Hydraulic Engineering II		3
CEB410	Transport Engineering I		3
CEB430	Building Construction		1½
CEB405	Civil Engineering Design II*		5
CEB491	Project (Civil)*		3
		TOTAL	21½

Semester 8 - Spring			
CEB405	Civil Engineering Design II*		3
CEB401	Design Project		3
CEB403	Professional Practice		2
CEB404+	Field Trip		2
CEB491	Project (Civil)*		3
	THREE Group B Electives		9
		TOTAL	22

+ This subject may be timetabled in block day-release periods.

Group A Electives - One Semester		Approx. Formal Hrs/wk.
ACB183	Principles of Accounting	2
ACB455	Personal and Corporate Finance	2
ACB753	Securities Evaluation	2
ARS109	Architecture and Industrial Design	2
BCB393	Computer Based Information Systems	2
CMB307	Advanced Professional Writing	2
MNB001	Principles of Economics	2
MNB002	Psychology for Engineers	2
MNB003	Industrial & Labour Relations	2
MNB004	Management	2
MNB033	Purchasing and Distribution for Engineers	2
MNB075	Government	2
MNB930	Operations Research	2
SEB103	General Elective	2

The number of Group A electives available will be dependent upon a sufficient number of students being enrolled.

Group B Electives - One Semester		
CEB500	Construction Engineering	3
CEB501	Civil Engineering Practice	3
CEB511	Transport Engineering II	3
CEB521	Civil Engineering Systems	3
CEB530	Concrete Design	3
CEB531	Masonry Design	3
CEB540	Geotechnical Engineering II	3
CEB550	Finite Element Methods	3
CEB551	Structural Design	3
CEB552	Advanced Structural Analysis	3
CEB554	Advanced Steel Design	3
CEB560	Water Engineering	3
CEB561	Coastal Engineering	3
CEB570	Public Health Engineering III	3
CEB571	Environmental Engineering	3
SVB406	Surveying II	3

The number of Group B electives available will be dependent upon a sufficient number of students being enrolled.

The Bachelor of Engineering - Civil part-time program will be as follows -

Normal Course Program for Six Years PART-TIME Study.

All subjects are one semester except those indicated (*) which extend over two semesters.

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students and are available from the respective department office.

			Approx. Formal Hrs/wk.
Semester 1 - Autumn			
MAB193	Engineering Mathematics I*		3 (E)
PHB131	Engineering Physics I*		3 (E)
MEB100	Manufacturing I		3 (E)
CEB183	Engineering Mechanics*		3 (D)
MEB121	Engineering Graphics		3 (D)
		TOTAL	15
Semester 2 - Spring			
MAB193	Engineering Mathematics I*		3 (E)
PHB131	Engineering Physics I*		3 (E)
MEB101	Design I (Mechanical)		3 (E)
CEB183	Engineering Mechanics*		3 (D)
MEB111	Dynamics		3 (D)
CEB192	Vacation Practice I		5 weeks
		TOTAL	15
Semester 3 - Autumn			
CEB100	Civil Engineering I		3 (D)
EEB111	Electrical Engineering II*		3 (E)
EEB110	Electrical Engineering I		3 (D)
MAB493	Engineering Mathematics II*		3 (E)
SVB306	Surveying I		3 (E)
CSB190	Computing*		1½ (D)
		TOTAL	16½
Semester 4 - Spring			
EEB111	Electrical Engineering II*		3 (E)
MEB133	Materials I		3 (D)
MAB493	Engineering Mathematics II*		3 (E)
CSB190	Computing*		3 (E)
CHB346	Engineering Chemistry C		2 (D)
		TOTAL	14
Semester 5 - Autumn			
CEB281	Strength of Materials		3 (D)
CEB252	Structural Engineering I*		3 (E)
CEB202	Concrete Structures*		3 (E)
CEB240	Soil Mechanics I		3 (D)
ESB519	Geology		3 (E)
CMB108	English for Technologists*		1½ (D)
		TOTAL	16½

		Approx. Formal Hrs/wk.
Semester 6 - Spring		
CEB252	Structural Engineering I*	3 (E)
CEB202	Concrete Structures*	3 (E)
CEB291	Civil Engineering Materials	3 (D)
CEB241	Soil Mechanics II	3 (D)
CEB201	Steel Structures	3 (E)
CMB108	English for Technologists*	1½ (D)
CEB292	Vacation Practice II	5 weeks
	TOTAL	16½
Semester 7 - Autumn		
CEB260	Fluid Mechanics	3 (E)
MAB893	Engineering Mathematics III	3 (E)
CEB340	Geomechanics	3 (E)
CEB331	Concrete Technology*	1 (D)
CEB352	Structural Engineering II*	3 (D)
CEB312	Highway Engineering	3 (D)
	TOTAL	16½
Semester 8 - Spring		
CEB370	Public Health Engineering I	3 (D)
CEB360	Hydraulic Engineering I	3 (E)
CEB313	Traffic Engineering	3 (E)
BEB506	Basic Ecology	1 (D)
CEB352	Structural Engineering II*	3 (E)
CEB331	Concrete Technology*	1½ (D)
	ONE Group A Elective	2 (D)
	TOTAL	15
Semester 9 - Autumn		
CEB304	Civil Engineering Design I*	4 (D)
CEB390	Engineering Investigation and Reporting*	3 (D)
CEB361	Hydrology	3 (E)
CEB470	Public Health Engineering II	3 (E)
CEB305	Construction Management and Economics	3 (E)
	TOTAL	16
Semester 10 - Spring		
CEB304	Civil Engineering Design I*	4 (D)
CEB390	Engineering Investigation and Reporting*	1 (D)
CEB440	Geotechnical Engineering I	3 (E)
CEB460	Hydraulic Engineering II	3 (E)
	ONE Group B Elective	3 (E)
CEB392	Vacation Practice III	5 weeks
	TOTAL	14
Semester 11 - Autumn		
CEB430	Building Construction	1½ (D)
CEB405	Civil Engineering Design II*	5 (E)
CEB401	Design Project	3 (E)
CEB410	Transport Engineering I	3 (D)
CEB491	Project (Civil)*	3 (D)
	TOTAL	15½
Semester 12 - Spring		
CEB405	Civil Engineering Design II*	3 (E)
CEB404	Field Trip	2 (D)
CEB403	Professional Practice	2 (E)
CEB491	Project (Civil)*	3 (D)
	TWO Group B Electives	6(D)(E)
	TOTAL	16

Group A Electives - One Semester		Approx. Formal Hrs/wk.
ACB183	Principles of Accounting	2
ACB455	Personal and Corporate Finance	2
ACB753	Securities Evaluation	2
ARS109	Architecture and Industrial Design	2
BCB393	Computer Based Information Systems	2
CMB307	Advanced Professional Writing	2
MNB001	Principles of Economics	2
MNB002	Psychology for Engineers	2
MNB003	Industrial & Labour Relations	2
MNB004	Management	2
MNB033	Purchasing and Distribution for Engineers	2
MNB075	Government	2
MNB930	Operations Research	2
SEB103	General Elective	2

The number of Group A electives available will be dependent upon a sufficient number of students being enrolled.

Group B Electives - One Semester		
CEB500	Construction Engineering	3
CEB501	Civil Engineering Practice	3
CEB511	Transport Engineering II	3
CEB521	Civil Engineering Systems	3
CEB530	Concrete Design	3
CEB531	Masonry Design	3
CEB540	Geotechnical Engineering II	3
CEB550	Finite Element Methods	3
CEB551	Structural Design	3
CEB552	Advanced Structural Analysis	3
CEB554	Advanced Steel Design	3
CEB560	Water Engineering	3
CEB561	Coastal Engineering	3
CEB570	Public Health Engineering III	3
CEB571	Environmental Engineering	3
SVB406	Surveying II	3

The number of Group B electives available will be dependent upon a sufficient number of students being enrolled.

To be awarded a Bachelor of Engineering - Electrical degree, a registered student must complete, to the satisfaction of the Engineering Academic Board, the following subjects and other work for four years full-time study or six years part-time study.

EEJ157 BACHELOR OF ENGINEERING - ELECTRICAL

Students may enrol in either the ELECTRICAL ENGINEERING strand or the ELECTRONIC SYSTEMS strand. Semesters 1-3 are identical for the two strands.

Normal Course Program for Four Years FULL-TIME Study.

All subjects are one semester except those indicated (*) which extend over two semesters.

ELECTRICAL ENGINEERING STRAND

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students and are available from the respective department office.

			Approx. Formal Hrs/wk.
Semester 1 - Autumn			
MAB193	Engineering Mathematics I*		3
EEB110	Electrical Engineering I		3
EEB111	Electrical Engineering II*		3
CSB190	Computing*		1½
PHB131	Engineering Physics I*		3
MEB121	Engineering Graphics		3
CEB183	Engineering Mechanics*		3
MEB100	Manufacturing I		3
CMB108	English for Technologists*		1½
CEB100	Civil Engineering I		3
		TOTAL	27
Semester 2 - Spring			
MAB193	Engineering Mathematics I*		3
EEB111	Electrical Engineering II*		3
CSB190	Computing*		3
PHB131	Engineering Physics I*		3
MEB111	Dynamics		3
MEB133	Materials I		3
CEB183	Engineering Mechanics*		3
CMB108	English for Technologists*		1½
MEB101	Design I (Mechanical)		3
EEB206	Vacation Practice I		5 weeks
		TOTAL	25½

		Approx. Formal Hrs/wk.
Semester 3 - Autumn		
MAB493	Engineering Mathematics II*	3
EEB303	Network Theory I	3
EEB302	Electrotechnology	3
EEB301	Basic Measurement and Instrumentation	3
MAB295	Applied Mathematics	3
EEB371	Electronic Devices	3
EEB372	Digital Electronics I	3
EEB361	Telecommunications	3
	TOTAL	24
Semester 4 - Spring		
MAB493	Engineering Mathematics II*	3
EEB401	Network Theory II	3
EEB400	Electrical Power Systems I	3
EEB404	Electrical Machines	3
CSB490	Software Engineering	3
EEB471	Electronics	3
EEB472	Digital Electronics II	3
MEB453	Mechanical Engineering IIs	3
EEB406	Vacation Practice II	5 weeks
	TOTAL	24
Semester 5 - Autumn		
EEB552	Electrical Power Systems II	3
EEB511	Linear System Analysis	3
EEB520	Control Engineering I	3
MAB893	Engineering Mathematics III	3
EEB574	Applied Electronics I	3
EEB581	Electrical Design I	3
EEB652	Power Electronics	3
	TOTAL	21
Semester 6 - Spring		
EEB531	Electrical Power Transmission	3
EEB620	Control Engineering II	3
EEB677	Applied Electronics II	3
EEB681	Electrical Design II	3
MAB894	Engineering Mathematics IV	3
PHB430	Engineering Physics IV	3
EEB622	Process Plant	3
	ONE Group A Elective	2
EEB606	Vacation Practice III	5 weeks
	TOTAL	23
Semester 7 - Autumn		
EEB741	Power System Analysis	3
EEB751	Electrical Power Plant III	3
EEB724	Industrial Control	3
EEB772	Electronic Systems I	3
EEB782	Electrical Design III	3
	ONE Group B (Electrical Engineering) Elective	3
EEB781	Project (Electrical Engineering)*	3
EEB785	Seminars*	1
	TOTAL	22

Semester 8 - Spring		Approx. Formal Hrs/wk.
EEB810	Electrical Protection	3
EEB783	Electrical Design IV	3
	ONE Group B (Electrical Engineering) Elective	3
EEB872	Electronic Systems II	3
EEB781	Project (Electrical Engineering)*	6
EEB785	Seminars*	2
MEB477	Industrial Administration	2
EEB820	Engineering Management	3
	TOTAL	24

Group A Electives - One Semester

ACB183	Principles of Accounting	2
ACB455	Personal and Corporate Finance	2
ACB753	Securities Evaluation	2
ARS109	Architecture and Industrial Design	2
BCB393	Computer Based Information Systems	2
CMB307	Advanced Professional Writing	2
MNB001	Principles of Economics	2
MNB002	Psychology for Engineers	2
MNB003	Industrial & Labour Relations	2
MNB004	Management	2
MNB033	Purchasing and Distribution for Engineers	2
MNB075	Government	2
MNB930	Operations Research	2
SEB103	General Elective	2

The number of Group A electives available will be dependent upon a sufficient number of students being enrolled.

Group B Electives - One Semester

EEB900	Computer Aided Engineering	3
EEB944	Power Station Engineering	3
EEB951	High Voltage Power Plant	3
EEB954	Electrical Energy Utilisation	3

The number of Group B electives available will be dependent upon a sufficient number of students being enrolled.

ELECTRONIC SYSTEMS ENGINEERING STRAND

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students and are available from the respective department office.

Semester 1 - Autumn		Hrs/wk.
MAB193	Engineering Mathematics I*	3
EEB110	Electrical Engineering I	3
EEB111	Electrical Engineering II*	3
CSB190	Computing*	1½
PHB131	Engineering Physics I*	3
MEB121	Engineering Graphics	3
MEB100	Manufacturing I	3

Semester 1 - Autumn (Continued)		Approx. Formal Hrs/wk.
CMB108	English for Technologists*	1½
CEB183	Engineering Mechanics*	3
CEB100	Civil Engineering I	3
	TOTAL	27

Semester 2 - Spring		
MAB193	Engineering Mathematics I*	3
EEB111	Electrical Engineering II*	3
CSB190	Computing*	3
PHB131	Engineering Physics I*	3
MEB111	Dynamics	3
MEB101	Design I (Mechanical)	3
CMB108	English for Technologists*	1½
CEB183	Engineering Mechanics*	3
MEB133	Materials I	3
EEB206	Vacation Practice I	5 weeks
	TOTAL	25½

Semester 3 - Autumn		
MAB493	Engineering Mathematics II*	3
EEB303	Network Theory I	3
EEB361	Telecommunications	3
EEB371	Electronic Devices	3
EEB372	Digital Electronics I	3
EEB301	Basic Measurement and Instrumentation	3
EEB302	Electrotechnology	3
MAB295	Applied Mathematics	3
	TOTAL	24

Semester 4 - Spring		
MAB493	Engineering Mathematics II*	3
EEB401	Network Theory II	3
EEB472	Digital Electronics II	3
EEB471	Electronics	3
MEB453	Mechanical Engineering IIs	3
EEB421	Control Engineering I	3
CSB490	Software Engineering	3
PHB430	Engineering Physics IV	3
EEB406	Vacation Practice II	5 weeks
	TOTAL	24

Semester 5 - Autumn		
EEB561	Communications Engineering I	3
EEB521	Control Engineering II	3
EEB572	Digital Electronics III	3
EEB573	Industrial Electronics	3
EEB587	Electronic Systems Engineering Design I	3
EEB562	Transmission and Propagation (T) (Note 1)) OR	3
EEB522	Control Engineering II (T) (Note 2))	
EEB501	Advanced Measurement and Instrumentation	3
MAB893	Engineering Mathematics III	3
	TOTAL	24

Semester 6 - Spring		Approx. Formal Hrs/wk
EEB661	Communications Engineering II	3
EEB621	Industrial Control I	3
EEB672	Digital Electronics IV	3
EEB602	Signal Processing	3
EEB601	Realtime Computing	3
EEB662	Microwave and Antenna Techniques (T))	3
EEB623	Industrial Systems I (T)) OR	
MAB894	Engineering Mathematics IV	3
	ONE Group A Elective**	2
EEB606	Vacation Practice III	5 weeks
	TOTAL	23

Note 1 Students choosing this alternative must also complete EEB662 Microwave and Antenna Techniques (T)

Note 2 Students choosing this alternative must also complete EEB623 Industrial Systems I (T).

Semester 7 - Autumn		
EEB761	Communications Engineering III	3
EEB722	Industrial Control II	3
EEB788	Electronic Systems Engineering Design II	3
EEB789	Project (Electronic Systems Engineering)*	6
EEB701	Seminars and Technical Communication*	2
	ONE Group C Elective	3
MEB770	Industrial Administration and Engineering I	3
	TOTAL	23

Semester 8 - Spring		
EEB887	Electronic Systems Engineering Design III	3
EEB888	Electronic Systems Engineering Design IV	3
	ONE Group C Elective	3
EEB789	Project (Electronic Systems Engineering)*	6
EEB701	Seminars and Technical Communication*	2
MEB870	Industrial Administration and Engineering II	3
	TOTAL	20

Group A Electives - One Semester		
ACB183	Principles of Accounting	2
ACB455	Personal and Corporate Finance	2
ACB753	Securities Evaluation	2
ARS109	Architecture and Industrial Design	2
BCB393	Computer Based Information Systems	2
CMB307	Advanced Professional Writing	2
MNB001	Principles of Economics	2
MNB002	Psychology for Engineers	2
MNB003	Industrial & Labour Relations	2
MNB004	Management	2
MNB033	Purchasing and Distribution for Engineers	2
MNB075	Government	2
MNB930	Operations Research	2
SEB103	General Elective	2

The number of Group A electives available will be dependent upon a sufficient number of students being enrolled.

** Group A subjects may be taken in Semesters 4, 6 or 8.

Group C Electives - One Semester		Hrs/wk
EEB931	Industrial Systems II	3
EEB961	Communications Techniques	3
EEB968	Digital Signal Processing	3
EEB971	Applied Electronics	3
	Any Technical (T) electives in semesters 5 and 6 not previously completed	3

The number of Group C electives available will be dependent upon a sufficient number of students being enrolled. Depending on choice and availability a student may take 2 Group C Electives in one semester subject to approval of Head of Department.

The Bachelor of Engineering - Electrical part-time program will be as follows -

Normal Course Program for Six Years PART-TIME Study.

All subjects are one semester except those indicated (*) which extend over two semesters.

ELECTRICAL ENGINEERING STRAND

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students and are available from the respective department office.

Semester 1 - Autumn		Approx. Formal Hrs/wk.
MAB193	Engineering Mathematics I*	3 (E)
PHB131	Engineering Physics I*	3 (E)
EEB110	Electrical Engineering I	3 (D)
EEB111	Electrical Engineering II*	3 (D)
CMB108	English for Technologists*	1½ (D)
CEB100	Civil Engineering I	3 (E)
	TOTAL	16½

Semester 2 - Spring		
MAB193	Engineering Mathematics I*	3 (E)
PHB131	Engineering Physics I*	3 (E)
EEB111	Electrical Engineering II*	3 (D)
CMB108	English for Technologists*	1½ (D)
MEB133	Materials I	3 (D)
MEB111	Dynamics	3 (E)
EEB206	Vacation Practice I	5 weeks
	TOTAL	16½

Semester 3 - Autumn		
EEB303	Network Theory I	3 (E)
MAB493	Engineering Mathematics II*	3 (D)
EEB301	Basic Measurement and Instrumentation	3 (D)
CSB190	Computing*	1½ (D)
MEB121	Engineering Graphics	3 (E)
EEB302	Electrotechnology	3 (E)
	TOTAL	16½

			Approx. Formal Hrs/wk.	
Semester 4 - Spring				
EEB401	Network Theory II		3	(E)
MAB493	Engineering Mathematics II*		3	(D)
EEB361	Telecommunications		3	(E)
CSB190	Computing*		3	(E)
MEB101	Design I (Mechanical)		3	(D)
EEB406	Vacation Practice II		5	weeks
		TOTAL	15	
Semester 5 - Autumn				
MAB893	Engineering Mathematics III		3	(E)
EEB372	Digital Electronics I		3	(E)
EEB371	Electronic Devices		3	(E)
CEB183	Engineering Mechanics*		3	(D)
MEB100	Manufacturing I		3	(D)
		TOTAL	15	
Semester 6 - Spring				
MAB894	Engineering Mathematics IV		3	(E)
EEB471	Electronics		3	(D)
EEB472	Digital Electronics II		3	(E)
MEB453	Mechanical Engineering IIs		3	(E)
CEB183	Engineering Mechanics*		3	(D)
EEB606	Vacation Practice III		5	weeks
		TOTAL	15	
Semester 7 - Autumn				
EEB404	Electrical Machines		3	(E)
EEB511	Linear System Analysis		3	(E)
EEB520	Control Engineering I		3	(D)
EEB574	Applied Electronics I		3	(D)
MAB295	Applied Mathematics		3	(E)
		TOTAL	15	
Semester 8 - Spring				
EEB400	Electrical Power Systems I		3	(D)
EEB620	Control Engineering II		3	(E)
EEB677	Applied Electronics II		3	(D)
CSB490	Software Engineering		3	(E)
PHB430	Engineering Physics IV		3	(E)
	ONE Group A Elective		2	(D)
		TOTAL	17	
Semester 9 - Autumn				
EEB552	Electrical Power Systems II		3	(D)
EEB652	Power Electronics		3	(E)
EEB581	Electrical Design I		3	(D)
EEB724	Industrial Control		3	(E)
EEB772	Electronic Systems I		3	(E)
		TOTAL	15	

Semester 10 - Spring			Approx. Formal Hrs/wk.
EEB531	Electrical Power Transmission	3	(E)
EEB751	Electrical Power Plant III	3	(D)
EEB681	Electrical Design II	3	(D)
EEB872	Electronic Systems II	3	(D)
EEB622	Process Plant	3	(E)
EEB820	Engineering Management	3	(E)
	TOTAL	18	

Semester 11 - Autumn			
EEB741	Power System Analysis	3	(E)
	ONE Group B (Electrical Engineering) Elective	3	(E)
EEB782	Electrical Design III	3	(D)
MEB477	Industrial Administration	2	(E)
EEB781	Project (Electrical Engineering)*	3	(D)
EEB785	Seminars*	1	(D)
	TOTAL	15	

Semester 12 - Spring			
EEB810	Electrical Protection	3	(E)
EEB783	Electrical Design IV	3	(D)
	ONE Group B (Electrical Engineering) Elective	3	(E)
EEB781	Project (Electrical Engineering)*	6	(D) +(E)
EEB785	Seminars*	1	(D)
	TOTAL	16	

Group A Electives - One Semester

ACB183	Principles of Accounting	2
ACB455	Personal and Corporate Finance	2
ACB753	Securities Evaluation	2
ARS109	Architecture and Industrial Design	2
BCB393	Computer Based Information Systems	2
CMB307	Advanced Professional Writing	2
MNB001	Principles of Economics	2
MNB002	Psychology for Engineers	2
MNB003	Industrial & Labour Relations	2
MNB004	Management	2
MNB033	Purchasing and Distribution for Engineers	2
MNB075	Government	2
MNB930	Operations Research	2
SEB103	General Elective	2

The number of Group A electives available will be dependent upon a sufficient number of students being enrolled.

Group B Electives - One Semester

EEB900	Computer Aided Engineering	3
EEB944	Power Station Engineering	3
EEB951	High Voltage Power Plant	3
EEB954	Electrical Energy Utilisation	3

The number of Group B electives available will be dependent upon a sufficient number of students being enrolled.

ELECTRONIC SYSTEMS ENGINEERING STRAND

The following is the revised course structure which comes into effect for 1985 for all new students. Transition arrangements have been made for continuing students and are available from the respective department office.

			Approx. Formal Hrs/wk.
Semester 1 - Autumn			
MAB193	Engineering Mathematics I*		3 (E)
EEB110	Electrical Engineering I		3 (D)
EEB111	Electrical Engineering II*		3 (D)
PHB131	Engineering Physics I*		3 (E)
MEB121	Engineering Graphics		3 (E)
CMB108	English for Technologists*		1½ (D)
		TOTAL	16½
Semester 2 - Spring			
MAB193	Engineering Mathematics I*		3 (E)
EEB111	Electrical Engineering II*		3 (D)
PHB131	Engineering Physics I*		3 (E)
MEB111	Dynamics		3 (E)
CMB108	English for Technologists*		1½ (D)
MEB133	Materials I		3 (D)
EEB206	Vacation Practice I		5 weeks
		TOTAL	16½
Semester 3 - Autumn			
CSB190	Computing*		1½ (D)
MAB493	Engineering Mathematics II*		3 (D)
EEB303	Network Theory I		3 (E)
EEB371	Electronic Devices		3 (E)
EEB301	Basic Measurement and Instrumentation		3 (D)
EEB302	Electrotechnology		3 (E)
		TOTAL	16½
Semester 4 - Spring			
CSB190	Computing*		3 (E)
MAB493	Engineering Mathematics II*		3 (D)
EEB401	Network Theory II		3 (E)
EEB361	Telecommunications		3 (E)
EEB471	Electronics		3 (D)
	ONE Group A Elective**		2 (D)
EEB406	Vacation Practice II		5 weeks
		TOTAL	17
Semester 5 - Autumn			
EEB372	Digital Electronics I		3 (E)
EEB573	Industrial Electronics		3 (D)
MAB893	Engineering Mathematics III		3 (E)
CEB100	Civil Engineering I		3 (E)
CEB183	Engineering Mechanics*		3 (D)
		TOTAL	15

Semester 6 - Spring		Approx. Formal Hrs/wk.	
EEB472	Digital Electronics II	3	(E)
MEB453	Mechanical Engineering IIs	3	(E)
EEB421	Control Engineering I	3	(D)
MAB894	Engineering Mathematics IV	3	(E)
CEB183	Engineering Mechanics*	3	(D)
EEB606	Vacation Practice III	5	weeks
	TOTAL	15	

Semester 7 - Autumn			
EEB572	Digital Electronics III	3	(E)
MAB295	Applied Mathematics	3	(E)
EEB561	Communications Engineering I	3	(E)
EEB587	Electronic Systems Engineering Design I	3	(D)
MEB100	Manufacturing I	3	(D)
	TOTAL	15	

Semester 8 - Spring			
CSB490	Software Engineering	3	(E)
EEB672	Digital Electronics IV	3	(D)
PHB430	Engineering Physics IV	3	(E)
EEB602	Signal Processing	3	(E)
MEB101	Design I (Mechanical)	3	(D)
	TOTAL	15	

** The Group A elective may be taken in semester 4, 6 or 8.

Semester 9 - Autumn			
EEB521	Control Engineering II	3	(E)
EEB562	Transmission and Propagation (T) (Note 1)) OR	3	(D)
EEB522	Control Engineering II (T) (Note 2))		
EEB501	Advanced Measurement and Instrumentation	3	(E)
EEB788	Electronic Systems Engineering Design II	3	(D)
MEB770	Industrial Administration and Engineering I	3	(E)
	TOTAL	15	

Semester 10 - Spring			
EEB661	Communications Engineering II	3	(D)
EEB621	Industrial Control I	3	(E)
EEB601	Realtime Computing	3	(E)
EEB662	Microwave and Antenna Techniques (T)) OR	3	(D)
EEB623	Industrial Systems I (T))		
MEB870	Industrial Administration and Engineering II	3	(E)
	TOTAL	15	

Semester 11 - Autumn			
EEB761	Communications Engineering III	3	(E)
EEB722	Industrial Control II	3	(E)
	ONE Group C Elective	3	(D)
EEB789	Project (Electronic Systems Engineering)*	3 & 3	(D) (E)
EEB701	Seminars and Technical Communication*	2	(D)
	TOTAL	17	

Semester 12 - Spring		Approx. Formal Hrs/wk.
EEB887	Electronic Systems Engineering Design III	3 (D)
EEB888	Electronic Systems Engineering Design IV	1 (D) & 2 (E)
	ONE Group C Elective	3 (E)
EEB789	Project (Electronic Systems Engineering)*	3 (D) & 3 (E)
EEB701	Seminars and Technical Communication*	2 (D)
	TOTAL	17

* Two semester subjects.

Note 1 Students choosing this alternative must also complete EEB662 Microwave and Antenna Techniques (T).

Note 2 Students choosing this alternative must also complete EEB623 Industrial Systems I (T).

Group A Electives - One Semester

ACB183	Principles of Accounting	2
ACB455	Personal and Corporate Finance	2
ACB753	Securities Evaluation	2
ARS109	Architecture and Industrial Design	2
BCB393	Computer Based Information Systems	2
CMB307	Advanced Professional Writing	2
MNB001	Principles of Economics	2
MNB002	Psychology for Engineers	2
MNB003	Industrial & Labour Relations	2
MNB004	Management	2
MNB033	Purchasing and Distribution for Engineers	2
MNB075	Government	2
MNB930	Operations Research	2
SEB103	General Elective	2

The number of Group A electives available will be dependent upon a sufficient number of students being enrolled.

Group C Electives - One Semester

EEB931	Industrial Systems II	3
EEB961	Communications Techniques	3
EEB968	Digital Signal Processing	3
EEB971	Applied Electronics	3
	Any Technical (T) electives in semesters 5 and 6 not previously completed	3

The number of Group C Electives available will be dependent upon a sufficient number of students being enrolled with normally not more than one in the evening in any one semester. Subject to approval by Head of Department, a student may elect to do both electives in one semester.

To be awarded a Bachelor of Engineering - Mechanical degree, a registered student must complete, to the satisfaction of the Engineering Academic Board, the following subjects and other work for four years full-time study or six years part-time study.

MEJ158 BACHELOR OF ENGINEERING - MECHANICAL

Normal Course Program for Four Years FULL-TIME Study.

All subjects are one semester except those indicated (*) which extend over two semesters.

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students and are available from the respective department office.

			Approx. Formal Hrs/wk.
Semester 1 - Autumn			
MEB121	Engineering Graphics		3
CSB190	Computing*		1½
CEB183	Engineering Mechanics*		3
CEB100	Civil Engineering I		3
MAB193	Engineering Mathematics I*		3
EEB110	Electrical Engineering I		3
EEB111	Electrical Engineering II*		3
MEB100	Manufacturing I		3
PHB131	Engineering Physics I*		3
CMB108	English for Technologists*		1½
		TOTAL	27
Semester 2 - Spring			
MEB101	Design I (Mechanical)		3
CSB190	Computing*		3
MEB133	Materials I		3
MEB111	Dynamics		3
CEB183	Engineering Mechanics*		3
MAB193	Engineering Mathematics I*		3
EEB111	Electrical Engineering II*		3
PHB131	Engineering Physics I*		3
CMB108	English for Technologists*		1½
MEB200	Vacation Practice I		5 weeks
		TOTAL	25½
Semester 3 - Autumn			
MEB381	Design II (Mechanical)		3
MEB230	Materials II		3
MEB313	Mechanics I		3
MAB493	Engineering Mathematics II*		3
MEB361	Fluids I		3
MEB250	Thermodynamics I		3
ACB913	Costing for Engineers		1½
CHB344	Engineering Chemistry M		3
		TOTAL	22½

Semester 4 - Spring			Approx. Formal Hrs/wk.
MEB483	Design III (Mechanical)		3
MEB231	Materials III		3
MAB493	Engineering Mathematics II*		3
MEB462	Fluids II		3
MEB411	Theory of Machines		3
MEB251	Thermodynamics II		3
EEB209	Electrical Engineering II M		3
	ONE Group A Elective		2
MEB300	Vacation Practice II		5 weeks
		TOTAL	23

Semester 5 - Autumn			
MEB339	Materials and Processes Project		3
MEB510	Noise and Vibrations		3
MEB511	Stress Analysis		3
MAB893	Engineering Mathematics III		3
MEB332	Materials Selection		1½
MEB570	Manufacturing II		3
MEB550	Heat Transfer		3
	ONE Group B Elective		3
		TOTAL	22½

Semester 6 - Spring			
MEB670	Industrial Engineering I		3
MEB610	Mechanics II		3
MEB660	Fluid Power		3
MEB640	Automation		3
MEB671	Manufacturing III		3
MAB894	Engineering Mathematics IV		3
CMB136	Technical Writing		1½
	ONE Group C Elective		3
MEB402	Vacation Practice III		5 weeks
		TOTAL	22½

Semester 7 - Autumn			
MEB489	Mechanical Design Project*		4½
MEB409	Project (Mechanical)*		3
MEB401	Seminars*		1
MEB771	Industrial Engineering II		3
MEB461	Fluids III		3
MEB700	Failure Analysis		3
	ONE Group D Elective		3
		TOTAL	20½

Semester 8 - Spring			
MEB489	Mechanical Design Project*		4½
MEB409	Project (Mechanical)*		3
MEB401	Seminars*		1
MNB043	Industrial Management		3
ACB951	Financial Management for Engineers		3
MEB400+	Industrial Visits		3
	ONE Group E Elective		3
		TOTAL	20½

+ This subject may be timetabled as a block day-release visit of approximately one week's duration.

Group A Electives - One Semester		Approx. Formal Hrs/wk.
ACB183	Principles of Accounting	2
ACB455	Personal and Corporate Finance	2
ACB753	Securities Evaluation	2
ARS109	Architecture and Industrial Design	2
BCB393	Computer Based Information Systems	2
CMB307	Advanced Professional Writing	2
MNB001	Principles of Economics	2
MNB002	Psychology for Engineers	2
MNB003	Industrial & Labour Relations	2
MNB004	Management	2
MNB033	Purchasing and Distribution for Engineers	2
MNB075	Government	2
MNB930	Operations Research	2
SEB103	General Elective	2

Note: The number of Group A electives available will be dependent upon a sufficient number of students being enrolled.

Group B Electives - One Semester		
MEB372	Manufacturing Technology	3
MEB463	Tribology	3
MEB973	Design for Manufacturing	3
MEB980	Design of Power Transmission Systems	3

Group C Electives - One Semester		
MEB410	Deformation Processes	3
MEB450	Air Conditioning	3
MEB972	Jig and Tool Design	3
MEB981	Design of Materials Handling Systems	3

Group D Electives - One Semester		
CSB490	Software Engineering	3
MEB451	Thermal Plant	3
MEB960	Fluid Systems Design	3
MEB974	Production Scheduling	3
MEB982	Product Planning and Development	3

Group E Electives - One Semester		
EEB429	Industrial Control M	3
EEB601	Realtime Computing	3
MEB910	Plant Optimisation	3
MEB911	Finite Element Analysis	3
MEB950	Process Plant Design	3
MEB970	Computer Aided Manufacturing	3

Note: The number of Group B, C, D and E Electives available will be dependent upon a sufficient number of students being enrolled.

The Bachelor of Engineering - Mechanical part-time program will be as follows -

Normal Course Program for Six Years PART-TIME Study.

All subjects are one semester except those indicated (*) which extend over two semesters.

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students and are available from the respective department office.

			Approx. Formal Hrs/wk.
Semester 1 - Autumn			
MEB121	Engineering Graphics		3 (E)
CEB100	Civil Engineering I		3 (D)
MAB193	Engineering Mathematics I*		3 (E)
MEB100	Manufacturing I		3 (D)
PHB131	Engineering Physics I*		3 (E)
		TOTAL	15
Semester 2 - Spring			
MEB101	Design I (Mechanical)		3 (D)
MEB133	Materials I		3 (D)
MAB193	Engineering Mathematics I*		3 (E)
MEB111	Dynamics		3 (E)
PHB131	Engineering Physics I*		3 (E)
MEB200	Vacation Practice I		5 weeks
		TOTAL	15
Semester 3 - Autumn			
MEB230	Materials II		3 (E)
CEB183	Engineering Mechanics*		3 (D)
CSB190	Computing*		1½ (D)
MAB493	Engineering Mathematics II*		3 (E)
EEB110	Electrical Engineering I		3 (E)
EEB111	Electrical Engineering II*		3 (D)
CMB108	English for Technologists*		1½ (D)
		TOTAL	18
Semester 4 - Spring			
CEB183	Engineering Mechanics*		3 (D)
CSB190	Computing*		3 (E)
MAB493	Engineering Mathematics II*		3 (E)
EEB111	Electrical Engineering II*		3 (E)
CMB108	English for Technologists*		1½ (D)
		TOTAL	13½
Semester 5 - Autumn			
MEB313	Mechanics I		3 (D)
MEB361	Fluids I		3 (E)
MEB250	Thermodynamics I		3 (D)
MAB893	Engineering Mathematics III		3 (E)
CHB344	Engineering Chemistry M		3 (E)
		TOTAL	15

Semester 6 - Spring			Approx. Formal Hrs/wk.
MEB231	Materials III		3 (D)
MEB411	Theory of Machines		3 (E)
MEB462	Fluids II		3 (E)
MEB251	Thermodynamics II		3 (D)
MAB894	Engineering Mathematics IV		3 (E)
MEB300	Vacation Practice II		5 weeks
		TOTAL	15

Semester 7 - Autumn			
MEB381	Design II (Mechanical)		3 (E)
MEB332	Materials Selection		1½ (E)
MEB511	Stress Analysis		3 (D)
MEB570	Manufacturing II		3 (D)
ACB913	Costing for Engineers		1½ (D)
MEB550	Heat Transfer		3 (E)
		TOTAL	15

Semester 8 - Spring			
MEB483	Design III (Mechanical)		3 (E)
MEB339	Materials and Processes Project		3 (D)
MEB660	Fluid Power		3 (E)
	ONE Elective A		2 (D)
CMB136	Technical Writing		1½ (D)
EEB209	Electrical Engineering II M		3 (E)
		TOTAL	15½

Semester 9 - Autumn			
MEB700	Failure Analysis		3 (D)
MEB461	Fluids III		3 (E)
MEB510	Noise & Vibrations		3 (E)
	ONE Elective B		3 (D)
ACB951	Financial Management for Engineers		3 (E)
		TOTAL	15

Semester 10 - Spring			
MEB670	Industrial Engineering I		3 (E)
MEB610	Mechanics II		3 (E)
MEB640	Automation		3 (E)
MEB671	Manufacturing III		3 (D)
	ONE Elective C		3 (D)
MEB402	Vacation Practice III		5 weeks
		TOTAL	15

Semester 11 - Autumn			
MEB489	Mechanical Design Project*		4½ (D)
MEB409	Project (Mechanical)*		3 (D)
MEB771	Industrial Engineering II		3 (E)
MEB401	Seminars*		1 (D)
	ONE Elective D		3 (E)
		TOTAL	14½

Semester 12 - Spring		Approx. Formal Hrs/wk
MEB489	Mechanical Design Project*	4½ (D)
MEB409	Project (Mechanical)*	3 (D)
MNB043	Industrial Management	3 (E)
MEB401	Seminars*	1 (D)
	ONE Elective E	3 (E)
MEB400+	Industrial Visits	3 (D)
	TOTAL	17½

+ This subject may be timetabled as a block day-release visit of approximately one week's duration.

Group A Electives - One Semester		Hrs/wk
ACB183	Principles of Accounting	2
ACB455	Personal and Corporate Finance	2
ACB753	Securities Evaluation	2
ARS109	Architecture and Industrial Design	2
BCB393	Computer Based Information Systems	2
CMB307	Advanced Professional Writing	2
MNB001	Principles of Economics	2
MNB002	Psychology for Engineers	2
MNB003	Industrial & Labour Relations	2
MNB004	Management	2
MNB033	Purchasing and Distribution for Engineers	2
MNB075	Government	2
MNB930	Operations Research	2
SEB103	General Elective	2

Note: The number of Group A electives available will be dependent upon a sufficient number of students being enrolled.

Group B Electives - One Semester		
MEB372	Manufacturing Technology	3
MEB463	Tribology	3
MEB973	Design for Manufacturing	3
MEB980	Design of Power Transmission Systems	3

Group C Electives - One Semester		
MEB410	Deformation Processes	3
MEB450	Air Conditioning	3
MEB972	Jig and Tool Design	3
MEB981	Design of Materials Handling Systems	3

Group D Electives - One Semester		
CSB490	Software Engineering	3
MEB451	Thermal Plant	3
MEB960	Fluid Systems Design	3
MEB974	Production Scheduling	3
MEB982	Product Planning and Development	3

Group E Electives - One Semester		Hrs/wk
EEB429	Industrial Control M	3
EEB601	Realtime Computing	3
MEB910	Plant Optimisation	3
MEB911	Finite Element Analysis	3
MEB950	Process Plant Design	3
MEB970	Computer Aided Manufacturing	3

Note: The number of Group B, C, D and E Electives available will be dependent upon a sufficient number of students being enrolled.

ECJ222 DOUBLE DEGREE OF BACHELOR OF ENGINEERING/ BACHELOR OF APPLIED SCIENCE (ELECTRONIC SYSTEMS AND COMPUTING)

The program is administered by the Bachelor of Engineering/Bachelor of Applied Science Joint Degree Executive Committee hereinafter referred to as the "Joint Degree Committee". The Administrator of the Joint Degree Committee shall be the designated senior academic in charge of the course, hereinafter referred to as the "Administrator".

In these rules, unless otherwise indicated by the context, "Schools" and "Academic Boards" will refer to both the School of Computing Studies and the School of Engineering and their respective Academic Boards; where reference is made, in these or other Institute rules, to Head of Department it shall be deemed to refer to the Administrator of the Joint Degree Committee.

The following rules relate to the Double Degree of Bachelor of Engineering/Bachelor of Applied Science (Electronic Systems and Computing) and are made by resolution of the Institute Council:

1. Entry

(a) Normal Entry

To be eligible to enrol for the Bachelor of Engineering/Bachelor of Applied Science (Electronic Systems and Computing) course, an applicant shall have attained

either a tertiary entrance score of 810 or better, with

(i) a minimum of fourteen points in each of the Board subjects English, Physics and Chemistry and thirty-two points in the Board subject Mathematics, with a total of at least eighty points in these subjects.

or

(ii) a minimum of Sound Achievement over the four semester units of the Board subjects English, Physics and Chemistry and the eight semester units of the Board subject Mathematics.

In both cases (i) and (ii), the Mathematics subject must include units I, II and III (Social Mathematics or Mathematics in Society is not acceptable) and, for those applicants who completed Senior prior to 1979, the units VIII and XI must also be included.

or, for those applicants who have taken the external Senior Examination, a total score of at least twenty points, with a minimum in each subject of four points, in English, Physics, Chemistry, Mathematics I and Mathematics II.

(b) Special Entry

Students who do not meet the entry requirements for normal entry as in (a) may make application to the Admissions Committee for special consideration for admission to the course, presenting documentary evidence of qualifications and experience and any other relevant information.

2. Enrolment

(a) Registered students may enrol as full-time or as part-time students.

(i) A full-time student will normally attend day-time classes in accordance with the normal course program for five years full-time study. Students may, however, elect or be required to attend some evening classes.

(ii) A part-time student will normally attend both day and evening classes in accordance with the normal course program for seven years part-time study. Students will be required to obtain release from full-time employment for the equivalent of one full day per week to attend those classes which are available only in the day as designated by (D) in the part-time program.

(b) The course must be completed in an orderly progression, following the appropriate normal course program, subject to pre- and co-requisite conditions. Timetables will be organised on the basis of such orderly progression. A student may not enrol in a subject if, within the constraints of pre- and co-requisites and timetables, there are subjects in earlier semesters which are still to be completed, except with the permission of the Administrator after written application to the Registrar.

(c) (i) A pre-requisite subject is a subject which must be passed before attempting a subject for which it is pre-requisite.

(ii) A co-requisite subject is a subject which, if not previously passed, must be attempted concurrently with the subject for which it is co-requisite.

(iii) A repeat pre- or co-requisite, designated by the postscript [R], is a pre- or co-requisite subject that must have been attempted, but not necessarily passed, to satisfy the pre- or co-requisite condition. A student is deemed to have attempted a subject if enrolled in the subject and all assessment requirements of the subject have been attempted.

Pre- and co-requisite conditions on all subjects in the course are listed in Section 17.

(d) Except with the permission of the Administrator, students may not enrol in subjects whose total hours exceed the hours in the appropriate normal course program for the semester from which the majority of the subjects have been selected.

(e) Unregistered Students. A person may apply to study any individual subject as an unregistered student. That person may be permitted to enrol, subject to course entry, pre- and co-requisite conditions provided that there are vacancies in the subject and under the Rules Relating to Unregistered Students.

(f) Notwithstanding the above rules on enrolments, where a student enrols in a program which differs from the appropriate normal course program the Administrator may vary that program on consideration of the students' advantage in completing the course.

3. Employment

All students shall have engaged in at least a total of 15 weeks in employment approved by the Administrator to satisfy the Vacation Practice requirements of the course.

To gain approval for the employment, the student must submit a description of employment to the Administrator, on the appropriate Industrial Experience Record form completed by both the student and employer.

4. Assessment

(a) The form of assessment includes formal semester and deferred examinations, written tests, assignments, practical work and reports, design and project work with reports and oral tests, according to the subject. Where an examiner considers that the normal semester assessment is insufficient to determine the student's grade, further assessment, which may be in the form of a supplementary examination or other test, may be required. A student who is required to undertake further assessment should ascertain from the Administrator the nature of the extra assessment.

(b) A student who fails to attend 80% of the total instruction in any subject, including compulsory field trips as detailed in subject synopses, or who fails to submit 80% of all practical or assignment work, may be deemed by the Administrator as ineligible to sit for the semester examination.

5. Honours

The Bachelor of Engineering degree may be awarded with First Class, Second Class Division A or Second Class Division B Honours or as a Pass Degree. Candidates for the award with Honours must fulfil the requirements of the Pass degree and achieve such standards of excellence in prescribed subjects of the double degree course as may, from time to time, be determined by the Engineering Academic Board and approved by the Academic Assembly.

6. Exemptions

(a) Rules relating to exemptions are detailed under "Rules Relating to Student Matters". In special circumstances the Joint Degree Committee may waive these rules on consideration of written application to the Registrar.

(b) For a registered student to obtain an exemption in a subject by studying an equivalent subject elsewhere, prior approval must be obtained by written application to the Registrar.

7. Dress

The Academic Boards may require students to wear appropriate attire during field trips and industrial visits. Students must comply with any particular safety requirements in respect to dress that may be applicable to such visits and in the use of laboratories and workshops.

8. Course Structure

To be awarded the Double degree of Bachelor of Engineering/Bachelor of Applied Science (Electronic Systems and Computing) a registered student must complete to the satisfaction of the Academic Boards the following subjects and other work.

Normal Course Program for Five Years FULL-TIME study.

		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
MAB193	Engineering Mathematics I*	3
CSB351	Introduction to Computing A	4
EEB110	Electrical Engineering I	3
EEB111	Electrical Engineering II*	3
PHB131	Engineering Physics I*	3
EEB301	Basic Measurement and Instrumentation	3
CMB108	English for Technologists*	1½
	TOTAL	20½
Semester 2 - Spring		
MAB193	Engineering Mathematics I*	3
EEB111	Electrical Engineering II*	3
CSB354	Computers and Programming	4
CSB661	FORTRAN Programming	4(E)
PHB131	Engineering Physics I*	3
CMB108	English for Technologists*	1½
EEB901	Vacation Practice I	5 weeks
	TOTAL	18½

Semester 3 - Autumn		Approx. Formal Hrs/wk.
MAB493	Engineering Mathematics II*	3
EEB303	Network Theory I	3
EEB361	Telecommunications	3
CSB653	Data Structures	4
EEB371	Electronic Devices	3
EEB372	Digital Electronics I	3
EEB302	Electrotechnology	3
	TOTAL	22

Semester 4 - Spring		
MAB493	Engineering Mathematics II*	3
EEB401	Network Theory II	3
EEB471	Electronics	3
CSB654	Programming Languages	4
EEB472	Digital Electronics II	3
MEB453	Mechanical Engineering IIs	3
BCB297	Introduction to Computing B	4
EEB902	Vacation Practice II	5 weeks
	TOTAL	23

Semester 5 - Autumn		
EEB561	Communications Engineering I	3
EEB572	Digital Electronics III	3
MAB295	Applied Mathematics	3
EEB573	Industrial Electronics	3
EEB587	Electronic Systems Engineering Design I	3
EEB501	Advanced Measurement and Instrumentation	3
MAB893	Engineering Mathematics III	3
	TOTAL	21

Semester 6 - Spring		
CSB652	Computer Organisation I	4(E)
EEB421	Control Engineering I	3
PHB430	Engineering Physics IV	3
EEB672	Digital Electronics IV	3
EEB661	Communications Engineering II	3
MAB894	Engineering Mathematics IV	3
CSB962	Language Processing	4(E)
EEB903	Vacation Practice III	5 weeks
	TOTAL	23

Semester 7 - Autumn		
CSB951	Systems Programming A	4
EEB562	Transmission & Propagation (T)	3
EEB521	Control Engineering II	3
EEB761	Communications Engineering III	3
EEB788	Electronic Systems Engineering Design II	3
CSB953	Computer Organisation II	4(E)
MEB770	Industrial Administration and Engineering I	3
	TOTAL	22

Semester 8 - Spring		Approx Formal Hrs/wk.
CSB952	Systems Programming B	4
EEB601	Realtime Computing	3
EEB602	Signal Processing	3
EEB621	Industrial Control I	3
EEB887	Electronic Systems Engineering Design III	3
MEB870	Industrial Administration and Engineering II	3
	TOTAL	19

Semester 9 - Autumn		
EEB722	Industrial Control II	3
	ONE Computing Elective	4
	ONE Advanced Electronic Systems Elective	3
EEB789	Project (Electronic Systems Engineering)*	6
EEB701	Seminars and Technical Communication *	2
	TOTAL	18

Semester 10 - Spring		
EEB888	Electronic Systems Engineering Design IV	3
	ONE Computing Elective	4
	ONE Advanced Electronic Systems Elective	3
EEB789	Project (Electronic Systems Engineering)*	6
EEB701	Seminars and Technical Communication*	2
	TOTAL	18

* Denotes two semester subjects.
(E) Denotes subjects which may be scheduled in the evening only.

Computing Electives

ACB181	Accounting Information Systems I	4
ACB281	Accounting Information Systems II	4
BCB512	Database Systems	4
CSB404	Computer Networks	4
CSB959	Systems Performance Optimisation	4
CSB961	Special Studies	4
MAB618	Numerical Analysis I	4

The selection of Computing Elective subjects other than those listed is subject to the approval of the Head, School of Computing Studies.

Advanced Electronic Systems Electives

EEB522	Control Engineering II (T)	3
EEB623	Industrial Systems I (T)	3
EEB662	Microwave and Antenna Techniques (T)	3
EEB931	Industrial Systems II	3
EEB961	Communications Techniques	3
EEB968	Digital Signal Processing	3
EEB971	Applied Electronics	3
EEP110	Microcomputer Control	3

Selected subjects from the Electrical Engineering strand of the Bachelor of Engineering course as permitted by the Administrator.

Normal Course Program for Seven Years PART-TIME Study

			Approx. Formal Hrs/wk.
Semester 1 - Autumn			
MAB193	Engineering Mathematics I*		3 (E)
CSB351	Introduction to Computing A		4 (D)
EEB110	Electrical Engineering I		3 (E)
EEB111	Electrical Engineering II*		3 (D)
PHB131	Engineering Physics I*		3 (E)
CMB108	English for Technologists*		1½
		TOTAL	17½
Semester 2 - Spring			
MAB193	Engineering Mathematics I*		3 (E)
EEB111	Electrical Engineering II*		3 (D)
CSB661	FORTRAN Programming		4 (E)
PHB131	Engineering Physics I*		3 (E)
CMB108	English for Technologists*		1½ (D)
EEB901	Vacation Practice I		5 weeks
		TOTAL	14½
Semester 3 - Autumn			
MAB493	Engineering Mathematics II*		3 (E)
EEB303	Network Theory I		3 (E)
EEB301	Basic Measurement and Instrumentation		3 (D)
CSB653	Data Structures		4 (D)
EEB302	Electrotechnology		3 (E)
		TOTAL	16
Semester 4 - Spring			
MAB493	Engineering Mathematics II*		3 (E)
CSB354	Computers and Programming		4 (D)
EEB401	Network Theory II		3 (E)
BCB297	Introduction to Computing B		4 (D)
EEB902	Vacation Practice II		5 weeks
		TOTAL	14
Semester 5 - Autumn			
EEB361	Telecommunications		3 (D)
EEB371	Electronic Devices		3 (E)
EEB372	Digital Electronics I		3 (D)
CSB654	Programming Languages		4 (E)
MAB893	Engineering Mathematics III		3 (E)
		TOTAL	16
Semester 6 - Spring			
EEB471	Electronics		3 (D)
EEB472	Digital Electronics II		3 (E)
MEB453	Mechanical Engineering IIs		3 (E)
EEB421	Control Engineering I		3 (D)
MAB894	Engineering Mathematics IV		3 (E)
EEB903	Vacation Practice III		5 weeks
		TOTAL	15

		Approx Formal Hrs/wk.	
Semester 7 - Autumn			
EEB561	Communications Engineering I	3	(D)
EEB572	Digital Electronics III	3	(E)
MAB295	Applied Mathematics	3	(E)
EEB573	Industrial Electronics	3	(D)
EEB501	Advanced Measurement and Instrumentation	3	(E)
	TOTAL	15	
Semester 8 - Spring			
CSB652	Computer Organisation I	4	(E)
PHB430	Engineering Physics IV	3	(D)
EEB672	Digital Electronics IV	3	(D)
CSB962	Language Processing	4	(E)
	TOTAL	14	
Semester 9 - Autumn			
CSB951	Systems Programming A	4	(D)
EEB521	Control Engineering II	3	(E)
EEB587	Electronic Systems Engineering Design I	3	(D)
CSB953	Computer Organisation II	4	(E)
	TOTAL	14	
Semester 10 - Spring			
EEB661	Communications Engineering II	3	(D)
EEB602	Signal Processing	3	(E)
EEB621	Industrial Control I	3	(E)
CSB952	Systems Programming B	4	(D)
	TOTAL	13	
Semester 11 - Autumn			
EEB562	Transmission and Propagation (T)	3	(D)
EEB761	Communications Engineering III	3	(E)
EEB788	Electronic Systems Engineering Design II	3	(D)
MEB770	Industrial Administration and Engineering I	3	(E)
	ONE Computing Elective	4	
	TOTAL	16	
Semester 12 - Spring			
EEB601	Realtime Computing	3	(E)
EEB887	Electronic Systems Engineering Design III	3	(D)
MEB870	Industrial Administration and Engineering II	3	(E)
	ONE Computing Elective	4	(D)
	TOTAL	13	
Semester 13 - Autumn			
EEB722	Industrial Control II	3	(E)
	ONE Advanced Electronic Systems Elective	3	
EEB789	Project (Electronic Systems Engineering)*	3	(D)
		& 3	(E)
EEB701	Seminars and Technical Communication *	2	(D)
	TOTAL	14	

Semester 14 - Spring

EEB888	Electronic Systems Engineering Design IV	3	(D)
	ONE Advanced Electronic Systems Elective	3	
EEB789	Project (Electronic Systems Engineering)*	3	(D)
		3	(E)
EEB701	Seminars and Technical Communication *	2	(D)
	TOTAL	14	

* These are two semester subjects
(D) Denotes the subject is scheduled for day only
(E) Denotes the subject is normally scheduled for evening

The following rules relate to the Bachelor of Applied Science (Surveying) and are made by resolution of the Institute Council.

SVJ159 BACHELOR OF APPLIED SCIENCE (SURVEYING)

1. Entry

(a) Normal Entry

To be eligible to enrol for the course leading to the Bachelor of Applied Science (Surveying), an applicant -

(i) shall have reached a Tertiary Entrance Score of 810 or better and in addition shall have obtained

either

(a) a minimum of fourteen semester units in each of the Board subjects English, Physics and any other Board subjects, plus a minimum of twenty-eight points over eight semester units of Mathematics, together with a minimum of eighty points total in these subjects.

or

(b) a minimum of Sound Achievement over four semester units in each of the Board subjects English, Physics and any other Board subject and over eight semester units in the Board subject Mathematics.

In both (a) and (b), the Mathematics subject must include units I, II and III (Social Mathematics and Mathematics in Society are not acceptable). For students who completed Senior prior to 1979, the Mathematics units I, II, III, VIII and XI must be included.

OR

(ii) who has sat for the external Senior examination must attain a minimum total score of twenty points in English, Mathematics I, Mathematics II, Physics and any other Board subject. A minimum score of four points is required for each subject.

(b) Entry for applicants 21 years of age or over

An applicant must obtain a minimum total score of sixteen points in English, Mathematics I, Mathematics II and Physics. Applicants in this category must be 21 years of age or older on or prior to 31 December of the year in which the last relevant result was obtained.

(c) Special Entry

Students who do not meet the requirements for normal or adult entry may present documentary evidence of qualifications and experience and other relevant information for Special Consideration by the Admissions Committee.

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed within the constraints of timetabling, pre- and co-requisites. In special circumstances the Head of School may waive this rule, only after consideration of a written application to the Registrar.

(b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that stage of their course. Where a student is straddling two stages, the maximum hours shall be that of the stage with the greater number of recommended hours. In special circumstances the Head of School may waive the maximum hours rule, only after consideration of a written application to the Registrar.

(c) A student who fails any of the subjects listed below may apply to the Head of Department and re-enrol in it concurrently with Industrial Practice subjects.

MAB199	Survey Mathematics I
MAB495	Survey Mathematics II
MAB795	Survey Mathematics III
MAB799	Basic Statistics for Surveyors
PHB170	Physics for Surveyors
SVB121	Land Surveying I
SVB226	Land Surveying II
SVB332	Land Surveying III

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

To successfully complete the course a student must have completed during the course at least five periods of approved employment each of at least twenty weeks duration provided in addition that no student may undertake more than two academic stages consecutively.

5. Exemptions

(a) Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters' see page 30.

(b) Prior approval must be received to obtain an exemption in a QIT subject, if while registered at the Institute, a student wishes to study an equivalent subject elsewhere or in another course at the Institute. Application for approval must be made in writing to the Registrar.

(c) The Head of Department may, where a student who has previously enrolled for a subject but has not been given credit for a pass in such subject, exempt such candidate from such of the requirements of that subject as deemed fit.

(d) Students may be granted exemption for any number of subjects prescribed in their course of study excepting that in all cases students must register and obtain credit for all subjects of Stage 5 and Stage 6 of the course.

6. Attendance

A student who in any subject fails to attend 80% of the total instruction, or to submit 80% of all practical or assignment work required in any subject may be deemed by the Head of School ineligible to sit for the semester examination.

Field trips or field projects, as detailed in the subject synopses, have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work and projects. Supplementary examinations may be offered.

8. Dress

The Engineering Academic Board may require students to wear appropriate attire during industrial visits to firms and government departments and field trips and whilst engaged on field survey projects and practical work.

Students must also comply with any particular safety requirements with respect to dress that may be applicable to an industrial visit, field trip, field survey project or practical assignment.

9. Course Structure

A student may be required to attend classes given in the evening.

For a registered student in the Bachelor of Applied Science (Surveying) the course is offered as a sandwich with alternating periods of full-time study and full-time employment. The periods of full-time study are of sixteen weeks duration, and the stages which may be taken in either semester one or two are as follows:

Normal Course Program for Six Stages FULL-TIME Sandwich

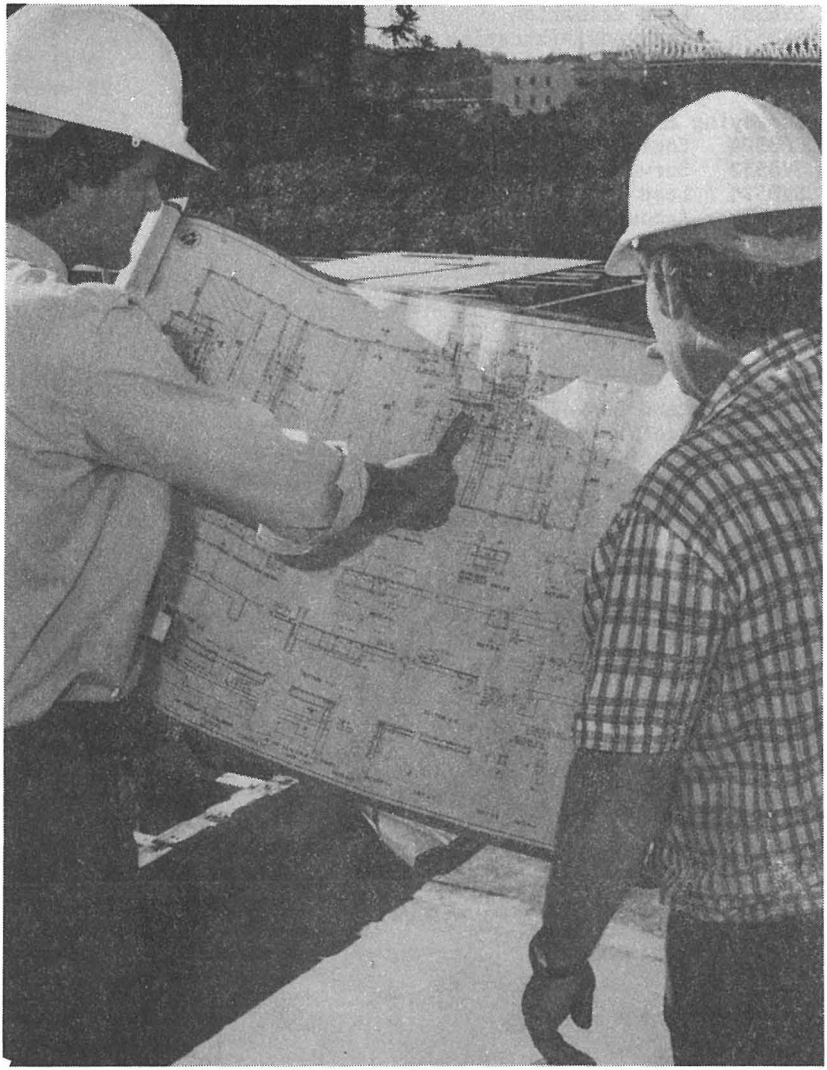
Subject to sufficient enrolments, all stages will be offered in both Autumn and Spring Semesters.

		Approx Formal Hrs/wk.
STAGE 1		
MAB199	Survey Mathematics I	6
SVB121	Land Surveying I	6
PHB170	Physics for Surveyors	6
SVB115	Data Presentation	6
SVB189	Industrial Practice I	20 weeks

Subject to sufficient enrolments, elective subjects in Cartography as well as Surveying may be available starting in 1985. At the end of Stage 1, students must select elective subjects according to the area of specialization chosen, and must obtain suitable Industrial Practice in that area.

STAGE 2		
MAB495	Survey Mathematics II	6
EEB294	Computer Programming	3
SVB226	Land Surveying II	6
MEB221	Engineering Science I	3
SVB270	Land Administration I	3
	ONE Elective	3
SVB289	Industrial Practice II	20 weeks
Surveying Elective:		
ARB130	Building Construction and Architecture	3
Cartography Elective:		
SVB451	Land Studies B	3
STAGE 3		
SVB332	Land Surveying III	6
SVB390	Surveying Computing	3
MAB799	Basic Statistics for Surveyors	1½
SVB343	Photogrammetry I	3
MAB795	Survey Mathematics III	3
SVB351	Land Studies A	6
CMB113	Surveying Communication	1½
SVB389	Industrial Practice III	20 weeks
Cartography Subject:		
SVB315	Cartography I	3
STAGE 4		
SVB432	Land Surveying IV	9
SVB443	Photogrammetry II	6
	Electives	9
SVB489	Industrial Practice IV	20 weeks
Surveying Electives:		
SVB451	Land Studies B	3
CEB364	Engineering Science II	3
SVB470	Land Administration II	3
Cartography Elective:		
SVB415	Cartography II	9

STAGE 5		Approx. Formal Hrs/wk.
SVB544	Land Surveying V	3
SVB561	Land Development Practice I	6
SVB551	Land Valuation	3
SVB573	Land Administration III	3
	Electives	9 or 12
SVB589	Industrial Practice V	20 weeks
Surveying Electives:		
CEB504	Engineering Science III	3
SVB532	Surveying Practice I	3
SVB574	Land Administration IV	3
ACB184	Accounting for Surveyors	3
Cartography Electives:		
SVB515	Cartography III	3
CEB564	Engineering Science IIA	3
SVB645	Remote Sensing	3
STAGE 6		
SVB631	Land Surveying VI	3
SVB680	Professional Practice	3
	Electives	18
Surveying Electives:		
SVB637	Surveying Practice II	3
SVB682	Seminar	1
SVB683	Project	2
SVB664	Land Development Practice II	6
SVB615	Cartographic Practice	3
SVB670	Land Administration V	3
Cartography Electives:		
SVB618	Cartography IV	3
SVB686	Seminar (Cartography)	1
SVB685	Project (Cartography)	5
SVB617	Digital Cartography	3
SVB616	Cartographic Administration	3
SVB642	Map Projections	3



Masters students in Engineering supervising a project

13

Associate Diploma Courses

The following rules relate to the Associate Diploma Courses in Engineering and are made by resolution of the Institute Council.

ASSOCIATE DIPLOMA IN ENGINEERING

FULL-TIME (also available by sandwich mode) and PART-TIME

1. Entry

(a) Normal Entry

To be eligible to enrol for courses leading to the Associate Diploma in Engineering, an applicant -

(i) shall have reached a Tertiary Entrance score of 745 or better and in addition shall have studied four semesters in the Board subjects English, Physics, Chemistry and Mathematics, this latter to include the units I, II and III (Social Mathematics and Mathematics in Society are not acceptable).

OR

(ii) who obtained a Senior Certificate before 1984 shall have reached a Tertiary Entrance score of 745 or better and in addition shall have studied at least three semesters in each of the Board subjects English, Physics, Chemistry and Mathematics, this latter to include at least the units I, II and III (Social Mathematics is not acceptable).

OR

(iii) who obtained a Senior Certificate before Tertiary Entrance scores were introduced, must attain a minimum total score of fifty-six points in their best sixteen semester units and in addition shall have studied at least three semesters in each of the Board subjects English, Physics, Chemistry and Mathematics I.

OR

(iv) who has sat for the external Senior examination must attain a minimum total score of fourteen points in their best four subjects and in addition shall have studied the Board subjects English, Physics, Chemistry and Mathematics I.

(b) Entry from Junior with Bridging Course

Applicants shall have completed Grade 10 in secondary school and in addition shall have successfully completed the two year part-time Interim Bridging Course for Associate Diploma (UG3) Engineering Courses which is offered at various Colleges of Technical and Further Education.

(c) Special Entry

Students who do not meet the requirements for normal entry may present documentary evidence of qualifications and experience and other relevant information for Special Consideration by the Admissions Committee.

An applicant lacking the requirements in only one subject to qualify for entry may be granted provisional enrolment in a part-time course if they undertake to study the requisite Senior subject concurrently with one subject of the course.

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed, within the constraints of timetabling, pre- and co-requisites. In special circumstances the Head of School may waive this rule, after consideration of a written application to the Registrar.

(b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that semester of their course. Where a student is straddling two years, the maximum hours shall be that of the semester with the greater number of recommended hours. In special circumstances, the Head of School may waive the maximum hours rule, only after consideration of a written application to the Registrar.

(c) Students are not permitted to transfer between the full-time and part-time courses or study the full-time course in a sandwich mode without the concurrence of the Head of Department responsible for the course.

(d) The full-time course may be studied in a sandwich mode. Normally, a sandwich students' program in any one semester shall be that prescribed for the full-time program and a typical course would be undertaken at the rate of one semester each year, completing the program over a period of four years.

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment - part-time students

A student who will be in a full-time occupation throughout any semester, may register as a part-time student if they can produce satisfactory evidence that they are so employed.

A part-time student shall have engaged in at least 120 weeks of approved employment, i.e., 15 weeks for each of the eight Industrial Employment subjects, before being eligible for the Associate Diploma award. For the employment to be recognised, the student must submit an industrial experience record form, provided for the purpose, which has been completed by both the student and their employer.

5. Exemptions

(a) Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters'. See page 30. In special circumstances, the Head of School may waive these rules, only after consideration of a written application to the Registrar.

(b) Prior approval must be received to obtain an exemption in a QIT subject, if while registered at the Institute, a student wishes to study an equivalent subject elsewhere or in another course at the Institute. Application for approval must be made in writing to the Registrar.

(c) The Head of Department may, where a student has previously enrolled for a subject but has not been given credit for a pass in such subject, exempt such candidate from such of the requirements of that subject as deemed fit.

(d) A registered student who has completed the following trade courses in Queensland, may apply to be exempted the following subjects if offered in the particular course chosen. Prior approval is not necessary to gain exemption if these courses are studied concurrently with a QIT course. A student enrolled in an apprenticeship training course who wishes to defer a subject in anticipation of an exemption, must make written application to the Registrar.

EET110 D.C. Theory I	Electrical Fitter and Mechanic Radio and Television Telecommunications Certificate
EET400 Electrical Engineering	Electrical Fitter and Mechanic
MET170 Workshop Processes	Mechanical Fitter Toolmaker

(e) Exemption from the practical experience subjects, designated by the suffix A after the subject name, in the full-time courses may be granted on the basis of appropriate industrial experience. Written application must be made on the special form provided.

6. Attendance

A student who in any subject fails to attend 80% of the total instruction, or to submit 80% of all practical or assignment work required in any subject may be deemed by the Head of School ineligible to sit for the semester examinations.

Field trips or field projects, as detailed in the subject synopses, have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work and projects. Supplementary examinations may be offered.

8. Dress

The Engineering Academic Board may require students to wear appropriate attire during industrial visits to firms and government departments and field trips and whilst engaged on field survey projects and practical work.

Students must also comply with any particular safety requirements with respect to dress that may be applicable to an industrial visit, field trip, field survey project or practical assignment.

9. Course Structure

A registered student admitted under these rules may elect to specialise in one of Civil, Electrical or Mechanical Engineering. A full-time student may be required to attend classes given in the evening.

To be awarded an Associate Diploma in Civil Engineering, a registered student must complete to the satisfaction of the Engineering Academic Board, the following subjects for two years full-time study or four years part-time study.

CEL187 ASSOCIATE DIPLOMA IN CIVIL ENGINEERING

Students undertaking the FULL-TIME course may select a range of elective subjects to suit their particular employment or qualification needs. The general areas of employment are the Design Office (D), Construction (C) and Investigation (I) fields, although there are many job situations whose requirements may cover one or more of these general fields.

Normal Course Program for Two Years FULL-TIME Study

All subjects are one semester.

		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
CET195	Civil Engineering I	3
MET210	Applied Mechanics I	3
MET120	Engineering Drawing I	3
MET140	Engineering Materials I	3
SVT306	Engineering Surveying I	3
EET790	Computer Programming I	3
CET104	Construction Practice IA	3
MET121	Drafting Practice IA	3
	TOTAL	24
Semester 2 - Spring		
MET310	Applied Mechanics II	3
MET220	Engineering Drawing II	3
CET135	Strength of Materials	3
CET465	Fluid Mechanics	3
EST219	Engineering Geology	3
MET200	Mechanical Engineering	3
CET204	Construction Practice IIA	3
MET221	Drafting Practice IIA	3
	TOTAL	24
Semester 3 - Autumn		
CET596	Materials Specification and Control	3
CET385	Civil Engineering Drawing I	3
CET708	Specifications and Estimates	3
CET435	Concrete Practice	3
	TWO Elective Subjects	6
CET304	Construction Practice IIIA	3
CET894	Computations A	3
CET386	Civil Engineering Drawing IA	3
	TOTAL	27
Semester 4 - Spring		
CET645	Soil Mechanics I	3
CET605	Construction Practice I	3
CET785	Civil Engineering Drawing II	3
	THREE Elective Subjects	9
CET597	Materials Specification and Control A	3
CET786	Civil Engineering Drawing IIA	3
	TOTAL	24

Elective Subjects

The elective subjects are listed below with the suggested fields of application indicated by the abbreviation. Students may, however, select any of the electives, subject to timetable, pre- and co-requisite requirements.

		Suggested Area	Hrs/wk.
CET295	Laboratory Practice I	I	3(E)
CET555	Structural Engineering	D,C,I	3
CET595	Field Practice	I	3(E)
CET695	Laboratory Practice II	I	3(E)
CET705	Construction Practice II	C	3
CET706	Contract Administration	C	3
CET707	Municipal Engineering	D,C	3
CET745	Soil Mechanics II	D,C,I	3
CET755	Structural Design	D	3
CET765	Hydrology	I	3(E)
CET775	Public Health Engineering	D,C,I	3
CET795	Laboratory Practice III	I	3(E)
CET796	Civil Engineering Computing	D,C,I	3
CET803	Development Engineering	D,C	3
CET804	Civil Engineering Practice	D,C,I	3
CET805	Construction Practice III	C	3
CET806	Construction Practice IV	C	3
CET807	Construction Management	C	3
CET808	Job Organisation	C	3
CET809	Local Government Practice	C	3
CET815	Road Location and Design	D	3
CET816	Road Engineering	D,C	3
CET835	Tectonics	D	3
CET836	Concrete Design	D	3
CET845	Soil Mechanics III	I	3(E)
CET855	Structural Testing	I	3(E)
CET865	Hydrography	I	3(E)
CET866	Water Engineering	D	3
CET875	Pollution Control	I	3(E)
CET885	Civil Engineering Drawing III	D	3
CET886	Drawing Office Practice (Civil)	D	3
CET895	Project	D,C,I	3
CHA140	Introductory Chemistry I	I	3(E)
MET720	Engineering Graphics	D	3
MET920	Computer Graphics	D	3
SVT506	Engineering Surveying II	D,C	3
SVT507	Mapping and Photogrammetry	D,C	3

The number of elective subjects available will be dependent upon a sufficient number of students being enrolled.

(E) available only in the evening.

The Associate Diploma in Civil Engineering part-time program is as follows:

Students undertaking the PART-TIME course may enrol in either the GENERAL strand or the WATER AND WASTEWATER PROCESS OPERATION strand (subject to approval). Students in the GENERAL strand may select a range of elective subjects to suit their particular employment or qualification needs. The general areas of employment are the Design Office (D), Construction (C) and Investigation (I) fields, although there are many job situations whose requirements may cover one or more of these general fields.

Normal Course Program for Four Years PART-TIME Study

All subjects are one semester

Semesters 1 and 2 are common to the GENERAL and WATER AND WASTEWATER PROCESS OPERATION strands

		Approx Formal Hrs/wk.
Semester 1 - Autumn		
MET120	Engineering Drawing I	3
CET195	Civil Engineering I	3
MET210	Applied Mechanics I	3
SET100	Industrial Employment I	15 weeks
	TOTAL	9
Semester 2 - Spring		
MET310	Applied Mechanics II	3
EST219	Engineering Geology	3
	ONE Elective Subject	3
SET200	Industrial Employment II	15 weeks
	TOTAL	9

GENERAL STRAND

Semester 3 - Autumn		
MET140	Engineering Materials I	3
EET790	Computer Programming I	3
	ONE Elective Subject	3
SET300	Industrial Employment III	15 weeks
	TOTAL	9
Semester 4 - Spring		
CET135	Strength of Materials	3
CET465	Fluid Mechanics	3
MET200	Mechanical Engineering	3
SET400	Industrial Employment IV	15 weeks
	TOTAL	9
Semester 5 - Autumn		
CET596	Materials Specification and Control	3
CET435	Concrete Practice	3
	ONE Elective Subject	3
SET500	Industrial Employment V	15 weeks
	TOTAL	9

		Approx. Formal Hrs/wk.
Semester 6 - Spring		
CET645	Soil Mechanics I	3
	TWO Elective Subjects	6
SET600	Industrial Employment VI	15 weeks
	TOTAL	9
Semester 7 - Autumn		
CET775	Public Health Engineering	3
	TWO Elective Subjects	6
SET700	Industrial Employment VII	15 weeks
	TOTAL	9
Semester 8 - Spring		
CET895	Project	3
	TWO Elective Subjects	6
SET800	Industrial Employment VIII	15 weeks
	TOTAL	9

Elective Subjects for GENERAL Strand

The elective subjects are given in their recommended semesters together with the suggested fields of application indicated by the abbreviation. Students may, however, select any of the electives, subject to timetable, pre- and co-requisite requirements.

		Suggested Area	Hrs/wk.
Semester 2 - Spring			
CET295	Laboratory Practice I	I	3
MET220	Engineering Drawing II	D,C	3
Semester 3 - Autumn			
CET385	Civil Engineering Drawing I	D,C	3
CHA140	Introductory Chemistry I	I	3
SVT306	Engineering Surveying I	D,C	3
Semester 5 - Autumn			
CET385	Civil Engineering Drawing I	D,C	3
CET555	Structural Engineering	D,C,I	3
SVT306	Engineering Surveying I	D,C,I	3
Semester 6 - Spring			
CET595	Field Practice	I	3
CET605	Construction Practice I	D,C	3
CET695	Laboratory Practice II	I	3
CET708	Specifications and Estimates	D,C,I	3
SVT506	Engineering Surveying II	D,C	3
SVT507	Mapping and Photogrammetry	D,C	3
Semester 7 - Autumn			
CET705	Construction Practice II	C	3
CET706	Contract Administration	C	3
CET707	Municipal Engineering	D,C	3
CET708	Specifications and Estimates	D,C	3

		Suggested Area	Hrs/wk.
Semester 7 - Autumn (cont'd).			
CET745	Soil Mechanics II	D,C,I	3
CET755	Structural Design	D	3
CET765	Hydrology	I	3
CET785	Civil Engineering Drawing II	D	3
CET795	Laboratory Practice III	I	3
CET796	Civil Engineering Computing	D,C,I	3
CET803	Development Engineering	D,C	3
CET816	Road Engineering	D,C	3
CET836	Concrete Design	D	3
MET720	Engineering Graphics	D	3
Semester 8 - Spring			
CET804	Civil Engineering Practice	D,C,I	3
CET805	Construction Practice III	C	3
CET806	Construction Practice IV	C	3
CET807	Construction Management	C	3
CET808	Job Organisation	C	3
CET809	Local Government Practice	C	3
CET815	Road Location and Design	D	3
CET835	Tectonics	D	3
CET845	Soil Mechanics III	I	3
CET855	Structural Testing	I	3
CET865	Hydrography	I	3
CET866	Water Engineering	D	3
CET875	Pollution Control	I	3
CET885	Civil Engineering Drawing III	D	3
CET886	Drawing Office Practice (Civil)	D	3
MET920	Computer Graphics	D	3

The number of elective subjects available will be dependent upon a sufficient number of students being enrolled.

WATER AND WASTEWATER PROCESS OPERATION STRAND

			Approx. Formal Hrs/wk.
Semester 3 - Autumn			
MET140	Engineering Materials I		3
EET790	Computer Programming I		3
CHA140	Introductory Chemistry I		3
SET300	Industrial Employment III		15 weeks
		TOTAL	9
Semester 4 - Spring			
CET135	Strength of Materials		3
CET465	Fluid Mechanics		3
MET200	Mechanical Engineering		3
SET400	Industrial Employment IV		15 weeks
		TOTAL	9

Semester 5 - Autumn		Approx. Formal Hrs/wk.
(CET596	Materials Specification and Control	3
(CET775	Public Health Engineering	3
(CET765	Hydrology	3
OR		
(CET570	Sanitary Engineering Practice	9
SET500	Industrial Employment V	15 weeks
	TOTAL	9

Semester 6 - Spring		
CET808	Job Organisation	3
CET866	Water Engineering	3
CHA644	Process Measurement and Monitoring I	3
SET600	Industrial Employment VI	15 weeks
	TOTAL	9

Semester 7 - Autumn		
CET776	Equipment Operation and Maintenance	3
CET777	Process Operation and Control I	3
CHA744	Process Measurement and Monitoring II	3
SET700	Industrial Employment VII	15 weeks
	TOTAL	9

Semester 8 - Spring		
CET876	Plant Operation and Maintenance	3
CET877	Process Operation and Control II	3
CHA844	Trade Waste Control	3
SET800	Industrial Employment VIII	15 weeks
	TOTAL	9

Elective Subjects for WATER AND WASTEWATER PROCESS OPERATION Strand

CET295	Laboratory Practice I	3
CET708	Specifications and Estimates	3
MET220	Engineering Drawing II	3
MSA162	Microbiology II	3
SVT306	Engineering Surveying I	3

To be awarded an Associate Diploma in Electrical Engineering a registered student must complete to the satisfaction of the Engineering Academic Board, the following subjects for two years full-time study or four years part-time study.

EEL188 ASSOCIATE DIPLOMA IN ELECTRICAL ENGINEERING

Normal Course Program for Two Years FULL-TIME Study

All subjects are one semester

Note: The availability of the strands will be dependent on a sufficient number of students being enrolled.

Semesters 1 and 2 are common to the ELECTRICAL POWER, ELECTRONIC AND INDUSTRIAL SYSTEMS and TELECOMMUNICATIONS strands.

			Approx. Formal Hrs/wk.
Semester 1 - Autumn			
EET110	D.C. Theory I		3
EET210	D.C. Theory II		3
MET120	Engineering Drawing I		3
MET175	Workshop (Mech) IA		3
MET123	Electrical Engineering Drawing IA		3
MET475	Workshop (Mech) IIIA		3
MET210	Applied Mechanics I		3
MET140	Engineering Materials I		3
		TOTAL	24
Semester 2 - Spring			
EET310	A.C. Theory		6
EET400	Electrical Engineering		3
EET470	Electronics I		3
MET200	Mechanical Engineering		3
MET223	Electrical Engineering Drawing IIA		3
MET220	Engineering Drawing II		3
MET310	Applied Mechanics II		3
		TOTAL	24

ELECTRICAL POWER STRAND

Semester 3 - Autumn			
EET642	Electrical Power Systems I		3
EET521	Instrumentation and Control		3
EET641	Electrical Power Utilization I		3
EET552	Electrical Machines		3
EET305	Workshop (Elec) IA		3
EET309	Workshop (Elec) IIIA		3
EET529	Instrumentation Practice A		3
	ONE subject from the general electives listed below or from another strand		3
		TOTAL	24

Semester 4 - Spring			Approx Formal Hrs/wk.
EET643	Electrical Protection I		3
EET741	Electrical Power Utilization II		3
EET752	Electrical Plant		3
EET851	Electrical Testing		3
EET672	Electronic Systems		3
EET800	Electrical Industry		3
EET405	Workshop (Elec) IIA		3
EET409	Workshop (Elec) IVA		3
	ONE subject from the general electives listed below or from another strand		3
		TOTAL	27

ELECTRONIC AND INDUSTRIAL SYSTEMS STRAND

Semester 3 - Autumn			
EET521	Instrumentation and Control		3
EET676	Digital Electronics		3
EET677	Integrated Circuits		3
EET621	Control Theory I		3
EET305	Workshop (Elec) IA		3
EET309	Workshop (Elec) IIIA		3
EET529	Instrument Practice A		3
	ONE subject from the general electives listed below or from another strand		3
		TOTAL	24

Semester 4 - Spring			
EET678	Applied Electronics		3
EET878	Computer Electronics		3
EET822	Digital Control Systems		3
EET823	Process Control Systems		3
EET577	Industrial Electronics		3
EET800	Electrical Industry		3
EET405	Workshop (Elec) IIA		3
EET409	Workshop (Elec) IVA		3
	ONE subject from the general electives listed below or from another strand		3
		TOTAL	27

TELECOMMUNICATIONS STRAND

Semester 3 - Autumn			
EET566	Telecommunications		3
EET676	Digital Electronics		3
EET677	Integrated Circuits		3
EET737	Transmission and Propagation		3
EET305	Workshop (Elec) IA		3
EET309	Workshop (Elec) IIIA		3
EET529	Instrument Practice A		3
	ONE subject from the general electives listed below or from another strand		3
		TOTAL	24

Semester 4 - Spring		Approx. Formal Hrs/wk.
EET666	Communication Theory I	3
EET766	Communication Theory II	3
EET866	Communication Techniques I	3
EET878	Computer Electronics	3
EET678	Applied Electronics	3
EET800	Electrical Industry	3
EET405	Workshop (Elec) IIA	3
EET409	Workshop (Elec) IVA	3
	ONE subject from the general electives listed below or from another strand	3
	TOTAL	27

General Elective Subjects

EET790	Computer Programming I	3
EET890	Computer Programming II	3
MET920	Computer Graphics	3
MNA401	Australian Business and Society	3
MNA460	Principles of Marketing	3
SVT306	Engineering Surveying I	3

The number of elective subjects available will be dependent upon a sufficient number of students being enrolled.

The Associate Diploma in Electrical Engineering part-time program is as follows -

Normal Course Program for Four Years PART-TIME Study

All subjects are one semester

Note: The availability of the strands will be dependent on a sufficient number of students being enrolled.

Semesters 1-4 are common to the ELECTRONIC POWER, ELECTRONIC AND INDUSTRIAL SYSTEMS and TELECOMMUNICATIONS strands.

Semester 1 - Autumn		Approx. Formal Hrs/wk.
EET110	D.C. Theory I	3
MET210	Applied Mechanics I	3
MET120	Engineering Drawing I	3
SET100	Industrial Employment I	15 weeks
	TOTAL	9

Semester 2 - Spring		
EET210	D.C. Theory II	3
MET310	Applied Mechanics II	3
MET220	Engineering Drawing II	3
SET200	Industrial Employment II	15 weeks
	TOTAL	9

Semester 3 - Autumn		
EET310	A.C. Theory	6
MET140	Engineering Materials I	3
SET300	Industrial Employment III	15 weeks
	TOTAL	9

Semester 4 - Spring		Approx Formal Hrs/wk.
EET470	Electronics I	3
EET400	Electrical Engineering	3
MET200	Mechanical Engineering	3
SET400	Industrial Employment IV	15 weeks
	TOTAL	9

ELECTRICAL POWER STRAND

Semester 5 - Autumn		
EET641	Electrical Power Utilisation I	3
EET552	Electrical Machines	3
EET521	Instrumentation and Control	3
SET500	Industrial Employment V	15 weeks
	TOTAL	9

Semester 6 - Spring		
EET642	Electrical Power Systems I	3
EET643	Electrical Protection I	3
EET672	Electronic Systems	3
SET600	Industrial Employment VI	15 weeks
	TOTAL	9

Semester 7 - Autumn		
EET741	Electrical Power Utilisation II	3
EET752	Electrical Plant	3
SET700	Industrial Employment VII	15 weeks
	ONE subject from the general electives listed below or from another strand	3
	TOTAL	9

Semester 8 - Spring		
EET851	Electrical Testing	3
EET800	Electrical Industry	3
SET800	Industrial Employment VIII	15 weeks
	ONE subject from the general electives listed below or from another strand	3
	TOTAL	9

ELECTRONIC AND INDUSTRIAL SYSTEMS STRAND

Semester 5 - Autumn		
EET676	Digital Electronics	3
EET677	Integrated Circuits	3
EET521	Instrumentation and Control	3
SET500	Industrial Employment V	15 weeks
	TOTAL	9

Semester 6 - Spring		
EET621	Control Theory I	3
EET577	Industrial Electronics	3
EET878	Computer Electronics	3
SET600	Industrial Employment VI	15 weeks
	TOTAL	9

Semester 7 - Autumn		Approx. Formal Hrs/wk.
EET678	Applied Electronics	3
EET823	Process Control Systems	3
SET700	Industrial Employment VII	15 weeks
	ONE subject from the general electives listed below or from another strand	3
	TOTAL	9

Semester 8 - Spring		
EET822	Digital Control Systems	3
EET800	Electrical Industry	3
SET800	Industrial Employment VIII	15 weeks
	ONE subject from the general electives listed below or from another strand	3
	TOTAL	9

TELECOMMUNICATIONS STRAND

Semester 5 - Autumn		
EET566	Telecommunications	3
EET676	Digital Electronics	3
EET677	Integrated Circuits	3
SET500	Industrial Employment V	15 weeks
	TOTAL	9

Semester 6 - Spring		
EET666	Communication Theory I	3
EET878	Computer Electronics	3
EET800	Electrical Industry	3
SET600	Industrial Employment VI	15 weeks
	TOTAL	9

Semester 7 - Autumn		
EET737	Transmission and Propagation	3
EET678	Applied Electronics	3
SET700	Industrial Employment VII	15 weeks
	ONE subject from the general electives listed below or from another strand	3
	TOTAL	9

Semester 8 - Spring		
EET766	Communication Theory II	3
EET866	Communication Techniques I	3
SET800	Industrial Employment VIII	15 weeks
	ONE subject from the general electives listed below or from another strand	3
	TOTAL	9

General Elective Subjects

EET790	Computer Programming I	3
EET890	Computer Programming II	3
MET920	Computer Graphics	3
MNA401	Australian Business and Society	3
MNA460	Principles of Marketing	3
SVT306	Engineering Surveying I	3

The number of elective subjects available will be dependent on a sufficient number of students being enrolled.

To be awarded an Associate Diploma in Mechanical Engineering, a registered student must complete to the satisfaction of the Engineering Academic Board, the following subjects for two years full-time study or four years part-time study.

MEL189 ASSOCIATE DIPLOMA IN MECHANICAL ENGINEERING

Normal Course Program for Two Years FULL-TIME Study

All subjects are one semester

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students and these are available from the Department of Mechanical Engineering office.

Semester 1 - Autumn

		Approx. Formal Hrs/wk.
MET120	Engineering Drawing I	3
MET100	Engineering Science	3
CET285	Statics	3
MET140	Engineering Materials I	3
MET170	Workshop Processes	3
MET121	Drafting Practice IA	3
MET171	Trade Training IA	7
	TOTAL	25

Semester 2 - Spring

MET220	Engineering Drawing II	3
MET312	Dynamics	3
CSA165	Computing	3
MET250	Applied Heat I	3
MET433	Engineering Materials II	3
MET221	Drafting Practice IIA	3
MET271	Trade Training IIA	7
	TOTAL	25

Semester 3 - Autumn

MET320	Engineering Drawing III	3
MET580	Machine Elements I	3
EET500	Electrical Technology	3
MET471	Workshop Laboratory	3
MET572	Production Planning	3
MET560	Fluid Mechanics & Heat Transfer	3
MET370	Industrial Administration	3
MET350	Applied Heat II	3
MET321	Drafting Practice IIIA	3
	TOTAL	27

Semester 4 - Spring

MET421	Mechanical Project A	3
MET903	Computer Applications A	3
MET680	Machine Elements II	3
EET820	Electrical & Mechanical Technology	3
	FOUR Electives Subjects	12
	TOTAL	24

Elective Subjects		Approx. Formal Hrs/wk.
CET555	Structural Engineering	3
MET420	Engineering Drawing IV	3
MET573	Machine Tool Technology	3
MET650	Thermal Plant	3
MET652	Building Services	3
MET733	Industrial Metallurgy I	3
MET772	Metrology	3
MET780	Machine Elements III	3
MET782	Jig and Tool Design	3
MET833	Industrial Metallurgy II	3
MET854	Fuels and Combustion	3
MET901	Sugar Mill Technology I	3
MET902	Sugar Mill Technology II	3
MET920	Computer Graphics	3
MET940	Mechanical Instrumentation and Control	3
MET950	Industrial Heat Transfer	3
MET960	Fluid Power	3
MET961	Industrial Fluid Mechanics	3
MET962	Process Plant	3
MET970	Bulk Materials Handling	3
MET971	Industrial Engineering	3
SVT306	Engineering Surveying I	3

The number of elective subjects available will be dependent on a sufficient number of students being enrolled.

The Associate Diploma in Mechanical Engineering part-time program is as follows -

Students undertaking the PART-TIME course may enrol in either the GENERAL strand or the ENGINEERING SERVICES strand (subject to approval).

Normal Course Program for Four Years PART-TIME Study

All subjects are one semester

The following is the revised course structure which comes into effect in 1985 for all new students. Transition arrangements have been made for continuing students.

GENERAL STRAND		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
MET120	Engineering Drawing I	3
MET100	Engineering Science	3
MET140	Engineering Materials I	3
SET100	Industrial Employment I	15 weeks
	TOTAL	9
Semester 2 - Spring		
MET220	Engineering Drawing II	3
CET285	Statics	3
MET250	Applied Heat I	3
SET200	Industrial Employment II	15 weeks
	TOTAL	9

Semester 3 - Autumn		Approx. Formal Hrs/wk.
MET320	Engineering Drawing III	3
MET312	Dynamics	3
MET170	Workshop Processes	3
SET300	Industrial Employment III	15 weeks
	TOTAL	9

Semester 4 - Spring		
CSA165	Computing	3
MET433	Engineering Materials II	3
MET580	Machine Elements I	3
SET400	Industrial Employment IV	15 weeks
	TOTAL	9

Semester 5 - Autumn		
MET572	Production Planning	3
EET500	Electrical Technology	3
MET560	Fluid Mechanics and Heat Transfer	3
SET500	Industrial Employment V	15 weeks
	TOTAL	9

Semester 6 - Spring		
MET471	Workshop Laboratory	3
	TWO Elective Subjects	6
SET600	Industrial Employment VI	15 weeks
	TOTAL	9

Semester 7 - Autumn		
MET680	Machine Elements II	3
MET370	Industrial Administration	3
MET350	Applied Heat II	3
SET700	Industrial Employment VII	15 weeks
	TOTAL	9

Semester 8 - Spring		
EET820	Electrical and Mechanical Technology	3
	TWO Elective Subjects	6
SET800	Industrial Employment VIII	15 weeks
	TOTAL	9

Elective Subjects for GENERAL Strand

The list of elective subjects is the same as for the full-time course; see page 202.

The number of elective subjects available will be dependent on a sufficient number of students being enrolled.

ENGINEERING SERVICES STRAND

		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
MET120	Engineering Drawing I	3
MET210	Applied Mechanics I	3
MET140	Engineering Materials I	3
SET100	Industrial Employment I	15 weeks
	TOTAL	9
Semester 2 - Spring		
MET220	Engineering Drawing II	3
MET310	Applied Mechanics II	3
MET250	Applied Heat I	3
SET200	Industrial Employment II	15 weeks
	TOTAL	9
Semester 3 - Autumn		
EET110	D C Theory I	3
MET320	Engineering Drawing III	3
MET170	Workshop Processes	3
SET300	Industrial Employment III	15 weeks
	TOTAL	9
Semester 4 - Spring		
EET210	D C Theory II	3
EET470	Electronics I	3
MET350	Applied Heat II	3
SET400	Industrial Employment IV	15 weeks
	TOTAL	9
Semester 5 - Autumn		
EET310	A C Theory	6
MET560	Fluid Mechanics and Heat Transfer	3
SET500	Industrial Employment V	15 weeks
	TOTAL	9
Semester 6 - Spring		
EET400	Electrical Engineering	3
MET420	Engineering Drawing IV	3
MET352	Refrigeration and Air Conditioning	3
SET600	Industrial Employment VI	15 weeks
	TOTAL	9
Semester 7 - Autumn		
EET521	Instrumentation and Control	3
EET641	Electrical Power Utilisation I	3
MET370	Industrial Administration	3
SET700	Industrial Employment VII	15 weeks
	TOTAL	9

Semester 8 - Spring		Approx. Formal Hrs/wk
EET852	Electrical Services	3
MET351	Mechanical Services Installation	3
EET853	Energy Management	3
SET800	Industrial Employment VIII	15 weeks
	TOTAL	9

The following rules relate to the Associate Diploma in Surveying and are made by resolution of the Institute Council.

SVL190 ASSOCIATE DIPLOMA IN SURVEYING

PART-TIME

1. Entry

(a) Normal Entry

To be eligible to enrol for the course leading to the Associate Diploma in Surveying, an applicant -

(i) shall have reached a Tertiary Entrance score of 745 or better and in addition shall have studied four semesters in each of the Board subjects English, Physics and Mathematics, this latter to include units, I, II and III (Social Mathematics is not acceptable).

(ii) who obtained a Senior Certificate before 1984 shall have reached a Tertiary Entrance score of 745 or better and in addition shall have studied at least three semesters in each of the Board subjects English and Physics and at least the units I, II, III (or units I, II, III and XI if studied before 1979) in Mathematics.

OR

(iii) who obtained a Senior Certificate before Tertiary Entrance scores were introduced must attain a minimum total score of fifty-six points on their best sixteen semester units and in addition shall have studied at least three semesters in each of the Board subjects English, Physics and Mathematics I.

OR

(iv) who has sat for the external Senior examination must attain a minimum total score of fourteen points in their best four subjects and in addition shall have studied the Board subjects English, Physics and Mathematics I.

(b) Special Entry

Students who do not meet the requirements for normal entry may present documentary evidence of qualifications and experience and other relevant information for Special Consideration by the Admissions Committee.

An applicant lacking the requirements in only one subject to qualify for entry may be granted provisional enrolment in a part-time course if he undertakes to study the requisite Senior subject concurrently with one subject of the course.

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed within the constraints of timetabling, pre- and co-requisites. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

(b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that semester of their course. Where a student is straddling two years, the maximum hours shall be that of the semester with the greater number of recommended hours. In special circumstances, the Head of School may waive the maximum hours rule, only after consideration of a written application to the Registrar.

(c) Unless all applicable exemptions listed in Section 5, Exemptions, are obtained, it will be necessary for part-time students to obtain some day release.

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

While it is highly desirable that part-time Surveying Technician students are engaged in employment suited to the course, industrial employment is not compulsory.

5. Exemptions

(a) Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters'. See page 30. In special circumstances the Head of School may waive these rules after consideration of a written application to the Registrar.

(b) A registered student, who is enrolled as a part-time student and is in an appropriate occupation, may make written application to be exempted some or all of the following subjects -

SVT123	Surveying Practice IA
SVT223	Surveying Practice IIA
SVT224	Surveying Practice IIIA
SVT326	Surveying Practice IVA
SVT425	Surveying Practice VA
SVT423	Surveying Practice VIA
SVT112	Survey Plan Drawing A
SVT226	Survey Computations Practice IA
SVT439	Survey Computations Practice IIA

Written application must be made to the Head of Department responsible for the course.

(c) Prior approval must be received to obtain an exemption in a QIT subject, if while registered at the Institute, a student wishes to study an equivalent subject elsewhere or in another course at the Institute. Application for approval must be made in writing to the Registrar.

(d) The Head of Department may, where a student has previously enrolled for a subject but has not been given credit for a pass in such subject, exempt such candidate from such of the requirements of that subject as he deems fit.

6. Attendance

A student who in any subject fails to attend 80% of the total instruction, or to submit 80% of all practical or assignment work required in any subject may be deemed by the Head of School ineligible to sit for the semester examination.

Field trips or field projects, as detailed in the subject synopses, have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work and projects. Supplementary examinations may be offered.

8. Dress

The Engineering Academic Board may require students to wear appropriate attire during industrial visits to firms and government departments and field trips and whilst engaged on field survey projects and practical work.

Students must also comply with any particular safety requirements with respect to dress that may be applicable to an industrial visit, field trip, field survey project or practical assignment.

9. Course Structure

To be awarded an Associate Diploma in Surveying, a registered student must complete to the satisfaction of the Engineering Academic Board, the following subjects for four years part-time study.

Normal Course Program

All subjects are one semester except those indicated (+) which extend over two semesters.

		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
SVT122+	Surveying I	3
SVT121	Survey Drafting Practice I	3
CET364	Engineering Science I	3
SVT123*	Surveying Practice IA	3
	TOTAL	12
Semester 2 - Spring		
SVT122+	Surveying I	3
CMA199	Professional Communication Techniques	3
SVT225	Computations I	3
SVT223*	Surveying Practice IIA	3
	TOTAL	12
Semester 3 - Autumn		
SVT222+	Surveying II	3
SVT429	Computations II	3
SVT321	Survey Drafting Practice II	3
CET404	Engineering Science II	3
	TOTAL	12
Semester 4 - Spring		
SVT222+	Surveying II	3
SVT227	Computations III	3
SVT112*	Survey Plan Drawing A	3
SVT224*	Surveying Practice IIIA	3
	TOTAL	12
Semester 5 - Autumn		
SVT322+	Surveying III	3
SVT541	Spherical Trigonometry and Astronomy	3
SVT471	Land Laws and Regulations	3
SVT326*	Surveying Practice IVA	3
	TOTAL	12
Semester 6 - Spring		
SVT322+	Surveying III	3
SVT352	Land Studies	3
SVT243	Photogrammetry I	3
SVT226*	Survey Computations Practice IA	3
	TOTAL	12
Semester 7 - Autumn		
SVT422+	Surveying IV	3
SVT343	Photogrammetry II	3
SVT542	Map Projections I	3
SVT425*	Surveying Practice VA	3
	TOTAL	12
Semester 8 - Spring		
SVT422+	Surveying IV	3
MNA012	Administrative Practice	3
SVT641	Geodesy	3
SVT439*	Survey Computations Practice IIA	3
SVT423*	Surveying Practice VIA	3
	TOTAL	15

* These practical subjects may be offered as a one week day release course at the end of the semester.

The following rules relate to the Associate Diploma in Cartography and are made by resolution of the Institute Council.

SVL212 ASSOCIATE DIPLOMA IN CARTOGRAPHY

PART-TIME

1. Entry

(a) Normal Entry

To be eligible to enrol for the course leading to the Associate Diploma in Cartography, an applicant -

(i) shall have reached a Tertiary Entrance score of 745 and in addition shall have studied four semesters in each of the Board subjects English, Mathematics which must include units, I, II and III (Social Mathematics is not acceptable) and one other.

OR

(ii) who obtained a Senior Certificate before 1984 shall have reached a Tertiary Entrance score of 745 or better and in addition shall have studied at least three semesters in each of the Board subjects English, Mathematics (including units I, II and III) and one other.

OR

(iii) who obtained a Senior Certificate before Tertiary Entrance scores were introduced must attain a minimum total score of fifty-six points on their best sixteen semester units and in addition shall have studied at least three semesters in each of the Board subjects English, Mathematics I and one other.

OR

(iv) who has sat for the external Senior examination must attain a minimum total score of fourteen points in their best four subjects and in addition shall have studied the Board subjects English, Mathematics I and one other.

(b) Special Entry

Students who do not meet the requirements for normal entry may present documentary evidence of qualifications and experience and other relevant information for Special Consideration by the Admissions Committee.

An applicant lacking the requirements in only one subject to qualify for entry may be granted provisional enrolment in a part-time course if he undertakes to study the requisite Senior subject concurrently with one subject of the course.

Written application must be made to the Head of Department responsible for the course.

(c) Prior approval must be received to obtain an exemption in a QIT subject, if while registered at the Institute, a student wishes to study an equivalent subject elsewhere or in another course at the Institute. Application for approval must be made in writing to the Registrar.

(d) The Head of Department may, where a student has previously enrolled for a subject but has not been given credit for a pass in such subject, exempt such candidate from such of the requirements of that subject as he deems fit.

6. Attendance

A student who in any subject fails to attend 80% of the total instruction, or to submit 80% of all practical or assignment work required in any subject may be deemed by the Head of School ineligible to sit for the semester examination.

Field trips or field projects, as detailed in the subject synopses, have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work and projects. Supplementary examinations may be offered.

8. Dress

The Engineering Academic Board may require students to wear appropriate attire during industrial visits to firms and government departments and field trips and whilst engaged on field survey projects and practical work.

Students must also comply with any particular safety requirements with respect to dress that may be applicable to an industrial visit, field trip, field survey project or practical assignment.

9. Course Structure

To be awarded an Associate Diploma in Cartography, a registered student must complete to the satisfaction of the Engineering Academic Board, the following subjects for four years part-time study.

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed within the constraints of timetabling, pre- and co-requisites. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

(b) Students will not be permitted to enrol in excess of the hours indicated in the recommended program for that semester of their course. Where a student is straddling two years, the maximum hours shall be that of the semester with the greater number of recommended hours. In special circumstances, the Head of School may waive the maximum hours rule, only after consideration of a written application to the Registrar.

(c) Unless all applicable exemptions listed in Section 5, Exemptions, are obtained, it will be necessary for part-time students to obtain some day release.

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

While it is highly desirable that part-time Cartography Technician students are engaged in employment suited to the course, industrial employment is not compulsory.

5. Exemptions

(a) Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters'. See page 30. In special circumstances the Head of School may waive these rules after consideration of a written application to the Registrar.

(b) A registered student, who is enrolled as a part-time student and is in an appropriate occupation, may make written application to be exempted some or all of the following subjects:

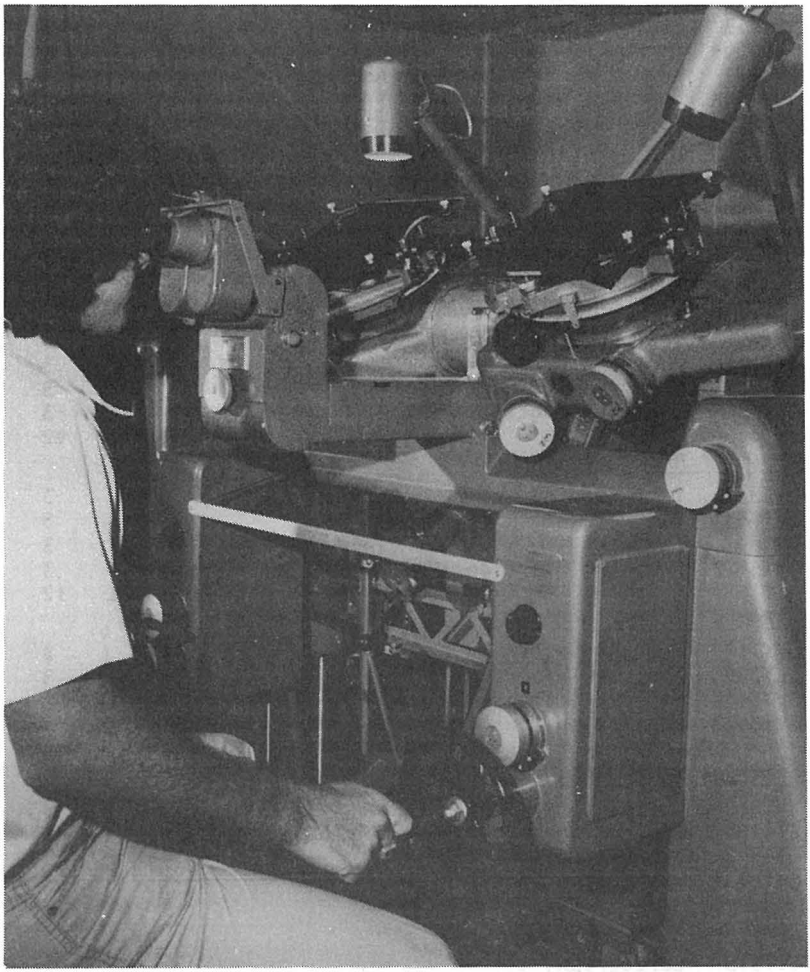
SVT114	Drafting Practice IA
SVT312	Drafting Practice IIA
SVT512	Drafting Practice IIIA
SVT612	Drafting Practice IVA
SVT643	Map Projections IA
SVT714	Cartographic Drafting IA
SVT813	Reprographic Processing A
SVT814	Cartographic Drafting IIA
SVT843	Map Projections IIA

Normal Course Program

All subjects are one semester except those indicated (+) which extend over two semesters.

		Approx. Formal Hrs/wk.
Semester 1 - Autumn		
SVT113	Drafting Practice I	3
SVT124+	Surveying	3
SVT471	Land Laws and Regulations	3
SVT114*	Drafting Practice IA	3
	TOTAL	12
Semester 2 - Spring		
SVT212	Drafting Practice II	3
SVT124+	Surveying	3
SVT243	Photogrammetry I	3
SVT312*	Drafting Practice IIA	3
	TOTAL	12
Semester 3 - Autumn		
SVT313	Drafting Practice III	3
SVT343	Photogrammetry II	3
SVT541	Spherical Trigonometry and Astronomy	3
SVT512*	Drafting Practice IIIA	3
	TOTAL	12
Semester 4 - Spring		
SVT352	Land Studies	3
SVT443	Photogrammetry III	3
SVT641	Geodesy	3
SVT612*	Drafting Practice IVA	3
	TOTAL	12
Semester 5 - Autumn		
SVT715	Cartography I	3
EET790	Computer Programming I	3
SVT542	Map Projections I	3
SVT643*	Map Projections IA	3
	TOTAL	12
Semester 6 - Spring		
SVT815	Cartography II	3
CMA199	Professional Communication Techniques	3
SVT842	Map Projections II	3
SVT843*	Map Projections IIA	3
	TOTAL	12
Semester 7 - Autumn		
SVT915	Cartography III	3
SVT991	Computer Graphics I	3
SVT945	Remote Sensing	3
SVT714*	Cartographic Drafting IA	3
	TOTAL	12
Semester 8 - Spring		
SVT916	Cartography IV	3
SVT992	Computer Graphics II	3
MNA012	Administrative Practice	3
SVT814*	Cartographic Drafting IIA	3
SVT813*	Reprographic Processing A	3
	TOTAL	15

* These practical subjects may be offered as a one week day release course at the end of the semester.



Modern cartographic equipment being utilised by student

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Certificate Courses

The following rules relate to the Certificate Courses in the School of Engineering and are made by resolution of the Institute Council.

CERTIFICATE COURSES IN THE SCHOOL OF ENGINEERING

1. Entry

Except where otherwise approved by the Head of School, no new enrolments will be accepted in these courses.

Students already registered in Certificate courses are advised that these courses are being discontinued. Provision is being made to allow existing students to complete their course, subject to a minimum rate of progress. It is planned to discontinue the courses as follows:

CEC114 Civil Engineering Laboratory Technician - fifth year will be available for the last time in 1986.

SVC122 Certificate in Cartography - third year will be available for the last time in 1986, fourth year in 1988 and fifth year in 1990.

SVC209 Certificate in Cartography - second year will be available for the last time in 1986, third year in 1988, fourth year in 1990 and fifth year in 1992.

Entrance requirements to the Certificate Courses were -

(a) Normal Entry for full-time Junior students

(i) A total score of not less than sixteen points in the four Junior subjects English, Advanced or Ordinary level Mathematics, Science (previously Science B) and one other.

(ii) Although there is no minimum grade, students must have studied and received a result in either Advanced or Ordinary level Mathematics during their Junior year.

(iii) A minimum grade of three points may be accepted in English, but the accepted minimum in all other subjects (excepting Mathematics) shall be four points.

Normal Entry for Students who have sat for the Junior Examination prior to the introduction of Advanced and Ordinary Mathematics

(iv) A total score of not less than sixteen points in the four Junior subjects English, Mathematics B, Science B and one other.

(v) A minimum grade of three points may be accepted in English, but the accepted minimum in all other subjects shall be four points.

(b) Special Entry

Students who do not meet the requirements for normal entry may present documentary evidence of qualifications and experience and other relevant information for Special Consideration by the Admissions Committee.

An applicant lacking a sufficient grade in only one subject to qualify for entry may be granted provisional enrolment in a part-time course if he undertakes to study one requisite Junior subject concurrently with one subject of the course.

2. Enrolment

(a) The course must be completed in an orderly manner as described by the recommended program, subject to pre- and co-requisite conditions, and class timetables. A student may not enrol in a subject if there are subjects from an earlier semester available and still to be completed, within the constraints of timetabling, pre- and co-requisites. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

(b) A student shall not study subjects with a time content of more than nine hours per week. In special circumstances, the Head of School may waive this rule, only after consideration of a written application to the Registrar.

3. Unregistered Students

A person may apply to study individual subjects as an unregistered student and may be admitted to classes provided that vacancies exist. Such persons shall conform to the general conditions covering the course and rules relating to unregistered students.

4. Employment

A candidate must have obtained appropriate employment by the commencement of his second year of study.

5. Exemptions

(a) Rules concerning the granting of exemptions are detailed under 'Rules Relating to Student Matters'. See page 30. In special circumstances, the Head of School may waive these rules, only after consideration of a written application to the Registrar.

(b) Prior approval must be received to obtain an exemption in a QIT subject, if while registered at the Institute, a student wishes to study an equivalent subject elsewhere or in another course at the Institute. Application for approval must be made in writing to the Registrar.

A registered student who has completed the following trade courses in Queensland may apply to be exempted the following subjects if offered in the particular course chosen. Prior approval is not necessary to gain exemption if these courses are studied concurrently with a QIT course. A student enrolled in an apprenticeship training course who wishes to defer a subject in anticipation of an exemption, must make written application to the Registrar.

EEC300 Electrical Engineering	Electrical Fitter and Mechanic
EEC560 Telecommunications I	Telecommunications Certificate

(c) The Head of Department may, where a student has previously enrolled for a subject but has not been given credit for a pass in such subject, exempt such candidate from such requirements of that subject as he deems fit.

6. Attendance

A student who in any subject fails to attend 80% of the total instruction, or to submit 80% of all practical or assignment work required in any subject may be deemed by the Head of School ineligible to sit for the semester examination.

Field trips or field projects as detailed in the subject synopses have a compulsory attendance requirement.

7. Assessment

The method of assessment provides for formal semester and deferred examinations as well as written tests, oral tests, general assignments, laboratory reports, design work and projects. Supplementary examinations may be offered.

8. Dress

The Engineering Academic Board may require students to wear appropriate attire during industrial visits to firms and government departments and field trips, and whilst engaged on field survey projects and practical work.

Students must also comply with any particular safety requirements with respect to dress that may be applicable to an industrial visit, field trip, field survey project or practical assignment.

9. Course Structure

A registered student admitted under these rules may elect to specialise in one of the following courses -

Civil -	Laboratory Technician
Surveying -	Certificate in Cartography

Due to low enrolments, some subjects will be available only every second year. Students should plan their course accordingly, and they may be permitted to attempt subjects out of order if necessary. Students should submit their enrolment form with the desired enrolment for consideration and approval.

Elective subjects will be availably only if numbers of enrolments are sufficient to justify a class.

For a candidate who is a student in the Civil Engineering Certificate Course, the subjects and other work are as follows

CEC114 CERTIFICATE IN CIVIL ENGINEERING

Normal Course Program

All subjects are two semesters.

Semesters 9 and 10 are available only for the LABORATORY TECHNICIAN Course.

		Approx. Formal Hrs/wk.
Semester 9 - Autumn		
CEC540	Soil Mechanics II	3
CEC588	Advanced Laboratory Practice	1½
CEC586	Laboratory Projects	1½
ESC119	Engineering Geology	3
Semester 10 - Spring		
CEC540	Soil Mechanics II	3
CEC588	Advanced Laboratory Practice	1½
CEC586	Laboratory Projects	1½
ESC119	Engineering Geology	3

For a candidate who is a student in the Cartography Certificate Courses, the subjects and other work are as follows -

SVC122 CERTIFICATE IN CARTOGRAPHY

Normal Course Program

Semesters 1 - 4 have been discontinued.

All subjects extend over two semesters.

		Approx. Formal Hrs/wk.
Semester 5 - Autumn		
SVC343	Photogrammetry II	3
SVC541	Spherical Trigonometry and Astronomy	3
SVC211	Drafting Practice II	3
Semester 6 - Spring		
SVC343	Photogrammetry II	3
SVC541	Spherical Trigonometry and Astronomy	3
SVC211	Drafting Practice II	3
Semester 7 - Autumn		
SVC540	Geodesy	3
ESC143+	Geology for Cartographers OR]	3
SVC476++	Geography for Cartographers]	
SVC442	Map Projections	3
Semester 8 - Spring		
SVC540	Geodesy	3
ESC143+	Geology for Cartographers OR]	3
SVC476++	Geography for Cartographers]	
SVC442	Map Projections	3
Semester 9 - Autumn		
SVC513	Map and Plan Reproduction	3
SVC571	Land Laws and Regulations	3
SVC312	Cartographic Drafting	3
Semester 10 - Spring		
SVC513	Map and Plan Reproduction	3
SVC571	Land Laws and Regulations	3
SVC312	Cartographic Drafting	3

\+ Available only in even numbered years.
++ Available only in odd numbered years.

SVC209 CERTIFICATE IN CARTOGRAPHY

Normal Course Program

Semesters 1 and 2 have been discontinued.

All subjects are one semester except those indicated (*) which extend over two semesters.

		Approx. Formal Hrs/wk.
Semester 3 - Autumn		
MAC491	Mathematics II*	3
SVC313	Drafting Practice III	3
SVC471	Land Laws and Regulations	3
Semester 4 - Spring		
MAC491	Mathematics II*	3
CMC123	English	3
SVC444	Photogrammetry I	3
Semester 5 - Autumn		
SVC551	Introduction to Land Studies	3
SVC543	Photogrammetry II	3
SVC542	Spherical Trigonometry and Astronomy	3
Semester 6 - Spring		
SVC352	Land Studies	3
SVC643	Photogrammetry III	3
SVC641	Geodesy	3
Semester 7 - Autumn		
SVC715	Cartography I	3
EEC790	Computer Programming I	3
SVC742	Map Projections I	3
Semester 8 - Spring		
SVC815	Cartography II	3
CMC199	Professional Communication Techniques	3
SVC842	Map Projections II	3
Semester 9 - Autumn		
SVC915	Cartography III	3
SVC991	Computer Graphics I	3
SVC945	Introduction to Remote Sensing	3
Semester 10 - Spring		
SVC916	Cartography IV	3
SVC992	Computer Graphics II	3
MNC012	Administrative Practice	3

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Continuing Education

CONTINUING EDUCATION

Where the demand is indicated and there are sufficient enrolments, Departments conduct a number of specialist subjects for the development and continuing education of engineers and technicians.

1. SPECIAL COURSES

From time to time, intensive courses may be conducted in conjunction with professional associations to provide in depth study of specialist engineering topics. Several of these courses may be run as on-site in-service training courses rather than at the QIT.

Special Courses conducted at QIT include -

- Asphaltic Pavements Workshop
- Concrete Construction
- Condition Monitoring and Maintenance of Mechanical Machines
- Construction Supervision
- Digital Electronics
- Energy Conservation Practice
- Engineering Drawing Seminar
- Hydraulic Systems
- Instrument Transformers
- Measurement and Control of Machine Noise
- Microprocessors
- Municipal Engineering Workshop
- Pneumatic Systems
- Prestressed Concrete Design
- Selection and Operation of Control System Hardware
- Stereoplotter Operators Course
- Strain, Balancing and Vibrations
- Structural Mechanics in Building Construction
- Tolerance Technology
- Traffic System Management

Intending students should contact the appropriate Department to record their requirements and for details of any courses planned.

2. SPECIALIST SUBJECTS

A small number of vacancies are usually available in subjects in the Degree and Associate Diploma courses. These may be undertaken by suitably qualified persons. Due to the limited number of vacancies, enrolment nominations should be lodged as early as possible.

3. CIVIL ENGINEERING DEPARTMENT

CEC102 Special Subjects for Local Government Overseer of Works

A program of post technician studies is also provided for those wishing to extend their education by endorsement subjects or for registration as an Overseer of Works to Local Authorities. These subjects are:

Special Subjects - Two Semesters		Approx. Formal Hrs/wk.
CES101	Local Government Practice	3
CES102	Municipal Engineering	3
CES103	Civil Engineering Computing	3

Entrance Requirements

(i) A student shall have completed, or be completing in the year of study concerned, the course requirements of a recognised Associate Diploma in Civil Engineering, Certificate in Civil Engineering or approved equivalent.

OR

(ii) A student not having successfully completed or being sufficiently advanced upon a Certificate or Associate Diploma course shall satisfy the following individual subject pre-requisites and co-requisites

1. CES101 Local Government Practice

Pre-requisite:	CEC300 Civil Engineering I*
Co-requisite:	CEC400 Civil Engineering II*

2. CES102 Municipal Engineering

Pre-requisites:	MAC191 Mathematics I
	MEC140 Engineering Materials I*
	CEC300 Civil Engineering I*
Co-requisites:	CEC400 Civil Engineering II*
	CEC502 Specifications & Estimates*
	CEC501 Construction Principles*

3. CES103 Civil Engineering Computing

Pre-requisites:	MAC191 Mathematics I
	MAC491 Mathematics II
Co-requisite:	CEC300 Civil Engineering I*

* or equivalent Associate Diploma subject

OR

(iii) Application may be made for consideration of special cases not meeting the above requirements for determination by the Head of the Department of Civil Engineering.

4. MECHANICAL ENGINEERING DEPARTMENT

(a) Courses for Weights and Measures Cadets

This special course is conducted to qualify candidates for the classification of Weights and Measures Inspector. It consists of a series of subjects taken principally from the Associate Diploma in Mechanical Engineering with additional work in Administration and Office Procedures.

(b) Marine Engineering

The Associate Diploma courses in Mechanical Engineering have been assessed by the Australian Department of Transport for exemption purposes. Students who have been suitably trained for Marine Engineering and who have been awarded an Associate Diploma in Mechanical Engineering, which included the subjects as set out below, should, upon application to the Australian Department of Transport be eligible under existing regulations for exemptions from some of that Department's examinations for Certificates of Competency.

The nature of the exemptions which can be granted are as follows:

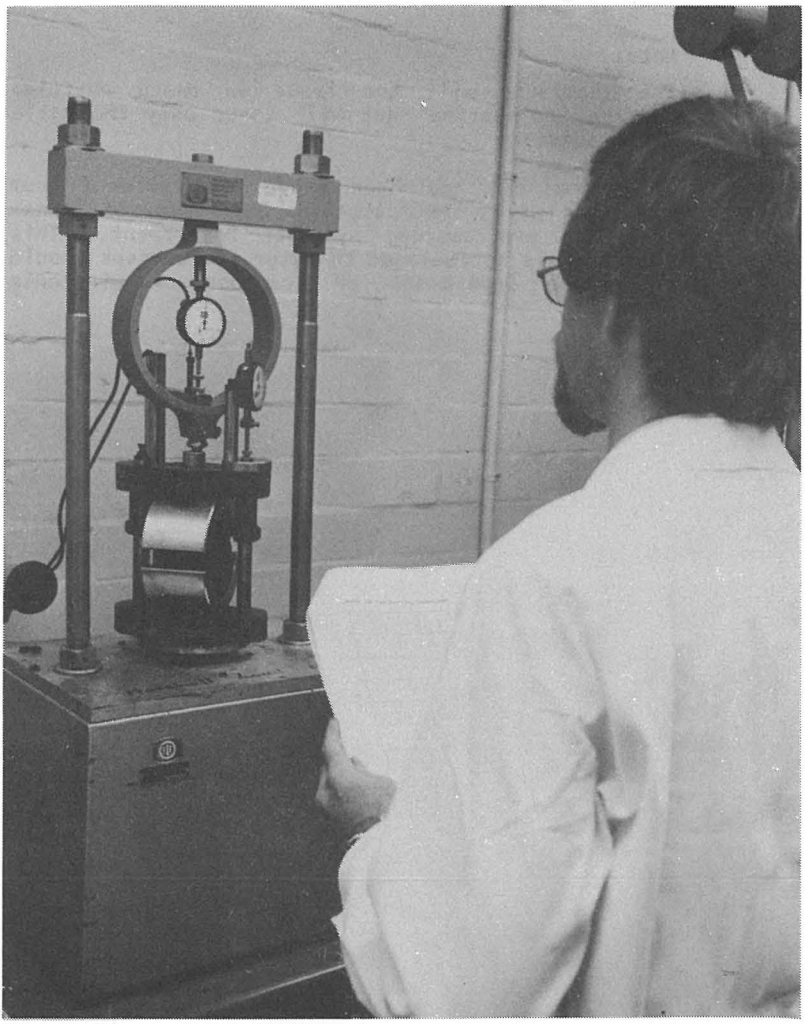
COURSE	EXEMPTION
(a) Associate Diploma in Mechanical Engineering 2 years full-time including the subjects: MET852 Internal Combustion Plant MET853 Combustion and Air Pollution	Part A 2nd Class-All Subjects Part A 1st Class-All Subjects
(b) Associate Diploma in in Mechanical 4 years part-time including the subjects: MET552 Refrigeration MET560 Fluid Mechanics and Heat Transfer I MET651 Air Conditioning MET660 Fluid Mechanics and Heat Transfer II MET751 Steam Plant MET852 Internal Combustion Plant MET853 Combustion and Air Pollution	Part A 2nd Class-All Subjects Part A 1st Class-All Subjects

The Queensland Institute of Technology has no control over requirements relating to sea-going or trade experience and students wishing to follow a career in Marine Engineering are advised to direct their queries in this area to the Australian Department of Transport.

Note:

The Institute will not issue an award entitled 'Marine Engineering' but will issue only the title given above.

The exemptions indicated above are reviewed from time to time by the Australian Department of Transport and are awarded by that Department. This Institute is not obliged to alter its courses should Australian Department of Transport requirements change.



Civil Engineering research observation by student

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Pre-requisites and Co-requisites

SCHEDULE OF SUBJECTS WITH PRE-REQUISITES AND CO-REQUISITES

(a) A Pre-requisite is a unit which must be passed before proceeding with a further unit for which it is a pre-requisite.

(b) A Co-requisite is a unit which, if not previously passed, must be studied concurrently with another unit for which it is a co-requisite. A co-requisite subject marked with a * may be attempted in the same year as the designated subject but in this case it must be attempted in the Autumn semester and the designated subject in the Spring Semester.

(c) A Repeat-requisite (denoted by the postscript [R]) is a unit which can satisfy either a pre- or co-requisite requirement by the student having attempted all assessments when registered for the unit. If failed, the repeat-requisite must be repeated at the first opportunity.

(d) Subjects not listed have no pre- or co-requisites other than normal course entry requirements.

GRADUATE DIPLOMA IN ENVIRONMENTAL AND MUNICIPAL ENGINEERING

Subject		Pre-requisite		Co-requisite	
CEP381	Air Pollution II	CEP270	Air Pollution I		
BEP280	Biology & Water Quality Control	BEP180	Environmental Science		
CEP375	Industrial Liquid Wastes			CEP273	Water Quality Engineering II
CEP377	Pollution Monitoring	CEP172 BEP280	Water Quality Engineering I Biology and Water Quality Control		
CEP361	Urban Drainage	CEP272	Hydrology		
CEP378	Water Resources Development	CEP272	Hydrology		
CEP273	Water Quality Engineering II	CEP172	Water Quality Engineering I		
CEP274	Water Quality Engineering III	CEP273	Water Quality Engineering II		

Subject	Pre-requisite	Co-requisite
CEP124 Municipal Planning C	CEP122 Municipal Planning A	
CEP382 Flood Estimation	CEP272 Hydrology	
CEP383 Storage-Yield Estimation	CEP272 Hydrology	

GRADUATE DIPLOMA IN AUTOMATIC CONTROL

Subject	Pre-requisite	Co-requisite
EEP104 Linear Control Theory II	EEP102 Linear Control Theory I [R]	
EEP106 Analysis and Design of Systems I	EEP104 Linear Control Theory II [R]	
EEP108 Sampled Data Control Systems	EEP104 Linear Control Theory II [R]	
EEP109 Analysis and Design of Systems II	EEP104 Linear Control Theory II [R]	
EEP110 Microcomputer Control	EEP103 Computer Control [R]	
EEP111 Optimisation and Extremum Control	EEP104 Linear Control Theory II [R]	
EEP112 Software for Industrial Control	EEP101 Computer Aided System Design [R]	

GRADUATE DIPLOMA IN MECHANICAL ENGINEERING

Subject	Pre-requisite	Co-requisite
MEB450 Air Conditioning	MEB251 Thermodynamics IB or equivalent	
MEP400 Case Studies	Any three subjects from the course	
MEP381 Design for Reliability and Safety	An introductory UG1 level statistics subject	
MEP330 Joining Materials	Any introductory subject in engineering materials or materials science	
MEP430 Materials Selection for Reliability	An introductory subject in engineering materials or materials science	

Subject	Pre-requisite	Co-requisite
MEB451 Power Plant	MEB251 Thermodynamics IB or equivalent	

GRADUATE DIPLOMA IN LAND DEVELOPMENT SURVEYING

Subject	Pre-requisite	Co-requiste
SVP260 Development Control	SVP150 Land Studies I [R]	
ACP882 Development Finance	ACP881 Finance & Law [R] MNP037 Introductory Economics [R]	SVP260 Development Control
SVP361 Land Design II	SVP261 Land Design I [R]	
SVP461 Land Design III	BEP182 Ecology for Development [R] SVP261 Land Design I [R]	
MNP042 Land Development Management	ACP881 Finance & Law [R]	

BACHELOR OF ENGINEERING - CIVIL

Subject	Pre-requisite	Co-requisite
CEB554 Advanced Steel Design	CEB352 Structural Engineering II CEB201 Steel Structures	
CEB552 Advanced Structural Analysis	CEB352 Structural Engineering II MAB893 Engineering Mathematics III PHB131 Engineering Physics I CSB190 Computing	
CEB430 Building Construction	CEB100 Civil Engineering I [R]	CEB291 Civil Engineering Materials CEB331 Concrete Technology PHB131 Engineering Physics I

Subject		Pre-requisite	Co-requisite
CEB304	Civil Engineering Design I	BEB506 Basic Ecology [R] CEB241 Soil Mechanics II [R] CEB202 Concrete Structures [R] CEB240 Soil Mechanics I [R] CEB201 Steel Structures [R] MEB121 Engineering Graphics [R]	CEB352 Structural Engineering II CEB291 Civil Engineering Materials I
CEB405	Civil Engineering Design II	CEB340 Geomechanics [R] CEB304 Civil Engineering Design I [R] CEB352 Structural Engineering II [R] PHB131 Engineering Physics I [R] CEB331 Concrete Technology [R]	CEB460 Hydraulic Engineering II CEB410 Transport Engineering I CEB440 Geotechnical Engineering I CEB470 Public Health Engineering II CEB305 Construction Management & Economics
CEB291	Civil Engineering Materials	MEB133 Materials I [R] MEB100 Manufacturing [R]	CHB346 Engineering Chemistry C
CEB501	Civil Engineering Practice	STUDENTS MUST BE IN THEIR FINAL YEAR OF THE COURSE	
CEB521	Civil Engineering Systems	CEB313 Traffic Engineering CEB304 Civil Engineering Design I [R] CEB312 Highway Engineering I CEB360 Hydraulic Engineering I [R] MAB893 Engineering Mathematics III CEB291 Civil Engineering Materials [R] CEB260 Fluid Mechanics	CEB370 Public Health Engineering I CEB305 Construction Management & Economics
CEB561	Coastal Engineering	CEB183 Engineering Mechanics	CEB460 Hydraulic Engineering II CEB360 Hydraulic Engineering I (*)

Subject	Pre-requisite	Co-requisite
CEB530 Concrete Design	CEB331 Concrete Technology PHB131 Engineering Physics I	CEB304 Civil Engineering Design I
CEB202 Concrete Structures		CEB252 Structural Engineering I
CEB331 Concrete Technology		CEB100 Civil Engineering I
CEB500 Construction Engineering	CEB370 Public Health Engineering I [R] CEB312 Highway Engineering I [R]	CEB305 Construction Management & Economics BEB506 Basic Ecology CEB260 Fluid Mechanics
CEB305 Construction Management & Economics	CSB190 Computing [R] CEB100 Civil Engineering I [R]	CEB202 Concrete Structures CEB201 Steel Structures
MEB101 Design I (Mech.)		MEB121 Engineering Graphics CEB183 Engineering Mechanics
CEB401 Design Project	CEB361 Hydrology [R] CEB305 Construction Management & Economics [R] CEB313 Traffic Engineering [R] CEB304 Civil Engineering Design I [R] CEB312 Highway Engineering I [R]	CEB470 Public Health Engineering II CEB440 Geotechnical Engineering I CEB460 Hydraulic Engineering II ESB519 Geology
EEB111 Electrical Engineering II		EEB110 Electrical Engineering I
CEB390 Engineering Investigation & Reporting	CMB108 English for Technologists [R]	CEB304 Civil Engineering Design I
MAB493 Engineering Mathematics II	MAB193 Engineering Mathematics I	
MAB893 Engineering Mathematics III	MAB493 Engineering Mathematics II [R]	
CEB571 Environmental Engineering	CEB370 Public Health Engineering I [R]	BEB506 Basic Ecology

Subject	Pre-requisite	Co-requisite
CEB404 Field Trip	CEB370 Public Health Engineering I [R] CEB305 Construction Management & Economics [R] ESB519 Geology [R] CEB304 Civil Engineering Design I [R] CEB312 Highway Engineering I [R] CEB360 Hydraulic Engineering I [R] MAB893 Engineering Mathematics III [R] PHB131 Engineering Physics I [R]	CEB430 Building Construction CEB340 Geomechanics CEB361 Hydrology CEB313 Traffic Engineering
CEB550 Finite Element Methods	CEB352 Structural Engineering II MAB893 Engineering Mathematics III PHB131 Engineering Physics I CSB190 Computing	
CEB260 Fluid Mechanics	CEB183 Engineering Mechanics [R]	MAB493 Engineering Mathematics II
CEB340 Geomechanics	CEB241 Soil Mechanics II [R] CEB240 Soil Mechanics I [R] MAB193 Engineering Mathematics I [R]	
CEB440 Geotechnical Engineering I		CEB340 Geomechanics
CEB540 Geotechnical Engineering II	CEB440 Geotechnical Engineering I [R] CEB340 Geomechanics ESB519 Geology MAB193 Engineering Mathematics I PHB131 Engineering Physics I	

Subject	Pre-requisite	Co-requisite
CEB312 Highway Engineering I	CEB291 Civil Engineering Materials I [R] CEB241 Soil Mechanics II [R] CEB240 Soil Mechanics I [R] SVB306 Surveying I [R] CSB190 Computing [R] CEB100 Civil Engineering I [R]	MAB493 Engineering Mathematics II CEB331 Concrete Technology
CEB360 Hydraulic Engineering I		CEB260 Fluid Mechanics(*)
CEB460 Hydraulic Engineering II	CEB360 Hydraulic Engineering I [R] MAB893 Engineering Mathematics III [R]	CEB361 Hydrology
CEB361 Hydrology	CEB260 Fluid Mechanics [R]	CEB360 Hydraulic Engineering I (*) MAB893 Engineering Mathematics III
MEB100 Manufacturing I		MEB121 Engineering Graphics
CEB531 Masonry Design	CEB331 Concrete Technology CEB202 Concrete Structures	
CEB403 Professional Practice	CSB190 Computing [R]	CEB305 Construction Management & Economics CEB304 Civil Engineering Design I
CEB491 Project	CEB361 Hydrology [R] CEB304 Civil Engineering Design I [R] PHB131 Engineering Physics I [R] CMB108 English for Technologists [R]	CEB460 Hydraulic Engineering II CEB410 Transport Engineering I CEB440 Geotechnical Engineering I CEB470 Public Health Engineering II ESB519 Geology
CEB370 Public Health Engineering I	CHB346 Engineering Chemistry C [R]	
CEB470 Public Health Engineering II	CEB370 Public Health Engineering I [R]	BEB506 Basic Ecology

Subject	Pre-requisite	Co-requisite
CEB570 Public Health Engineering III		CEB470 Public Health Engineering II
CEB240 Soil Mechanics I	CEB183 Engineering Mechanics [R]	MAB193 Engineering Mathematics I
CEB241 Soil Mechanics II		CEB240 Soil Mechanics I
CEB201 Steel Structures		CEB252 Structural Engineering I
CEB281 Strength of Materials	CEB183 Engineering Mechanics [R] MAB193 Engineering Mathematics I [R]	
CEB551 Structural Design	CEB340 Geomechanics CEB352 Structural Engineering II MAB893 Engineering Mathematics III	CEB440 Geotechnical Engineering I CEB304 Civil Engineering Design I
CEB252 Structural Engineering I	MEB111 Dynamics [R] CSB190 Computing [R]	CEB281 Strength of Materials MAB493 Engineering Mathematics II
CEB352 Structural Engineering II	CEB252 Structural Engineering I [R] CEB281 Strength of Materials [R] CSB190 Computing [R]	MAB893 Engineering Mathematics III
SVB406 Surveying II	SVB306 Surveying I	
CEB313 Traffic Engineering	MAB493 Engineering Mathematics II [R]	CEB312 Highway Engineering I
CEB410 Transport Engineering I	CEB313 Traffic Engineering [R] CEB312 Highway Engineering I [R] MAB893 Engineering Mathematics III [R]	
CEB511 Transportation Engineering II		CEB410 Transportation Engineering I
CEB560 Water Engineering	CEB361 Hydrology	CEB460 Hydraulic Engineering II

BACHELOR OF ENGINEERING - ELECTRICAL ELECTRONIC SYSTEMS ENGINEEERING STRAND

Subject		Pre-requisite		Co-requisite	
EEB501	Advanced Measurement & Instrumentation	EEB301	Basic Measurement & Instrumentation [R]		
EEB971	Applied Electronics	EEB472 EEB573	Digital Electronics II [R] Industrial Electronics [R]		
MAB295	Applied Mathematics	MAB193	Engineering Mathematics I	MAB493	Engineering Mathematics II [R]
EEB301	Basic Measurement & Instrumentation	EEB110 EEB111	Electrical Engineering I [R] Electrical Engineering II [R]		
EEB561	Communication Engineering I	EEB361 EEB401	Telecommunications [R] Network Theory II [R]		
EEB661	Communication Engineering II	MAB493 EEB561	Engineering Mathematics II [R] Communication Engineering I [R]	EEB602	Signal Processing
EEB761	Communication Engineering III	EEB661	Communication Engineering II [R]		
EEB961	Communication Techniques	EEB661	Communication Engineering II [R]		
EEB421	Control Engineering I	EEB302 EEB303	Electro-technology [R] Network Theory I [R]	EEB401 MEB453 EEB471	Network Theory II[R] Mechanical Engineering IIs [R] Electronics
EEB521	Control Engineering II	EEB401 EEB421	Network Theory II [R] Control Engineering I [R]		
EEB522	Control Engineering II (T)	EEB421	Control Engineering I [R]	EEB521	Control Engineering II [R]
MEB101	Design I (Mechanical)			MEB121 CEB183	Engineering Graphics Engineering Mechanics
EEB372	Digital Electronics I	EEB371	Electronic Devices [R]		

Subject	Pre-requisite	Co-requisite
EEB472 Digital Electronics II	EEB372 Digital Electronics I [R]	
EEB572 Digital Electronics III	EEB472 Digital Electronics II [R]	
EEB672 Digital Electronics IV	EEB572 Digital Electronics III [R]	
EEB968 Digital Signal Processing	EEB602 Signal Processing	
EEB111 Electrical Engineering II		EEB110 Electrical Engineering I [R]
EEB371 Electronic Devices	EEB110 Electrical Engineering I [R]	
EEB471 Electronics	EEB371 Electronic Devices [R]	
EEB587 Electronic Systems Engineering Design I	EEB472 Digital Electronics II [R] EEB471 Electronics EEB401 Network Theory II EEB361 Telecommunications	EEB573 Industrial Electronics EEB572 Digital Electronics III
EEB788 Electronic Systems Engineering Design II	EEB587 Electronic Systems Engineering Design I [R]	EEB521 Control Engineering II EEB561 Communication Engineering I
EEB887 Electronic Systems Engineering Design III	EEB761 Communication Engineering III [R] or EEB721 Industrial Control II [R] EEB788 Electronic Systems Engineering Design II	One of the electronic systems engineering advanced electives
EEB888 Electronic Systems Engineering Design IV	EEB672 Digital Electronics IV [R] EEB662 Microwave & Antenna Techniques (T) [R] or EEB623 Industrial Systems I (T) At least one advanced elective	EEB887 Electronic Systems Engineering Design III

Subject		Pre-requisite		Co-requisite	
EEB302	Electro-technology	EEB111	Electrical Engineering II [R]		
MAB493	Engineering Mathematics II	MAB193	Engineering Mathematics I		
MAB893	Engineering Mathematics III	MAB493	Engineering Mathematics II [R]		
MAB894	Engineering Mathematics IV	MAB493	Engineering Mathematics II		
PHB430	Engineering Physics IV	MAB193 PHB131 MAB295	Engineering Mathematics I [R] Engineering Physics I [R] Applied Mathematics [R]		
MEB870	Industrial Administration & Engineering II	MEB770	Industrial Administration & Engineering I		
EEB621	Industrial Control I	EEB521	Control Engineering II [R]		
EEB722	Industrial Control II	EEB521	Control Engineering II [R]		
EEB573	Industrial Electronics	EEB371	Electronic Devices [R]		
EEB623	Industrial Systems I (T)	EEB521	Control Engineering II [R]	EEB621	Industrial Control I [R]
EEB931	Industrial Systems II	EEB521	Control Engineering II [R]	EEB722	Industrial Control II [R]
MEB100	Manufacturing I			MEB121	Engineering Graphics
MEB453	Mechanical Engineering IIs	PHB131	Engineering Physics I [R]		
EEB662	Microwave & Antenna Techniques (T)	EEB562	Transmission & Propagation (T) [R]		
EEB303	Network Theory I	EEB111 MAB193	Electrical Engineering II Engineering Mathematics I	MAB493	Engineering Mathematics II
EEB401	Network Theory II	EEB303	Network Theory I [R]	EEB361	Telecommunications

Subject	Pre-requisite	Co-requisite
EEB789 Project	EEB561 Communications Engineering II [R] EEB621 Industrial Control I [R] EEB601 Realtime Computing [R] EEB672 Digital Electronics IV [R]	EEB788 Electronic Systems Engineering Design II[R] EEB761 Communications Engineering III [R] EEB721 Industrial Control II [R]
EEB601 Realtime Computing	CSB490 Software Engineering [R]	EEB621 Industrial Control I EEB672 Digital Electronics IV EEB602 Signal Processing
EEB701 Seminars & Technical Communication	CMB108 English for Technologists	
EEB602 Signal Processing	EEB401 Network Theory II [R] EEB572 Digital Electronics III [R] MAB493 Engineering Mathematics II [R]	
CSB490 Software Engineering	CSB190 Computing	
EEB361 Telecommunications	EEB111 Electrical Engineering II [R] MAB193 Engineering Mathematics I [R]	MAB493 Engineering Mathematics II
EEB562 Transmission & Propagation (T)	PHB430 Engineering Physics IV [R] EEB361 Telecommunications [R]	

ELECTRICAL ENGINEERING STRAND

Subject	Pre-requisite	Co-requisite
EEB574 Applied Electronics I	EEB471 Electronics	
EEB677 Applied Electronics II	EEB574 Applied Electronics I [R]	
MAB295 Applied Mathematics	MAB193 Engineering Mathematics I	MAB493 Engineering Mathematics II [R]

Subject	Pre-requisite	Co-requisite
EEB301 Basic Measurement & Instrumentation	EEB110 Electrical Engineering I [R] EEB111 Electrical Engineering II [R]	
EEB520 Control Engineering I	EEB301 Basic Measurement and Instrumentation EEB400 Electrical Power Systems I	
EEB620 Control Engineering II	EEB520 Control Engineering I [R] EEB511 Linear Systems Analysis [R]	
EEB900 Computer Aided Engineering	EEB490 Software Engineering	
EEB372 Digital Electronics I	EEB371 Electronic Devices [R]	
EEB472 Digital Electronics II	EEB372 Digital Electronics I [R] EEB303 Network Theory I [R]	EEB400 Electrical Power Systems I [R]
EEB581 Electrical Design I	EEB401 Network Theory I [R] EEB302 Electro-technology [R]	
EEB681 Electrical Design II	EEB471 Electronics [R] EEB520 Control Engineering I [R]	EEB677 Applied Electronics II [R]
EEB782 Electrical Design III		EEB741 Power Systems Analysis [R]
EEB783 Electrical Design IV	EEB510 Control Engineering I [R] EEB620 Control Engineering II [R]	EEB726 Industrial Control I [R]
EEB111 Electrical Engineering II		EEB110 Electrical Engineering I [R]
EEB404 Electrical Machines	EEB302 Electro-technology	
EEB751 Electrical Power Plant III	EEB552 Electrical Power Systems II [R]	EEB531 Electrical Power Transmission
EEB800 Electrical Power Systems	EEB751 Electrical Power Plant III EEB741 Power Systems Analysis	

Subject	Pre-requisite	Co-requisite
EEB400 Electrical Power Systems I	EEB302 Electro-technology I [R]	
EEB552 Electrical Power Systems II	EEB404 Electrical Machines EEB400 Electrical Power Systems	
EEB531 Electrical Power Transmissions	EEB552 Electrical Power Systems II [R] EEB511 Linear Systems Analysis	
EEB810 Electrical Protection	EEB751 Electrical Power Plant III [R] EEB741 Power Systems Analysis [R]	
EEB371 Electronic Devices	EEB110 Electrical Engineering I [R]	
EEB471 Electronics	EEB371 Electronic Devices [R]	
EEB772 Electronic Systems I	EEB677 Applied Electronics II	
EEB872 Electronic Systems II	EEB772 Electronic Systems I [R]	
EEB302 Electro-technology	EEB111 Electrical Engineering II [R]	
EEB820 Engineering Management	EEB552 Electrical Power Systems II MEB477 Industrial Administration [R]	
MAB493 Engineering Mathematics II	MAB193 Engineering Mathematics I	
MAB893 Engineering Mathematics III	MAB493 Engineering Mathematics II [R]	
MAB894 Engineering Mathematics IV	MAB493 Engineering Mathematics II	
PHB430 Engineering Physics IV	MAB193 Engineering Mathematics I [R] PHB131 Engineering Physics I [R]	
EEB951 High Voltage Power Plant	EEB531 Electrical Power Transmission [R] EEB552 Electrical Power Systems II [R]	EEB751 Electrical Power Plant III [R]
EEB726 Industrial Control I	EEB620 Control Engineering II [R]	

Subject	Pre-requisite	Co-requisite
EEB511 Linear Systems Analysis	EEB401 Network Theory II CSB190 Computing	
MEB100 Manufacturing I		MEB121 Engineering Graphics
MEB453 Mechanical Engineering IIs	PHB131 Engineering Physics I	
EEB303 Network Theory I	EEB111 Electrical Engineering II MAB193 Engineering Mathematics I	EEB361 Telecommunications MAB493 Engineering Mathematics II
EEB401 Network Theory II	EEB303 Network Theory I [R]	
EEB652 Power Electronics	EEB302 Electrotechnology EEB511 Linear Systems Analysis	
EEB741 Power Systems Analysis	EEB531 Electrical Power Transmission [R]	EEB400 Electrical Power Systems [R] EEB552 Electrical Power Systems II [R] EEB753 Electrical Power Plant III [R]
EEB621 Process Plant	EEB404 Electrical Machines EEB520 Control Engineering I [R]	EEB620 Control Engineering II [R]
EEB785 Seminars		EEB781 Project
EEB490 Software Engineering	CSB190 Computing	
EEB361 Telecommunications	EEB111 Electrical Engineering I MAB193 Engineering Mathematics I	MAB493 Engineering Mathematics II [R]

BACHELOR OF ENGINEERING - MECHANICAL

The following list of pre- and co-requisites for the Bachelor of Engineering (Mechanical) course is strongly recommended. If students choose to deviate from these recommendations they may, but no special consideration will be given to them where difficulties arise from their disregarding those recommendations.

Subject	Pre-requisite	Co-requisite
MEB450 Air Conditioning	MEB251 Thermodynamics II MEB462 Fluids II MEB550 Heat Transfer	
MEB640 Automation	MAB493 Engineering Mathematics II	
MEB970 Computer Aided Manufacturing	MEB671 Manufacturing III	
MEB410 Deformation Processes	MEB230 Materials II MEB231 Materials III CEB183 Engineering Mechanics	
MEB101 Design I (Mechanical)		MEB121 Engineering Graphics CEB183 Engineering Mechanics
MEB381 Design II (Mechanical)	MEB121 Engineering Graphics MEB101 Design I (Mechanical) MEB133 Materials I CSB190 Computing CEB183 Engineering Mechanics MEB111 Dynamics CEB100 Civil Engineering I	MEB230 Materials II
MEB483 Design III (Mechanical)	MEB121 Engineering Graphics MEB101 Design I (Mechanical) MEB133 Materials I CSB190 Computing CEB183 Engineering Mechanics MEB111 Dynamics CEB100 Civil Engineering I	MEB411 Theory of Machines MEB231 Materials III MEB313 Mechanics I
MEB973 Design for Manufacturing	MEB100 Manufacturing I	MEB483 Design III (Mechanical) MEB570 Manufacturing II

Subject	Pre-requisite	Co-requisite
MEB981 Design of Materials Handling Systems	MEB483 Design III (Mechanical) MEB231 Materials III MEB411 Theory of Machines ACB913 Costing for Engineers	MEB511 Stress Analysis MEB510 Noise and Vibration MEB610 Mechanics II
MEB980 Design of Power Transmission Systems	MEB381 Design II (Mechanical) MEB411 Theory of Machines MEB313 Mechanics I EEB111 Electrical Engineering II	MEB510 Noise and Vibration MEB511 Stress Analysis
EEB111 Electrical Engineering II		EEB110 Electrical Engineering I [R]
EEB209 Electrical Engineering IIM	EEB110 Electrical Engineering I [R]	
MAB493 Engineering Mathematics II	MEB193 Engineering Mathematics I	
MAB893 Engineering Mathematics III	MAB493 Engineering Mathematics II [R]	
MAB894 Engineering Mathematics IV	MAB493 Engineering Mathematics II	
MEB700 Failure Analysis	MEB231 Materials III MEB511 Stress Analysis	MEB510 Noise and Vibration
ACB951 Financial Management for Engineers	ACB913 Costing for Engineers	
MEB911 Finite Element Analysis	MEB462 Fluids II MEB550 Heat Transfer MEB610 Mechanics II	
MEB660 Fluid Power	MEB462 Fluids II	
MEB960 Fluid Systems Design		MEB461 Fluids III
MEB361 Fluids I	MEB111 Dynamics PHB131 Engineering Physics I MAB193 Engineering Mathematics I	
MEB462 Fluids II	MAB193 Engineering Mathematics I	MEB361 Fluids I MAB493 Engineering Mathematics II

Subject	Pre-requisite	Co-requisite
MEB461 Fluids III	MEB462 Fluids II MAB893 Engineering Mathematics III	
EEB429 Industrial Control M	MAB493 Engineering Mathematics II	
MEB670 Industrial Engineering I	MAB893 Engineering Mathematics III MEB300 Vacation Practice II	
MEB771 Industrial Engineering II	MAB893 Engineering Mathematics III MEB300 Vacation Practice II	MEB670 Industrial Engineering I
MEB400 Industrial Visits	MEB483 Design III (Mechanical)	MEB670 Industrial Engineering I
MEB100 Manufacturing I		MEB121 Engineering Graphics
MEB570 Manufacturing II	MEB100 Manufacturing I	
MEB671 Manufacturing III	MEB570 Manufacturing II	
MEB372 Manufacturing Technology	MEB100 Manufacturing I	MEB570 Manufacturing II
MEB230 Materials II	MEB133 Materials I	
MEB231 Materials III	MEB133 Materials I	
MEB339 Materials and Processes Project	MEB231 Engineering Materials III MEB100 Manufacturing I	MEB570 Manufacturing II
MEB332 Materials Selection	MEB231 Engineering Materials III	
MEB489 Mechanical Design Project	MEB483 Design III (Mechanical) Elective C	MEB339 Materials and Processes Project MEB610 Mechanics II MEB511 Stress Analysis
MEB313 Mechanics I	CEB183 Engineering Mechanics MEB111 Dynamics CEB100 Civil Engineering I	
MEB610 Mechanics II	MEB411 Theory of Machines MEB510 Noise and Vibration MAB493 Engineering Mathematics II	MEB511 Stress Analysis

Subject	Pre-requisite	Co-requisite
MEB510 Noise and Vibration	PHB131 Engineering Physics I MAB894 Engineering Mathematics IV	
MEB910 Plant Optimisation	MAB493 Engineering Mathematics II	MAB893 Engineering Mathematics III
MEB950 Process Plant Design	MEB251 Thermo-dynamics II MEB462 Fluids II	MEB511 Stress Analysis
MEB982 Product Planning and Development	MEB483 Design III (Mechanical) ACB913 Costing for Engineers	
MEB974 Production Scheduling		MEB771 Industrial Engineering II
EEB601 Realtime Computing	CSB490 Software Engineering	EEB621 Industrial Control I
MEB401 Seminars		MEB339 Materials and Processes Project
CSB490 Software Engineering	CSB190 Computing	
MEB511 Stress Analysis	MEB411 Theory of Machines	
MEB411 Theory of Machines	CEB183 Engineering Mechanics MEB111 Dynamics CEB100 Civil Engineering I	
MEB451 Thermal Plant	MEB251 Thermo-dynamics II	
MEB251 Thermo-dynamics II	MEB250 Thermodynamics I	

BACHELOR OF ENGINEERING
BACHELOR OF APPLIED SCIENCE
(ELECTRONIC SYSTEMS AND COMPUTING)

Subject	Pre-requisite	Co-requisite
ACB181 Accounting Information Systems I		CSB351 Introduction to Computing A
ACB281 Accounting Information Systems II	ACB181 Accounting Information Systems I	
EEB501 Advanced Measurement & Instru-mentation	EEB301 Basic Measurement & Instrumentation [R]	

Subject	Pre-requisite	Co-requisite
EEB971 Applied Electronics	EEB472 Digital Electronics II [R] EEB573 Industrial Electronics [R]	
MAB295 Applied Mathematics	MAB193 Engineering Mathematics I	MAB493 Engineering Mathematics II [R]
EEB301 Basic Measurement & Instrumentation	EEB110 Electrical Engineering I [R] EEB111 Electrical Engineering II [R]	
EEB561 Communications Engineering I	EEB361 Telecommunications [R] EEB401 Network Theory II [R]	
EEB661 Communications Engineering II	MAB493 Engineering Mathematics II [R] EEB561 Communications Engineering I [R]	EEB602 Signal Processing
EEB761 Communications Engineering III	EEB661 Communications Engineering II [R]	
EEB961 Communications Techniques	EEB661 Communications Engineering II [R]	
CSB404 Computer Networks	CSB953 Computer Organisation II	
CSB652 Computer Organisation I	EEB572 Digital Electronics III	
CSB953 Computer Organisation II	CSB652 Computer Organisation I [R]	
CSB354 Computers and Programming	CSB351 Introduction to Computing A	
EEB421 Control Engineering I	EEB302 Electrotechnology [R] EEB303 Network Theory I [R] EEB471 Electronics [R]	EEB401 Network Theory II [R] MEB453 Mechanical Engineering IIs
EEB521 Control Engineering II	EEB401 Network Theory II [R] EEB421 Control Engineering I [R]	
EEB522 Control Engineering II [T]	EEB421 Control Engineering I [R]	EEB521 Control Engineering II [R]

Subject	Pre-requisite	Co-requisite
BCB512 Database Systems	BCB297 Introduction to Computing B	
CSB653 Data Structures		CSB661 FORTRAN Programming
EEB372 Digital Electronics I	EEB371 Electronic Devices [R]	
EEB472 Digital Electronics II	EEB372 Digital Electronics I [R]	
EEB572 Digital Electronics III	EEB472 Digital Electronics II [R]	
EEB672 Digital Electronics IV	EEB572 Digital Electronics III [R]	
EEB968 Digital Signal Processing	EEB602 Signal Processing	
EEB111 Electrical Engineering II		EEB110 Electrical Engineering I [R]
EEB371 Electronic Devices	EEB110 Electrical Engineering I [R]	
EEB471 Electronics	EEB371 Electronic Devices [R]	
EEB587 Electronic Systems Engineering Design I	EEB472 Digital Electronics II [R] EEB471 Electronics EEB401 Network Theory II EEB361 Telecommunications	EEB573 Industrial Electronics EEB572 Digital Electronics III
EEB788 Electronic Systems Engineering Design II	EEB587 Electronic Systems Engineering Design I [R]	EEB521 Control Engineering II EEB561 Communications Engineering I
EEB887 Electronic Systems Engineering Design III	EEB761 Communications Engineering III [R] or EEB721 Industrial Control II [R] EEB788 Electronic Systems Engineering Design II	One of the electronic systems engineering advanced electives

Subject	Pre-requisite	Co-requisite
EEB888 Electronic Systems Engineering Design IV	EEB672 Digital Electronics IV [R] EEB662 Microwave & Antenna Techniques [T] [R] or EEB623 Industrial systems I [T] At least one advanced elective	EEB887 Electronic Systems Engineering Design III
EEB302 Electro-technology	EEB111 Electrical Engineering II [R]	
MAB493 Engineering Mathematics II	MAB193 Engineering Mathematics I	
MAB893 Engineering Mathematics III	MAB493 Engineering Mathematics II [R]	
MAB894 Engineering Mathematics IV	MAB493 Engineering Mathematics II	
PHB430 Engineering Physics IV	MAB193 Engineering Mathematics I [R] PHB131 Engineering Physics I [R] MAB295 Applied Mathematics [R]	
CSB661 FORTRAN Programming	CSB351 Introduction to Computing A	
MEB870 Industrial Admin-istration & Engineering II	MEB770 Industrial Admin-istration & Engineering I	
EEB621 Industrial Control I	EEB521 Control Engineering II [R]	
EEB722 Industrial Control II	EEB521 Control Engineering II [R]	
EEB573 Industrial Electronics	EEB371 Electronic Devices [R]	
EEB623 Industrial Systems I [T]	EEB521 Control Engineering II [R]	EEB621 Industrial Control I [R]
EEB931 Industrial Systems II	EEB521 Control Engineering II [R]	EEB722 Industrial Control II [R]
BCB297 Introduction to Computing B	CSB351 Introduction to Computing A	

Subject	Pre-requisite	Co-requisite
CSB962 Language Processing	CSB654 Programming Languages	
MEB453 Mechanical Engineering IIs	PHB131 Engineering Physics I [R]	
EEB662 Microwave & Antenna Techniques [T]	EEB562 Transmission & Propagation [T] [R]	
EEB303 Network Theory I	EEB111 Electrical Engineering II MAB193 Engineering Mathematics I	MAB493 Engineering Mathematics II
EEB401 Network Theory II	EEB303 Network Theory I [R]	EEB361 Telecommunications
MAB618 Numerical Analysis I	CSB661 FORTRAN Programming MAB493 Engineering Mathematics II	
CSB654 Programming Languages	CSB653 Data Structures	
EEB789 Project	EEB561 Communications Engineering II [R] EEB621 Industrial Control I [R] EEB601 Realtime Computing [R] EEB672 Digital Electronics IV [R]	EEB788 Electronic Systems Engineering Design II [R] EEB761 Communications Engineering III [R] EEB721 Industrial Control II [R]
EEB601 Realtime Computing	CSB951 Systems Programming A [R]	EEB621 Industrial Control I EEB672 Digital Electronics IV
EEB701 Seminars & Technical Communication	CMB108 English for Technologists	
EEB602 Signal Processing	EEB401 Network Theory II [R] EEB572 Digital Electronics III [R] MAB493 Engineering Mathematics II [R]	
CSB961 Special Studies	Completion of the equivalent of at least half of the normal program BEng/BAppSc.	

Subject	Pre-requisite	Co-requisite
CSB959 Systems Performance Optimisation	CSB354 Computers and Programming MAB493 Engineering Mathematics II BCB297 Introduction to Computing B	
CSB951 Systems Programming A	CSB652 Computer Organisation I	
CSB952 Systems Programming B	CSB951 Systems Programming A	
EEB361 Telecommunications	EEB111 Electrical Engineering II [R] MAB193 Engineering Mathematics I [R]	MAB493 Engineering Mathematics II
EEB562 Transmission & Propagation [T]	PHB430 Engineering Physics IV [R] EEB361 Telecommunications [R]	

BACHELOR OF APPLIED SCIENCE (SURVEYING)

Subject	Pre-requisite	Co-requisite
MAB799 Basic Statistics for Surveyors	MAB495 Survey Mathematics II [R]	
SVB415 Cartography II	SVB315 Cartography I [R]	
SVB515 Cartography III	SVB415 Cartography II [R]	
SVB618 Cartography IV	SVB515 Cartography III [R]	
SVB614 Cartographic Practice	SVB390 Surveying Computing [R]	
SVB617 Digital Cartography	SVB515 Cartography III [R] SVB390 Surveying Computing [R]	
CEB364 Engineering Science II	MAB199 Survey Mathematics I [R]	MEB221 Engineering Science I [R]
CEB564 Engineering Science IIA	MAB199 Survey Mathematics I [R]	MEB221 Engineering Science I [R]
CEB504 Engineering Science III		CEB364 Engineering Science II [R]

Subject	Pre-requisite	Co-requisite
SVB573 Land Administration III	SVB270 Land Administration I [R]	
SVB561 Land Development Practice I	SVB351 Land Studies A [R]	SVB451 Land Studies B [R]
SVB664 Land Development Practice II	SVB561 Land Development Practice I [R]	CEB364 Engineering Science III [R]
SVB226 Land Surveying II	SVB121 Land Surveying I [R]	MAB199 Survey Mathematics I [R]
SVB332 Land Surveying III	SVB226 Land Surveying II [R]	MAB799 Basic Statistics for Surveyors [R] MAB495 Survey Mathematics II [R]
SVB432 Land Surveying IV	MAB799 Basic Statistics for Surveyors [R] SVB390 Surveying Computing [R]	SVB332 Land Surveying III [R]
SVB544 Land Surveying V	SVB432 Land Surveying IV [R] MAB495 Survey Mathematics II [R]	
SVB631 Land Surveying VI		SVB544 Land Surveying V [R]
SVB642 Map Projections	MAB495 Survey Mathematics II [R]	SVB432 Land Surveying IV [R]
SVB343 Photogrammetry I		PHB170 Physics for Surveyors [R]
SVB443 Photogrammetry II	SVB343 Photogrammetry I [R]	MAB795 Survey Mathematics III [R]
PHB170 Physics for Surveyors		MAB199 Survey Mathematics I [R]
SVB645 Remote Sensing	SVB343 Photogrammetry I [R]	
SVB390 Surveying Computing		EEB294 Computer Programming [R]

Subject	Pre-requisite	Co-requisite
MAB495 Survey Mathematics II	MAB199 Survey Mathematics I [R]	
MAB795 Survey Mathematics III	MAB495 Survey Mathematics II [R]	
SVB532 Surveying Practice I		SVB544 Land Surveying V [R] SVB443 Photo-grammetry II [R] SVB561 Land Development Practice I [R]
SVB637 Surveying Practice II	SVB432 Land Surveying IV [R] SVB544 Land Surveying V [R]	

ASSOCIATE DIPLOMA IN CIVIL ENGINEERING

Subject	Pre-requisite	Co-requisite
CET796 Civil Engineering Computing	EET790 Computer Programming I	
CET385 Civil Engineering Drawing I	MET120 Engineering Drawing I	CET195 Civil Engineering I
CET386 Civil Engineering Drawing IA		CET385 Civil Engineering Drawing I
CET785 Civil Engineering Drawing II	MET120 Engineering Drawing I	CET195 Civil Engineering I
CET786 Civil Engineering Drawing IIA		CET785 Civil Engineering Drawing II
CET885 Civil Engineering Drawing III		CET385 Civil Engineering Drawing I or CET785 Civil Engineering Drawing II
CET804 Civil Engineering Practice	Students must be in their final year of the course.	
CET894 Computations A	SVT306 Engineering Surveying I [R]	CET304 Construction Practice IIIA

Subject	Pre-requisite	Co-requisite
MET920 Computer Graphics	MET120 Engineering Drawing I CET385 Civil Engineering Drawing I	
CET836 Concrete Design	MET140 Engineering Materials I CET596 Materials Specification & Control CET435 Concrete Practice CET135 Strength of Materials	
CET435 Concrete Practice		CET596 Materials Spec. & Control
CET807 Construction Management		CET605 Construction Practice I CET708 Spec. & Estimates
CET605 Construction Practice I		CET645 Soil Mechanics I
CET104 Construction Practice IA		CET195 Civil Engineering I
CET705 Construction Practice II		CET605 Construction Practice I
CET204 Construction Practice IIA		CET195 Civil Engineering I CET135 Strength of Materials
CET805 Construction Practice III		CET605 Construction Practice I
CET304 Construction Practice IIIA		CET104 Construction Practice IA CET204 Construction Practice IIA CET555 Structural Engineering
CET806 Construction Practice IV	MET140 Engineering Materials I	CET596 Materials Spec. & Control CET605 Construction Practice I
CET706 Contract Administration		CET708 Spec. & Estimates
CET803 Development Engineering	CET605 Construction Practice I CET645 Soil Mechanics I	CET808 Job Organisation

Subject	Pre-requisite	Co-requisite
CET886 Drawing Office Practice (Civil)		CET385 Civil Engineering Drawing I CET785 Drawing II
MET121 Engineering Drawing IA		MET120 Engineering Drawing I
MET221 Engineering Drawing IIA		MET220 Engineering Drawing II or CET385 Civil Engineering Drawing I
MET720 Engineering Graphics	MET120 Engineering Drawing I EET790 Computer Programming I	
SVT506 Engineering Surveying II	CET195 Civil Engineering I SVT306 Engineering Surveying I	
CET776 Equipment Operation & Maintenance	CET465 Fluid Mechanics CHA140 Introductory Chemistry I [R] MET200 Mechancial Engineering	CET775 Public Health Engineering
CET595 Field Practice	CET195 Civil Engineering I	CET465 Fluid Mechanics CET596 Materials Spec. & Control
CET465 Fluid Mechanics		MET210 Applied Mechanics I
CET865 Hydrography	CET295 Laboratory Practice I CET465 Fluid Mechanics MET120 Engineering Drawing I	
CET765 Hydrology	CET195 Civil Engineering I CET465 Fluid Mechanics	
CET808 Job Organisation		CET605 Construction Practice I
CET695 Laboratory Practice II	CET295 Laboratory Practice I CET596 Materials Spec. & Control	
CET795 Laboratory Practice III	CET295 Laboratory Practice I	

Subject	Pre-requisite	Co-requisite
CET809 Local Government Practice	MET140 Engineering Materials I	CET596 Materials Spec. & Control
SVT507 Mapping & Photo-grammetry	SVT306 Engineering Surveying I	
CET596 Materials Spec. & Control	CET195 Civil Engineering I	MET140 Engineering Materials I
CET597 Materials Spec. & Control A	MET140 Engineering Materials I	CET596 Materials Spec. & Control
CET707 Municipal Engineering	MET140 Engineering Materials I	CET596 Materials Spec. & Control
CET876 Plant Operation & Maintenance	CET775 Public Health Engineering [R] CET808 Job Organisation [R]	CET776 Equipment Operation & Maintenance
CET875 Pollution Control	CET775 Public Health Engineering CHA140 Introductory Chemistry I	
CHA644 Process Measurement & Monitoring I	CET465 Fluid Mechanics [R] CET775 Public Health Engineering [R] CHA140 Introductory Chemistry I [R]	
CHA744 Process Measurement & Monitoring II	CHA644 Process Measurement & Monitoring I [R]	
CET777 Process Operation & Control I	CET465 Fluid Mechanics [R] CET775 Public Health Engineering [R] CHA140 Introductory Chemistry I	
CET877 Process Operation & Control II	CET777 Process Operation & Control I	
CET895 Project	Must be studied in last semester of course before completion of qualification.	
CET775 Public Health Engineering	CET195 Civil Engineering I	

Subject	Pre-requisite	Co-requisite
CET816 Road Engineering	CET195 Civil Engineering I	CET645 Soil Mechanics I
CET815 Road Location and Design	SVT306 Engineering Surveying I	CET645 Soil Mechanics I EET790 Computer Programming I CET385 Civil Engineering Drawing I
CET645 Soil Mechanics I	CET195 Civil Engineering I MET210 Applied Mechanics I	EST219 Engineering Geology
CET745 Soil Mechanics II		CET135 Strength of Materials CET645 Soil Mechanics I
CET845 Soil Mechanics III	CET645 Soil Mechanics I CET745 Soil Mechanics II	
CET708 Specifications & Estimates	CET195 Civil Engineering I	
CET135 Strength of Materials		MET210 Applied Mechanics I
CET755 Structural Design	CET135 Strength of Materials	CET555 Structural Engineering
CET555 Structural Engineering	CET135 Strength of Materials MET210 Applied Mechanics I CET195 Civil Engineering I	
CET855 Structural Testing	CET135 Strength of Materials CET555 Structural Engineering	
CET835 Tectonics	MET310 Applied Mechanics II	CET785 Civil Engineering Drawing II
CHA844 Trade Waste Control	CET777 Process Operation & Control I [R] CHA744 Process Measurement & Monitoring II [R]	
CET866 Water Engineering	CET465 Fluid Mechanics MET210 Applied Mechanics I [R]	CET195 Civil Engineering I

ASSOCIATE DIPLOMA IN ELECTRICAL ENGINEERING

Subject	Pre-requisite	Co-requisite
EET310 A.C. Theory		EET110 D.C. Theory I [R]
EET678 Applied Electronics	EET677 Integrated Circuits [R]	
EET866 Communication Techniques I	EET566 Telecommunications [R]	EET470 Electronics I [R]
EET666 Communication Theory I	EET310 A.C. Theory [R] EET566 Telecommunications [R]	
EET766 Communication Theory II	EET566 Telecommunications [R]	
EET878 Computer Electronics	EET676 Digital Electronics [R]	
MET920 Computer Graphics	MET120 Engineering Drawing I MET220 Engineering Drawing II MET123 Electrical Engineering Drawing IA	
EET890 Computer Programming II	EET790 Computer Programming I [R]	
EET621 Control Theory I	EET310 A.C. Theory [R]	EET521 Instrumentation & Control
EET210 D.C. Theory II		EET110 D.C. Theory I
EET822 Digital Control Systems	EET521 Instrumentation & Control [R] EET676 Digital Electronics [R]	
EET676 Digital Electronics	EET470 Electronics I [R]	
EET400 Electrical Engineering	EET110 D.C. Theory I [R]	EET210 D.C. Theory II [R]
MET123 Electrical Engineering Drawing IA		MET120 Engineering Drawing I
MET223 Electrical Engineering Drawing IIA	MET120 Engineering Drawing I [R]	MET220 Engineering Drawing II

Subject	Pre-requisite	Co-requisite
EET552 Electrical Machines	EET310 A.C. Theory [R] EET400 Electrical Engineering [R]	
EET752 Electrical Plant	EET642 Electrical Power Systems I [R]	
EET642 Electrical Power Systems I	EET310 A.C. Theory [R] EET400 Electrical Engineering [R]	
EET641 Electrical Power Utilisation I	EET310 A.C. Theory [R] EET400 Electrical Engineering [R]	
EET741 Electrical Power Utilisation II	EET400 Electrical Engineering [R] EET470 Electronics I [R]	
EET643 Electrical Protection I		EET642 Electrical Power Systems I
EET851 Electrical Testing	EET310 A.C. Theory [R] EET400 Electrical Engineering [R]	
EET470 Electronics I	EET110 D.C. Theory I [R] or EET300 Circuit Theory [R]	
EET672 Electronic Systems	EET470 Electronics I [R]	
EET577 Industrial Electronics	EET470 Electronics I [R]	
EET529 Instrumentation Practice A	EET310 A.C. Theory [R]	
EET521 Instrumentation & Control	EET310 A.C. Theory [R] MET310 Applied Mechanics II [R] EET400 Electrical Engineering [R]	
EET677 Integrated Circuits	EET310 A.C. Theory [R] EET470 Electronics I [R]	
EET823 Process Control Systems	EET521 Instrumentation & Control [R] MET200 Mechanical Engineering [R]	
EET566 Telecommunications	EET310 A.C. Theory [R]	
EET737 Transmission & Propagation	EET310 A.C. Theory [R]	EET566 Telecommunications [R]
EET309 Workshop (Elec.) IIIA	EET400 Electrical Engineering [R]	

Subject	Pre-requisite	Co-requisite
EET409 Workshop (Elec.) IVA	EET470 Electronics I [R]	
MET475 Workshop (Mech.) IIIA		MET175 Workshop (Mech.) IA

ASSOCIATE DIPLOMA IN MECHANICAL ENGINEERING

The following list of pre- and co-requisites for the Associate Diploma in Mechanical Engineering is strongly recommended. If students choose to deviate from these recommendations they may, but no special consideration will be given to them where difficulties arise from their disregarding those recommendations.

Subject	Pre-requisite	Co-requisite
MET350 Applied Heat II	MET250 Applied Heat I	
MET652 Building Services	MET250 Applied Heat I MET350 Applied Heat II MET560 Fluid Mechanics & Heat Transfer	MET352 Refrigeration & Air Conditioning
MET970 Bulk Materials Handling	MET320 Engineering Drawing III MET580 Machine Elements I MET680 Machine Elements II	
MET903 Computer Applications A	CSA165 Computing	MET100 Engineering Science CET285 Statics MET170 Workshop Processes MET312 Dynamics MET250 Applied Heat I MET560 Fluid Mechanics & Heat Transfer
MET920 Computer Graphics	MET120 Engineering Drawing I MET220 Engineering Drawing II	
MET121 Drafting Practice IA		MET120 Engineering Drawing I
MET221 Drafting Practice IIA		MET220 Engineering Drawing II
MET321 Drafting Practice IIIA		MET320 Engineering Drawing III

Subject	Pre-requisite	Co-requisite
MET312 Dynamics	CET285 Statics MET100 Engineering Science	
EET820 Elec/Mech Technology	MET100 Engineering Science EET500 Electrical Technology [R]	
EET500 Electrical Technology	MET100 Engineering Science	
EET853 Energy Management	EET400 Electrical Engineering	
MET220 Engineering Drawing II		MET120 Engineering Drawing I [R]
MET320 Engineering Drawing III	MET120 Engineering Drawing I [R] MET220 Engineering Drawing II [R]	
MET420 Engineering Drawing IV	MET120 Engineering Drawing I [R] MET220 Engineering Drawing II [R]	
MET433 Engineering Materials II	MET140 Engineering Materials I	
MET960 Fluid Power		MET560 Fluid Mechanics & Heat Transfer
MET971 Industrial Engineering II	MET370 Industrial Engineering I	
MET961 Industrial Fluid Mechanics	MET560 Fluid Mechanics & Heat Transfer [R]	
MET950 Industrial Heat Transfer	MET560 Fluid Mechanics & Heat Transfer	
MET733 Industrial Metallurgy I	MET433 Engineering Materials II	
MET833 Industrial Metallurgy II	MET433 Engineering Materials II	
MET782 Jig & Tool Design	MET170 Workshop Processes	

Subject	Pre-requisite	Co-requisite
MET580 Machine Elements I	MET210 Applied Mechanics I or CET285 Statics MET120 Engineering Drawing I MET220 Engineering Drawing II	
MET680 Machine Elements II	MET580 Machine Elements I	
MET780 Machine Elements III	MET680 Machine Elements II	
MET573 Machine Tool Technology	MET170 Workshop Processes MET471 Workshop Laboratory	
MET421 Mechanical Project A		MET321 Drawing Office Practice IIIA
MET772 Metrology	MET170 Workshop Processes	
MET962 Process Plant		MET560 Fluid Mechanics & Heat Transfer
MET352 Refrigeration & Air Conditioning	MET250 Applied Heat I	
CET285 Statics		MET100 Engineering Science
MET902 Sugar Mill Technology II	MET901 Sugar Mill Technology I	
MET650 Thermal Plant	MET250 Applied Heat I MET350 Applied Heat II	
MET471 Workshop Laboratory	MET170 Workshop Processes	MET170 Workshop Processes

ASSOCIATE DIPLOMA IN SURVEYING

Subject	Pre-requisite	Co-requisite
SVT429 Computations II	SVT225 Computations II	
SVT227 Computations III	SVT429 Computations II	
CET404 Engineering Science II		CET364 Engineering Science I

Subject	Pre-requisite	Co-requisite
SVT641 Geodesy	SVT541 Spherical Trigonometry & Astronomy [R]	
SVT642 Map Projections I	SVT541 Spherical Trigonometry & Astronomy [R]	
SVT243 Photo-grammetry II	SVT243 Photo-grammetry I	
SVT226 Survey Computations Practice IA	SVT429 Computations II	SVT227 Computations III
SVT439 Survey Computations Practice IIA		SVT422 Surveying IV
SVT112 Survey Plan Drawing A	SVT321 Survey Drafting Practice II	
SVT222 Surveying II	SVT122 Surveying I	
SVT322 Surveying III	SVT222 Surveying II	
SVT422 Surveying IV	SVT541 Spherical Trigonometry & Astronomy [R]	
SVT321 Survey Drafting Practice II	SVT121 Survey Drafting Practice I	
SVT123 Surveying Practice IA		SVT122 Surveying I
SVT223 Surveying Practice IIA		SVT122 Surveying I
SVT224 Surveying Practice IIIA		SVT223 Surveying Practice IIA SVT222 Surveying II
SVT326 Surveying Practice IVA	SVT224 Surveying Practice IIIA	
SVT425 Surveying Practice VA	SVT224 Surveying Practice IIIA	
SVT423 Surveying Practice VIA		SVT422 Surveying IV SVT224 Surveying Practice IIIA

ASSOCIATE DIPLOMA IN CARTOGRAPHY

Subject	Pre-requisite	Co-requisite
SVT714 Cartographic Drafting IA		SVT815 Cartography II

Subject	Pre-requisite	Co-requisite
SVT814 Cartographic Drafting IIA		SVT815 Cartography II
SVT815 Cartography II		SVT715 Cartography I
SVT915 Cartography III		SVT815 Cartography II
SVT916 Cartography IV		SVT915 Cartography III
SVT991 Computer Graphics I	EET790 Computer Programming	
SVT942 Computer Graphics II	SVT991 Computer Graphics I	
SVT313 Drafting Practice III	SVT212 Drafting Practice II	
SVT114 Drafting Practice IA		SVT113 Drafting Practice I
SVT312 Drafting Practice IIA		SVT212 Drafting Practice II
SVT512 Drafting Practice IIIA		SVT313 Drafting Practice III
SVT612 Drafting Practice IVA	SVT313 Drafting Practice III	
SVT641 Geodesy	SVT541 Spherical Trigonometry & Astronomy	
SVT542 Map Projections I	SVT541 Spherical Trigonometry & Astronomy	
SVT842 Map Projections II	SVT742 Map Projections I	
SVT643 Map Projections IA		SVT542 Map Projections I
SVT843 Map Projections IIA		SVT842 Map Projections II
SVT343 Photo-grammetry II	SVT243 Photo-grammetry I	
SVT443 Photo-grammetry III	SVT343 Photo-grammetry II	
SVT945 Remote Sensing		SVT343 Photo-grammetry II
SVT813 Reprographic Processing A	SVT815 Cartography II	

CERTIFICATE IN CIVIL ENGINEERING

Subject	Pre-requisite	Co-requisite
CEC588 Advanced Laboratory Practice	CEC440 Soil Mechanics I	CHC463 Organic Chemistry & Materials
ESC119 Engineering Geology	CHC195 Chemistry I	
CEC586 Laboratory Projects	MEC120 Engineering Drawing I CMC123 English CEC430 Concrete Practice CHC463 Organic Chemistry & Materials	CEC588 Advanced Laboratory Practice
CEC540 Soil Mechanics II	CHC496 Chemistry II	CEC440 Soil Mechanics I

SPECIAL SUBJECTS FOR OVERSEER OF WORKS

Subject	Pre-requisite	Co-requisite
CES103 Civil Engineering Computing	MAC191 Mathematics I MAC491 Mathematics II	CEC300 Civil Engineering I
CES101 Local Government Practice	CEC300 Civil Engineering I	CEC400 Civil Engineering II
CES102 Municipal Engineering	MAC191 Mathematics I MEC140 Engineering Materials I CEC300 Civil Engineering I	CEC400 Civil Engineering II CEC502 Specifications and Estimates CEC501 Construction Principles

CERTIFICATE IN CARTOGRAPHY (SVC122)

Subject	Pre-requisite	Co-requisite
SVC312 Cartographic Drafting		SVC442 Map Projections
SVC540 Geodesy	MAC491 Mathematics II	
SVC513 Map & Plan Reproduction		SVC312 Cartographic Drafting
SVC442 Map Projections	MAC491 Mathematics II	
SVC343 Photogrammetry II		MAC491 Mathematics II SVC243 Photogrammetry I

Subject	Pre-requisite	Co-requisite
SVC541 Spherical Trigonometry & Astronomy		MAC491 Mathematics II

CERTIFICATE IN CARTOGRAPHY (SVC209)

Subject	Pre-requisite	Co-requisite
SVC815 Cartography II		SVC715 Cartography I
SVC915 Cartography III		SVC815 Cartography II
SVC916 Cartography IV		SVC915 Cartography III
SVC991 Computer Graphics I	EEC790 Computer Programming	
SVC942 Computer Graphics II	SVC991 Computer Graphics I	
SVC313 Drafting Practice III	SVC212 Drafting Practice II	
SVC641 Geodesy	MAC491 Mathematics II	
SVC352 Land Studies	SVC551 Introduction to Land Studies	
SVC742 Map Projections I	MAC491 Mathematics II	
SVC842 Map Projections II	SVC742 Map Projections I	
MAC491 Mathematics II	MAC191 Mathematics I	
SVC543 Photo-grammetry II	SVC444 Photo-grammetry I	
SVC643 Photo-grammetry III	SVC543 Photo-grammetry II	
SVC945 Introduction to Remote Sensing		SVC543 Photo-grammetry II
SVC542 Spherical Trigonometry & Astronomy		MAC491 Mathematics II

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Schedule of Subjects Offered

SCHEDULE OF SUBJECTS OFFERED WITHIN THE SCHOOL OF ENGINEERING

Coding System

The subject code is in the form XXX999. The first two characters indicate the Department administering the subject.

AC	Accountancy
AR	Architecture and Industrial Design
BC	Business Computing
BE	Biology and Environmental Science
CE	Civil Engineering
CH	Chemistry
CM	Communication
CS	Computing Science
EE	Electrical Engineering
ES	Applied Geology
LP	Planning and Landscape Architecture
LW	Law
MA	Mathematics
ME	Mechanical Engineering
MN	Management
PH	Physics
SE	School of Engineering
SV	Surveying

The third character indicates the level of the course in which the subject is taught.

N	Master's Degree
B	Bachelor's Degree
C	Certificate
P	Postgraduate Diploma
S	Special Subject
T	Associate Diploma

The three numerals identify the subjects within a course.

The courses in which the subjects appear are listed in the right hand column.

ACB151	Australian Capital Markets	SVM214
ACB181	Accounting Information Systems I	ECJ222
ACB183	Principles of Accounting	CEJ156,EEJ157,MEJ158
ACB184	Accounting for Surveyors	SVJ159
ACB281	Accounting Information Systems II	ECJ222
ACB455	Personal and Corporate Finance	CEJ156,EEJ157,MEJ158
ACB753	Securities Evaluation	CEJ156,EEJ157,MEJ158
ACB913	Costing for Engineers	MEJ158
ACB951	Financial Management for Engineers	MEJ158
ACP181	Engineering Investment Analysis	MEM203
ACP354	Finance A	SVM214
ACP454	Finance B	SVM214
ACP881	Finance and Law	SVM214
ACP882	Development Finance	SVM214
ARB130	Building Construction and Architecture	SVJ159
ARS109	Architecture & Industrial Design	CEJ156,EEJ157,MEJ158
BCB297	Introduction to Computing B	ECJ222
BCB393	Computer Based Information Systems	CEJ156,EEJ157,MEJ158
BCB512	Database Systems	ECJ222
BEB506	Basic Ecology	CEJ156
BEP180	Environmental Science	CEM213
BEP182	Ecology for Development	SVM214
BEP280	Biology and Water Quality Control	CEM213
BEP388	Environmental Impact Studies	CEM213
BEP766	Legislation and the Environment	SVM214
BEP868	Environmental Impact Studies I	SVM214
CEB100	Civil Engineering I	CEJ156,EEJ157,MEJ158
CEB183	Engineering Mechanics	CEJ156,EEJ157,MEJ158
CEB192	Vacation Practice I	CEJ156
CEB201	Steel Structures	CEJ156
CEB202	Concrete Structures	CEJ156
CEB240	Soil Mechanics I	CEJ156
CEB241	Soil Mechanics II	CEJ156
CEB252	Structural Engineering I	CEJ156
CEB260	Fluid Mechanics	CEJ156
CEB281	Strength of Materials	CEJ156
CEB291	Civil Engineering Materials	CEJ156
CEB292	Vacation Practice II	CEJ156
CEB304	Civil Engineering Design I	CEJ156

CEB305 Construction Management and Economics	CEJ156
CEB312 Highway Engineering	CEJ156
CEB313 Traffic Engineering	CEJ156
CEB331 Concrete Technology	CEJ156
CEB340 Geomechanics	CEJ156
CEB352 Structural Engineering II	CEJ156
CEB360 Hydraulic Engineering I	CEJ156
CEB361 Hydrology	CEJ156
CEB364 Engineering Science II	SVJ159
CEB370 Public Health Engineering I	CEJ156
CEB390 Engineering Investigation and Reporting	CEJ156
CEB392 Vacation Practice III	CEJ156
CEB401 Design Project	CEJ156
CEB403 Professional Practice	CEJ156
CEB404 Field Trip	CEJ156
CEB405 Civil Engineering Design II	CEJ156
CEB410 Transport Engineering I	CEJ156
CEB430 Building Construction	CEJ156
CEB440 Geotechnical Engineering I	CEJ156
CEB460 Hydraulic Engineering II	CEJ156
CEB470 Public Health Engineering II	CEJ156
CEB491 Project (Civil)	CEJ156
CEB500 Construction Engineering	CEJ156
CEB501 Civil Engineering Practice	CEJ156
CEB504 Engineering Science III	SVJ159
CEB511 Transport Engineering II	CEJ156
CEB521 Civil Engineering Systems	CEJ156
CEB530 Concrete Design	CEJ156
CEB531 Masonry Design	CEJ156
CEB540 Geotechnical Engineering II	CEJ156
CEB550 Finite Element Methods	CEJ156
CEB551 Structural Design	CEJ156
CEB552 Advanced Structural Analysis	CEJ156
CEB554 Advanced Steel Design	CEJ156
CEB560 Water Engineering	CEJ156
CEB561 Coastal Engineering	CEJ156
CEB564 Engineering Science IIA	SVJ159
CEB570 Public Health Engineering III	CEJ156
CEB571 Environmental Engineering	CEJ156

CEC540 Soil Mechanics II	CEC114
CEC586 Laboratory Projects	CEC114
CEC588 Advanced Laboratory Practice	CEC114
CEP101 Professional Practice	CEM213
CEP106 Engineering for Development	SVM214
CEP107 Powers and Duties of a Municipal Engineer II	CEM213
CEP108 Powers and Duties of a Municipal Engineer III	CEM213
CEP122 Municipal Planning A	CEM213
CEP123 Municipal Planning B	CEM213
CEP124 Municipal Planning C	CEM213
CEP170 Technology and the Environment	CEM213
CEP172 Water Quality Engineering I	CEM213
CEP210 Municipal Traffic Engineering	CEM213
CEP211 Roadworks Practice I	CEM213
CEP214 Transport Engineering I	CEM213
CEP221 Subdivision Engineering	CEM213
CEP270 Air Pollution I	CEM213
CEP272 Hydrology	CEM213
CEP273 Water Quality Engineering II	CEM213
CEP274 Water Quality Engineering III	CEM213
CEP275 Solid Waste Disposal	CEM213
CEP290 Project	CEM213
CEP300 Civil Engineering Practice	CEM213
CEP310 Urban Transportation Planning	CEM213
CEP361 Urban Drainage	CEM213
CEP362 Irrigation Engineering	CEM213
CEP375 Industrial Liquid Wastes	CEM213
CEP376 Systems Modelling	CEM213
CEP377 Pollution Monitoring	CEM213
CEP378 Water Resources Development	CEM213
CEP379 Resource Conservation and Management	CEM213
CEP380 Water Supply and Sewerage	CEM213
CEP381 Air Pollution II	CEM213
CEP382 Flood Estimation	CEM213
CEP383 Storage-Yield Estimation	CEM213
CEP420 Transportation Engineering	SVM214
CEP460 Flood Plain Management	SVM214
CES101 Local Government Practice	CEC102
CES102 Municipal Engineering	CEC102

CES103 Civil Engineering Computing	CEC102
CET104 Construction Practice IA	CEL187
CET135 Strength of Materials	CEL187
CET195 Civil Engineering I	CEL187
CET204 Construction Practice IIA	CEL187
CET285 Statics	MEL189
CET295 Laboratory Practice I	CEL187
CET304 Construction Practice IIIA	CEL187
CET364 Engineering Science I	SVL190
CET385 Civil Engineering Drawing I	CEL187
CET386 Civil Engineering Drawing IA	CEL187
CET404 Engineering Science II	SVL190
CET435 Concrete Practice	CEL187
CET465 Fluid Mechanics	CEL187
CET555 Structural Engineering	CEL187,MEL189
CET570 Sanitary Engineering Practice	CEL187
CET595 Field Practice	CEL187
CET596 Materials Specification and Control	CEL187
CET597 Materials Specification and Control A	CEL187
CET605 Construction Practice I	CEL187
CET645 Soil Mechanics I	CEL187
CET695 Laboratory Practice II	CEL187
CET705 Construction Practice II	CEL187
CET706 Contract Administration	CEL187
CET707 Municipal Engineering	CEL187
CET708 Specifications and Estimates	CEL187
CET745 Soil Mechanics II	CEL187
CET755 Structural Design	CEL187
CET765 Hydrology	CEL187
CET775 Public Health Engineering	CEL187
CET776 Equipment Operation & Maintenance	CEL187
CET777 Process Operation and Control I	CEL187
CET785 Civil Engineering Drawing II	CEL187
CET786 Civil Engineering Drawing IIA	CEL187
CET795 Laboratory Practice III	CEL187
CET796 Civil Engineering Computing	CEL187
CET803 Development Engineering	CEL187
CET804 Civil Engineering Practice	CEL187
CET805 Construction Practice III	CEL187
CET806 Construction Practice IV	CEL187

CET807 Construction Management	CEL187
CET808 Job Organisation	CEL187
CET809 Local Government Practice	CEL187
CET815 Road Location and Design	CEL187
CET816 Road Engineering	CEL187
CET835 Tectonics	CEL187
CET836 Concrete Design	CEL187
CET845 Soil Mechanics III	CEL187
CET855 Structural Testing	CEL187
CET865 Hydrography	CEL187
CET866 Water Engineering	CEL187
CET875 Pollution Control	CEL187
CET876 Plant Operation and Maintenance	CEL187
CET877 Process Operation and Control II	CEL187
CET885 Civil Engineering Drawing III	CEL187
CET886 Drawing Office Practice (Civil)	CEL187
CET894 Computations A	CEL187
CET895 Project	CEL187
CHA140 Introductory Chemistry I	CEL187
CHA644 Process Measurement and Monitoring I	CEL187
CHA744 Process Measurement and Monitoring II	CEL187
CHA844 Trade Waste Control	CEL187
CHB344 Engineering Chemistry M	MEJ158
CHB346 Engineering Chemistry C	CEJ156
CHP144 Environmental Chemistry	CEM213
CMA199 Professional Communication Techniques	SVL190,SVL212
CMB108 English for Technologists	CEJ156,ECJ222,EEJ157 MEJ158
CMB113 Surveying Communication	SVJ159
CMB136 Technical Writing	MEJ158
CMB307 Advanced Professional Writing	CEJ156,EEJ157,MEJ158
CMC123 English	SVC209
CMC199 Professional Communication Techniques	SVC209
CSA165 Computing	MEL189
CSB190 Computing	CEJ156,EEJ157,MEJ158
CSB351 Introduction to Computing A	ECJ222

CSB354 Computers and Programming	ECJ222
CSB404 Computer Networks	ECJ222
CSB490 Software Engineering	EEJ157,MEJ158
CSB652 Computer Organisation I	ECJ222
CSB653 Data Structures	ECJ222
CSB654 Programming Languages	ECJ222
CSB661 FORTRAN Programming	ECJ222
CSB951 Systems Programming A	ECJ222
CSB952 Systems Programming B	ECJ222
CSB953 Computer Organisation II	ECJ222
CSB959 Systems Performance Optimisation	ECJ222
CSB961 Special Studies	ECJ222
CSB962 Language Processing	ECJ222
EEB110 Electrical Engineering I	CEJ156,ECJ222,EEJ157 MEJ158
EEB111 Electrical Engineering II	CEJ156,ECJ222,EEJ157 MEJ158
EEB206 Vacation Practice I	EEJ157
EEB209 Electrical Engineering II M	MEJ158
EEB294 Computer Programming	SVJ159
EEB301 Basic Measurement and Instrumentation	ECJ222,EEJ157
EEB302 Electrotechnology	ECJ222,EEJ157
EEB303 Network Theory I	ECJ222,EEJ157
EEB361 Telecommunications	ECJ222,EEJ157
EEB371 Electronic Devices	ECJ222,EEJ157
EEB372 Digital Electronics I	ECJ222,EEJ157
EEB400 Electrical Power Systems I	EEJ157
EEB401 Network Theory II	ECJ222,EEJ157
EEB404 Electrical Machines	EEJ157
EEB406 Vacation Practice II	EEJ157
EEB421 Control Engineering I	ECJ222,EEJ157
EEB429 Industrial Control M	MEJ158
EEB471 Electronics	ECJ222,EEJ157
EEB472 Digital Electronics II	ECJ222,EEJ157
EEB501 Advanced Measurement and Instrumentation	ECJ222,EEJ157
EEB511 Linear System Analysis	EEJ157
EEB520 Control Engineering I	EEJ157
EEB521 Control Engineering II	ECJ222,EEJ157
EEB522 Control Engineering II (T)	ECJ222,EEJ157
EEB531 Electrical Power Transmission	EEJ157

EEB552 Electrical Power Systems II	EEJ157
EEB561 Communications Engineering I	ECJ222,EEJ157
EEB562 Transmission and Propagation (T)	ECJ222,EEJ157
EEB572 Digital Electronics III	ECJ222,EEJ157
EEB573 Industrial Electronics	ECJ222,EEJ157
EEB574 Applied Electronics I	EEJ157
EEB581 Electrical Design I	EEJ157
EEB587 Electronic Systems Engineering Design I	ECJ222,EEJ157
EEB601 Realtime Computing	ECJ222,EEJ157,MEJ158
EEB602 Signal Processing	ECJ222,EEJ157
EEB606 Vacation Practice III	EEJ157
EEB620 Control Engineering II	EEJ157
EEB621 Industrial Control I	ECJ222,EEJ157
EEB622 Process Plant	EEJ157
EEB623 Industrial Systems I (T)	ECJ222,EEJ157
EEB652 Power Electronics	EEJ157
EEB661 Communications Engineering II	ECJ222,EEJ157
EEB662 Microwave and Antenna Techniques (T)	ECJ222,EEJ157
EEB672 Digital Electronics IV	ECJ222,EEJ157
EEB677 Applied Electronics II	EEJ157
EEB681 Electrical Design II	EEJ157
EEB701 Seminars & Technical Communication	ECJ222,EEJ157
EEB722 Industrial Control II	ECJ222,EEJ157
EEB724 Industrial Control	EEJ157
EEB741 Power System Analysis	EEJ157
EEB751 Electrical Power Plant III	EEJ157
EEB761 Communications Engineering III	ECJ222,EEJ157
EEB772 Electronic Systems I	EEJ157
EEB781 Project (Electrical Engineering)	EEJ157
EEB782 Electrical Design III	EEJ157
EEB783 Electrical Design IV	EEJ157
EEB785 Seminars	EEJ157
EEB788 Electronic Systems Engineering Design II	ECJ222,EEJ157
EEB789 Project (Electronic Systems Engineering)	ECJ222,EEJ157
EEB810 Electrical Protection	EEJ157
EEB820 Engineering Management	EEJ157
EEB872 Electronic Systems II	EEJ157

EEB887	Electronic Systems Engineering Design III	ECJ222,EEJ157
EEB888	Electronic Systems Engineering Design IV	ECJ222,EEJ157
EEB900	Computer Aided Engineering	EEJ157
EEB901	Vacation Practice I	ECJ222
EEB902	Vacation Practice II	ECJ222
EEB903	Vacation Practice III	ECJ222
EEB931	Industrial Systems II	ECJ222,EEJ157
EEB944	Power Station Engineering	EEJ157
EEB951	High Voltage Power Plant	EEJ157
EEB952	Electrical Engineering Utilisation	EEJ157
EEB961	Communications Techniques	ECJ222,EEJ157
EEB968	Digital Signal Processing	ECJ222,EEJ157
EEB971	Applied Electronics	ECJ222,EEJ157
EEC790	Computer Programming I	SVC209
EEP100	Process Control	EEM164
EEP101	Computer Aided Systems Design	EEM164
EEP102	Linear Control Theory I	EEM164
EEP103	Computer Control	EEM164
EEP104	Linear Control Theory II	EEM164
EEP106	Analysis and Design of Systems I	EEM164
EEP107	Digital Control Systems	EEM164
EEP108	Sampled Data Control Systems	EEM164
EEP109	Analysis and Design of Systems II	EEM164
EEP110	Microcomputer Control	EEM164, ECJ222
EEP111	Optimization and Extremum Control	EEM164
EEP112	Software for Industrial Control	EEM164
EET110	D C Theory I	EEL188,MEL189
EET210	D C Theory II	EEL188,MEL189
EET305	Workshop (Elec) IA	EEL188
EET309	Workshop (Elec) IIIA	EEL188
EET310	A C Theory	EEL188,MEL189
EET400	Electrical Engineering	EEL188,MEL189
EET405	Workshop (Elec) IIA	EEL188
EET409	Workshop (Elec) IVA	EEL188
EET470	Electronics I	EEL188,MEL189
EET500	Electrical Technology	MEL189
EET521	Instrumentation and Control	EEL188,MEL189
EET529	Instrument Practice A	EEL188
EET552	Electrical Machines	EEL188

EET566 Telecommunications	EEL188
EET577 Industrial Electronics	EEL188
EET621 Control Theory I	EEL188
EET641 Electrical Power Utilisation I	EEL188,MEL189
EET642 Electrical Power Systems I	EEL188
EET643 Electrical Protection I	EEL188
EET666 Communication Theory I	EEL188
EET672 Electronic Systems	EEL188
EET676 Digital Electronics	EEL188
EET677 Integrated Circuits	EEL188
EET678 Applied Electronics	EEL188
EET737 Transmission and Propagation	EEL188
EET741 Electrical Power Utilisation II	EEL188
EET752 Electrical Plant	EEL188
EET766 Communication Theory II	EEL188
EET790 Computer Programming I	CEL187,EEL188,SVL212
EET800 Electrical Industry	EEL188
EET820 Electrical & Mechanical Technology	MEL189
EET822 Digital Control Systems	EEL188
EET823 Process Control Systems	EEL188
EET851 Electrical Testing	EEL188
EET852 Electrical Services	MEL189
EET853 Energy Management	MEL189
EET866 Communication Techniques I	EEL188
EET878 Computer Electronics	EEL188
EET890 Computer Programming II	EEL188
ESB519 Geology	CEJ156
ESC119 Engineering Geology	CEC114
ESC143 Geology for Cartographers	SVC122
ESP419 Terrain Analysis	SVM214
EST219 Engineering Geology	CEL187
LPP101 Built Environment I	SVM214
LPP102 Built Environment II	SVM214
LWS002 Contract and Industrial Law	MEM203
MAB193 Engineering Mathematics I	CEJ156,ECJ222,EEJ157 MEJ158
MAB199 Surveying Mathematics I	SVJ159
MAB295 Applied Mathematics	ECJ222,EEJ157
MAB342 Mathematics of Finance	SVM214
MAB493 Engineering Mathematics II	CEJ156,ECJ222,EEJ157 MEJ158

MAB495 Surveying Mathematics II	SVJ159
MAB618 Numerical Analysis I	ECJ222
MAB626 Topics in Mathematics I	SVM214
MAB641 Actuarial Mathematics	SVM214
MAB795 Survey Mathematics III	SVJ159
MAB799 Basic Statistics for Surveyors	SVJ159
MAB893 Engineering Mathematics III	CEJ156,ECJ222,EEJ157 MEJ158
MAB894 Engineering Mathematics IV	ECJ222,EEJ157,MEJ158
MAC491 Mathematics II	SVC209
MEB100 Manufacturing I	CEJ156,EEJ157,MEJ158
MEB101 Design I (Mechanical)	CEJ156,EEJ157,MEJ158
MEB111 Dynamics	CEJ156,EEJ157,MEJ158
MEB121 Engineering Graphics	CEJ156,EEJ157,MEJ158
MEB133 Materials I	CEJ156,EEJ157,MEJ158
MEB200 Vacation Practice I	MEJ158
MEB221 Engineering Science I	SVJ159
MEB230 Materials II	MEJ158
MEB231 Materials III	MEJ158
MEB250 Thermodynamics I	MEJ158
MEB251 Thermodynamics II	MEJ158
MEB300 Vacation Practice II	MEJ158
MEB313 Mechanics I	MEJ158
MEB332 Materials Selection	MEJ158
MEB339 Materials and Processes Project	MEJ158
MEB361 Fluids I	MEJ158
MEB372 Manufacturing Technology	MEJ158
MEB381 Design II (Mechanical)	MEJ158
MEB400 Industrial Visits	MEJ158
MEB401 Seminars	MEJ158
MEB402 Vacation Practice III	MEJ158
MEB409 Project (Mechanical)	MEJ158
MEB410 Deformation Processes	MEJ158
MEB411 Theory of Machines	MEJ158
MEB450 Air Conditioning	MEJ158,MEM203
MEB451 Thermal Plant	MEJ158,MEM203
MEB453 Mechanical Engineering IIs	ECJ222,EEJ157
MEB461 Fluids III	MEJ158
MEB462 Fluids II	MEJ158
MEB463 Tribology	MEJ158,MEM203

MEB477	Industrial Administration	EEJ157
MEB483	Design III (Mechanical)	MEJ158
MEB489	Mechanical Design Project	MEJ158
MEB510	Noise and Vibrations	MEJ158
MEB511	Stress Analysis	MEJ158
MEB550	Heat Transfer	MEJ158
MEB570	Manufacturing II	MEJ158
MEB610	Mechanics II	MEJ158
MEB640	Automation	MEJ158
MEB660	Fluid Power	MEJ158
MEB670	Industrial Engineering I	MEJ158
MEB671	Manufacturing III	MEJ158
MEB700	Failure Analysis	MEJ158
MEB770	Industrial Administration and Engineering I	ECJ222,EEJ157
MEB771	Industrial Engineering II	MEJ158
MEB870	Industrial Administration and Engineering II	ECJ222,EEJ157
MEB910	Plant Optimisation	MEJ158
MEB911	Finite Element Analysis	MEJ158
MEB950	Process Plant Design	MEJ158
MEB960	Fluid Systems Design	MEJ158
MEB970	Computer Aided Manufacturing	MEJ158
MEB972	Jig and Tool Design	MEJ158
MEB973	Design for Manufacturing	MEJ158
MEB974	Production Scheduling	MEJ158
MEB980	Design for Power Transmission Systems	MEJ158
MEB981	Design for Materials Handling Systems	MEJ158
MEB982	Product Planning and Development	MEJ158
MEP140	Hydraulic and Pneumatic Control	EEM164
MEP210	Noise and Vibration Control	MEM203
MEP240	Principles of Plant Operation	MEM203
MEP251	Energy Management	MEM203
MEP330	Joining Materials	MEM203
MEP373	Maintenance Strategies	MEM203
MEP381	Design for Reliability and Safety	MEM203
MEP400	Case Studies	MEM203
MEP430	Materials Selection for Reliability	MEM203

MEP451 Air and Water Pollution Control	MEM203
MEP471 Bulk Materials Handling	MEM203
MET100 Engineering Science	MEL189
MET120 Engineering Drawing I	CEL187,EEL188,MEL189
MET121 Drafting Practice IA	CEL187,MEL189
MET123 Electrical Engineering Drawing IA	EEL188
MET140 Engineering Materials I	CEL187,EEL188,MEL189
MET170 Workshop Processes	MEL189
MET171 Trade Training IA	MEL189
MET175 Workshop (Mech.) IA	EEL188
MET200 Mechanical Engineering	CEL187,EEL188
MET210 Applied Mechanics I	CEL187,EEL188,MEL189
MET220 Engineering Drawing II	CEL187,EEL188,MEL189
MET221 Drafting Practice IIA	CEL187,MEL189
MET223 Electrical Engineering Drawing IIA	EEL188
MET250 Applied Heat I	MEL189
MET271 Trade Training IIA	MEL189
MET310 Applied Mechanics II	CEL187,EEL188,MEL189
MET312 Dynamics	MEL189
MET320 Engineering Drawing III	MEL189
MET321 Drafting Practice IIIA	MEL189
MET350 Applied Heat II	MEL189
MET351 Mechanical Services Installation	MEL189
MET352 Refrigeration and Air Conditioning	MEL189
MET370 Industrial Administration	MEL189
MET420 Engineering Drawing IV	MEL189
MET421 Mechanical Project A	MEL189
MET433 Engineering Materials II	MEL189
MET471 Workshop Laboratory	MEL189
MET475 Workshop (Mech.) IIIA	EEL188
MET560 Fluid Mechanics and Heat Transfer	MEL189
MET572 Production Planning	MEL189
MET573 Machine Tool Technology	MEL189
MET580 Machine Elements I	MEL189
MET650 Thermal Plant	MEL189
MET652 Building Services	MEL189
MET680 Machine Elements II	MEL189
MET720 Engineering Graphics	CEL187
MET733 Industrial Metallurgy I	MEL189
MET772 Metrology	MEL189
MET780 Machine Elements III	MEL189

MET782	Jig and Tool Design	MEL189
MET833	Industrial Metallurgy II	MEL189
MET854	Fuels and Combustion	MEL189
MET901	Sugar Mill Technology I	MEL189
MET902	Sugar Mill Technology II	MEL189
MET903	Computer Applications A	MEL189
MET920	Computer Graphics	CEL187,EEL188,MEL189
MET940	Mechanical Instrumentation and Control	MEL189
MET950	Industrial Heat Transfer	MEL189
MET960	Fluid Power	MEL189
MET961	Industrial Fluid Mechanics	MEL189
MET962	Process Plant	MEL189
MET970	Bulk Materials Handling	MEL189
MET971	Industrial Engineering	MEL189
MNA012	Administrative Practice	SVL190,SVL212
MNA401	Australian Business and Society	EEL188
MNA460	Principles of Marketing	EEL188
MNB001	Principles of Economics	CEJ156,EEJ157,MEJ158
MNB002	Psychology for Engineers	CEJ156,EEJ157,MEJ158
MNB003	Industrial and Labour Relations	CEJ156,EEJ157,MEJ158
MNB004	Management	CEJ156,EEJ157,MEJ158
MNB033	Purchasing and Distribution for Engineers	CEJ156,EEJ157,MEJ158
MNB043	Industrial Management	MEJ158
MNB075	Government	CEJ156,EEJ157,MEJ158
MNB930	Operations Research	CEJ156,EEJ157,MEJ158
MNC012	Administrative Practice	SVC209
MNP037	Introductory Economics	SVM214
MNP042	Land Development Management	SVM214
MNP102	Managerial Psychology	SVM214
MNP106	Managerial Economics	SVM214
MNP108	Engineering Management	MEM203
MNP204	Marketing Methods and Practices	SVM214
MNP305	Research Design in Marketing	SVM214
MNP403	Managerial Strategy	SVM214
MNP506	Promotional Policies and Methods	SVM214
MNP510	Powers and Duties of a Municipal Engineer I	CEM213
MNP607	Consumer Behaviour	SVM214
MSA162	Microbiology II	CEL187

PHB131 Engineering Physics I	CEJ156,ECJ222,EEJ157 MEJ158
PHB170 Physics for Surveyors	SVJ159
PHB430 Engineering Physics IV	ECJ222,EEJ157
SEB103 General Elective	CEJ156,EEJ157,MEJ158
SET100 Industrial Employment I	CEL187,EEL188,MEL189
SET200 Industrial Employment II	CEL187,EEL188,MEL189
SET300 Industrial Employment III	CEL187,EEL188,MEL189
SET400 Industrial Employment IV	CEL187,EEL188,MEL189
SET500 Industrial Employment V	CEL187,EEL188,MEL189
SET600 Industrial Employment VI	CEL187,EEL188,MEL189
SET700 Industrial Employment VII	CEL187,EEL188,MEL189
SET800 Industrial Employment VIII	CEL187,EEL188,MEL189
SVB115 Data Presentation	SVJ159
SVB121 Land Surveying I	SVJ159
SVB189 Industrial Practice I	SVJ159
SVB226 Land Surveying II	SVJ159
SVB270 Land Administration I	SVJ159
SVB289 Industrial Practice II	SVJ159
SVB306 Surveying I	CEJ156
SVB315 Cartography I	SVJ159
SVB332 Land Surveying III	SVJ159
SVB343 Photogrammetry I	SVJ159
SVB351 Land Studies A	SVJ159
SVB389 Industrial Practice III	SVJ159
SVB390 Surveying Computing	SVJ159
SVB406 Surveying II	CEJ156
SVB415 Cartography II	SVJ159
SVB432 Land Surveying IV	SVJ159
SVB443 Photogrammetry II	SVJ159
SVB451 Land Studies B	SVJ159
SVB470 Land Administration II	SVJ159
SVB489 Industrial Practice IV	SVJ159
SVB515 Cartography III	SVJ159
SVB532 Surveying Practice I	SVJ159
SVB544 Land Surveying V	SVJ159
SVB551 Land Valuation	SVJ159
SVB561 Land Development Practice I	SVJ159
SVB573 Land Administration III	SVJ159
SVB574 Land Administration IV	SVJ159

SVB589 Industrial Practice V	SVJ159
SVB615 Cartographic Practice	SVJ159
SVB616 Cartographic Administration	SVJ159
SVB617 Digital Cartography	SVJ159
SVB618 Cartography IV	SVJ159
SVB631 Land Surveying VI	SVJ159
SVB637 Surveying Practice II	SVJ159
SVB642 Map Projections	SVJ159
SVB645 Remote Sensing	SVJ159
SVB664 Land Development Practice II	SVJ159
SVB670 Land Administration V	SVJ159
SVB680 Professional Practice	SVJ159
SVB682 Seminar	SVJ159
SVB683 Project	SVJ159
SVB685 Project (Cartography)	SVJ159
SVB686 Seminar (Cartography)	SVJ159
SVC211 Drafting Practice II	SVC122
SVC312 Cartographic Drafting	SVC122
SVC313 Drafting Practice III	SVC209
SVC343 Photogrammetry II	SVC122
SVC352 Land Studies	SVC209
SVC442 Map Projections	SVC122
SVC444 Photogrammetry I	SVC209
SVC471 Land Laws and Regulations	SVC209
SVC476 Geography for Cartographers	SVC122
SVC513 Map and Plan Reproduction	SVC122
SVC540 Geodesy	SVC122
SVC541 Spherical Trigonometry and Astronomy	SVC122
SVC542 Spherical Trigonometry and Astronomy	SVC209
SVC543 Photogrammetry II	SVC209
SVC551 Introduction to Land Studies	SVC209
SVC571 Land Laws and Regulations	SVC122
SVC641 Geodesy	SVC209
SVC643 Photogrammetry III	SVC209
SVC715 Cartography I	SVC209
SVC742 Map Projections I	SVC209
SVC815 Cartography II	SVC209
SVC842 Map Projections II	SVC209
SVC915 Cartography III	SVC209

SVC916	Cartography IV	SVC209
SVC945	Introduction to Remote Sensing	SVC209
SVC991	Computer Graphics I	SVC209
SVC992	Computer Graphics II	SVC209
SVP150	Land Studies I	SVM214
SVP260	Development Control	SVM214
SVP261	Land Design I	SVM214
SVP361	Land Design II	SVM214
SVP450	Land Studies II	SVM214
SVP461	Land Design III	SVM214
SVP462	Land Design IV	SVM214
SVT112	Survey Plan Drawing A	SVL190
SVT113	Drafting Practice I	SVL212
SVT114	Drafting Practice IA	SVL212
SVT121	Survey Drafting Practice I	SVL190
SVT122	Surveying I	SVL190
SVT123	Surveying Practice IA	SVL190
SVT124	Surveying	SVL212
SVT212	Drafting Practice II	SVL212
SVT222	Surveying II	SVL190
SVT223	Surveying Practice IIA	SVL190
SVT224	Surveying Practice IIIA	SVL190
SVT225	Computations I	SVL190
SVT226	Survey Computations Practice IA	SVL190
SVT227	Computations III	SVL190
SVT243	Photogrammetry I	SVL190,SVL212
SVT306	Engineering Surveying I	CEL187,EEL188,MEL189
SVT312	Drafting Practice IIA	SVL212
SVT313	Drafting Practice III	SVL212
SVT321	Survey Drafting Practice II	SVL190
SVT322	Surveying III	SVL190
SVT326	Surveying Practice IVA	SVL190
SVT343	Photogrammetry II	SVL190,SVL212
SVT352	Land Studies	SVL190,SVL212
SVT422	Surveying IV	SVL190
SVT423	Surveying Practice VIA	SVL190
SVT425	Surveying Practice VA	SVL190
SVT429	Computations II	SVL190
SVT439	Survey Computations Practice IIA	SVL190
SVT443	Photogrammetry III	SVL212

SVT471 Land Laws and Regulations	SVL190,SVL212
SVT506 Engineering Surveying II	CEL187
SVT507 Mapping and Photogrammetry	CEL187
SVT512 Drafting Practice IIIA	SVL212
SVT541 Spherical Trigonometry and Astronomy	SVL190,SVL212
SVT542 Map Projections I	SVL190,SVL212
SVT612 Drafting Practice IVA	SVL212
SVT641 Geodesy	SVL190,SVL212
SVT643 Map Projections IA	SVL212
SVT714 Cartographic Drafting IA	SVL212
SVT715 Cartography I	SVL212
SVT813 Reprographic Processing A	SVL212
SVT814 Cartographic Drafting IIA	SVL212
SVT815 Cartography II	SVL212
SVT842 Map Projections II	SVL212
SVT843 Map Projections IIA	SVL212
SVT915 Cartography III	SVL212
SVT916 Cartography IV	SVL212
SVT945 Remote Sensing	SVL212
SVT991 Computer Graphics I	SVL212
SVT992 Computer Graphics II	SVL212

Surveying students analysing photographs

18
Prizes and Awards

PRIZES AND AWARDS

Amoco Foundation Award

Awarded to the full-time student in the second year of the Bachelor of Engineering - Mechanical course who obtains the best overall result in the first year of the course.

The Association of Public Authority Surveyors Prize

Awarded to the Bachelor of Applied Science (Surveying) Stage 1 student who achieves the best academic result in the subject SVB121 Land Surveying I.

The Australian Asphalt Pavement Association Limited Prizes

(i) Awarded to the student in the Bachelor of Engineering - Civil course who obtains the best results in the subjects CEB312 Highway Engineering and CEB404 Field Trip or equivalents.

(ii) Awarded to the student in the Associate Diploma in Civil Engineering who obtains the best results in the subjects CET596 Materials Specification and Control and CET605 Construction Practice I or equivalents.

The Australian Institute of Cartographers (Qld Division) Prizes

(i) Awarded to the best final year student of the Certificate in Cartography for his/her performance over the whole course.

(ii) Awarded to the best third year student of the Certificate in Cartography for his/her performance during the first three years of the course.

The Australian Institute of Engineering Associates, Brisbane Branch Award

Awarded to the outstanding graduate of an Associate Diploma in Engineering.

The Australian Institute of Refrigeration, Air Conditioning and Heating, Queensland Division Prize

Awarded to the student associated with the industry who obtains the best performance in subjects in the Mechanical Engineering Department dealing with Refrigeration or Air Conditioning or Heating.

The BKS Surveys (Australasia) Pty Ltd Prize

Awarded to the student in the Bachelor of Aplied Science (Surveying) who obtains the best result in the subject SVB443 Photogrammetry II.

The Robert S Brodribb Memorial Prize

Donated from monies held in trust by QIT, on behalf of the Local Government Engineers Association and Mrs R S Brodribb, and awarded to the student exhibiting the most outstanding performance in those subjects related to, or qualifying persons for, the issue of a Certificate of Competency as a Local Government Engineer.

The Civil Engineering Contractors Prizes

Donated by the Australian Federation of Construction Contractors and awarded to:

(i) the student who obtains the highest achievement in the final year of the full-time Bachelor of Engineering - Civil course.

(ii) the student who obtains the highest achievement in the final year of the part-time Bachelor of Engineering - Civil course.

The J H Curtis Award

Donated by The Institution of Engineers, Australia, Queensland Division, and awarded to the Bachelor of Engineering student who submits the best final year project.

Custom Scientific Electronics Prize

Awarded to the Associate Diploma in Electrical Engineering graduating student who achieves the best average result in any two of the subjects EET678 Applied Electronics, EET790 Computer Programming I, EET666 Communication Theory I, EET766 Communication Theory II.

Fluid Power Society of Queensland Prize

Awarded to the student in the School of Engineering who obtains the highest pass in an engineering subject which deals mainly with fluid power technology.

Foxboro Pty Ltd Prize

Awarded to the Bachelor of Engineering - Electrical student who achieves the best average result in the subjects EEB681 Electrical Design II and EEB783 Electrical Design IV.

The Fred Haigh Memorial Prize

Donated by Pioneer Sugar Mills Ltd, and awarded to a final year Bachelor of Engineering - Civil student, based on results in the subject CEB460 Hydraulic Engineering II, as well as a technical paper prepared by the student.

The James Hardie Prizes for Engineering

Awarded to students in the penultimate year of their course, on the basis of their academic performance in subjects related to water engineering or engineering practice, together with consideration of the student's interests and involvement in engineering practice and activities both within the Institute and the community. To be considered, students must make written application in the specified manner to the Department of Civil Engineering by the set date. Two prizes are awarded anually:

(i) Bachelor of Engineering (full-time or part-time)

(ii) Associate Diploma in Civil Engineering (full-time or part-time)

Honeywell Prize

Awarded for high academic performance by a Bachelor of Engineering or Associate Diploma in Engineering student in the fields of Instrumentation and Automatic Control.

Awards with Honours

Students in the Bachelor of Engineering course are eligible to receive their award with Honours. First Class, Second Class Honours Division A and Second Class Honours Division B may be awarded to the top 22½%, on average, of graduates of the course. Honours indicates a level of proficiency in the academic subjects in the course.

The F L Hudson Memorial Foundation Student Achievement Award

Awarded to the part-time student in the Associate Diploma in Mechanical Engineering who successfully completes all subjects in Semesters 5 and 6 in the same year and has the best aggregate marks in those subjects which reflect the Production Engineering content of that year.

The Institute of Draftsmen Australia (Queensland Division) Prize

Awarded to a graduate of an Associate Diploma in Engineering who obtains the best average results over any four engineering drawing subjects.

Institute of Radio and Electronics Engineers, Australia Prizes

(i) Awarded to the student who performs best in certain subjects in the final year of the Electronics and Communication strand in the Bachelor of Engineering - Electrical course.

(ii) Awarded to the student who performs best in certain subjects in the final year of the Associate Diploma in Electrical Engineering course.

The Institute of Steel Service Centres of Australia (Queensland Chapter) Prize

Awarded to the student in the full-time Bachelor of Engineering - Mechanical course who obtains the highest result in the subject MEB332 Materials Selection.

The Institution of Surveyors, Australia (Queensland Division) Centenary Prize

Awarded to the student who completes the fourth stage of the Bachelor of Applied Science (Surveying) course, and who maintains a good academic record over those four stages and demonstrates a sincere interest in his or her future profession and the community.

The Jasco Pty Ltd Prize

Awarded to the part-time Associate Diploma in Engineering student who gains the best aggregate mark for MET120 Engineering Drawing I and MET220 Engineering Drawing II, and successfully completes all subjects in Semesters 1 and 2 and enrols in all subjects for Semester 3.

The John Kindler Memorial Prize

Awarded in memory of Mr John Kindler, the former Chief Engineer in the Co-Ordinator General's Department, who was the Chairman of the committee which formulated the details of the various courses in engineering upon the establishment of the Queensland Institute of Technology.

Awarded to a graduate of the Bachelor of Engineering course, for outstanding performance throughout the course.

To be considered, final year students must make written application in the specified manner by the date set out in the notices published each year, and attend a personal interview. Selection is based not only on academic achievement, but requires an involvement in sport, campus and general community activities, concern for and relation with peers, and a mature approach to their potential as a graduate during their undergraduate years.

The Don King-Scott Memorial Prize

Donated by the Queensland Division of the Australian Water and Waste-Water Association, and awarded to the graduating student who gains the highest aggregate mark in the four subjects CEP272 Hydrology, CEP380 Water Supply and Sewerage, CEP172 Water Quality Engineering I and CEP273 Water Quality Engineering II in the Graduate Diploma in Environmental and Municipal Engineering course.

Louvre Windows Australia Pty Ltd Prize

Awarded to the student who obtains the highest pass in the subject MEB480 Design Analysis for Production in the final year of the Bachelor of Engineering - Mechanical course.

Main Roads Department Prizes

These prizes are awarded to officers of the Main Roads Department in attendance at the Queensland Institute of Technology, with the best performances in the following courses:

(i) Bachelor of Engineering - part-time

(ii) Associate Diploma in Engineering - cadet draftsman

(iii) Associate Diploma in Engineering - cadet construction or investigation technician.

Peter McAnally Memorial Prize

Donated by the staff of the Civil Engineering Department in memory of their esteemed colleague and lecturer in Geotechnical Engineering, and awarded to the best student for the subject 'Geomechanics II'.

MIM Holdings Limited Prize

Awarded annually to a student in the final year of the Bachelor of Engineering course, who undertakes a project of mutual benefit to the Institute and MIM.

Monier Rocla Prize

Awarded to the student in the School of Engineering, either full-time or part-time, who sits for the examination for the first time, and receives the highest mark in the subject MNB004 Management.

Pettigrew Consultants Pty Ltd Prize

Awarded to the full-time student in the Associate Diploma in Mechanical Engineering who obtains the best average percentage in all subjects in the first year of the course.

John Grayson Pike Memorial Prize

Donated by the Association of Consulting Surveyors (Queensland), and awarded to the graduate of the Bachelor of Applied Science (Surveying) course who obtains the best weighted average result for the surveying core subjects of the course, weight being assigned to each subject in proportion to the practical content of the subject.

Queensland Electricity Generating Board Prize

Awarded for high academic performance by a Bachelor of Engineering or Associate Diploma in Engineering student in the fields of Instrumentation and Automatic Control.

Queensland Electricity Generating Board and South East Queensland Electricity Board - Electric Energy Prizes

(i) Awarded to the Bachelor of Engineering - Electrical student specialising in Power and Control in the later years of the course, with the best performance in designated subjects relevant to Electric Energy.

(ii) Awarded to the graduate of the Associate Diploma in Engineering course with the best performance in designated subjects relevant to Electric Energy.

Queensland Institute of Technology 'Institute Medal' School of Engineering

Awarded to the graduating student of a UG1 degree course within the School of Engineering who shows the most distinguished academic performance in the course. The recipient must, in the minimum time, pass all subjects at a uniformly high standard.

RACQ Prize in Highway Engineering

Awarded to the final year graduating full-time or part-time student in the Bachelor of Engineering - Civil course who attains the highest average in highway, traffic and transportation subjects, including any related final year project.

Lance Reichstein Memorial Prize

Donated by Industrial Engineering Limited, and awarded to the student with the highest overall mark in third year design and project subjects in each of the full-time Bachelor of Engineering courses:

(i) Bachelor of Engineering - Civil

(ii) Bachelor of Engineering - Electrical

(iii) Bachelor of Engineering - Mechanical

This prize was instituted under the terms of the will of the late Lance Reichstein, who was both the founder and principal of the firm Industrial Engineering Limited, and who was a part-time staff member of the Footscray Institute of Technology, Victoria, for over twenty years.

Two awards only are offered within Australia, one at Footscray, and the other at QIT.

Rockwell - Energy Control Prize

Awarded to a Bachelor of Engineering - Electrical student who best demonstrates excellence in the use and application of Rockwell International micro-electronic products. Students studying the subjects Electrical Design II and IV, Electronic Systems Engineering II and IV and Project may be eligible.

A G Scott Memorial Prize

Donated by Mr and Mrs Scott from monies held in trust, and awarded annually in memory of Mr A G Scott, a graduate of the Bachelor of Engineering - Mechanical course, to the student in the Bachelor of Engineering course who demonstrates the greatest gain in innovative ability and competence in Mechanical Engineering Design, or attains the best overall performance in design work.

P R Scott Prize

Awarded to a student of Mechanical Engineering in either the Degree or Associate Diploma who obtains the best marks in subjects related to building services and who is not the recipient of a previous award in a similar field.

Shell Company of Australia Limited Prize

Awarded to the student who achieves the best overall performance in the elective subject MEB463 Tribology in the Bachelor of Engineering - Mechanical course.

Society of Manufacturing Engineers Prize

Awarded to the student in the Associate Diploma course in Mechanical Engineering who, while enrolled in the full complement of subjects for that course, obtains the highest percentage in the subject MET170 Workshop Processes.

Surveying Staff Prizes

Donated by staff within the QIT Department of Surveying, and awarded to:

(i) the graduate with the best academic record in the Bachelor of Applied Science (Surveying).

(ii) the student who completes the Associate Diploma in Surveying who has the best academic record therein.

(iii) the student who completes the Certificate in Cartography and who has the best academic record therein.

Wild Leitz (Australia) Pty Ltd Prizes

(i) Awarded to the top student in the subject SVT113 Drafting Practice I of the Associate Diploma in Cartography course.

(ii) Awarded to the top student in the subject SVB115 Data Presentation of the Bachelor of Applied Science (Surveying) course.

Awards With Distinction

Students in the Bachelor of Applied Science (Surveying) and the Associate Diploma courses are eligible to receive their award 'With Distinction'. This award reflects excellence in the academic subjects in the course and indicates that graduates are in the top 10% of the graduates over a period of years.

Carl Zeiss Pty Ltd Prize

Awarded to the student in the Associate Diploma in Cartography who obtains the best average result in the subjects SVT243 Photogrammetry I, SVT343 Photogrammetry II and SVT443 Photogrammetry III.

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Synopses of Subjects

SYNOPSES

EET310 A.C. Theory

Lectures and laboratory work associated with waveforms, phasors, 'j' operator, series and parallel R, L and C quantities, power and reactive volt-amps, power factor, single phase circuits. Network theorems, mesh and nodal analysis, mutually coupled circuits; coupling factor and the dot convention.

ACB184 Accounting for Surveyors

Nature and function of accounting; the Balance Sheet. Financial reporting and analysis. Fund and cash flows, cost behaviour, elements of budgeting. Financial policy and decision making. Taxation.

ACB181 Accounting Information Systems I

Nature and function of accounting, basic financial accounting, including the double entry system and the accounting cycle. Preparation of simple financial statements. An introduction to management accounting, budgeting, cost/volume /profit analysis, job and process costing, cost accumulation systems. Standard costing, Accounting information for decision making.

ACB281 Accounting Information Systems II

The use of accounting information in decision making. Firm objectives, analysis of investment decisions, cash budgeting and management, inventory management, accounts receivable policies. Australian Capital Markets. Sources of short term and permanent funds. Financing policies.

MAB641 Actuarial Mathematics

Mortality table, annuities depending on the status of a life -whole life, temporary, deferred, assurances - temporary, whole of life, deferred, endowment; relationships between assurance and annuity functions - annual premiums; premiums -office premiums; policy values - alterations to policies; annuities - premiums payable more frequently than yearly.

MNA012 Administrative Practice

Business administration. Administrative planning, behaviour and control. Personnel policies. Processes of government. Electoral systems in Australia. The Public Service. Fiscal and monetary policy.

MNC012 Administrative Practice

Business administration. Administrative planning, behaviour and control. Personnel policies. Processes of government. Electoral systems in Australia. The Public Service. Fiscal and monetary policy.

CEC588 Advanced Laboratory Practice

The responsibilities of laboratory staff, accuracy of results and statistical reliability is considered, together with theoretical and practical work on the principles of operation of various testing machines, processes and special forms of tests on various materials.

EEB501 Advanced Measurement and Instrumentation

This subject will expose the student to a wide range of sophisticated electronic laboratory measuring instruments, together with the types of measurement which can be made with them.

CMB307 Advanced Professional Writing

This subject is designed to provide a theoretical and practical basis for the development of advanced writing skills in technical and professional communication contexts.
Professional writing is practised within the constraints of competetive industrial activity in both private and public organisations. 'Advanced Professional Writing' is oriented towards the needs of the scientist or engineer who wishes to acquire special competence in the production and presentation of written communication; and the subject assumes that students have already discerned the central importance of the communication function in their own professional duties. Provision is made for students to perfect specific skills which are related to their personal job needs.

CEB554 Advanced Steel Design

Composite beams and columns, cold formed members. Fatigue and brittle fracture, philosophy of limit state, strength and serviceability. Advanced plastic analysis methods. Multi-storey frames by plastic method. Secondary moment design problems: effects of axial force and shear force to plastic moment. Biaxial bending, strain hardening and residual stresses. Local stability. Frame stability and deflections. Estimates of failure loads.

CEB552 Advanced Structural Analysis

Stability Theory: An extension of Structural Engineering I in buckling of columns with variable cross-section, analysis of beam-columns using solution of beam governing differential equations and energy methods with an introduction to variational calculus. Buckling of frames. Torsional buckling of columns and lateral torsional buckling of beams. Revision of plate theory and introduction to buckling of plates and cylindrical shells. Non-linear buckling. Post buckling strength of flat and curved stiffened plates and methods of design of tension field beams.

Dynamics of Structures: Fundamentals of dynamics, natural modes of vibration, lumped mass multi-degree systems. Distributed mass and load on structures. Response of structures to harmonic, non-harmonic and non-periodic forces. Response to random excitations including earthquake and wind gusts.

MEB450 Air Conditioning

Lectures and laboratory work to cover the theory and its application to the following topics: psychrometry, heating and cooling load calculations, air conditioning systems, fan and duct systems, pumps and piping systems, cooling and dehumidifying coils, vapour compression, refrigeration cycle analysis, multipressure systems, absorption refrigeration, cooling towers, solar energy and noise control.

CEP270 Air Pollution I

A subject covering basic aspects of air pollution and the environment, its causes, its movement and control.

CEP381 Air Pollution II

Further studies in air pollution and its control, including legislation, monitoring and control techniques. Noise and its control, including instrumentation, effects of noise, measurement, mitigation and legislation.

MEP451 Air and Water Pollution Control

The legislation and its objectives. The problems, the sources and effect of air pollutants on the environment. Procedures for controlling air pollution, treatment methods for water pollutants.

EEP106 Analysis and Design of Systems I

Multiple-loop control systems. Piecewise-linear analysis. Describing function methods. Phase-plane methods. Detailed design studies using time domain and frequency domain techniques, root-loci, state-variable feedback, non-interactive controllers, piecewise-linear analysis, describing functions, phase-planes etc.

EEP109 Analysis and Design of Systems II

Statistical design of control systems. Advanced estimation and identification techniques. Sensitivity analysis. Reliability analysis of systems. Failure survival design. Detailed design studies involving sampled data systems, computer and micro-computer control, statistical techniques, sensitivity analysis etc.

EEB574 Applied Electronics I

This subject introduces students to practical aspects of electronic components relevent to industrial systems. Both analogue and digital components and integrated circuits are examined, with particular emphasis on the operation of these devices in an electrically noisy environment.

EEB677 Applied Electronics II

This subject extends Applied Electronics I into the microprocessor area. Interfacing methods, I/O and basic programming are treated, and practical examples in the use of microprocessor systems are given.

EEB971 Applied Electronics

A wide range of advanced electronics and electronic systems is studied. Knowledge of design is extended to circuits and systems in communications and industrial electronics.

EET678 Applied Electronics

The subject introduces the student to the Integrated Circuit approach to electronic systems design. The course is highly practical and utilizes the basic fundamentals of IC's given in Integrated Circuits. Further treatment of IC circuits with practical applications: amplifiers (all the common configurations), oscillators, special purpose circuits such as peak detectors, sample and hold circuits, active filters etc.

MET250 Applied Heat I

Mechanical engineering equipment and processes based on thermal energy conversion. First and Second laws of Thermodynamics, internal combustion engine cycles and testing.

MET350 Applied Heat II

Fuels and combustion. Two phase systems such as steam and refrigeration equipment. Mixtures. Compressors. Laboratory work and field trips.

MAB295 Applied Mathematics

Vector fields, vector identities involving div., grad., and curl; solution of Laplace's equation, introduction to Maxwell's equations; solution of differential equations arising from second order vibrating systems; equilibrium of flexible ropes and chains; kinematics of a particle, dynamics of systems of particles and rigid bodies.

MET210 Applied Mechanics I

Consideration of force and its effects. Equilibrium, moments of forces. Displacement, velocity and acceleration, inertia. Friction and friction machines.

MET310 Applied Mechanics II

Work, power and energy; efficiency. Introduction to simple machines. Mechanical advantage and velocity ratio. Hydrostatics and fluid friction. Section properties, shearing force and bending moments, torsion.

ARS109 Architecture and Industrial Design

Architectural appreciation, unity, function and scale. Architectural materials and construction. Historical development and modern practice of architecture and industrial design. Rationalised building construction, pre-fabrication, modular design, preferred sizes. Elements of industrial design, relation to human and functional needs. Liaison between architect, designer and engineer. Field study of microenvironments.

MNA401 Australian Business and Society

Introduction to Australian business. Finance and investment - institutions and their functions. Population, immigration and the labour force. International relationships. Government regulation of industry. Decentralization/urban renewal. Principles of organization. Analyses of selected industries, e.g. Mining, Agriculture, Transport, Finance, Retailing, Manufacturing. Australian Society and Culture. Australia's heritage and future. The power elite. Society's attitudes and opinions. Cultural conflict.

ACB151 Australian Capital Markets

The objective of this subject is to foster an understanding of the Australian capital market; its institutions and its behaviours. Topics covered would include the nature and role of financial institutions, the management of financial institutions, the securities market, the money market, term structure of interest rates, options market, futures market, stock brokers, merchant banks, banks and other financial intermediaries, evaluation of financial market performance.

MEB640 Automation

A special treatment of automation for mechanical engineering students. The subject covers logic methods and ladder diagrams, dynamic responses, discretization and elementary design methods for closed-loop mechanical systems. A brief survey is made of automation hardware.

BEB506 Basic Ecology

Nature of Ecosystems; their components and energy flow. Biogeochemical cycles, nutrient budgets, limits. Major ecosystems of the world: marine, freshwater, terrestrial. Ecological succession. Resources and the concept of ecosystem management. Defining pollution, environmental control.

EEB301 Basic Measurement and Instrumentation

This subject will introduce students to the principles of electrical measurement, and expose them to a large range of basic electrical and electronic laboratory measuring instruments.

MAB799 Basic Statistics for Surveyors

Descriptive statistics. Probability. Sampling. Estimation. Tests of hypotheses. Regression and correlation.

BEP280 Biology and Water Quality Control

Water quality standards and water use classification. Bacteriological and physiochemical characteristics of usable water. Biological analysis of water and wastewater. Biological aspects of disposal, re-use and control of polluted waters. Eutrophication, its identification and control. Compulsory field excursions will form a portion of this subject.

CEB430 Building Construction

A series of lectures covering traditional building practices. A wide range of building types and materials are covered including building regulations.

ARB130 Building Construction and Architecture

The surveyor in building. The components of building design. Elements of the mechanics, forms and material of building construction. Basic principles of architectural design.

MET652 Building Services

Water treatment. Sanitary drainage. Waste disposal systems. Space conditioning for houses and for large buildings. Air handling. Fire protection. Elevation equipment.

LPP101 Built Environment I

The professions of the built environment, architecture, landscape architecture and town planning and their role in the development of land. The sociology of land development. Introduction to aesthetics and landscape design. The external economics of land development.

LPP102 Built Environment II

The planning process. Activity systems. The development process and planning.

MEP471 Bulk Materials Handling

Flow properties of bulk solids, design features of bins, hoppers, conveyors and slurry pumping systems. The hydraulic and pneumatic transport of bulk solids. Safety aspects of materials handling.

MET970 Bulk Materials Handling

Preparation of bulk solids. Rectangular and circular bunkers. Bunker extraction gear. Conveyor belts for bulk materials. Conveyor chains. Pneumatic conveying.

SVB616 Cartographic Administration

Processes of government in Australia. The public service. The Government Mapping agency. Program Planning Budgeting Systems. Personnel administration. Record systems. Financial management.

SVC312 Cartographic Drafting

A series of lectures covering drafting methods, techniques and materials, plotting, map and chart construction, special purpose mapping, titling and map reproduction preparation. Students are required to undertake one half-day visit to a mapping organisation in the Greater Brisbane area.

SVT714 Cartographic Drafting IA

Practical exercises involving map compilation and production.

SVT814 Cartographic Drafting IIA

Further practical exercises involving map compilation and production.

SVB615 Cartographic Practice

Thematic, chloropleth and isopleth mapping. Computer applications to mapping. The management and financing of cartographic services.

SVB315 Cartography I

History of Cartography. Introduction to map design. Elements of map design. Monochrome design. Multicolour design. Design procedures.

SVB415 Cartography II

Advanced techniques. Reprographics. Lithography. Colour theory. Offset printing. Generalisation. Cartographic compilation. Alternative production methods. Topographic mapping.

SVB515 Cartography III

Geographic analysis. Thematic mapping. Advanced cartograms. Evaluation of map design. Exercises in map design.

SVB618 Cartography IV

Readings in map design. Seminars on map design. Experiments in perception of graphic elements. Practical exercises in map design.

SVC715 Cartography I

Introduction to design. Monochrome design. Map compilation. The process camera for cartographic use. Introduction to lithography.

SVC815 Cartography II

Map production, registration systems, scribing techniques, screening, printing methods including letter press, gravure, offset lithography and silk screen, paper and ink manufacture. Colour theory, Munsell's system, colour synthesis, colour correction and proving.

SVC915 Cartography III

Standard mapping, economics of standard mapping, standard sheet sizes, map specifications, map accuracy. Use of orthophotos as control for mapping. Thematic mapping. Special cartographic techniques for brush tinting, hill shading etc.

SVC916 Cartography IV

Digital methods in cartography. Compilation of data for computer-assisted cartography. Co-ordinate systems and digitising. Representation of geographic surfaces. Methods of display and analysis of spatial datas.

SVT715 Cartography I

Introduction to design. Monochrome design. Map compilation. The process camera for cartographic use. Introduction to lithography.

SVT815 Cartography II

Map production, registration systems, scribing techniques, screening, printing methods including letter press, gravure, offset lithography and silk screen, paper and ink manufacture. Colour theory. Munsell's system, colour synthesis, colour correction and proving.

SVT915 Cartography III

Standard mapping, economics of standard mapping, standard sheet sizes, map specifications, map accuracy. Use of orthophotos as control for mapping. Thematic mapping. Special cartographic techniques for brush tinting, hill shading etc.

SVT916 Cartography IV

Digital methods in cartography. Compilation of data for computer-asisted cartography. Co-ordinate systems and digitising. Representation of geographic surfaces. Methods of display and analysis of spatial datas.

MEP400 Case Studies

Series of case studies of plant operation and maintenance problems presented by enrolled students and visiting specialists.

CEB100 Civil Engineering I

A series of lectures, practical work and field visits aimed at introducing the student to the profession of civil engineering, its scope and variety, and its many branches.

CET195 Civil Engineering I

The scope and nature of the various fields of civil engineering. Basic computations for linear, angular and volumetric measurements. Construction materials. Statistics. A series of lectures, practical work and field visits covering the above topics.

CES103 Civil Engineering Computing

Lectures, tutorials and practical work covering basic computer operations, programming languages, job oriented languages, COGO, ICES etc. Operation and applications of special peripheral, batch and time sharing terminals, road plotters, VDU's. Specific applications and problems in civil engineering design, construction and control.

CET796 Civil Engineering Computing

Lectures, tutorial and practical work covering computer systems, programming languages, FORTRAN, job oriented languages, COGO, ICES etc. Realtime and on line systems and programming. Operation and applications of special peripheral, batch and time sharing terminals, road plotters, VDU's, computer graphics etc. Specific applications and problems in civil engineering design, construction and control.

CEB304 Civil Engineering Design I

Design project work involving the use of steel, reinforced and prestressed concrete, geomechanics design and Environmental Impact Studies. Students will prepare design calculations and drawings, specifications and schedule of quantities etc.

CEB405 Civil Engineering Design II

A series of lectures/design classes covering primarily civil engineering design i.e. municipal and civil/structural projects. Field visits as required.

CET385 Civil Engineering Drawing I

Lectures, tutorial and practical work on drafting and techniques for construction control. Preparation of civil drawings, survey plotting including contours and sections; Road construction plans - introduction to road and drainage design.

CET386 Civil Engineering Drawing IA

Further practical work to develop Civil Engineering Drawing I. Field Trips.

CET785 Civil Engineering Drawing II

Preparation of drawings related to bridges and pipework layout. Introduction to structural steel drafting including dimensioning and welding symbols. Introduction to bolted and welded connections.

CET786 Civil Engineering Drawing IIA

Further practical work to develop Civil Engineering Drawing II. Field trips.

CET885 Civil Engineering Drawing III

Preparation of detailed reinforced and pre-stressed concrete drawings. Structural drawing, involving timber, steel and concrete.

CEB291 Civil Engineering Materials

Physical and chemical properties of common civil engineering materials. Ferrous and non-ferrous metals and alloys, timber, bitumen, elastomers and plastics, corrosion of materials and protective measures.

CEB501 Civil Engineering Practice

Lectures, tutorials, practical work and field trips covering current topics in a specified area of civil engineering practice at a level appropriate to the course and as approved by the Head of Department.

CEP300 Civil Engineering Practice

Lectures, tutorials, practical work and field trips covering current topics in a specified area of civil engineering practice at a level appropriate to the course and as approved by the Head of Department.

CET804 Civil Engineering Practice

Lectures, tutorials, practical work and field trips covering current topics in a specified area of civil engineering practice at a level appropriate to the course and as approved by the Head of Department.

CEB521 Civil Engineering Systems

Lectures and tutorial work on the interaction of civil engineering systems and the environment. Review of design methodology with reference to systems; optimisation of allocation problems; linear programming; integer programming; transportation problems; construction management; numerical and computer solutions. Quantification of economic utility factors; applications and case studies; criteria for engineering development.

CEB561 Coastal Engineering

Lectures and tutorial work on coastal engineering; wave theory, recording and analysis, wave generation; coastal processes, tides, surges etc., currents, sediment movement, foreshore protection; coastal inlets, general theory, canal systems; planning and design of coastal structures; hydraulic models for coastal studies. At least one major site visit will be required.

EET866 Communication Techniques I

This subject deals with the various types of communications systems: broadcast, sound, TV, and specialized types of broadcast systems e.g. police, taxis; point to point radio communications; telemetry; switched systems, exchanges, trunking, junctions etc., traffic. In the radio communications, the special problems of the different frequency ranges VLF, MF, HF etc. will be discussed. A number of compulsory industrial visits are arranged.

EET666 Communication Theory I

A detailed study of AM, FM and analogue pulse modulation methods with associated circuitry. Subjects include: signal analysis: an extension of Fourier methods, AM: generation and detection - effects of filtering, noise coherence, FM: generation and detection - effects of noise, threshold etc., SSN: Generation and detection - effects of noise, incoherence in detectors etc., phase locked loop. Radio receiver circuits: heterodyning, double conversions, spurious responses. Pulse analogue methods: PAM, PWM, PPM circuits, spectra etc.

EET766 Communication Theory II

A detailed study of digital modulation methods including circuitry and noise effects. Topics include: sampling theorem, spectra, reconstruction. Quantization: advantages, quantization noise, dynamic range. PCM: methods and circuitry. Companding: dynamic range, S/N logarithmic companding. Delta Modulation: sample rate, slope, overhead, comparison with PCM. Digital Transmission: TDM and FDM, error rates in base band, ASK, FSK, PSK and DPSK.

EEB561 Communications Engineering I

Study of discrete and integrated electronic devices for analogue modulation and demodulation. Design of circuitry to implement analogue communication systems.

EEB661 Communications Engineering II

Elementary statistical communication including the treatment of random signals, noise and information, both discrete and continuous. Simple coding, efficiency error rates and the effect of noise on information transfer.

EEB761 Communications Engineering III

Quantization of signals; p.c.m. and delta-modulation; quantization noise and effects of channel noise, companding, threshold extension and spread-spectrum techniques. Matched filtering and correlation.

EEB961 Communications Techniques

Modern communication techniques including switched networks, broadcast, point-to-point systems; microwave and optical links; radio navigation and radar; associated electronic devices.

CET894 Computations A

Computations associated with the preparation of civil engineering works. Exercises will include calculations of quantities and estimates, design calculations and other calculations appropriate to the projects selected.

SVT225 Computations I

Computing methods, use of tables, slide rule, calculators; rounding errors. Computation and adjustment of a traverse, close co-ordinates and missing elements. Areas of regular and irregular figures - Simpsons and trapezodial rules. Miscellaneous problems involving solutions of triangles and closes.

SVT429 Computations II

Elementary programming of hand-held and desk top calculators. Calculations for horizontal circular and transition curves and for vertical curves. Secant calculations for road intersections. Calculations of volumes. Intersection and resection calculations. Three dimensional calculations, including bore hole surveys.

SVT227 Computations III

Advanced programming of hand-held calculators. Programming of surveying calculations such as vertical and circular curves, transverses, Bowditch adjustments. Basic elements of main frame computer. Components of a microcomputer. Basic programming in FORTRAN and BASIC. Creating and editing files for packages on the DEC10 computer. Introduction to computer graphics.

EEB900 Computer Aided Engineering

This subject will develop further the material covered in Software Engineering (CSB490) as well as topics such as hardware (processors and peripherals), computer graphics, database, computer communications, software tools, algorithms and package software, realtime systems and the introduction and management of computer based systems as far as these topics are relevant to the types of applications likely to be encountered in practice.

MEB970 Computer-Aided Manufacturing

A series of lectures and functional exercises with special emphasis on 'hands on' experience of computers in manufacturing.

EEP101 Computer-Aided System Design

Use of the DEC10 system. Philosophy of software design. Simulation - types and languages. Interactive computer graphics, including a review of relevant hardware. A review of software packages. Computer aided design systems for control studies, including a market survey and case studies.

MET903 Computer Applications A

A tutorial and practical course in the use of computers in Mechanical Engineering.

BCB393 Computer Based Information Systems

This subject is designed to make practising engineers aware of typical computer based information systems they are likely to meet in practice, and to place them in a better position to make effective demands on such systems to aid them in their profession. It will treat such topics as: files, records, items, reporting, data collection, file hardware - storage, telecommunications.

EEP103 Computer Control

Basic computer architecture for realtime systems. Interrupt handling facilities, communication circuits and data links. Principles of interfacing process plant. Signal processing.

EET878 Computer Electronics

This subject examines the theory and applications of microprocessors. Microprocessor architecture and generalised concepts. Programming the microprocessor. Interfacing techniques. Applications including data logging, signal conditioning and supervision.

SVC991 Computer Graphics I

Basic elements of computer graphics. Systems hardware and software. The AUTODRAFT system.

SVC992 Computer Graphics II

Generation of data for computer mapping. Programming techniques for annotated drafting. The PLOT-10 terminal control system. Cartographic data bases. Generation of three-dimensional pictorial data. Other systems AUTOMAP, AUTO CHART etc.

MET920 Computer Graphics

The use of computer based systems for producing engineering drawings with emphasis in the course on practical work. Field Trips.

SVT991 Computer Graphics I

Basic elements of computer graphics. Systems hardware and software. The AUTO-DRAFT system.

SVT992 Computer Graphics II

Generation of data for computer mapping. Programming techniques for annotated drafting. The PLOT-10 terminal control system. Cartographic data bases. Generation of three dimensional pictorial data. Other systems AUTOMAP, AUTO CHART etc.

CSB404 Computer Networks

Data transmission; information theory; general introduction to networks; physical, data link and network levels; transport, session, presentation and application levels; local area networks; file servers.

EEB294 Computer Programming

The digital computer. An introduction to the higher order langauge FORTRAN. Use of analogue computers in industry. The application and usage of different computing systems to simpler survey application.

EEC790 Computer Programming I

An introduction to digital computers covering construction, operation, various machine languages and simple programming techniques.

EET790 Computer Programming I

Digital computers, their construction and operation, description of machine languages and the various programming languages in common use such as FORTRAN, COBOL, ALGOL. Program writing in FORTRAN and other languages, use of flow charts, debugging, the development of algorithms and preparation of data, to be selected from a range of areas.

EET890 Computer Programming II

Description of analogue computers, their construction and operation and the essential differences between digital and analogue computers regarding their theory and application. Special languages applicable to engineering areas, use of program libraries, preparation of data and modifications to programs. The selection of at least one major problem by the student from a relevant engineering area. On-line digital computing and special peripheral equipment.

CSB652 Computer Organisation I

An introduction to central processing unit organisation and control. Number representation and arithmetic algorithms, codes, error correction and detection. Input-output organisation and programming, and an introduction to micro-processor organisation.

CSB953 Computer Organisation II

A course dealing with system organisation and architecture. System Organisation. Reliability. Description and simulation techniques. Data transmission, networks and protocols, microcomputer technology. The technology of high performance processors.

CSB354 Computers and Programming

A course to introduce the student to basic computer organisation, machine language programming and the use of assembly language. Computer structure and machine language, addressing techniques, digital representation of data, symbolic coding and assembly systems, selected programming techniques, macros, program segmentation and linkage, computer systems organisation, systems and utility programs.

CSA165 Computing

A course in the BASIC language. Computer utilisation and organisation. Problem solving. Analysis of numerical and non numerical problems. A brief introduction of FORTRAN and the differences between it and BASIC.

CSB190 Computing

Introduction to the use of computers, with emphasis on the practical aspects of using the Institute facilities; introduction to the concepts of programming, stressing the importance of well-structured programs; programming in FORTRAN and BASIC, with emphasis on applications relevant in engineering.

CEB530 Concrete Design

Advanced design techniqes for prestressed and reinforced concrete including topics such as analytical treatment of creep, shrinkage, short and long term, deflections, composite construction, continuous beams and frames, multi-storey buildings, shear walls deep beams, yield line analysis of slabs. Field trips.

CET836 Concrete Design

Lectures, tutorials, practical work on the design aspects of concrete technology. Concrete mix design and testing of materials. Design of simple sections including tension and shear reinforcements. Construction techniques. Field visits are an integral part of the course.

CET435 Concrete Practice

Detailed treatment of concrete technology, including the chemical and physical properties of concrete together with quality control testing of cement and concrete. The design of mixes, specifications, production and effect of additives is covered together with selection and testing of aggregates, mixing, placing and transportation. Lectures, tutorial, practical work and field trips on the above topics.

CEB202 Concrete Structures

Principles of prestressing and reinforcing concrete structures. Materials of construction. Methods of prestressing. Introduction to limit state design. Design of beams and slabs by ultimate load analysis and design for reinforced, partial prestress and fully prestress for flexural stresses, and for shear, deflection, anchorage, bond and detail of reinforcement code requirements. Partial pre-stressed and fully prestressed sections to be designed for tendon losses - creep, elastic compression, shrinkage, anchorage slip, friction etc. and end block design. Analysis of columns to carry axial loads only, axial loads and uniaxial bending. Lectures, tutorial, practical work and field trips on the above topics.

CEB331 Concrete Technology

Lectures and practical laboratory work covering:
Materials: Cement, pozzolans, chemical admixtures, aggregates - special materials.
Testing: Materials and concrete
Characteristics of Concrete: Influences of environment
Mix Design: Design for standard and special requirements.
Physical and Chemical properties of brick and blocks.

CEB500 Construction Engineering

Man Management
Advanced network techniques and risk analysis and economic theory
Formwork, Falsework
Explosive - materials and use

CET807 Construction Management

Lectures, tutorials, practical work and field trips on planning, organisation, supervision and control of civil engineering construction projects.

CEB305 Construction Management and Economics

Estimating and Planning Construction Projects: plant, labour, materials
Programming: Network diagrams, line of balance, resources allocation
Economic Assessment: Investment analysis, project comparison.

CET605 Construction Practice I

Lectures, tutorials and field trips on the principles and practice of temporary works, design and construction for civil engineering projects. Topics include formwork, falsework, scaffolding, shoring, dewatering, pipe laying and demolition practice.

CET104 Construction Practice IA

Exercises and field trips to amplify practical aspects of civil engineering and construction practice.

CET705 Construction Practice II

Objectives in formwork building, quality, safety, control. Formwork planning - reuse, materials and hardware, erecting and stripping, scheduling. Types of materials, facing, finishes, hardware and fasteners. Loads and pressures on slab, beam, columns and wall forms. Form design and design tables. Formwork drawings and detailing, building and erecting formwork, architectural forms. Special techniques. Proprietory formwork systems. This subject meets the design qualification requirements of Regulation 26, Formwork and Falsework of the Construction Safety Regulations in 1979. Field visits.

CET204 Construction Practice IIA

Exercises, tutorials, laboratory work, field visits and site inspections to amplify the practical aspects of civil engineering and construction practice.

CET805 Construction Practice III

Lectures, tutorials and field trips on the principles and practice of earthmoving. Road construction, dam construction and tunnelling. Explosives types, selection, operation and maintenance of earthmoving plant. Landscape engineering principles and practice.

CET304 Construction Practice IIIA

Exercises and field trips to amplify practical aspects of civil engineering and construction practice in the fields of earthmoving, structures and other public works.

CET806 Construction Practice IV

Lectures, tutorials and field trips on building construction. Foundations, frame, cladding, finishing trades and mechanical services. Hoisting equipment, temporary work, demolition, systems building, constructional defects, surveys and reports.

CET820 Construction Technology (Mech.)

Influence lines. Deflection theory. Statically indeterminate structures. Concrete technology. Reinforced concrete design.

MNP607 Consumer Behaviour

The subject will undertake to develop such criteria as learning processes, evaluation ability, attitudes and personality in regard to the predisposition of the consumer in the market place. The decision making process of the consumer will then be examined in regard to the effect of mass media (as an information source), personal influence and external forces. Attention will also be given to retailer choice, and 'in-store' behaviour.

CET706 Contract Administration

Lectures, tutorial and field visits on the control and administration of civil engineering jobs including office procedures, cost records, hourly records, use of Gantt charts, critical path programming and computer control applications. Contract management, relationship of sub-contractors, architect, engineer, site supervisor, foreman, labour force. Various relevant Awards and Acts together with legal implications of contract administration.

LWS002 Contract and Industrial Law

This subject aims to introduce the student to those aspects of the legal system which have particular relevance in the management of industrial enterprises, including:

- law of torts (civil law)
- law of contract
- industrial law
- patent law

EEB421 Control Engineering I

This subject will expose the student to the full range of hardware currently in common use in automatic control systems. It will provide a grounding in the application of basic time domain, frequency domain, and complex domain theory to the study of control system behaviour.

EEB520 Control Engineering I

A survey of transducers, signal mixing, transducer converters, amplifiers (electric, electronic, pneumatic and hydraulic), final control elements (electric, pneumatic, hydraulic and control valves), power supplies and mechanical elements (gears, clutches, couplings and linkages). Selection of system components. Examples of closed-loop systems. Classification of systems. Time domain analysis of systems. Concept of programming for computer-based control systems. A number of compulsory industrial visits are arranged.

EEB521 Control Engineering II

This subject develops the application of time domain, frequency domain, and complex domain theory to the study of control system behaviour, especially to higher order systems. It studies system hardware configurations, the effects of introduction of sampling. It provides an introduction to programming concepts for computer control and to analog simulators.

EEB620 Control Engineering II

Time domain analysis - higher order systems, steady state accuracy. Complex domain analysis - transfer functions and block diagrams. Frequency domain analysis - Bode, Nyquist and Nichols diagrams, and stability. Transformation between domains. Control system performance and the use of compensation. Examples of programming of computer-based control systems. Analog simulators.

EEB522 Control Engineering II (T)

This subject is intended for those students seeking to specialise in control engineering studies. It provides an in-depth treatment of the more advanced techniques used for analysing the behaviour of control systems.

EET621 Control Theory I

Time domain performance. Frequency domain performance. Stability and compensation. Steady state errors. Noise and load disturbances. Application of Laplace transforms. Correlation between time and frequency domains. Descriptive treatment of nonlinear phenomena. Negative feedback for linearisation.

ACB913 Costing for Engineers

A series of lectures, supported by extensive assignment work, aimed at providing a basic framework which will enable students to evaluate the cost of different designs and projects, in order to make comparisons as to the cost effectiveness thereof.

BCB512 Data Base Systems

Data Base architecture. Commercial DBMS packages Data base design. Development of data base systems using two different commercial DBMS packages.

EET110 D.C. Theory I

Lectures and practical work introducing DC circuit components, DC circuit theory and measuring techniques.

EET210 D.C. Theory II

Lectures and practical work covering magnetism, magnetic circuits, electromagnetic induction, electrostatics and electrical measuring instruments.

SVB115 Data Presentation

Elementary survey drafting. Cartography and map reproduction.

CSB653 Data Structures

An introduction to data structures and language implementation. Language representation via BNF and syntax graphs. Program structure, parameter passing, sub-routines and co-routines - Simula 67. Arrays, graphs and trees - properties and associated languages, C and Pascal.

MEB410 Deformation Processes

A series of lectures and supporting practical experiments on the fundamentals and applications of metalworking theory. The course covers stress-strain relationships, yield criteria and the evaluation of stresses and forces in the plastic deformation of metals using stress distribution and slip line field analysis. The student is introduced to the effects of friction in metalworking and the methods used in its control.

MEB101 Design I (Mechanical)

This introductory course in mechanical design covers the investigation of simple problems requiring the application of mechanical systems. It includes lectures and tutorial work in the development of conceptual schemes for satisfying functional performance requirements, the selection of standard machine components and the design of simple machine elements.

MEB318 Design II (Mechanical)

The course covers the design of machine elements, such as screws, fasteners, and welded joints, using the principles of engineering mechanics to analyse the loads and to determine appropriate materials and component dimensions to ensure satisfactory performance of strength and functional requirements. It will develop skills in the use of both manual and computer-aided numerical and graphical techniques in a design enviroment.

MEB483 Design III (Mechanical)

The course continues from MEB318, and further develops the design of machine elements, including bearings, shafts and springs using the principles of engineering mechanics to analyse the loads and to determine appropriate materials and component dimensions to ensure satisfactory performance of strength and functional requirements. It will extend skills in the use of both manual and computer-aided numerical and graphical techniques in a design environment.

CEB401 Design Project

Students will be required to carry out the detailed design of a suitable project in their selected field of interest. Such a project will be of a larger magnitude and the depth of design treatment much greater than the assignments done in individual design subjects. The design projects will be drawn from industry and will cover the whole range of civil engineering endeavour. Compulsory site visits to associated projects and for site investigation purposes.

MEB973 Design for Manufacturing

A series of lectures and tutorials to bridge between the simple design for manufacturing problems encountered in the subjects Manufacturing II and III and industrial level problems. Solutions developed will include detailed component design, manufacturing sequence and gauge design.

MEB981 Design of Materials Handling Systems

A series of lectures and design office projects covering the design of bulk material conveying and process plant, storage silos and bins, ground stockpiling systems, and the associated supporting structures.

MEB980 Design of Power Transmission Systems

This course of lectures and design office tutorials will cover the design of systems for the generation and transmission of mechanical power, including both solid elements (gears, clutches, belts etc.) and fluid elements (pneumatic and hydraulic).

MEP381 Design for Reliability and Safety

Legal and moral obligations on designers, suppliers and users for ensuring safety to persons and property. Statistics for reliability analysis - failure rate, hazard functions; series, parallel and mixed systems, time-dependent and dynamic reliability models. Life testing, reliability estimation, reliability optimisation.

SVP260 Development Control

Review of laws and regulations affecting land and their effect on land use. Detailed study of subdivision procedures. Rights of appeal from local authority decisions with respect to land subdivision. Local Government Court and its rules and procedures. Detailed study of by-laws and policy of selected local authorities with respect to land development and subdivision. Requirements of other State Government departments with respect to subdivision. Federal Government legislation relating to subdivision and land development.

CET803 Development Engineering

Lecture, tutorial, practical work and field visits on the planning, design and operation of major mining and infrastructure developments.

ACP882 Development Finance

Sources of finance for development projects within Australian Capital Market and the evaluation of these sources. The problems of financial gearing. Principles of evaluation, types of securities. Application of valuation concepts to the evaluation of land improvements. Time value of money concepts. Capital budgeting. Measurement of cash flows. Case studies and financial studies. Audit of project performance. Management of cash and liquidity. Cash budgeting. Overall consideration of project and portfolio risk. Benefits of diversification.

SVB617 Digital Cartography

Aims and methodology. Graphics hardware and software. Exercises in computer-assisted cartography. Editing and revision of maps. Selection of manual or computer-assisted methods.

EEP107 Digital Control Systems

Number systems for numerical control. Revision of combinational and sequential logic design. Transducers for digital systems. Interface design. Protection of computing equipment. Digital system design. Numerical control systems. Robotics.

EET822 Digital Control Systems

Digital feedback transducers. Sequence control. Numerical control. Microprocessors and mini-computers. Computer interfaces. Modes of computer control. Computer hierarchical configurations. Sampling in control systems. Programming techniques for on-line operation. A number of compulsory industrial visits are arranged.

EET676 Digital Electronics

This subject introduces the basic concepts of digital electronics. Boolean algebra, combinatorial logic, logic minimisation by Karnaugh Maps, logic applications. Digital integrated circuits, TTL, CMOS, ECL. Simple logic designs.

EEB372 Digital Electronics I

Fundamental concepts of digital electronics. Number systems, codes, coded systems. Boolean algebra, combinational and sequential logic. Basis for further study of digital electronics.

EEB472 Digital Electronics II

Application of the principles of digital electronics in the study of a comprehensive range of more advanced digital devices. The basic concept of digital system design using modern integrated circuits is introduced.

EEB572 Digital Electronics III

The theory of operation and basic concepts behind the design of microprocessor systems is studied in detail. Programming aspects of microprocessors are also studied.

EEB672 Digital Electronics IV

Microprocessor system design. Operation and use of peripheral devices; design of efficient software. The use of high level languages and microprocessor development systems is emphasised.

EEB968 Digital Signal Processing

Discrete Signals and spectra, Z Transforms, Fast Fourier Transforms - Convolution - Decimation and interpolation - Digital Filtering (FIR and IIR) - Fourier Spectral estimation, window functions, truncation effects - Parametric spectral estimation, Linear prediction, Maximum Entropy, Maximum Likelihood, Prony -Finite Field Arithmetic, Number Theoretic Transforms, Walsh Transforms - Homomorphic signal processing, the Complex Cepstrum, Removal of echoes, image enhancement.

MET121 Drafting Practice IA

Practical drawing applications to common engineering components. Further pictorial drawings. Graphical analysis of framework forces.

MET221 Drafting Practice IIA

Cam and Gear Geometry. Graphical integration for derivation of Bending Moments and deflections. Spatial geometry covering true shapes, angles and planes.

MET321 Drafting Practice IIIA

Introduction to Geometrical tolerancing; pneumatic circuits. Simple projects involving complete workshop drawings.

SVC211 Drafting Practice II

Compilation of cadastral plans from surveyors' field books to Survey Office, Titles Office and Mines Department specification. Compilation of engineering surveying plans of working survey, contour survey and sewerage detail survey. Compilation of special plans. Critical appreciation of plans.

SVC313 Drafting Practice III

Preparation of more difficult plans for registration in D.M.S., Mines Department and Titles Office including land subdivision, additions to and excisions from freehold and leasehold land, new and closed roads, easements. Plotting by co-ordinates.

SVT113 Drafting Practice I

Graphical presentation as a means of communication. Drafting media. Introduction to map types. Introduction to map projections. Concept of scale. Outline of Queensland tenure system. Methods of map and plan reproduction. Colouring methods and area tones.

SVT212 Drafting Practice II

The Survey Plan Manual. Presentation standard for microfilming. Techniques of survey drafting. Sketches under the Survey Co-ordination Act. Identification survey and detail plans. Water course boundaries. Requirements of D.M.S., Mines Department and Titles Office and plotting of simple plans for registration.

SVT313 Drafting Practice III

Preparation of more difficult plans for registration in D.M.S., Mines Department and Titles Office including land subdivision, additions to and excisions from freehold and leasehold land, new and closed roads, easements. Plotting by co-ordinates.

SVT114 Drafting Practice IA

Practical drafting exercises involving lettering, plotting from polar and rectangular co-ordinates and application of colouring methods.

SVT312 Drafting Practice IIA

Practical exercises involving the plotting of identification survey and detail plans and simple plans for registration in D.M.S., Titles Office and Mines Department.

SVT512 Drafting Practice IIIA

Practical exercises involving the preparation of more difficult plans for D.M.S., Titles Office and Mines Department.

SVT612 Drafting Practice IVA

Further practical exercises involving the preparation of more difficult plans for D.M.S., Titles Office and Mines Department.

CET886 Drawing Office Practice (Civil)

A series of lectures and tutorial work including civil drawing projects, drawing office organisation. Field Trips.

MEB111 Dynamics

Basic concepts of the principles of dynamics including the kinetics of particles and systems of particles, plane kinetics of rigid bodies, space kinetics of rigid bodies, dynamics of non-rigid systems and plane and space kinematics of rigid bodies.

MET312 Dynamics

Inertia and change of motion. Dynamics of rotation. Work and energy. Friction. Relative velocity. Impulse and momentum. Periodic motion. Gears. Hoists. Belt drives, band brakes and friction clutches.

BEP182 Ecology for Development

The fundamental ecological variables. Mechanisms of self regulation in ecological systems. Pollution, perturbation and degradation of ecological systems. Conflicts of land use in selected exploitable ecosystems. Biological control. Urban, regional and national planning in the light of ecological principles. A global strategy.

EEB581 Electrical Design I

An introductory unit covering the design philosophy and techniques used in the design of electrical power equipment. A selection of design is undertaken from topics such as magnetic device, DC and AC machine elements; transformers, reactors, protective devices for industrial plant, voltage regulators and illumination systems.

EEB681 Electrical Design II

A selection of designs from thermocouples, bridges, shaft encoders, servo potentiometers, liquid flow rate, level and concentration transducers, IC and discrete component networks, servo amplifiers, power supplies, SCR and TRIAC networks, and closed-loop control configurations.

EEB782 Electrical Design III

A series of tutorial sessions supplemented by a small lecture component covering the introduction to the design of power systems. The general principles of design including specification, estimates and computer aids followed by design assignments associated with planning and design of power systems.

EEB783 Electrical Design IV

This subject provides students with experience with the design of automatic control systems at the system level. Designs will be orientated towards the control of real plant, and will normally include the construction and operation of the designed system.

EEB954 Electrical Energy Utilisation

Energy building services technology: voltage consideration, system earthing, standby generation, protection schemes. Electrical fire protection systems: principles of heat and smoke detectors, control panels. Lighting design including computer methods. Air conditioning: review of principles and various types control systems. Energy management: tariffs, energy audit, computer control. Power electronics. Electroheat. Electric traction.

EEB110 Electrical Engineering I

An introduction to the fundamentals of electrical engineering including basic circuit elements, electrical properties of materials, motors, generators, semiconductors and electromagnetic waves.

EEB111 Electrical Engineering II

An introduction to electrical power generation, transmission and distribution, lighting, heating, and rotating electrical machinery. The subject also introduces and develops the use of electricity as a signal, electronics, communication, computing, instrumentation and control. The elements of circuit theory are covered.

EET400 Electrical Engineering

Lectures and laboratory work covering three phase balanced and unbalanced systems, measurement of power including the two wattmeter method. Single phase transformers, construction and operation, transferred impedances, efficiency, regulation, equivalent circuits and phasor diagram. DC machines, generators and motors, excitation, armature reaction, commutation, load and torque characteristics. Brief introduction to AC machines, production of a rotating field in three phase machines, and the load characteristics of synchronous and asynchronous machines.

EEB209 Electrical Engineering IIM

A series of lectures and practical sessions to introduce students in mechanical engineering to the basic principles of microprocessors, microprocessor systems, electrical machines, power control and tariffs. The subject material will be presented at a basic level with heavy emphasis on practical applications.

MET123 Electrical Engineering Drawing IA

Electrical drawing, circuit drawing, block diagrams, simple schematics and wiring diagrams. Field Trips.

MET223 Electrical Engineering Drawing IIA

Sketches and drawings of electrical power and electronic equipment, domestic and commercial power circuits, distribution diagrams etc. Field Trips.

EET800 Electrical Industry

This subject reviews the way in which industry is organised and imparts the non-technical requirements of industry. Topics covered include: role of staff, organisational structures, costing and estimating, contract administration, work programming, and report writing. A number of compulsory industrial visits will be organised.

EEB404 Electrical Machines

In this subject students are introduced to the fundamentals of torque production in rotating machines, the theory of operation and characteristics of most commonly-used machines are then derived from common foundations.

EET552 Electrical Machines

Lectures and laboratory work covering three phase induction motors, equivalent circuits, starters. Single phase motors, types, method of operation and motor application. Synchronous machines, equivalent circuits leading to the development of machine operating charts. Three phase transformer construction and operation, instrument transformers, ratings of electrical plant, temperature rise and short time ratings.

EET820 Electrical and Mechanical Technology

A.C. generators. D.C. motors. Induction motors. Motor selection. Logic and switching. Microprocessor chips. Digital control. Feedback control. Power electronics.

EET752 Electrical Plant

A series of lectures, laboratory work, and industrial visits dealing with electric power plant found in power stations and HV substations. Substations: busbar connection and layout, circuit breakers, isolators, C.T.'s and V.T.'s, shunt and series capacitors and reactors, surge arresters and surge protection. Power stations: types of generating stations, small and large power station electrical systems and plant. Alternators: construction, excitation systems and operating charts. Economic factors affecting choice and operation of plant. Operation and safety: interlocking arrangements, earthing, operation of power systems during steady-state and fault conditions, maintenance of plant. A number of compulsory industrial visits are arranged.

EEB751 Electrical Power Plant III

Substation layout: basic types of substation connection. Power system earthing: earth electrode resistance calculation, practical earthing systems, step and touch potentials. High voltage switchgear. Transformers and reactors. Overhead lines and underground cable: advanced theory on parameters and rating. Insulation co-ordination: origins of overvoltages, line outage rates, protection.

EEB800 Electrical Power Systems I

This subject gives students an overall introduction to electrical power systems calculations and covers the technology of overhead lines and cables. Elementary electrical engineering economics are also introduced at this stage.

EEB552 Electrical Power Systems II

This is an introductory subject dealing with major items of power system equipment. A detailed treatment of the alternator is given, including basic theory and technology of both cylindrical and salient rotor types. Principles of power system protection are covered, and I.D.M.T. relay and H.R.C. fuse technology is covered in depth. The principles of current interruption are discussed and a detailed treatment of steady-state temperature rise of conductors and contacts is developed. Lectures on electrical standards and traceability, energy and power measurement, and fault location are also included.

EET642 Electrical Power Systems I

An introductory subject on electrical transmission and distribution networks. Representation of power systems by single line diagrams, review of various systems. Technology of alternator, power transformer, overhead lines and cables; introduction to circuit breakers and power system protection. Introduction to p.u. systems, simple voltage drop and fault calculations, introduction to symmetrical components. Basic power co-ordination calculations. A number of compulsory industrial visits are arranged.

EEB531 Electrical Power Transmission

This subject introduces students to the basic techniques of power system analysis. Topics covered include: lumped equivalent circuits of transmission lines, power flow in feeders, p.u. method of calculation, symmetrical component analysis, balanced and unbalanced fault calculations, introductory load flow analysis, and power system operation and control.

EET641 Electrical Power Utilisation I

Introduction to S.A.A. wiring rules, L.V. reticulation in buildings and industrial plant, conductor ratings, diversity, A.D.M.D., protection of L.V. circuits by fuses and circuit breakers. metering and tariffs, power factor control, demand-limitation schemes. Selection of motors, transformers etc., types of loads. A number of compulsory industrial visits are arranged.

EET741 Electrical Power Utilisation II

Three-phase convertors and invertors, the d.c. link, methods of control of d.c. and a.c. machines. Magnetic amplifiers. Selection of motor/drive systems. Industrial electric heating, induction, dielectric, resistance etc. with relevant applications. Electric lighting, luminaires and their classification, lighting calculations, and design of lighting installation with reference to codes of practice. Electric traction. Energy management. A number of compulsory industrial visits are arranged.

EEB810 Electrical Protection

The subject is a study of the theory and application of current and voltage transformers, the principles of power system protection and protection schemes for lines, transformers, alternators, busbars and other power system equipment.

EET643 Electrical Protection I

Philosophy of protection, zones, discrimination, back-up protection, auxiliary equipment; C.T.'s and V.T.'s, their characteristics and applications; overcurrent protection, construction, theory and extension to earth fault and directional protection; differential protection, characteristics and applications to feeders, transformers, generators and busbars; distance protection for transmission lines, system grounding - fault levels.

EET852 Electrical Services

A series of lectures, tutorials and visits to develop an appreciation of electrical building services. Lectures on layout of wiring, lighting, fire services and communication services. Field visits.

EET500 Electrical Technology

Current, resistance, voltage, power. D.C. circuits. Magnetism. Introduction to electric motors and generators. Transformers. A.C. theory. Three phase circuits. Elements of electronics. Amplifiers.

EET851 Electrical Testing

This subject deals with testing procedures for many types of electrical power plant and equipment, following closely, the relevant standard specifications. Includes insulation testing techniques, continuity and earth testing, fault diagnosis, instrument transformers, phasing and commissioning procedures. A number of compulsory industrial visits are arranged.

EEB371 Electronic Devices

Theory of operation and characteristics of semiconductor devices. Development and practical applications of small signal models.

EEB471 Electronics

An introduction to electronics providing the basic tools for understanding the operation and analysis of all types of electronic circuits. The subject is treated from a practical point of view with emphasis on important fundamental areas.

EET672 Electronic Systems

This subject is intended to be an introduction to modern electronic instrumentation and systems. The emphasis is on giving an understanding of the overall operation of electronic systems rather than dealing with the detail of circuit operation and design. Upon completion of this subject students should be capable of interpreting specifications of electronic instruments and be capable of interfacing simple systems.

EEB772 Electronic Systems I

This subject introduces students to modern electronic instrumentation and its interconnection via communication networks. Programmable controllers and other microprocessor based systems are also treated.

EEB872 Electronic Systems II

This subject completes the study of computer-based control and supervisory systems. It includes study of minicomputer systems, VDU's and graphics, and the specification and analysis of tenders for such systems.

EEB587 Electronic Systems Engineering Design I

General principles of electronic circuit design and realization of typical electronic circuits encountered in network theory, electronics, control and communication engineering including amplifiers, oscillators, gates, filters, waveform generators, mixers, and detectors.

EEB788 Electronic Systems Engineering Design II

The principles and practice of more complex electronic design, with particular emphasis on industrial electronics and integrated circuits. Communication, computing and control examples and included.

EEB887 Electronic Systems Engineering Design III

Detailed design and realization of typical sub-systems used in all areas of electronic systems engineering; including control, computing, communications and industrial electronics. Examples include counters, phase and frequency lock loops, A/D and D/A converters, microprocessor control systems, interfaces.

EEB888 Electronic Systems Engineering Design IV

Design techniques are developed to cover the detailed design of more complex sub-systems with an introduction to overall system design. Factors such as economics, realizability, complexity, reliability and optimisation are taken into account. The examples are chosen from any of the applications areas of modern electronic systems.

EET470 Electronics I

A basic introduction to the fundamentals of electronic devices and circuits including semiconductors, transistors, amplifiers, switching circuits, oscillators, integrated circuits.

EEB302 Electrotechnology

Magnetic circuits, magnetic materials, transformers and electro-magnetic devices. Heating and cooling of electrical equipment and plant, protection. Power distribution, three phase, balanced and unbalanced loads, power and measurement.

EET853 Energy Management

Tariff framing and objectives, energy and power losses in electrical and mechanical plant, equipment and buildings, identification of losses - energy audits - load forecasting and control.

MEP251 Energy Management

Energy conservation and management, fuels, boilers, furnaces, heat utilisation, electricity and tariff management, building service management, vehicle energy conservation. Possible sources of energy in the future.

CHB346 Engineering Chemistry C

This introductory course in engineering chemistry covers those basic principles of chemistry which are essential to a proper understanding of civil engineering materials and processes. Topics covered include basic chemical concepts, states of matter, thermochemistry, atoms and molecules, chemical equilibria, water, aqueous solutions and electrochemistry together with an introduction to the principles of operation, applications and limitations of common analytical instruments.

CHB344 Engineering Chemistry M

This introductory course in engineering chemistry covers the more important basic principles of chemistry and shows how these principles can be used to explain the chemical behaviour of systems of relevance to mechanical engineers - e.g. fuels and their combustion, lubricants and lubrication, metallic corrosion and water treatment processes.

MET120 Engineering Drawing I

Lettering and linework. Presentation of graphical data. Principles of third angle projection, sectional views. Pictorial drawings. Introduction to assembly drawings.

MET121 Engineering Drawing IA

Further practical work to develop Engineering Drawing I.

MET220 Engineering Drawing II

Further sectioning, auxiliary projections including graphical. Intersections and surface developments.

MET221 Engineering Drawing IIA

Further practical work to develop Engineering Drawing II.

MET320 Engineering Drawing III

Advanced dimensioning techniques. Structural drafting. Simple tolerancing. Assembly and workshop drawings.

MET420 Engineering Drawing IV

Presentation of drafting techniques as applied in electrical, pipework and air conditioning systems.

CEP106 Engineering for Development

Flood estimation for urban and small catchments. Design of drainage systems. Determination of water levels and discharges on natural streams. Assessment and provision of public utilities. Basic road design and construction. Traffic engineering principles.

ESC119 Engineering Geology

Lectures and practical work dealing with geological principles and history, geomorphology, structural geology, mineralogy and petrology of common materials, geological mapping and the principles of engineering geology and its application. Local field excursions of short duration as required.

EST219 Engineering Geology

An introduction to geology with emphasis on features of structure, mineralogy, weathering and erosion which affect the stability of slopes, cuttings, tunnels, foundations and excavations. Local field excursions of short duration as required.

MEB121 Engineering Graphics

An introductory course in engineering graphics covering the application of the principles of geometric drawing and perspective to the preparation of engineering drawings. Topics include orthographic projection, auxiliary views, sectioning, use of manufacturing symbols, dimensioning and tolerancing, pictorial views and sketching.

MET720 Engineering Graphics

Primary and secondary auxiliary views, nomographs, loci of points applied to mechanisms and introduction to computer graphics.

CEB390 Engineering Investigation and Reporting

Series of lectures, practical work and field trips on the appropriate techniques of investigation and reporting on civil engineering processes. Each student will be required to carry out an investigation, prepare a formal written report on that investigation and make a verbal presentation on a selected topic.

ACP181 Engineering Investment Analysis

The subject aims to provide a basis for sound financial decision-making. Topics will include: source and cost of funds; time value of money; liquidity and cash management; inventory management; capital budgeting; financing strategies.

EEB820 Engineering Management

This subject introduces the student to the administrative, financial and management aspects associated with the operation and control of electrical engineering projects and organisations. Topics covered include economic evaluation of electrical engineering projects (present worth and annual cost calculations); management of projects (critical path methods); planning, design, installation, commissioning and operation of power systems (specifications, contracts); financial (including accounting) and organisation aspects in electrical engineering.

MNP108 Engineering Management

Organisations, managers and society. Forecasting, decision making, strategic and tactical planning, budgeting, controls in organisations - techniques of project control, managing organisational change and development.

MEB331 Engineering Materials III

Materials selection, physical and mechanical properties, methods of manufacture, behaviour in the environment, economic factors. Materials testing, specifications and standards, destructive testing, non-destructive testing. Field Trips.

MET140 Engineering Materials I

A series of lectures and practical work dealing with the general properties of materials, materials selection, service requirements and properties of ferrous and non-ferrous metals and alloys, corrosion types and prevention, testing procedures, plastics ceramics and other materials.

MET433 Engineering Materials II

A series of lectures and practical periods dealing with materials testing, failure analysis and materials selection.

MAB193 Engineering Mathematics I

Accuracy, relative and absolute errors; solution of systems of linear equations, determinants; vectors; complex numbers; elementary matrix algebra; differential and integral calculus of one variable, elementary multiple integrals; centre of gravity and moment of inertia.

MAB493 Engineering Mathematics II

Solution of systems of linear equations by direct and iterative methods, rank of a matrix; representation of a function by Taylor series, Maclaurin series, Fourier series; finite differences, polynomial interpolation, Newton-Gregory interpolation formula; solution of first and second order differential equations, operator-D and Laplace transform methods, Taylor series and Runge-Kutta techniques; basic descriptive statistics, probability theorems, distributions.

MAB893 Engineering Mathematics III

Eigenvalues and eigenvectors, quadratic forms, determination of dominant eigenvalue by iteration; sampling theory, hypothesis testing, linear regression and correlation, analysis of variance; introduction to linear programming.

MAB894 Engineering Mathematics IV

Solution of linear systems of differential equations employing operator-D and Laplane transform methods, variation of parameters method for non-homogenous equations; solution of partial differential equations, separation of variables method, introduction to numerical techniques; complex variables, Cauchy-Riemann equations, conformal mapping.

CEB183 Engineering Mechanics

Part A - A series of lectures, tutorials and practical work involving the study of bodies in static equilibrium under the action of forces. Topics covered include: resolution and resultant of forces acting on a particle or rigid body, equilibrium of a particle or rigid body, analytical and graphical analysis of plane and space trusses, shearing force and bending moment in beams, and the properties of sections. Fluid statics, pressure forces.

Part B - A detailed study of the principles of structural mechanics, i.e. stress, strain and elasticity; elastic compatibility; simple beam theory including the flexure formula and the shear stress formula; torsion of circular sections; stresses in thin walled pressure vessels; and theories of elastic failure.

PHB131 Engineering Physics I

A basic course in the physics of heat and the properties of matter, including: the kinetic theory of gases, temperature scales and thermometers, heat and heat measurement, thermal properties of matter, thermodynamics, molecular properties of matter, basic nuclear physics, radiation hazards and safety. Waves; various media; moving and stationary waves, interference; diffraction; Doppler effect; Gravitational fields. Acoustics; shocks; sound; alternation; measurement. Optics; refraction, polarization, photometry, colour.

PHB430 Engineering Physics IV

The basic theory of electromagnetic wave propagation and an introduction to the basic concepts of atomic and nuclear physics and their application to radiation physics and nuclear reactors.

MEB221 Engineering Science I

Statics; energy transmission, force and torque, static equilibrium, shearing force and bending moment. Dynamics; time and distance, velocity and acceleration, kinetic energy, road vehicle dynamics, simple flight dynamics.

MET100 Engineering Science

Kinetic theory, elements of organic and inorganic chemistry. Elements of calculus and statistics. Elements of mechanics, sound, light and electromagnetic spectrum. Electrolysis.

CEB364 Engineering Science II

Fluids and fluid flow in pipes and channels. Flow measurement. Hydraulic models. Pumps and pump characteristics.

CEB564 Engineering Science IIA

Fundamental properties of fluids. Flow in pipes and open channels. Fluid measurement in pipes and open channels. Hydrology.

CEB504 Engineering Science III

Hydrology; rainfall, stream flow measurement; hydraulic design of drainage. Soil mechanics for surveyors; definition, properties, and grading of soils; roadwork, foundation and retaining wall design; soil stability. Concrete technology; properties, manufacture and testing of concrete; elementary reinforced concrete design.

CET364 Engineering Science I

A subject designed to introduce fluid and hydrologic phenomena and to develop skills in measurements and calculations involved in piped drainage systems and open channels covering hydrology, pipe and open channel flow, flow measurement, hydraulic models and machines, and urban drainage systems.

CET404 Engineering Science II

An introduction to the terminology, design practice and code requirements, constructional tolerances, site and laboratory testing, associated with civil engineering works. Topics include: land and sub-divisional engineering, roads, foundations, urban drainage and culverts, dams, canals, channels and rivers, water supply and sewerage, steel, reinforced and pre-stressed concrete, structures -such as bridges and buildings, railways, marine works, irrigation works.

SVT306 Engineering Surveying I

A series of lectures, tutorials and practical classes covering fundamental survey concepts, co-ordinate systems, differential and simple trigonometric levelling; angular measurements; bearing and azimuth; linear measurement by steel tape and stadia; traversing and detail surveying; computation and drafting.

SVT506 Engineering Surveying II

A series of lecture, tutorial and practical classes covering the application of simple field and computational techniques to route location (including geometry of curves, super-elevation and earthworks) hydrography, tunnelling and miscellaneous setting out tasks associated with building and construction.

CMC123 English

An introduction to business communication; application of communication conventions and principles to essays, business letters, reports, speeches, improved reading techniques; meeting procedure; library.

CMB108 English for Technologists

A series of lectures and tutorials aimed at improving the students ability to write sound paragraphs comprising economical sentences acceptable in grammar, syntax, punctuation, and idiom.

CHP144 Environmental Chemistry

A subject which provides the basic chemistry requirements for an understanding of aspects of environmental engineering. Topics include the properties of gases, liquids and solids. Colligative properties of solutions (boiling points, freezing points, osmosis); chemical equilibrium; phase equilibria and colloids; surface chemistry; electrolytes and electrochemistry; chemical reactions; kinetics and thermodynamics; organic chemistry of biologically important molecules.

CEB571 Environmental Engineering

A study of a range of environmental engineering topics not covered in CEB370, CEB470 and CEB570 including lectures and tutorial work on atmospheric pollution, relationship to transportation and land use planning, micro meteorology; sound pollution, noise generation, transportation, structural and functional design of buildings, visual aspects of urban environment.

BEP388 Environmental Impact Studies

Ecological change and its acceptability. Political and socio-economic considerations of environmental pollution, its limitations and control, with particular reference to water pollution. Relations between environmental protection laws and policies and Environmental Impact Studies in Queensland. Compulsory field trips will form a portion of this subject.

BEP868 Environmental Impact Studies I

Need for the historical development of the E.I.S. in North America, Europe and Australia. Problems of preparation and assessment. Multidisciplinary team approach to preparation of the E.I.S. Studies of E.I.S. that have been prepared in Queensland and Australia. Assessment of the E.I.S. in the light of their objectives and the resources available.

BEP180 Environmental Science

Basic ecological concepts and their application. A systems approach to natural environment. Ecosystem theory in relation to man. Pollution as perturbation of an ecosystem, with particular reference to water resources. A major field study of 1 -2 days will form a compulsory portion of this subject.

CET776 Equipment Operation and Maintenance

Lectures, tutorial exercises, practical work and site visits examining the principles and practice of the operation and maintenance of equipment in water and wastewater treatment plants. Topics include: overview of plant; motors, engines, pumps, compressors, and generators; rotary and rectilinear scraping and raking mechanisms; chemical handling, mixing, dosing; safety and maintenance scheduling for specific equipment items.

MEB700 Failure Analysis

A series of lectures, practical sessions and case studies covering the analysis and prevention of failure of mechanical engineering components. Topics will include fractography, fracture mechanics, non-destructive testing, condition monitoring techniques.

CET595 Field Practice

Lectures, tutorial and practical work on field surveys and investigation related to civil engineering works, drilling rigs and field laboratories, setting out of boreholes and other tests in plan and level, logs, investigation surveys, embankment instrumentation and testing, road pavements, penetration tests, bearing tests etc. Organisation of field trips and practical examples, with emphasis on actual hands-on experience in engineering measurements in the field.

CEB404 Field Trip

A series of compulsory field visits to nominated projects, designed to illustrate current practice in civil engineering design and construction techniques throughout Australia. Assessment by written reports and oral debriefing sessions will apply.

ACP354 Finance A

Scope and nature of managerial finance, financial objective of firm, measurement of successful companies; costing and the role of finance, financial reporting, management control plans, internal and external reporting, budgeting, profit planning, working capital management, cash and liquidity budgeting, controlling and investing cash; inventory management and financing; computer applications to financial decision making; Australian capital market and sources of finance.

ACP454 Finance B

The Australian share markets; the market, shares and the broking industry. Policies, strategies for the investors. Security valuation and present value theory; the concept of risk and returns. Portfolio management strategies and analysis. Debentures, fixed interest, and other investments.

ACP881 Finance and Law

Introduction to commercial law. The study of business organisations and their objectives. Profit planning and budgeting.

ACB951 Financial Management for Engineers

An introduction to the accounting framework is followed by a thorough grounding in the fundamental financial accounting procedures. Managerial accounting is then discussed in general terms as an introduction to the basic concepts of financial management and its techniques, for both short and long term finance.

MEB911 Finite Element Analysis

General description of the finite element method, static and dynamic analysis of mechanical engineering problems, review of finite element packages. Examination by assignment only.

CEB550 Finite Element Methods

Further work on two dimensional stress analysis and an introduction to the finite element analysis of continua. Development of elements for plane elasticity, plate bending and field problems, for example seepage and overland flow.

CEP382 Flood Estimation

A course to enable students to make estimates of design flood discharges and levels in gauged and ungauged catchments.

CEP460 Flood Plain Management

Introduction to flood plain management - the problems and the need; hydraulic and hydrologic aspects; flood maps; regulations and zoning; flood insurance; legal aspects; social aspects; flood proofing buildings and other structural measures; significance of flood plain management in multi-objective planning with spectral reference to Moreton Region.

CET465 Fluid Mechanics

Lectures, tutorial and practical work covering the properties of fluids, simple hydrostatics, fundamental characteristics and equations of fluid flow, pipe and open channel flow and hydraulic measurements. Laboratory and tutorial work will cover basic fluid behaviour and provide an introduction to instrumentation.

CEB260 Fluid Mechanics

Introduction to fluid mechanics and its relationship to civil engineering practice. Fluid properties, continuity, energy and momentum applied to steady one-dimensional flow. Viscosity, turbulance, boundary layers and fluid dynamic forces. Dimensional analysis. The subject includes lectures, tutorial and practical work.

MET560 Fluid Mechanics and Heat Transfer

Fluid statics, fluid flow and measurement, dimensionless groups, elementary heat transfer by conduction, convection and radiation.

MEB660 Fluid Power

An introductory course in fluid power systems (hydraulics and pneumatics) incorporating component and circuit construction and some details of system design. The subject includes lecture, tutorial and practical work.

MET960 Fluid Power

Introduction to fluid power. Graphical symbols for hydraulic and pneumatic components. Sequential circuit design. Typical hydraulic circuits. Hydraulic and pneumatic components.

MEB960 Fluid Systems Design

This subject analyses selected fluid systems to show how the performance characteristics of individual components interact to affect overall efficiency.

MEB361 Fluids I

A first course in fluid mechanics which considers the fluid properties most relevant to mechanical engineering practice. The subject deals in some detail with forces in a fluid at rest and its action on submersed and floating bodies. Manometry, pressure distribution in a liquid subjected to acceleration, different types of flow, momentum and energy-equations, flow through orifices and vortex flow are also included.

MEB462 Fluids II

A second course in fluid mechanics for mechanical engineering students. It concentrates on fluid flow in closed conduits, rotodynamic machines, and hydraulic transmissions. It also includes water hammer in pipes and introduces dimensional analysis and dynamic similarity.

MEB461 Fluids III

A more advanced course in fluids for mechanical engineering students. The subject includes boundary layer theory and a more general approach to viscous flow via the Navier-Stokes and Reynold's equations.

SEB103 General Elective

Studies previously completed by students in areas of business or humanities may be acceptable as a Group A elective. Applications to have such studies accepted as meeting the Group A elective requirements are considered on an individual basis.

SVC540 Geodesy

A series of lectures covering geodetic instruments and definitions, the geodetic properties of the Earth, triangulation, geodetic levelling, determination of geodetic position, radii of curvature, convergence, spherical excess in geodetic surveying.

SVC641 Geodesy

Descriptive treatment of Earth's gravity field; geoid and ellipsoid; geodetic co-ordinate systems. Use of formulae for computation on the spheriod. Elementary survey adjustment.

SVT641 Geodesy

Descriptive treatment of Earth's gravity field; geoid and ellipsoid, geodetic co-ordinate systems. Use of formulae for computation on the spheriod. Elementary survey adjustment. Introduction to use of satellites in geodesy. Calculations on the A.M.G.

SVC476 Geography for Cartographers

A series of lectures covering selected topics drawn from geomorphology, climatology, biogeography, economic, urban and regional geography. Students are required to undertake two full day field assignments in the greater Brisbane area.

ESB519 Geology

The subject provides an introduction to geological materials, emphasising chemical and physical concepts and processes, including the constitution of the earth, tectonic and geomorphic agencies, introductory mineralogy and petrology, structural and economic geology, as relevant to civil engineering. Local field excursions of short duration, as required.

ESC143 Geology for Cartographers

Lectures and practical work covering basic geological principles, geomorphology, structural geology, economic geology and historical geology. Local field excursions of short duration as required.

CEB340 Geomechanics I

An in depth study of the mechanical properties of soils and selection of appropriate parameters with applications to slope stability, anchored retaining walls and settlement analysis. Further work on flow net construction between zones and in anisotropic materials. Geological factors in slope stability.

CEB440 Geotechnical Engineering I

The basic principles of foundation design are covered. Analysis of bearing capacity and settlement for shallow and deep foundations under various load combinations. Practical considerations in foundation design; selection of design parameters and safety factors. Introduction to rock mechanics, rock properties, stereographic projection, simple slope stability, failure models, stabilizing methods. Foundations on rock, rock socket design.

CEB540 Geotechnical Engineerig II

Advanced cases of foundation analysis; lateral pile load effects; flexible and stiff raft foundations. Foundations on expansive soil; stereographic projection applied to wedge slope stability in rock; rock and soil anchoring; engineering geology and factors in the design and construction of earth and rockfill dams. Risk assesment and safety, ultimate load and limit state design.

MNB075 Government

This subject introduces the fundamental concepts of politics. It then applies these to an examination of the institutions and processes of Australia's political systems with particular emphasis on the National level and the State of Queensland, Local Government in Queensland, the Public Service, the Judiciary and the interaction of professionals with political process are also examined.

MEB350 Heat Transfer

A course of lectures, tutorials and practical periods which cover the following topics: conduction (steady state, 1 and 2 dimensions, unsteady state), convection (boundary layers, forced, natural) and radiation (black and grey bodies, shape factors, shielding, network simulation).

EEB951 High Voltage Power Plant

Power system insulation: characteristics and theories of breakdown. Power systems overvoltages: statistical studies. Surges in generators, transformers, overhead lines and cables. High voltage test equipment and measurement techniques.

CEB312 Highway Engineering

A series of lectures, practical work and field visits covering highway geometry including vehicle performance and human factors as they relate to road geometry, geometric co-ordination and use of computer aids and; highway pavements including pavement materials and construction processes, pavement cross sections and drainage, pavement theory and pavement analysis methods.

CEB360 Hydraulic Engineering I

Lectures, tutorial and practical work on the applications of fluid mechanics to pipe and open channel flow, flow measurement and hydraulic machinery. Topics include: steady flow in pipes, networks, flow measurement, uniform and non-uniform flow in open channels, pump and turbines.

CEB460 Hydraulic Engineering II

A series of lectures, tutorial and practical work in hydraulics with particular emphasis on unsteady flow, movable boundary hydraulics, hydraulic models and hydraulic design of structures. Topics include pipe flow; open channel flow, hydraulic structures, unsteady flow; mobile boundary hydraulics and the theory and practice relating to fixed and mobile boundary, natural scale and distorted models.

MEP140 Hydraulic and Pneumatic Control

General fluid systems and modelling. Hydraulic servosystems. Penumatic logic systems. Industrial applications.

CET865 Hydrography

Lectures and practical work on field and laboratory measurement and observation. Topics may include hydrologic techniques, stream gauging, sediment sampling. Hydrographic surveying, tide gauging, current measurement, construction and operation of mobile and fixed bed models, pump tests, wind tunnel tests, and Rheological behaviour of fluids.

CEB361 Hydrology

Lectures, tutorial and practical work providing an introductory course in hydrology and urban drainage design; hydrologic cycle, rainfall and runoff; groundwater evapotranspiration, statistical concepts, urban drainage design; unit hydrograph methods; flood studies; data generation, storage estimation.

CEP272 Hydrology

Introduction to hydrology; the hydrologic cycle and its elements; hydrologic technique; collection, storage and retrieval of hydrologic data. Use of hydrologic data for engineering purposes. Introduction to statistical techniques used in hydrology.

CEP765 Hydrology

An introduction to surface water and ground water, hydrology and hydrologic interpretation.

MEB477 Industrial Administration

Principles of industrial organisation. Engineering economics. Patents. Company Law. Industrial Law. Safety. Industrial medicine. Ethics.

EEB724 Industrial Control

This subject provides a further development of control theory and applies it to the design of control systems to be used in the process control and manufacturing environments.

MET370 Industrial Administration

A series of specialist lectures dealing with contract law, preparation of specifications and report writing. A number of lectures on scheduling, network construction and cost analysis. Safety and statutory requirements.

MEB770 Industrial Administration and Engineering I

An introduction to industrial law and engineering economics and analysis with an elementary treatment of decision theory and critical path methods.

MEB870 Industrial Administration and Engineering II

An introduction to Company Law and treatment of Tenders. Industrial Safety and Medicine, elements of production engineering, including programming, game theory.

EEB621 Industrial Control I

This subject provides a further development of control theory and applies it to the design of control systems to be used in the manufacturing environment.

EEB721 Industrial Control II

This subject provides a further development of control theory, and applies it to the design of control systems to be used in the process control environment.

EEB429 Industrial Control M

An introduction for mechanical engineering students to computer control systems, control hardware for process control, process control theory and numerical control. Process control theory includes feed forward, feed back, cascade and ratio control, and adjustment of controlled settings.

EEB573 Industrial Electronics

The study of a wide range of modern electronic devices and circuits with particular emphasis to industrial application.

EET577 Industrial Electronics

Familiarization with various large scale systems designed to show the application of electronics to industry, including industrial process control, telemetery, navigational systems, power station requirements, general control systems, radio, TV and audio system applications.

SET100 Industrial Employment I
SET200 Industrial Employment II
SET300 Industrial Employment III
SET400 Industrial Employment IV
SET500 Industrial Employment V
SET600 Industrial Employment VI
SET700 Industrial Employment VII
SET800 Industrial Employment VIII

Students should engage in at least fifteen weeks employment, approved by the Head of Department. For the employment to be recognized, students must submit an industrial experience record form which has been completed by both the student and his employer.

MEB470 Industrial Engineering

Production planning and control. Factory planning. Quality control. Work study, ergonomics etc. Data processing and operations research. Specifications, estimates and wage incentive schemes.

MEB670 Industrial Engineering I

Lectures, tutorials and assignments in some of the basic techniques of project planning and control: value engineering, estimating, critical path, scheduling, quality assurance and material control.

MEB771 Industrial Engineering II

Lectures, tutorials and assignments in some of the basic techniques of operational planning and control: work design, work measurement, ergonomics, quality assurance scheduling, facilities layout, materials control, maintenance and measures of performance.

MET971 Industrial Engineering

A series of lectures dealing with Organisation structures and their relative functions. Planning and control of a Manufacturing Organisation involving forecasting, linear programming, inventory control and quality control. The use of CAD/CAMM systems and microprocesses in industry. The solving of typical industrial problems.

MNB003 Industrial and Labour Relations

This subject covers the institutional basis of the industrial relations scene in Australia. The structure and operation of the Conciliation and Arbitration Commission in the Queensland and Federal spheres. The role of government, extent of State and Federal jurisdiction. History and role of Trade Unions, and employers group. Union and employer interaction in wages and conditions determinations, productivity and collective bargaining. Strikes, lockouts and industrial disputation.

MET961 Industrial Fluid Mechanics

An introduction to fluid machines and systems such as pumps and pumping, turbines, compressors and fans. The operation of fluid couplings and torque convertors will also be considered.

MET950 Industrial Heat Transfer

This subject deals with the problem of transferring heat from a source to a sink in the most efficient manner. Heat recovery and utilisation is considered.

CEP375 Industrial Liquid Wastes

Sources and characteristics of industrial liquid wastes. Design methodology. Unit operations and processes. Pilot scale modelling and investigation. Case studies of selected industrial wastes, with field visits to nominated sites.

MNB403 Industrial Management

The management process: planning, leading, organising, controlling. Human resource management aspects of communication, motivation, leadership and teamwork, with practical applications to planning and control, personnel relations, job design.

MET733 Industrial Metallurgy I

To study the heat treatment of metals with emphasis on current trends. An in-depth study of corrosion and corrosion prevention. An introduction to the use of composite materials and a study of new advanced materials.

MET833 Industrial Metallurgy II

To study in detail the properties of castings and the solidification process. Investigation of Casting Quality control and techniques. Advanced casting processes. To investigate properties of welds - welding processes - weld defects - welding design. Modern welding methods, case studies.

SVB189 Industrial Practice I

Students should engage in at least twenty weeks employment, approved by the Head of Department. For the employment to be recognized, students must submit an industrial experience record form which has been completed by both the student and his employer.

SVB289 Industrial Practice II

Students should engage in at least twenty weeks employment, approved by the Head of Department. For the employment to be recognized, students must submit an industrial experience record form which has been completed by both the student and his employer.

SVB389 Industrial Practice III

Students should engage in at least twenty weeks employment, approved by the Head of Department. For the employment to be recognized, students must submit an industrial experience record form which has been completed by both the student and his employer.

SVB489 Industrial Practice IV

Students should engage in at least twenty weeks employment, approved by the Head of Department. For the employment to be recognized, students must submit an industrial experience record form which has been completed by both the student and his employer.

SVB589 Industrial Practice V

Students should engage in either:
20 weeks of employment approved by the Head of Department
or
17 weeks of employment approved by the Head of Department, plus a satisfactory engineering project or a satisfactory cadastral project
or
14 weeks of employment approved by the Head of Department, plus a satisfactory engineering project, plus a satisfactory cadastral project.

EEB623 Industrial Systems I (T)

This subject is intended for those students seeking to specialise in control engineering studies. It provides an in-depth treatment of servosystem practice in manufacturing industry, and supports the subject Industrial Control I. Industrial visits will be compulsory and will be an important part of the subject.

EEB931 Industrial Systems II

This subject is intended for those students seeking to specialise in control engineering studies. It provides an in-depth treatment of modern process control practice and supports the subject Industrial Control II. Industrial visits will be compulsory and will be an important part of this subject.

MEB400 Industrial Visits

A series of visits to large industrial concerns in the Sydney region for a total period of one week. Reports will be required on various aspects of the visits.

EET529 Instrument Practice A

An introduction to the principles of commonly used measuring instruments and measurement techniques in the field and laboratory. Basic instrument types, electrodynamic, induction instrument potentiometers and bridges, oscilloscopes, function generators, digital meters, chart recorders and plotters. A number of compulsory industrial visits are arranged.

EET521 Instrumentation and Control

Classification of control systems. Negative feedback. Time domain analysis of first and second order systems. The benefits of frequency domain analysis. Concepts of stability and compensation. Steady state errors. Control system performance. Principles of transduction. Transducers. Data combination. Data transmission, indication and recording. Electronic, electrical, pneumatic and hydraulic amplifiers, motors and actuators. Examples of system configurations. A number of compulsory industrial visits are arranged.

EET677 Integrated Circuits

Introduction to linear integrated circuits. The subject will have a heavy practical content. The complete characterisation of integrated circuit parameters; DC characteristics e.g. bias currents, offset currents, offset voltages, and their practical implications. AC characteristics e.g. gain, phase, slewing rate and their effect on circuit performance. Characterisation of various consumer circuits such as IF amplifiers, modulators.

CSB351 Introduction to Computing A

A first course to provide the student with the basic knowledge and experience to use computers effectively in the solution of problems. An introduction to algorithms, programs and computers. Basic concepts of programming. Program structure. Special programming topics. Organisation and characteristics of computers. Analysis of numerical and non-numerical problems. Programming in PASCAL.

BCB297 Introduction to Computing B

A course covering basic aspects of business data processing. Programming in COBOL.

SVC551 Introduction to Land Studies

The solar system. The earth. Land forms. Soils. The atmosphere and oceans. Geographic zones.

SVC945 Introduction to Remote Sensing

Review of electromagnetic spectrum and the field of various remote sensing systems. Remote sensing acquisition, hardware, satellites. Thermography and radar. Data processing. Cartographic use of remote sensing.

CHA140 Introductory Chemistry I

Review of atomic theory, gas laws, equilibria. Oxidation and reduction, acidity, alkalinity, electrolytes. Basic techniques of analysis, gravimetric, volumetric, colorimetric. Coagulation, flocculation, anion exchange. Introduction to chemistry of carbon and chemistry of some civil engineering materials - bitumen, cement, synthetic resins, plastics, explosives, surface active agents etc.

MNP037 Introductory Economics

The fundamental economic problem of scarcity, economic choice, substitutability and competition. Supply and demand as it affects land. The effect of government fiscal policy on the general level of economic activity and specifically on the

demand for land. Monetary policies and their effect on the demand for private and commercial land and on the level of land speculation. The effect of overseas investment, cyclical fluctuations in the levels of employment and demographic series on the demand, supply and price of land.

CEP362 Irrigation Engineering

A subject to introduce graduates to the problem of irrigated agriculture and the engineered services to it. Topics will cover soil, water and plant relationships, soil conservation, farm practices, groundwater and surface sources. Irrigation structures will be handled in considerable detail. Field trips will be arranged as required.

MEB972 Jig and Tool Design

Design of jig and fixtures applicable for assembly and various machine operations. Design of press tools, machinery blanking, forming, wall ironing and special forming techniques. Analysis of press performance and selection.

MET783 Jig and Tool Design

Introduction to economics of Jig and Tool design. Principles of Press - Tool design and sheet metal forming. Selection of presses and Drawing Lubricants.

CET808 Job Organisation

Lectures, tutorials and field trips on organisation of labour, plant, materials and sub-contracts during planning and construction phases of civil engineering projects. Financial reporting, networking and man management.

MEP330 Joining Materials

A series of lectures and practical sessions involving the theory and practice of machinery repair.

CET295 Laboratory Practice I

Measurement techniques, accuracy, precision etc. Treatment of data, elementary statistics, frequency distributions, probability, normal distribution. Representation of data, graphs, homograms. Photographic techniques, films, lighting. Measurement of load, dead load systems, hydraulic systems, elastic loops, mercury boxes, load cells etc. Measurement of length, extensometers, Huggenberger dial indicators, cathetometer. Maintenance of laboratory equipment, safety, calibration techniques.

CET695 Laboratory Practice II

Advanced work on laboratory equipment for testing physical and mechanical properties of materials, hydraulic, screw, electro-hydraulic, closed loop systems. measurement of strain, photoelasticity. Electrical transducer systems, strain gauges, use and applications. Use of electrical amplifying equipment, bridge systems, AC and DC. Pressure transducers. LVDT, vibrating wire and other methods. Recording and data acquisition systems, spurious signals, calibration. Introduction to colorimetric and spectroscopic methods of analysis. IR, UV, AA and flame photometry. Air pollution and water analysis.

CET795 Laboratory Practice III

A series of lectures, laboratory and field exercises dealing with more advanced testing of civil engineering materials. Bituminous materials (including asphalt), non-destructive testing, sonic and radiographic tests. Soil testing for chemical parameters, paint testing, water and air monitoring and analysis. Advanced calibration procedures, staff assessment and evaluation.

CEC586 Laboratory Projects

Selected projects in various fields are proposed for which students must develop test techniques and analyse the results in the form of a laboratory report.

SVB270 Land Administration I

Introduction to the elements of law. Law relating to land title and registration. Crown land administration in Queensland.

SVB470 Land Administration II

Introduction to government and public administration. Australian public land administration. Private sector land administration.

SVB573 Land Administration III

Queensland legislation and case law affecting land and the survey of land including title registration, land and survey related aspects of the Water Acts, Dividing Fences Acts, Canal Acts, Harbour Acts, Acquisition of Land Acts and statutory control of regional and urban planning.

SVB574 Land Administration IV

An introduction to rural and urban sociology. Social aspects of land administration.

SVB670 Land Administration V

Organisation theory. Development planning procedures. Land development analysis.

SVP261 Land Design I

A review of Australian subdivisional design for residential purposes. Physical, social, economic and statutory factors affecting design. Designing for access and mobility and minimisation of costs. Influence of design on social interaction and on community awareness and identification. Optimisation of design for a particular market. Integration of subdivisional designs into the established planning system. Survey control in design. The application of computer techniques to design. Subdivisional designs for physically or statutorily difficult land.

SVP361 Land Design II

A study of particular subdivisional requirements for the use of land for industrial and commercial purposes. Industrial estates, commercial development. Control surveys on construction sites. Methods of analysis to determine physical and statutory feasibility of projects. Further computer applications to design.

SVP461 Land Design III

The purpose of this subject is to introduce the design requirements of Rural Land Development including a review of the concepts and practices of land evaluation, land systems classification, land capability classification, resource conservation and the use of computerised land data banks. Detailed design requirements for rural subdivision including pastoral, agricultural and irrigation schemes, forest subdivisions, vineyard, orchard and subdivisions. Rural residential developments.

SVP462 Land Design IV

A study of the factors involved in the investigation, design, construction and management of water oriented residential and recreation facilities including canal estates, sea-front settlements, marinas, boat harbours, inland lakes and riverside settlements. The studies will be extended to include mountain and sports oriented recreation activities. Practical design undertakings will be oriented towards the characteristics of the local region.

MNP042 Land Development Management

The functions of management, planning, organising, staffing, directing and controlling. Market research and forecasting. Strategies for implementing plans. Break-even analysis using fixed and variable costs and income projections. Computer applications of PERT and CPM to land subdivision and development projects.

SVB561 Land Development Practice I

Historical review of land design and development. Planning theory. Urban land design.

SVB664 Land Development Practice II

A series of lectures covering the preliminaries of development, data assembly, statutory approvals, elements of design, requirements of communication, hydraulic and energy services, factors affecting development costs, financial and technical controls of land development schemes. Projects covering neighbourhood development, residential development, industrial estate development, canal and reclamation estates, commercial development, rural development schemes and design of small towns as are associated with mining ventures.

SVC471 Land Laws and Regulations

Introduction to the Australian legal system, sources of law. The various Acts and Regulations affecting land and land surveying in Queensland.

SVC571 Land Laws and Regulations

A series of lectures covering the law of property, land registration systems, leasehold, land title descriptions, searching, rights and powers of the Crown, limited access survey regulations, powers of the various State and Local authorities, law relating to accretion and erosion and copyright.

SVT471 Land Laws and Regulations

Introduction to the Australian Legal system, sources of law. The various Acts affecting land and land surveying in Queensland.

SVC352 Land Studies

Introduction to geomorphology and land forms in Australia; central place theory and regionalism.

SVT352 Land Studies

Introduction to geomorphology and land forms in Australia; central place theory and regionalism.

SVB351 Land Studies A

Introductory ecology and conservation of resources. Introduction to physical aspects of land. Assessment of physical land parameters. Land classifications. Land utilisation. Sieve mapping and land use surveys. Regional geography. Students are required to undertake a full-day ecology field trip to Stradbroke Island and a full-day land evaluation exercise in the Greater Brisbane Area.

SVB451 Land Studies B

An introduction to the theory of price. Location theory. Land economics.

SVP150 Land Studies I

Review of land tenure systems in Queensland, the role of the cadastre in land administration. Land valuation in the cadastre. Land assembly for development projects. Statutory acquisitions. Sources and costs of information for land design and development. Techniques for survey control and land development projects. Obligations under Survey Co-ordination legislation.

SVP450 Land Studies II

This elective will explore the role of the cadastre in social and economic development; the history of land tenure and cadastral system, modern land tenure and registration systems and their effect on land use and land development, and the evolution of new systems to meet the demands of a diversity of life styles and cultural backgrounds.

SVB121 Land Surveying I

Principles of surveying. Surveying instrumentation. Traversing. Levelling. Elements of tacheometry. Contouring. Elementary theory of error. Plane surveying computations.

SVB226 Land Surveying II

Plane surveying computations. Detail surveying. Reconnaissance surveying. Route location. Curve theory. Setting out surveys. Earthworks computation. Elements of cadastral surveying.

SVB332 Land Surveying III

Survey adjustment. Cadastral surveying. Cadastral plans. Students are required to carry out off-campus field work in the Greater Brisbane Area or a contiguous Shire.

SVB432 Land Surveying IV

Co-ordinate computation. Spheroidal computation. Primary traversing. Classical triangulation. Trigonometrical levelling. Theory of map projections. Australian Map Grid Computations. Survey adjustment. Students are required to carry out off-campus field work in the Greater Brisbane Area or a contiguous Shire.

SVB544 Land Surveying V

Hydrographic surveying. Field astronomy. Survey adjustment.

SVB631 Land Surveying VI

Astronomy practice. Mining surveying. Satellite fixation systems. Precise levelling. Students are required to carry out off-campus work in the Greater Brisbane Area or a contiguous Shire.

SVB551 Land Valuation

Concepts and purposes of valuation. Improvements. Urban and rural valuation. Interest in land. Compensation. Legislation affecting land valuation. Land valuation practice.

CSB962 Language Processing

An introduction to the theory and practice of language processing; the design and recognition of small languages for command processors and other interactive programs; advanced data structures and algorithm design.

BEP766 Legislation and the Environment

History of laws and ordinances concerning the pollution of terrestrial, fresh water and marine environments. History of recent attempts to curb excessive pollution. National approaches: NEPA legislation Canadian and British models. Australian Environmental Legislation Commissions of enquiry etc. Legislative framework relating to Environmental Health problems.

EEP102 Linear Control Theory I

Manipulation of block diagrams and signal flow graphs. Load disturbances and noise. Linearization by the use of feedback. Stability criteria. Root locus diagrams. Performance specifications. Selection of system components. Selection and design of compensation configurations. Identification techniques.

EEP104 Linear Control Theory II

Choice of state variables. Eigen values and Eigen vectors. Matrix transformation. State-space representation. Solution of the state-space equation. Controllability and observability. Liapunov stability. State-variable feedback. Non-interacting controllers.

EEB511 Linear Systems Analysis

This subject deals with advanced circuit theory of particular relevance to power engineering. Topics covered include: calculation of transients in lumped circuits by Laplace transform and numerical methods; theory of distributed parameter transmission lines including standing and travelling wave solutions; matrix analysis of large networks including an introduction to network topology and diakoptics; extension of theory relating to circuits with periodic non-sinusoidal excitation.

CES101 Local Government Practice

An introduction to Local Authority Laws and Regulations, legislative powers, Local Government Act, relevant Planning Acts, Main Roads Act, Forestry Act, Clean Waters Act etc. Regulations and practices relating to resumptions, subdivision construction, rights of entry, urban building construction, powers and duties of Engineer and Overseer. Field visits as required.

CET809 Local Government Practice

An introduction to Local Authority Laws and Regulations, Legislative powers. Local Government Act, relevant Planning Acts, Main Roads Act, Forestry Act, Clean Waters Act etc. Regulations and practices relating to resumptions, subdivision construction, rights of entry, urban building construction, powers and duties of Engineer and Overseer. Field visits as required.

MET580 Machine Elements I

The practical application of shear force and bending moment diagrams and selection of components from BHP manual. Use of handbooks, codes and rolled steel section tables in the selection and use of bolted and welded connections. The application of standard rolled steel sections.

MET680 Machine Elements II

Selection and applications of Solid, Roller, Bolt and Hydrostatic Bearings. Selection and application of Vee Belts and Couplings. Selection of spur-bevel-worm gearing and chain and rope drives.

MET780 Machine Elements III

Selection and application of Flat and Helical Springs, Brakes and Clutches, Universal Joints and Torque Converters.

MET573 Machine Tool Technology

Analysis of Single and Multi point cutting tools, accessories in Machine tools, Testing and trends in machine tools.

MEP373 Maintenance Strategies

Types of maintenance, production in relation to maintenance, economics of maintenance, machine failures and their causes, reliability, storekeeping, standardisation.

MNB004 Management

The subject acts as an introduction to the theory and practice of management and lays a foundation on which to build managerial knowledge and techniques through a life time career. Functions of management: planning, organising, leading and controlling are presented in the framework of a systems approach to decision making.

MNP106 Managerial Economics

Managerial Economics is concerned with the application of basic principles of economic theory in areas of concern to managers in the Australian economy. Particular emphasis will be given to economic decision making in business organisations. Topics include: demand forecasting, costing, investment analysis and the interface between business and the wider economic environment on business.

MNP102 Managerial Psychology

Management and behavioural science. Communication in organisations. The individual and the organisation. Individual differences. Perception, motivation, frustration and conflict. Social dynamics role theory. Theories of leadership and management style.

MNP403 Managerial Strategy

General management functions and point of view. Corporate strategy and policy. Strategic planning, resource development and deployment, functional policy areas. Industry analysis.

MEB100 Manufacturing I

The subject covers the basic methods of converting raw materials into manufactured goods, including an introduction to metrology.

MEB570 Manufacturing II

A treatment of manufacturing processes which emphasises the importance of tolerancing and measurement of components to achieve functional success of manufactured products.

MEB671 Manufacturing III

Series of lectures/tutorials and practical exercises aimed at rounding off a student's ability to translate the specifications of a mechanical design into a set of workshop requirements and controls. Special emphasis is placed on efficiency considerations in metal cutting and on the application of the computer in manufacturing.

MEB372 Manufacturing Technology

Lectures and practical laboratory work to cover the topics, metal cutting and tool performance, machine tool metrology and structures and grinding.

SVC513 Map and Plan Reproduction

A series of lectures covering copying of maps and plans, camera work, colour theory, principles of lithography, proving, off-set printing and letter press printing. Students are required to undertake one evening visit to a printing organisation in the Greater Brisbane Area.

SVB642 Map Projections

Classification of map projections. Perspective projections. Conic projections. Cartographic applications.

SVC442 Map Projections

A series of lectures and practical work covering the problem of map projections, properties of projections, main systems of map projections, characteristics and geometry of better known projections, choice of projections. Transverse mercator and two standard parallel polyconic projections in detail, grid-projection conversion.

SVC742 Map Projections I

Historical review of the development of map projections, the principal systems and their properties; choice of projection.

SVC842 Map Projections II

The U.T.M. system and the Australian Map Grid. Lamberts conformal projection. Other Australian mapping projections.

SVT542 Map Projections I

Historical review of the development of map projections, the principal systems of map projections and their properties; choice of projection.

SVT643 Map Projections IA

Practical exercises in the calculation and plotting of simple map projections.

SVT842 Map Projections II

The U.T.M. System and the Australian Map Grid. Lamberts conformal projection. Other Australian mapping projections.

SVT843 Map Projections IIA

More difficult exercises in the computation and plotting of map projections.

SVT507 Mapping and Photogrammetry

A series of lecture, tutorial and practical classes covering a brief outline description of the principal map projections and the UTM system; of the technical description of land and of registered plans. An elementary introduction to photogrammetry and photo-interpretation, radial line methods, the mirror stereoscope and simple parallax heighting. Students are required to undertake one evening visit to an aerial surveying organisation in the Greater Brisbane Area.

CEB531 Masonry Design

Working stress design. Assumptions, derivation of design formulae for beams, walls and columns with clay and concrete masonry. Masonry materials. Physical properties of masonry materials. Lectures, practical work and field visits covering the above topic.

MNP204 Marketing Methods and Practices

The market audit. Planning and forecasting. Management of the distribution function. Branding, packaging and promotion. Procedures in developing new products and the management of this effort. Nature and scope of marketing. Scientific methods and problem solving. Systems approach in marketing. Factors influencing the market place. Organising for new product development.

MEB133 Materials I

An intrductory series of lectures and practical classes on the basic concepts of materials science including phase changes, elasticity, plasticity, recovery, recrystallisation, grain growth, failure modes and strengthening mechanisms. An outline is given of the nature and engineering properties of ceramics, polymers, composites and metallic materials with some reference to joining methods and degradation processes.

MEB230 Materials II

A series of lectures and practical classes to introduce the basic concepts of fracture mechanics and to create an awareness of the behaviour and engineering design properties of cast metals and polymers.

MEB231 Materials III

A series of lectures and practical classes to introduce students to the behaviour and properties of wrought metallic alloys, ceramics and composite materials. An introduction is given to the metallurgical effects of welding.

MEB339 Materials and Processes Project

Laboratory experiments and project work covering approximately equal times in areas relating to subjects in engineering materials and manufacturing engineering. Field trips may be required.

MEB332 Materials Selection

A series of lectures and tutorials on the principles and practice of materials selection. The material covered includes general principles, the major operations in the selection process and systematic methods of selection. The student is introduced to failure analysis as a selection aid.

MEP430 Materials Selection for Reliability

A review of failure mechanisms and the selection process for engineering materials. Treatments of the important properties and materials in the selection process to ensure reliability in situations involving fracture, fatigue failure, creep, wear and corrosion.

CET596 Materials Specification and Control

Dimensional and geometrical control in design and construction, tolerances, quality control and specifications, properties and testing of civil engineering materials, metals, bricks, blocks, bitumen, paint, timber etc. Relationship of material properties to applications and development of specification requirements in practice.

CET597 Materials Specification and Control A

Practical exercises and compulsory field trips based on the syllabus of CET596 Materials Specification and Control. Exercises will include library and laboratory work and material specification writing.

MAC491 Mathematics II

Algebra: Binomial theorem and applications. Analytic Geometry: Straight line and circle. Calculus: Differentiation, maxima and minima, integration, definite integral. Trigonometry: Solution of triangles, equations, heights and distances.

MAB342 Mathematics of Finance

Simple interests, compound interest, interest effective p.a., and convertible in monthly rests; annuities certain, including payments more frequently than interest is convertible; analysis of the annuity; sinking funds - capital redemption policies; valuation of securities, capital gains tax and income tax; determination of rates of interest; investment analysis; cost benefit analysis, risk analysis, capital budgeting.

MEB489 Mechanical Design Project

A project will be assigned to the class for submission as a group project. The design will be reviewed in terms of material selection and treatment, manufacturing method, stress analysis, project control and management, and engineering drawing and communication. Field Trips.

MET200 Mechanical Engineering

Mechanical engineering equipment and processes including mechanical plant and equipment, engine cycles, engine types, site equipment, maintenance and servicing, industrial safety, workshop processes, precision measurement, machinery and procedures for engine maintenance. Lectures, tutorials and practical work.

MEB453 Mechanical Engineering IIs

A series of ten lecture/tutorial sessions and four practical periods to give the student a sound basic knowledge of thermo-fluid processes and an appreciation of the application of that theory to commonly encountered situations.

MET940 Mechanical Instrumentation and Control

Classification of mechanical plant systems hardware for satisfactory operation of mechanical plant, methods of setting up and operating mechanical plant, performance specification.

MET421 Mechanical Project A

Report and presentation. A complete project selected from a prepared list, each dealing with a specific engineering environment.

MET351 Mechanical Services Installation

The design and operational characteristics of energy and power supply systems as used in buildings. Fire precautions and installations and fire protection systems. Major plumbing installations and building maintenance equipment. Noise control of plant.

MEB313 Mechanics I

Stress and deflection of mechanism components due to inertia and other effects.

MEB610 Mechanics II

Types of mechanical frames and joints, static and dynamic loadings on frames and their effects on stress, deflection and vibration.

MET772 Metrology

Basic standards of length. Measuring equipment and methods of use. Gauge manufacture and use. Optical methods of measurements. Gear measurement. Machine tool metrology. Screwthread measurement.

MSA162 Microbiology II

The growth of microbial populations and methods of controlling growth; sterilisation and disinfection methods; enzymic activity of microorganisms; the identification of the microorganisms more important in public health; host-parasite relationships and an introduction to immunity.

EEP110 Microcomputer Control

Microprocessor architecture and bus structure. Semiconductor memories. Peripherals. Number systems. Memory addressing. Instruction formats. Program structure. Interfacing and input/output techniques. Software. Applications to control, signal processing etc.

EEB662 Microwave and Antenna Techniques (T)

Propagation in rectangular and circular guides, cut-off, evanescent modes, guide impedances. Guide components, anisotropic behaviour of ferrits. Radiation from elementary dipoles and long thin aerials. Simple array theory and examples of arrays.

CES102 Municipal Engineering

Lectures and associated course work including field visits covering the operations of local authority and municipal practice, works relationships, urban drainage and road construction, landscape and municipal construction, traffic systems and operations, road junction construction, water supply and sewerage, swimming pool operations, reservoirs etc., street marking and lighting, waste collection and disposal, inter-relationship of urban services etc.

CET707 Municipal Engineering

Lectures, tutorials, practical work and field trips covering the operations of local authority and municipal practice, drainage and road construction, traffic operations and systems, services including landscaping, water reticulation, sewerage works and waste collection and disposal.

CEP122 Municipal Planning A

A series of postgraduate lectures and tutorials covering the principles of town and regional planning for municipal engineers in Queensland. The course deals with the objectives and methodology of planning, practical problem solving, legislation and other factors of concern to the municipal and development engineer.

CEP123 Municipal Planning B

A series of postgraduate lectures and tutorials covering the principles and practices of urban and regional planning with specific reference to environmental issues. The course deals with legislative constraints (Queensland and elsewhere), environmental impact studies (derivation and appraisal) as well as regional planning.

CEP124 Municipal Planning C

A series of postgraduate lectures and tutorials dealing with relevant planning legislation in Queensland and further developing the concepts of Municipal Planning A and B; Planning objectives, presentation and administrative procedures associated with municipal, urban and regional planning are all covered in a practical way.

EEB303 Network Theory I

Detailed study of network analysis, mesh and nodal analysis, circuit theorems and applications, four terminal network theory, frequency behaviour of and transient response of simple networks.

EEB401 Network Theory II

General transform theory with particular emphasis on Laplace transforms in the study of frequency and time domain studies of complex networks; transfer functions, poles and zeros, stability and realizability of networks. The synthesis of filters is introduced.

MEP210 Noise and Vibration Control

Principles of noise and vibration measurement and analysis. Design of corrective treatment procedures and equipment. Case studies. Use of relevant measurement equipment.

MEB510 Noise and Vibrations

Free, damped, and forced vibrations; vibration measurement and control; sound theory, measurement and control; hearing loss and noise legislation.

MAB618 Numerical Analysis I

Errors; systems of linear equations (direct methods); Solution of non-linear equations; Interpolation and approximation; Numerical quadrature; numerical solution of ordinary differential equations.

MNB930 Operations Research

This subject is designed to be an introduction to the development, application and computation of the basic operations research techniques. The topics will include: Linear Programming, The Dual Problem and Post-Optimality Analysis, The Transportation Problem and Network Models, Dynamic Programming, Project Scheduling by PERT-CPM, Queuing Theory.

EEP111 Optimisation and Extremum Control

Definitions for optimisation. Optimisation methods. Dynamic optimisation. Applications to control and other industrial problems.

ACB455 Personal and Corporate Finance

The subject examines the Australian financial environment from both a personal and corporate point of view. Sources of financial information are examined with the view to suggesting potential sources of funds - banks, insurance companies, leasing, issuing of shares, fixed assets, and other investment opportunities. Other corporate and personal decision areas covered include estate planning; mergers; portfolio management and taxation.

SVB343 Photogrammetry I

Introduction to photogrammetry. Photogrammetric optics. Aerial photography. Students are required to undertake one half day visit to an aerial survey/mapping organisation in the Greater Brisbane Area.

SVB443 Photogrammetry II

Principles of construction and operation of analogue stereoplotters. Aerial triangulation. Terrestrial photogrammetry. Analytical photogrammetry. Students are required to undertake one half day visit to an aerial survey/mapping organisation in the Greater Brisbane Area.

SVC343 Photogrammetry II

Introductory mathematics, photogrammetric optics, geometry of aerial photograph, stereoscopy, photocompilation, aerial triangulation, mosaics and photomaps, field control, principles of construction and operation of stereo plotting machines. Students are required to undertake one half-day visit to a mapping organisation in the Greater Brisbane Area.

SVC444 Photogrammetry I

The photographic process, aerial survey and flight planning; geometry of the single photograph, scale etc; stereoscopy, stereoscopes and parallax bar; simple treatment of space resection; rectification and interpretation. Students are required to undertake one evening visit to an aerial surveying organisation in the Greater Brisbane Area.

SVC543 Photogrammetry II

Use of stereoplotters, relative and absolute orientation; numerical photogrammetry. Radial line methods. Terrestrial photogrammetry. Students are required to undertake one evening visit to a mapping organisation in the Greater Brisbane Area.

SVC643 Photogrammetry III

The operation of stereoplotting instruments. Aerial triangulation. Compilation of maps.

SVT243 Photogrammetry I

The photographic process, aerial survey and flight planning; geometry of the single photograph, scale etc.; stereoscopy, stereoscopes and parallax bar; simple treatment of space resection; rectification and interpretation. Students are required to undertake one evening visit to an aerial surveying organisation in the Greater Brisbane Area.

SVT343 Photogrammetry II

Use of stereoplotters, relative and absolute orientation; radial line methods. Terrestrial photogrammetry. Differential rectification and orthophoto construction. Positioning and identification of ground control. Introduction to remote sensing. Students are required to undertake one evening visit to a mapping organisation in the Greater Brisbane Area.

SVT443 Photogrammetry III

The operation of stereoplotting instruments. Aerial triangulation. Compilation of maps.

PHB170 Physics for Surveyors

Mechanics. Geometrical optics. Physical optics. Quantum optics. Physics of materials. Physics of the lower atmosphere. Sound. Electromagnetic fields. Electronics.

CET876 Plant Operation and Maintenance

The operation and maintenance requirements of water quality treatment plants, including scheduling, labour control, workshop organisation, safety, training and performance monitoring.

MEB910 Plant Optimisation

Review of optimisation methods. On-line and off-line optimisation applicable to industrial plant with emphasis on mechanical applications. Assessment by assignment only.

CET875 Pollution Control

Principles of water and air pollution and sampling, relationships to public health engineering, control and operation of small water supply and sewerage plants. River monitoring, air and water sampling. Standard laboratory tests for pollution.

CEP377 Pollution Monitoring

Data acquisition, processing and evaluation. The design of sampling programs and procedures. Instrumentation, accuracy, reliability, limitations. The significance and reliability of analysis results, pollution indices etc. A major part of the course will consist of field work.

EEB652 Power Electronics

In this subject the student is introduced to the technology of power semiconductor devices, and to their application in high power circuits. Particular emphasis is given to device protection and to motor drives.

EEB944 Power Station Engineering

This subject deals with the electrical and mechanical plant found in power stations and with associated instrumentation and control equipment.

EEB741 Power System Analysis

This subject deals with the theory and application of techniques used to study power systems. It includes advanced symmetrical component techniques, phase co-ordinate and z-bus methods, Newton Raphson techniques in load flow analysis; transient and steady-state stability and dynamic behaviour of interconnected systems subject to system disturbances; harmonic analyses of power systems.

MNP510 Powers and Duties of a Municipal Engineer I

This subject examines the nature and constitution of Local Government in the Australian Federal System. Specifically the following areas are considered: formation of policy within a local authority; local authority internal organisation and management; local authority powers, responsibilities and functions; local authority accounting and budgetary cycle; and local authority sources of finance and expenditure patterns.

CEP107 Powers and Duties of a Municipal Engineer II

A series of postgraduate lectures, tutorial and practical work covering the management and operational features of municipal practice. Topics include engineering economics, contracts, plant and labour considerations of concern to the municipal engineer and manager.

CEP108 Powers and Duties of a Municipal Engineer III

A series of postgraduate lectures and tutorials covering the legislative framework for municipal engineering in Queensland. The various Acts and Regulations affecting the practising engineer are considered and their implications outlined.

ACB183 Principles of Accounting

The role of the accountant and the accounting information system. The accounting model and double entry accounting. Accounting for merchandising and manufacturing. Elementary cost accounting. Reporting to management. Short and long term financing decisions. Reporting to non-managerial interests. Performance evaluation and cost controls. Accounting and planning.

MNB001 Principles of Economics

The Micro-Economics segment deals with the breakdown of the national aggregates, including the relative prices of particular goods and what determines the quantitative breakdown of the national income aggregates into various goods and services. The Macro-Economics segment deals with the big picture, the aggregates of income, employment and price levels. This subject shows how the economy of a country operates.

MNA460 Principles of Marketing

An appreciation of the overall framework of modern marketing including the various principles associated with the marketing mix viz. the marketing concept, pricing, product development, promotion and distribution. In addition, the environment for marketing decisions will be studied with a special emphasis on consumerism and the social responsibilities of the firm.

MEP240 Principles of Plant Operation

Operational characteristics of mechanical plant, methods of controlling plant, survey of hardware, strategies for control. Optimisation of plant systems.

EEP100 Process Control

Process transducers. On-stream analysers, process controllers and flow control valves. Terminology and symbols. Analysis of mass transfer, flow, level, pressure, temperature, and composition control systems. Feedback, feedforward, cascade and ratio control. Tuning. Process control by computer. Process instrumentation.

EET823 Process Control Systems

Process controllers and recorders. Control valves. Process measurement of mass flowrate, humidity, and chemical composition. On-stream analysers. Process-control symbols and terminology. Types of process loop. Tuning of process controllers. Control of temperature, flow, level, pressure, humidity, chemical composition, distillation. Start-up and shut-down procedures. Performance testing. Principles and use of advanced measuring instruments and techniques. A number of compulsory industrial visits are arranged.

CHA644 Process Measurement and Monitoring I

A study of the physical and chemical measurements involved in:

(a) the determination of inorganic and other selected pollutants;
(b) the analysis of sewage and other sludges;
(c) the testing of sewage effluents together with an introduction to specialized analytical techniques including atomic absorption spectrophotometry, chromatography and polarography.

Emphasis will be placed on sampling and sample preservation laboratory techniques, interpretation of results and the significance of the measured parameters in the operation and control of water and wastewater treatment plants.

CHA744 Process Measurement and Monitoring II

A study of the physical and chemical measurements involved in:
(a) the analysis of raw and potable waters; and
(b) the determination of organic and microbiological pollution.

Emphasis will be placed on sampling and sample preservation laboratory techniques, interpretation of results and the significance of the measured parameters in the operation and control of water and wastewater treatment plants.

CET777 Process Operation and Control I

A study of the principles of unit processes of water and wastewater treatment, with particular reference to their operation. The methods of operational control of these processes.

CET877 Process Operation and Control II

An extension of the studies, covered in CET777 Process Operation and Control I, of unit processes of water and wastewater treatment with particular reference to their operation. The methods of operational control of these processes.

EEB622 Process Plant

This subject provides an outline of the configuration of power station and processing plant, together with the organisation of the instrumentation and control systems for that plant.

MET962 Process Plant

This subject deals with process plant and its operation. Items to be considered are pipework, valving, pumps, fans and compressors, heat exchangers and pressure vessels.

MEB950 Process Plant Design

An inroduction to the design of duct and industrial pipework system design. Pressure vessel design methods. Field vists.

MET572 Production Planning

Basic principles in productivity measurements. Lectures dealing with Work Measurements, Method Study and Management Control.

MEB982 Product Planning and Development

This series of lectures and tutorials will cover the selection, design and development of products which will satisfy customer needs while providing maximum commercial benefit to the organisation. It will show how market forces influence the design process, and will provide guidance on the definition of product specifications appropriate to the needs of both the market and the organisation.

MET572 Production Planning

Lectures and associated practical work dealing with time and motion study, methods study, incentive systems, productivity.

MEB974 Production Scheduling

Lectures, tutorials and assignments in recent develoments in critical path, line of balance, job shop problem, batch production and line balancing.

CMA199 Professional Communication Techniques

The style and format of correspondence and formal professional documents. Research methods and reporting. Speech communication and social patterns. Informative and persuasive speech. Oral reporting, group process seminars symposia etc.

CMC199 Professional Communication Techniques

The style and format of correspondence and formal professional documents. Research method and reporting. Speech communication and social patterns. Informative and persuasive speech. Oral reporting, group process seminars, symposia etc.

CEB403 Professional Practice

Engineering organisations, project initiation, documentation, form of contract, contract administration, arbitration, safety and insurances, legal responsibilities, ethics.

CEP101 Professional Practice

The basic elements of labour, plant and materials management, and of project control by the constructor. The basic elements of project administration by the Owner's Engineer: document preparation, specification writing, tendering procedures, administration of the general conditions of contract, duties of the Resident Engineer. Basic legal issues and the Engineer. Reports and records.

SVB680 Professional Practice

The history of surveying and surveyors. The surveyor in relation to statutory authorities, civil, commercial and taxation laws. The surveyor as employer, employee, expert witness. Surveyor-client-consultant relationships. Professional ethics.

CSB654 Programming Languages

A further study in data structures and languages. Functional v. imperative languages. Properties of lists - PASCAL and LISP. Strongly-typed languages - the work of Strachey - ALGOL 68. Procedural languages - storage allocation - static v. dynamic - garbage collection. Semantics - types. Sorting and merging: internal and external. Symbol tables - hashing with collision resolution.

CEP290 Project

Original investigation work on a topic approved by the department. This work should be taken to a stage where it is of value to industry, and its results should be embodied in a report with a standard of presentation satisfactory to the department. Field trips on site or to local firms may be required for some projects.

CET895 Project

An individual project involving design, laboratory and construction work with the submission of a comprehensive report. Field trips on site or to local firms may be required for some projects.

SVB683 Project

Each student will undertake and report on all approved project in the field of surveying. Field trips on site or to local firms may be required for some projects.

SVB685 Project (Cartography)

Each student will undertake and report on an approved project in cartography or a related field. Field trips on site or to local firms may be required for some projects.

CEB491 Project (Civil)

The student is required to investigate in depth, either within the Institute or in the field, and present a formal report on a problem or problems taken from the full range of civil engineering practice. The object of the project is to evaluate the student's understanding of basic civil engineering principles and his application of them to a specific task. The projects may arise through participation in research programs or specific topics suggested from industrial applications. Field trips on site or to local firms may be required for some projects.

EEB789 Project (Electronic Systems Engineering)

An individual engineering project on a specified subject will be completed. The work will require design, computing, construction, experimental work and practical testing with the submission of appropriate reports. The subject will be selected from any area which involves electronics, computing, control, communication and may include programming, circuit and system design.

EEB781 Project (Electrical Engineering)

Students are required to investigate a particular problem(s) and present a formal report for evaluation at the end of the year. Field trips on site or to local firms may be required for some projects.

MEB409 Project (Mechanical)

The student is required to investigate in depth and present a formal report on a problem area taken from the full range of mechanical engineering practice. Project may arise through investigation in applied research programs or from a specific topic from industry. Field trips on site or to local firms may be required for some projects.

MNP506 Promotional Policies and Methods

The sales function. The reselling function as a promotional resource. Factors involved in stimulating reseller support. Supervising the sales effort (training, recruiting and compensating). Control of promotional activity by sales force. Ethical problems in promotional activity by sales force. Demand analysis and market targets. Objectives of the promotional program. Organising and managing the human resources. Characteristics of advertising media (TV, radio, magazine). Strategy for selection of media vehicle. Considerations in formulating the advertising effectiveness. Social responsibility in advertising.

MNB002 Psychology for Engineers

Introductory Psychology. Basic elements of Transactional Analysis and their application to work settings. Self-concept and its relationship to socially effective behaviour. Attitudes and attitude change. The dynamics of supervision in the work place.

CEB370 Public Health Engineering I

An introduction to the principles of public health engineering. Causes and effects of water pollution, principles of unit processes and operations of water quality control. An introduction to air pollution, its causes and control. Field visits are required.

CEB470 Public Health Engineering II

Development of principles taught in CEB370 to enable functional design of treatment units to be undertaken. An introduction to sewerage and water reticulation. On completion of this unit the student should be able to proceed to simple design exercises in water supply and sewerage and treatment processes. Field visits.

CEB570 Public Health Engineering III

This subject covers basic solid waste management (of domestic, commercial and industrial wastes), together with a study of the general principles of industrial liquid waste management, with examples of some important industries. Students completing this subject will have gained a basic understanding of solid and industrial liquid waste management necessary to a municipal engineer operating in the Queensland scene. Field visits.

CET775 Public Health Engineering

Lectures, tutorials and field trips on the history and significance of Public Health Engineering. Characteristics of waters and wastewaters, processes and operation of treatment plants and an introduction to industrial waste problems.

MNB033 Purchasing and Distribution for Engineers

The various distribution channels will be studied in terms of both industrial and consumer type products including the nature and function of the various channels and the control of such. Procedure for price determination for both Industrial and Consumer goods including the various methods of setting pricing objectives. The objectives in purchasing industrial type products including co-operative forms. Also the selection of channels for new products or new companies together with the determination of the intensity of distribution. The firm's management of physical distribution will be examined in terms of inventory location and control systems.

EEB601 Realtime Computing

The integration of hardware and software to produce working real time computing systems. Particular attention will be given to realtime operating systems and to hands-on experience on suitable equipment. Functioning realtime systems will be studied on industrial visits.

MET352 Refrigeration and Air Conditioning

Ideal and actual refrigeration cycles including variation of operating conditions and cycles. Performance of refrigeration equipment. Psychometry, cooling load estimation. Air supply systems.

SVB645 Remote Sensing

Introduction to remote sensing. Data and information. Review of electromagnetic propagation. Spectral sensitivity and response. Systems in current use. Cartographic use of remote sensing imagery.

SVT945 Remote Sensing

Introduction to remote sensing. Data and information. Review of electromagnetic propagation. Spectral sensitivity and response. Systems in current use. Cartographic use of remote sensing imagery.

SVT813 Reprographic Processing A

Practical exercises in map reproduction.

MNP305 Research Design in Marketing

The highlight of the course will be an on-stream project undertaken for a firm, institution or society. (Possibility of utilising the student's own employment situation). The project will be conducted concurrently with the course. The intent of this real life situation is to give the student opportunity to apply the concepts discussed and have a fulfilling learning experience. The student will become actively involved in examining the concept of research design, data collection, motivational research. Sampling, questionnaire techniques, product research, data and statistical analysis and report writing.

CEP379 Resource Conservation and Management

Techniques of long term planning and utilisation of the resources of air, water, land and associated primary and secondary resources. The management of water quality, water resources. Land use conflict etc. Demand assessment, forecasting. Policy alternatives, administrative structures etc.

CET816 Road Engineering

A series of lectures, tutorials and practical work covering the elements of road construction, pavement systems, alignment provisions, road making machines and their uses, surfacing techniques and the practical elements of construction in rural and urban environments.

CET815 Road Location and Design

Lectures, tutorials, practical Design Office exercises and field trips on basic road location principles, geometrics, horizontal and vertical alignments, pavement design and surfacing. Traffic engineering, intersection and street layout and design and drainage, highway maintenance and construction.

CEP211 Roadworks Practice I

Advanced pavement design and maintenance techniques with emphasis on selection and evaluation of pavement structures and construction equipment requirements, strengthening and reconstruction, maintenance planning and equipment selection and highway furniture and lighting.

EEP108 Sampled Data Control Systems

Sampling processes and impulse modulation. Data reconstruction. z operator and z transform. Difference equations and pulse transfer-functions. Block diagrams and flow graphs with samplers. Inverse transformation. z plane root-loci and stability. w operator and its application. Continuous data models. Compensation techniques, including digital compensation algorithms. State-space representation.

CET570 Sanitary Engineering Practice

An individually designed program including designs, reports and investigations in the area of sanitary engineering practice.

ACB753 Securities Evaluation

This subject provides comprehensive study of some of the important aspects of security analysis; types of securities, financial information, share markets, analysis and evaluation of fixed income securities; fundamental and technical analysis of ordinary shares and analysis of speculative shares. Real life investment simulation is an integral part of the subject.

SVB682 Seminar

Each student will prepare and present a technically oriented seminar in a field of surveying.

SVB686 Seminar (Cartography)

Each student will prepare and present a technically oriented seminar in a field of cartography.

EEB785 Seminars

Students will prepare and give a seminar on a suitable engineering topic or other subject as approved by the Head of Department. Discussion is invited and students must be prepared for questions from the audience.

MEB401 Seminars

Two opportunities are given for presentation of a technical paper to a technical audience usually consisting of engineering students and staff. Students act as chairman of the meeting and assessment is made partly on technical content and partly on presentation.

EEB701 Seminars and Technical Communication

The presentation of oral and written reports and other technical information to specialist and non-specialist audiences is analysed and practised.

EEB602 Signal Processing

Sampling and reconstruction. z-transforms description of discrete-time signals. Digital filtering - FIR, IIR. Discrete Fourier transform. Leakage effects and window functions. Discrete Hilbert transform.

CSB490 Software Engineering

This subject extends the student's understanding of data structures, algorithms, and languages. The fundamental aspects of operating systems, networks and protocols are introduced. Practical work in the subject emphasises the software engineering aspects of program design.

EEP112 Software for Industrial Control

Realtime operating systems. Task scheduling and communication. Time sharing. Interface software. Data acquisition and bases. Standard and advanced control algorithms. Program development. State-of-the-art computer control. Market survey of software.

CEB240 Soil Mechanics I

Introduction to soil properties and their measurement, phase relationships, compaction, soil physics, limit stress conditions and shear strength, and an introduction to lateral earth pressures and the magnitude of one dimensional settlement. This subject includes laboratory and tutorial work and compulsory visits.

CEB241 Soil Mechanics II

Further work on the design of retaining walls and the calculation of consolidation settlement. The permeability of soils and flow nets; basic theory for the factor of safety for slopes and bearing capacity of soils; soil stabilisation and the design of flexible pavements insitu investigation and sampling.

CEC540 Soil Mechanics II

Further development of the principles of Soil Mechanics and Soil Chemistry, including settlement analysis and testing, the triaxial test etc. Elementary design of slopes, pavements etc. will be done as class projects.

CET645 Soil Mechanics I

Soil mechanics in civil engineering; soil types and classification; clay properties. Definitions - void ratio, density, saturation; soil compaction tests, field measurement, roller types and performance. Soil permeability measurement, Darcy's law, filters, simple flow net. Total and effective stress in the ground; lateral pressure on walls. Shear stress and shear strength - Mohr's circle. Settlement of saturated clays; pressures due to surface loading. Bearing capacity of a shallow foundation on sand. CBR test and pavement design, soil stabilisation. Sampling tools and laboratory tests relevant to the above theory.

CET745 Soil Mechanics II

Lectures, tutorials, practical work and field trips. Revision of total and effective stress, artesian pressures; shear strength and the Mohr-Coulomb failure criteria, sand and undrained clay, slow-drained strength. Rankine theory extended to sloping surface, undrained clays; simple surcharges, settlement of clays, field curves, time for consolidation. Seepage and flow net sketching, pore pressure and uplift forces; erosion gradient, slope stability, sands and undrained clay, Taylors curves. Field testing, S.P.T., Dutch cone, plate loading.

CET845 Soil Mechanics III

Lectures, tutorial and practical work on slope stability, pore pressure parameters 'A' and 'B', triaxial testing, bearing pressures, test loads, piles, driving formulae, load tests. Rock mechanics and rock tests. Loads on buried conduits. Earth dams and specific treatment of soil mechanics instrumentation, pore pressure, inclination etc.

CEP275 Solid Waste Disposal

Lecture, tutorial and site visits on unit operations of waste management, characteristics of wastes, sampling and analysis procedures, collection and storage systems, handling, reprocessing and disposal techniques. Optimisation of waste management, composting, landfill, combustion, incineration, air pollution control, liquidwaste and sludge streams, control of gaseous emissions. Recycling, salvage, alternative processes, structural, environmental, other applications. Legislation and policy.

CSB961 Special Studies

Students are required to carry out project work in one or more areas relating particularly to special topics of new technological develoments in computing. Such project work will be introduced or complemented where necessary by appropriate lecture material.

CET708 Specifications and Estimates

Lectures, tutorials, practical work and field trips on specification writing and preparation of estimates from tender documents in civil engineering works.

SVC541 Spherical Trigonometry and Astronomy

The sphere, spherical triangles, development of formulae, solution of spherical triangles, spherical excess, applications of spherical trigonometry to astronomical and geodetic work in general. Introduction to astronomy, celestial sphere, astronomical triangle, time, establishment of position and meridian. Astronomical photography. Students are required to undertake two evening visits to the Brisbane Planetarium at Mt. Coot-tha.

SVC542 Spherical Trigonometry and Astronomy

Definitions concerning the sphere and spherical triangles. Development and use of formulas for the general and right-angled spherical triangles. Spherical excess and area of triangle. The celestial sphere and celestial co-ordinates. Solar and sidereal time, use of Star Almanac for Land Surveyors. Third order methods for determining latitude, longitude and azimuth. Students are required to undertake one evening visit to the Brisbane Planetarium at Mt. Coot-tha.

SVT541 Spherical Trigonometry and Astronomy

Definition concerning the sphere and spherical triangles. Development and use of formulae for the general and the right angled spherical triangle. Spherical excess and area of triangle. The celestial sphere and celestial co-ordinates. Solar and sidereal tune, use of Star Almanac for Land Surveyors. Third order methods for determining latitude, longitude and azimuth. Students are required to undertake one evening visit to the Brisbane Planetarium at Mt. Coot-tha.

CET285 Statics

Force and moments. Equilibrium. Stress and Strain. Tension. Shear force and bending moment diagrams. Theory of bending. Buckling. Frame works. Selection of framework members.

CEB201 Steel Structures

Tension and compression members. Beams - lateral-torsional buckling, shear and bearing stiffeners, plate girders. Beam-columns. Bolted and welded connections, base plates.

CEP383 Storage-Yield Estimation

A course aimed at providing necessary techniques of the estimation of stream storage on natural catchments to meet specified demands and probabilities of failure. Methods of generating single and multi-site data for ungauged and gauged catchments are included. Conjuctive use of ground water with surface water is considered.

CEB281 Strength of Materials

Extension of elastic theory from structural mechanics into more complex states of stress - non-homogeneous beams, asymmetrical bending; shear centre, tension in hollow and other sections, buckling. Experimental techniques for stress and strain analysis.

CET135 Strength of Materials

A series of lectures, tutorials and laboratory work on the elastic behaviour of materials, how stress and strain are related, and an analysis of the ways in which stresses may be caused - by tension, compression, temperature, bending, shear and torsion. Combined stresses. An introduction to simple beam design is given together with several examples using the steel and timber Codes.

MEB511 Stress Analysis

Stress and deflection in a selection of mechanical engineering situations. Theory and practice of strain measurement. Introduction to finite element analysis.

CEB551 Structural Design

Advanced analysis and design techniques for structures in steel, concrete and other materials. Emphasis will be placed on a depth of understanding of structural action and material properties, the economics of selection, the application of modern design techniques and Codes. Site visits are required.

CET755 Structural Design

More detailed treatment of the elements of structural design. Loading Codes. Use of STRESS and similar computer packages. Steel design according to the steel Codes - beams, ties, columns, bolted and welded connections, base plates. A portal frame or trussed roof building design exercise. Examples and practical work in studio and field.

CEB252 Structural Engineering I

Lectures, tutorials and practical work on the principles of elementary structural action, including work on equilibrium, compatibility, determinacy and stability, deflection analysis, energy theorems and their application, stiffness methods, buckling and influence lines. The work covered will include an introduction to indeterminate analysis and the concepts of flexibility and stiffness methods.

CEB352 Structural Engineering II

Lectures, tutorial and practical work, extending the basic concepts and applications of Structural Engineering I. Approximate methods, moment distribution, influence lines for indeterminate structures, matrix analysis, collapse analysis of frames. Analysis of flexible cables.

CET555 Structural Engineering

Lectures, tutorial and practical work on analysis of determinate and simple indeterminate structures. Calculation of deflections. Introduction to computer techniques. Introduction to steel design using steel codes - beams, struts, ties, simple connections.

CET855 Structural Testing

Lectures, tutorial and practical work on structural form and action. Basic structural systems. Materials, method and structural relationships. Analysis and testing of models. Instrumentation. Residual stresses. Fatigue. Tests on welding and joining methods. Buckling phenomena. Standards and specifications. Design of experiments.

CEP221 Subdivision Engineering

Current engineering and town planning methods of analysis and design for the subdivision of land. Residential (including canal and court types), industrial, commercial and rural developments will be reviewed.

MET901 Sugar Mill Technology I

This subject provides the basic knowledge and skills in the technology and equipment associated with sugar mill processes and operation.

MET902 Sugar Mill Technology II

This subject provides further knowledge and skills in the technology and equipment associated with sugar mill processes and operation.

SVB306 Surveying I

Brief history of surveying, theory of error, principles of control, survey instrumentation, engineering levelling and setting out.

SVB406 Surveying II

Advanced surveying systems - remote sensing applications in civil engineering, survey networks, underground surveying, hydrographic surveying.

SVC121 Surveying

Broad types of surveying and their application. Levelling. Bearings and angles. Linear measurement. Control surveys. Computations. Hydrographic surveying. Long line surveys. Feature and detail surveys.

SVT226 Survey Computations Practice IA

A series of practical exercises in survey computations of a type normally encountered in a survey office, including those associated with sub-divisional design, (closes, areas, earthworks etc.), with the establishment of minor control, and with astronomic observations. Use will be made of programmable calculators.

SVT439 Survey Computations Practice IIA

A series of practical exercises in survey computations of a type normally encountered in a survey office concerned with surveys in an integrated system, computations on the spheroid and on the A.M.G. Use will be made of programmable calculators.

SVT121 Survey Drafting Practice I

Care and use of instruments, lettering and symbols, enlargement and reduction of plans, plan copying, elementary cartographic drafting.

SVT321 Survey Drafting Practice II

Traverse plotting, working drawing for route surveys, contour and feature survey plans, cadastral survey drafting.

MAB199 Survey Mathematics I

Calculus: differentiation, partial differentiation, complex numbers, sequences and series, integration, applications. Matrix Algebra; basic operations, linear equations, inversion, determinants, Cramers rule. Coordinate geometry. Statistics.

MAB495 Survey Mathematics II

Calculus. Matrix algebra. Specific trigonometry. Three dimensional coordinate geometry.

MAB795 Survey Mathematics III

Transformation in 3 dimensions: central projection, the near-parallel case. Numerical analysis: propagation of errors, solution of non-linear equations. Approximation and interpolation. Solution of simultaneous linear equations, Gaussian elimination, compact methods, Choelsky, iterative methods.

SVT112 Survey Plan Drawing A

A series of practical exercises in plotting and preparing plans of all types of field surveys from field books, level books, tacheometer books, and other sources as normally done in survey offices in field employment.

SVT124 Surveying

Broad types of surveying and their application. Levelling. Bearings and angles. Linear measurement. Control surveys. Computations. Hydrographic surveying. Long line surveys. Feature and detail surveys.

SVT122 Surveying I

Introduction to survey measurement methods, construction, care and use of instruments for linear and angular measurements, including levelling and tacheometry. Traversing. Survey records.

SVT222 Surveying II

Optical distance measurement. Electromagnetic distance measurement. Investigation and detail surveys. Route working surveys and setting out surveys for construction. Mine and hydrographic surveying.

SVT322 Surveying III

Introduction to cadastral surveying in Queensland and Australia. The role of the Surveying Associate with respect to cadastral surveys. Location and searching for cadastral surveys. Field cadastral survey techniques. Land data banks. Field Astronomy Practice.

SVT422 Surveying IV

Types and orders of survey control. Co-ordinate system. Construction and use of mineral and geodetic theodolites. Observations and reductions of EDME measurements of geodetic distances. Specifications for control surveys. Adjustment of control survey observations. Introduction to least squares. Approximate adjustment techniques.

CMB113 Surveying Communication

The application of principles of communication to specific communication in surveying fields; technical literature reviews, preparation of research papers, reports, business correspondence, presentation of seminar papers and conduct of conferences.

SVB390 Surveying Computing

Analysis of processes involved in surveying computation and data processing. Application of on-line time sharing operating systems to survey computation. Computers in surveying. Survey software development. Use of survey computer packages.

SVC422 Surveying for Cartographers

A series of lectures and practical work covering the fundamental concepts of surveying, principal instruments, linear measurement, traversing with theodolite and compass, levelling, hydrographic surveying, elementary mining surveying, elements of engineering surveying, preparation of field instructions.

SVB532 Surveying Practice I

A series of lectures in advanced cadastral and topographic surveying and quantitative land analysis and project work in topographic and/or hydrographic surveying and mapping which requires the student to undertake field work off-campus.

SVB637 Surveying Practice II

A series of lectures in advanced project, geophysical and hydrographic surveying and project work in geodetic control surveying, topographic surveying and hydrographic surveying which requires the student to undertake field work off-campus.

SVT123 Surveying Practice IA

A series of practical exercises in the use of chains and tapes, the compass, clinometer, optical square and other small items of field equipment, designed to give a level of competence comparable to that which would be obtained in field employment.

SVT223 Surveying Practice IIA

A series of practical exercises in the care and use of the theodolite - angular measurement, traversing, stadia - and of the level, designed to give a level of competence comparable to that obtained in field employment.

SVT224 Surveying Practice IIIA

A series of practical exercises in the use of the theodolite, level and other field equipment for making investigation and detail surveys and for setting out of works of a kind which would be encountered in field employment. Exercises in hydrographic surveying.

SVT326 Surveying Practice IVA

A series of practical exercises in cadastral surveying involving the field measurements associated with identification, alignment, re-instatement, subdivision and mining lease pegging surveys of a type normally encountered in field employment.

SVT425 Surveying Practice VA

A series of exercises in the establishment of minor and photogrammetric control, involving the use of single second theodolites and EDME. Exercises in barometric levelling and reduction of all observations to basic computational form.

SVT423 Surveying Practice VIA

A series of practical and computational exercises in the establishment of major geodetic control, involving the use of single second and 0.2 second theodolites, long range EDME and precise levels. Exercises in the observations of astronomic azimuth. Reduction of all observations.

CEP376 Systems Modelling

Systems analysis, multifactor analysis of engineering projects, principles of modelling. Economics of systems, marginal analysis, econometric aspects of systems analysis, concepts of utility and welfare maximisation. Decision theory, principles of optimisation, development of objective functions, graphical analysis, linear programming, simplex method, organisational networks, system simulation, integer and dynamic programming, state concepts. Examples and case studies.

CSB959 Systems Performance Optimisation

This subject deals with the quantitative analysis and critical assessment of data management techniques used in both large and medium scale information processing systems.

CSB951 Systems Programming A

A course comprising the study of operating systems, multi-programming and multi-processor systems, addressing techniques, process and data modules and job scheduling.

CSB952 Systems Programming B

An extension of CSB951 comprising the study of file systems, virtual memory, paging, graphics, systems programming languages, and protection.

CMB136 Technical Writing

The prose, mechanical and graphical elements in reports, proposals, instructions and other technical literature are analysed and put into practice. The course includes the preparation of routine correspondence, and presents modern develoments in organisational communications.

CEP170 Technology and the Environment

An introduction to the broad scope of the course and the impact of technology and civil engineering on the environment. A review of a selection of major technological impacts on the environment. The general approach to environmental control.

BEP767 Technology Assessment and Forecasting

Major technological developments and their effects. Methods of predicting the direction and long range impact of technological developments on society and the environment. Case studies. Emphasis placed on methodology of assessment and forecasting.

CET835 Tectonics

Current techniques of building with examples, systems building, regulations, codes of practice, standards and specifications. Standard details, erection and construction of large building, design theory, method and practice, design of multi-cell buildings involving industrialisation and urban planning.

EEB361 Telecommunications

Detailed study of Fourier theory applied to signals and analogue communication systems - am, fm, and pulse analogue modulation methods, time and frequency multiplexing and frequency translation.

EET566 Telecommunications

An introductory, broad sweep subject designed to expose the nature of communications and the theory applicable. Topics will include: the communication problem, types of communication system. Nature of signals. Noise; signal processing, elementary Fourier; nature of links. Noise on links; the need for and different types of modulation - a.m., angle mod., pulse analogue, coded mod., multiplexing, superhet and transfer of frequencies; digital transmission.

ESP419 Terrain Analysis

This subject deals with causative processes responsible for terrain diversity: lithological variability; structural patterns and tectonic processes; geomorphology.

MEB411 Theory of Machines

Balancing of mechanisms and rotors; gear trains; friction and centrifugal devices.

MEB451 Thermal Plant

A series of lectures, tutorials and practical periods in thermal plant including advanced thermodynamics, boilers, turbines, cooling towers, feed water heaters, cryogenic plant, and real cycle analysis.

MET650 Thermal Plant

A series of lectures, tutorials and practical periods related to the following topics: nozzles, turbines, steam plant, gas turbines, air conditioning, cooling towers, fans and ducts.

MEB250 Thermodynamics I

A series of lectures with tutorial and practical periods to introduce the basics of engineering thermodynamics. Topics such as basic concepts, reversibility, first and second laws of thermodynamics. Applications to heat engines, compressors, engines testing etc. Particular emphasis being given to single phase systems.

MEB251 Thermodynamics II

A series of lectures, tutorials and practical periods that incorporate applications of the theory developed in Thermodynamics I: steam plant, nozzles, impulse and reaction turbines, gas turbines, mixtures, combustion and refrigeration.

MAB626 Topics in Mathematics I

Economic statistics; comparative statistics; dynamic analysis linear programming; graph theory and structural models in society; stochastic processes; theory of games.

MET171 Trade Training IA

This is a practical subject aimed at instructing the student to be proficient in the use of workshop equipment. Topics include workshop safety, bench fitting, marking out, sharpening of tools, oxy-acetylene welding and cutting, electric arc welding, resistance welding. Field Trips.

MET271 Trade Training IIA

Students will be instructed in the practical use of various machine tools such as lathes, shapers, drills, milling machines and grinding machines. Field Trips.

CHA844 Trade Waste Control

A study of industrial wastes with respect to typical waste characteristics, effects on natural waters, sewers and treatment plants, methods of in-house treatment and their achievable effluent levels, monitoring techniques, legislation and method of enforcement.

CEB313 Traffic Engineering

A series of lectures, practical work and field work covering traffic theory including traffic behaviour, probability models, queuing and bunching; traffic management analysis including unsignalised and signalised intersection, street lighting, signs and markings, barriers and parking and; traffic capacity analysis including standards, warrants and capacity and environmental volumes.

EET737 Transmission and Propagation

A subject covering the propagation of waves on transmission lines, in free space and in hollow guides, with a brief treatment of aerials. Transmission lines - study of waves and the phenomena encountered in transmission lines up to matching, using Smith circle techniques. E.m. waves - a study of the nature of waves in free space and at the boundary between media. Aerials - basic aerial parameters. Wave guides - the phenomena encountered in hollow guides and simple microwave techniques.

EEB562 Transmission and Propagation (T)

Distributed elementary lumped constant analysis of twin-conductor transmission lines; waves, reflections, reflection coefficient, impedance and standing waves. Introduction to the TE mode in rectangular waveguides, and to aerial parameters.

CEB410 Transport Engineering I

A series of lectures, practical work and field work covering transport technology including rail, bulk handling, marine and aviation technologies; transport route location including the physical principles of route location in urban and rural terrain and transport network analysis including the transportation planning considerations of trip generation, distribution, modal split, traffic assignment, evaluation and road needs planning.

CEB511 Transport Engineering II

A series of lectures and practical work to provide an overview and balanced perspective of transport engineering. The subject covers transport economics including supply and demand in the transport sector, socio-economic analysis, financial analysis, road pricing and environmental analysis as applied to transport; Highway upgrading including: appraisal of deficiencies, pavement rehabilitation, geometric deficiencies, development of overtaking lanes and duplication, accident assessment, noise abatement and rationalization of standards; and Transport Authority operations including MRD and local authority procedures, design manuals, methods and organisation in planning, design construction and operation and an overview of other authorities including QR, DOT, ARRB, ARRDO, and BTE.

CEP214 Transport Engineering I

Design requirements for person movement transport systems. Design construction and maintenance of railway structure rollingstock, interchanges and access walkways. Airport geometry and design, construction and maintenance of pavements, ground support equipment and terminals.

CEP420 Transportation Engineering

A series of lectures and tutorial work in the principles and applications of transportation applied to planning and development programs. Land use patterns and transportation, alternative modes, characteristics of traffic flow, estimation and prediction model split. Transportation studies. Principles of urban and rural neighbourhood development, design considerations and details for development; location, design and economic analysis for traffic and transportation schemes. Materials, construction improvement and maintenance aspects of transportation modes. Relationship of transport with environment, impact studies, sociological effects.

MEB463 Tribology

Tribological terms; friction; wear; surfaces; lubrication modes; lubricant properties; lubricant selection; bearings; transmission elements; failure diagnosis; planned lubrication; specific lubrication problems.

CEP361 Urban Drainage

A subject designed to expand the knowledge and design skills of graduate engineers in the drainage of high cost land. The topics will include rainfall, runoff, modelling, hydraulics of urban drainage elements, costs and policies. Field trips will be arranged as required.

CEP310 Urban Transportation Planning

Urban transportation planning models. Model construction, development, calibration and data collection, including zones, networks, trip generation, distribution model, plot and assignment with consideration of disaggregate modelling, macro land use/transportation models and micro planning models.

CEB192 Vacation Practice I

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and his employer and a formal report to the standards laid down by the Head of Department. Both report and form must be submitted by week seven of the semester immediately following the work period.

CEB292 Vacation Practice II

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and

his employer and a formal report to the standards laid down by the Head of Department. Both report and form must be submitted by week seven of the semester immediately following the work period.

CEB392 Vacation Practice III

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and his employer and a formal report to the standards laid down by the Head of Department. Both report and form must be submitted by week seven of the semester immediately following the work period.

EEB206 Vacation Practice I

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and his employer.

EEB406 Vacation Practice II

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and his employer.

EEB606 Vacation Practice III

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and his employer.

MEB200 Vacation Practice I

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and his employer.

MEB300 Vacation Practice II

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and his employer.

MEB402 Vacation Practice III

Students should engage in at least five weeks employment, approved by the Head of Department. For the employment to be recognised, students must submit an industrial experience record form which has been completed by both the student and his employer.

CEB560 Water Engineering

Lectures, tutorial and practical work and site visits covering selected topics in water engineering. Topics will be chosen from advanced hydrology, mobile bed hydraulics, river hydraulics, hydraulic structures, physical and mathematical modelling.

CET866 Water Engineering

Introduction to hydrology, hydraulic structures and hydraulic models. Emphasis will be placed on urban drainage, culverts, dams, energy dissipators, channels, transitions and soil conservation structures design. Tutorial and practical work together with site visits.

CEP172 Water Quality Engineering I

Characteristics of liquid wastes. Their effects on receiving waters. Dispersion and decay of pollutants in the water environment. Water quality standards and objectives.

CEP273 Water Quality Engineering II

Unit operations and processes of water quality control. Process design parameters. Site visits as required.

CEP274 Water Quality Englenering III

The design of water and wastewater treatment trains. Current practice and development. Site visits as required.

CEP378 Water Resources Development

An introduction to water resources development in terms of multi-objective, multi-purpose projects for Australian conditions.

CEP380 Water Supply and Sewerage

Water reticulation, distribution network analysis. Service reservoirs, pumping stations, waterhammer, design. Sewerage design and construction. Corrosion prevention and mitigation. Sewage and sludge pumping. Design of pumping stations - syphons, drops and overflows. Field trips will be arranged as required.

EET305 Workshop (Elec.) IA

Legal requirements, codes of practice, State Acts, Trade Unions, safety, medical aid; introduction to work with soldering, crimping, wiring cords, cable layouts, earthing, continuity and insulation testing.

EET405 Workshop (Elec.) IIA

Wiring in buildings and switchboards, construction and maintenance of items such as relays, contactors, motors, light fittings; coil winding; fault finding in plant and circuits at medium voltages; basic protection circuits and equipment.

EET309 Workshop (Elec.) IIIA

Basic design and construction of a transformer, illumination circuit, control equipment, SCR, power supply or similar items, including calculations, sketches, testing and technical report. A compulsory visit to a plant engaged in heavy current electrical engineering is arranged.

EET409 Workshop (Elec.) IVA

An introduction to electronic circuit assembly and printed circuit board manufacture; electronic components and circuit testing; wire wrapping and construction techniques. A compulsory visit to a plant engaged in light current electrical engineering is arranged.

MET175 Workshop (Mechanical) IA

An introduction to workshops and field training, the use of sketches, working drawings, materials, safety and legal requirements, measuring instruments, sawing, drilling, grinding etc.

MET475 Workshop (Mechanical) IIIA

An introduction to oxy-acetylene and electric welding techniques, foundry work, heat treatment; lathes, milling machines etc., punching, use of standard sections, specifications, catalogues etc. Field Trips.

MET471 Workshop Laboratory

A series of workshop demonstrations, projects and experiments to broaden the students appreciation of Workshop Processes.

MET170 Workshop Processes

A series of lectures and practical demonstrations giving an introduction to workshop practice and mass production processes covering basic and precision measurement, industrial safety, metal cutting theory, threads, gears, standard and special machine tools, foundry processes, metal forming techniques and welding.

Notes