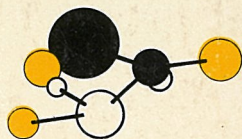


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QUEENSLAND INSTITUTE OF TECHNOLOGY

74 SCHOOL HANDBOOK

APPLIED SCIENCE

School of Applied Science

**including: Biology and Environmental Science
Chemistry
Mathematics and Computer Science
Paramedical Studies
Physics**

Handbook 1974

**QUEENSLAND INSTITUTE OF TECHNOLOGY
George Street, Brisbane
P.O. Box 246, BRISBANE (North Quay) 4000
Phone: 212411**

price: 60c

date of publication: 1 December 1973

ERRATA: In the entry requirements set out preceeding each tertiary course the Senior subjects listed as required should have been listed as recommended subjects.

Students must comply with Departmental rules prescribed for dress and behaviour in relation to safety, hygiene, etc.

**Head of Department of Physics and
Acting Head of the School of Applied Science**

O.J. Wordsworth
B.Sc. (Hons.) M.Sc
Dip Ed (Qld) M.Sc
Ph.D (Birm) A.A.I.P.

The School consists of

Department of Biology and Environmental Science
Department of Chemistry
Department of Mathematics and Computer Science
Department of Paramedical Studies
Department of Physics

Each of these Departments conducts courses within its area of interest and the details of these courses – structures, course rules, pre-requisites and co-requisites, synopses of subjects – are provided in this School handbook.

In order to facilitate and promote liaison between the Institute, the professions, employers and allied groups on matters pertaining to the Institute's objectives, Advisory Committees have been established within the various departmental areas. These Committees provide the vehicle by which informed opinion may be brought to the attention of the School Academic Board, and exert an advisory influence on the aims and objectives of the Board in respect of the educational environment to be engendered in its sphere of influence. In addition these Committees advise the Board on the relevance of educational programmes to the educational requirements of industry and the professions.

CALENDAR

1974 CALENDAR

EVENTS (Boxed in calendar)

(All Public Holidays and Weekends indicated in Bold Numbers.)

JANUARY

Sun	M	T	W	Th	F	Sat
		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		

Public Holidays:

1st: New Years Day
28th: Australia Day

4: Closing date for Enrolments in all courses by continuing Students and New Applicants with Interstate Qualifications. Closing date for Revaluations.

8-10: Open Interview Period
11.00 a.m. - 7.00 p.m.

11: Closing date for Applications for Enrolment in all Courses by New Applicants with Queensland Qualifications.

14: Supplementary Examinations Commence.

(Alternate Classes Code - All classes that are held on alternate weeks only will be held on week designated "A" if the first class of the year was on an "A" day and on week designated "B" if the first class of the year is on a "B" day.)

FEBRUARY

Sun	M	T	W	Th	F	Sat
					1	2
	3	4	5	6	7	8
A10	11	12	13	14	15	16
B17	18	19	20	21	22	23
A24	25	26	27	28		

6-8: Orientation Period.

11: FIRST SEMESTER COMMENCES.

22: Closing date for Applications for Late Enrolment.

Closing date for Applications for Change of Enrolment.

MARCH

Sun	M	T	W	Th	F	Sat
A					1	2
B 3	4	5	6	7	8	9
A10	11	12	13	14	15	16
B17	18	19	20	21	22	23
A24	25	26	27	28	29	30

31

*Cyclone Threat
Classes Cancelled.*

CALENDAR (Continued)

APRIL

Sun	M	T	W	Th	F	Sat
B	1	2	3	4	5	6
A 7	8	9	10	11	12	13
B14	15	16	17	18	19	20
A21	22	23	24	25	26	27
B28	29	30				

Public Holidays:

12th: Good Friday

15th: Easter Monday

25th: Anzac Day

MAY

Sun	M	T	W	Th	F	Sat
B			1	2	3	4
5	6	7	8	9	10	11
A12	13	14	15	16	17	18
B19	20	21	22	23	24	25
A26	27	28	29	30	31	

Public Holidays:

6th: Labour Day

JUNE

Sun	M	T	W	Th	F	Sat
						1
B 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						

Public Holiday:

17th: Queens Birthday

6-11: Recess.

10: Closing Date for Applications for cancelation of Subjects.

13: First Semester examinations
Timetable placed on Notice Boards.

7: FIRST SEMESTER ENDS.

10-22: First Semester Examinations.

24-29: Recess.

CALENDAR (Continued)

JULY

Sun	M	T	W	Th	F	Sat
	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			

1-31: Recess.

AUGUST

Sun	M	T	W	Th	F	Sat
				1	2	3
A 4	5	6	7	8	9	10
B11	12	13	14	15	16	17
A18	19	20	21	22	23	24
B25	26	27	28	29	30	31

1-3: Recess.

5: SECOND SEMESTER
COMMENCES.

16: Closing Date for Applications
for Change of Enrolment.

Public Holiday:

14th: Exhibition Day

SEPTEMBER

Sun	M	T	W	Th	F	Sat
A 1	2	3	4	5	6	7
B 8	9	10	11	12	13	14
A15	16	17	18	19	20	21
22	23	24	25	26	27	28
B29	30					

23-28: Recess.

OCTOBER

Sun	M	T	W	Th	F	Sat
B		1	2	3	4	5
A 6	7	8	9	10	11	12
B13	14	15	16	17	18	19
A20	21	22	23	24	25	26
B27	28	29	30	31		

25: Closing Date for Applications
for Cancellation of Subjects.

28: Second Semester Examination
Timetable placed on Notice Boards.

CALENDAR (Continued)

NOVEMBER

Sun	M	T	W	Th	F	Sat
B					1	2
A 3	4	5	6	7	8	9
B10	11	12	13	14	15	16
A17	18	19	20	21	22	23
24	25	26	27	28	29	30

18 & 20: "B" Week classes to be held.

22: SECOND SEMESTER ENDS.

25-30: Second Semester Examinations.

DECEMBER

Sun	M	T	W	Th	F	Sat
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				

2-6: Second Semester Examinations.

Public Holidays:

25th: Christmas Day

26th: Boxing Day

BY-LAW NO. 10 – STUDENT MATTERS

I. 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 –
 - (i) its membership including the appointment of a Chairman;
 - (ii) its method of operation;
 - (iii) the admission of students who do not comply with normal entry;
 - (iv) the selection of students to be admitted where quotas or restrictions have been imposed upon admissions and enrolments;
 - (v) a quorum.

II. Academic Structure and Content of Courses.

The Council may –

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

III. Assessment of Students.

The Council may –

1. approve rules relating to the examination and assessment of students and the award of grades or passes;
2. delegate any or all of its powers under this section.

IV. Exclusion of Students.

The Council may –

1. prescribe rules relating to gross failure;
2. exclude any student who is classified as having achieved gross failure in subjects or courses;

BY-LAW NO. 10 – STUDENT MATTERS (Continued)

3. 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 on exclusion.

V. 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 the 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.

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.

- 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 –**

- (i) advise the Director and the Education Committee of Council on all matters relating to the admission of students including –
 - (a) the standards of entry to all courses after consideration of recommendations prepared by the Academic Boards;
 - (b) the assessment of prospective future enrolments following periodic reviews of statistical trends;

RULES FOR ADMISSION (Continued)

- (c) the recommendation of 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 Council necessary.
 - (ii) determine eligibility for admission in those cases where the applicant does not possess normal entry standards.
- 4. "Registered Student" shall mean a person whose application for the study of an ordered course has been accepted by the Registrar.
- 5. "Special Student" shall mean any person so accepted other than as a registered student.
- 6. A person desirous of entering a course shall make application to the Registrar for admission on an enrolment form provided for this purpose, and shall lodge such form fully and correctly completed not later than the closing date prescribed in the Handbook.
 With such application, the person shall produce to the Registrar for verification, sufficient documentary evidence of passes in pre-requisite examinations.
 The documentary evidence produced for verification shall be –
 - (i) the original documents or facsimile copies thereof;
 - (ii) such other evidence as the Admissions Committee may require.
- 7. 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.
- 8. 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.
- 9. The Registrar shall notify all applicants for admission of the acceptance or rejection of their applications.
- 10. An application for enrolment may be amended by the Head of Department because of –
 - (i) timetable incompatibility;
 - (ii) non-compliance with the rules applicable to the course of study;

RULES FOR ADMISSION (Continued)

- (iii) selection by the applicant of more subjects which in the opinion of the Head of Department are more than his capacity or circumstances allow him to study adequately.

Any 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.

11. Where a student pursues a course substantially by evening study he shall not, without the permission of the Head of School, be permitted to take subjects with a time content of more than –
 - (i) 9 hours in the case of a sub-tertiary course;
 - (ii) 12 hours in the case of a tertiary course.

12. 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.

13. A Head of School may cancel any class in any subject where the number of enrolments is fewer than eight.

Class groups shall be determined on enrolments as at closing date prescribed in the handbook. In the event of the cancellation of any class there shall be refunded to the student such or so much of the fees paid by him as the Registrar considers appropriate and 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.

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.

Unit Course means a course of study in which a student may gain credit for subjects passed and is required to repeat failed subjects only.

Fixed year course means a course of study in which a student is required to gain credit for all subjects of any year of the course before proceeding to the subjects of the following year.

Award means a Degree Diploma Associate Diploma or Certificate granted 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 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 an examination given to a student who has failed to pass either a central or departmental examination.

GENERAL EXAMINATION RULES (Continued)

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

Assignment means written exercises where these are specified as mandatory in a particular subject.

Practical Work means Laboratory and Workshop exercises where these are specified as mandatory in a particular subject.

Reports mean opinions expressed after investigation or consideration where such report is mandatory in a particular subject.

Part II. AUTHORITY TO PRESCRIBE EXAMINATIONS

1. Academic Boards to Prescribe Examination Requirements

- (a) An approved system may include Central Examinations, Departmental Examinations, Assignments, Practical Work, Reports and any methods of continuous assessment.
- (b) The system of assessment to be used in each subject will be prescribed by the Department responsible for the subject concerned and approved by the Academic Board.
- (c) An Academic Board shall have the power of delegation subject to any conditions as it thinks fit to a Committee of the Board but the Board shall resolve any dispute.

2. Periods for Central Examinations

The periods within the academic year to be set aside for Central Examinations, Supplementary Examinations and Deferred Examinations will be determined by Council.

3. Periods for Departmental Examinations

The periods within the academic year to be set aside for Departmental Examinations will be as determined by the Department concerned after agreement with other Departments which might be affected by any determination and, where appropriate, by agreement with the Registrar. The

Head of School will resolve any disagreements of an intra-School nature, whereas those of an inter-School nature will be referred to the Director for decision.

Part III. CENTRAL EXAMINATIONS**4. Appointment of Examiners**

- (a) The relevant Head of Department will appoint examiners and, where appropriate, chief examiners each year for each subject in that year.
- (b) The names of all examiners shall be forwarded by the Head of School to the Registrar by a date to be prescribed by the Registrar in consultation with the Head of School concerned.

5. Responsibility for Conduct of Examinations

- (a) The Registrar will be responsible for the conduct of all Central Examinations in accordance with Parts V and VI of these rules.
- (b) In consultation with the Heads of School, Heads of Department, and if appointed, the Chief Examiners, the Registrar may prescribe the date upon which all examination papers required to be set by examiners are to be received by his office and the form in which such papers will be received.
- (c) The Registrar will be responsible for the preparation of a timetable for all Central Examinations and for the publication of this timetable as required by these rules.

Part IV. DEPARTMENTAL EXAMINATIONS**6. Appointment of Examiners**

The relevant Head of Department will appoint examiners and, where appropriate, chief examiners. He will also be responsible for the conduct of the Departmental examinations.

Part V. NOMINATION FOR EXAMINATIONS**7. Nomination for Central Examinations**

The Registrar may prescribe a form required to be lodged by

GENERAL EXAMINATION RULES (Continued)

students presenting themselves for any Central Examination and may prescribe the date by which such form shall be lodged with him.

8. Nomination for Departmental Examinations

The Head of Department may prescribe a form required to be lodged by students intending to sit for a Departmental Examination and prescribe the date by which such form shall be lodged with him.

9. Fees

Any form capable of being lodged under these rules need not be accepted if any fees due from the person lodging it have not been paid. In the event of any non-acceptance the person presenting the form shall not be permitted to sit for that examination.

10. Late Lodgement

At the discretion of the Registrar or Head of Department, as the case may be, a form required to be lodged under these rules may be accepted after the date prescribed for lodgement subject to the payment of any fee prescribed for late lodgement.

11. Withdrawal of Entry for Examination

A student who has entered for an examination may withdraw his entry by written notice to the Registrar or the Head of Department, as the case may be, by the prescribed date.

12. Timetables

- (a) The timetable for Departmental Examinations shall be prepared by the Head of Department and shall be posted on appropriate notice boards.
- (b) A preliminary timetable for Central Examinations shall be prepared by the Registrar and posted on appropriate notice boards.
- (c) Should any timetable show a clash between subjects for which the student has nominated, 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.

- (d) The final examination timetables for Central Examinations shall be so posted not less than six weeks prior to the commencement of the examination.

13. Eligibility to Sit for Examinations

- (a) A student may be declared ineligible by the Head of School to sit for an examination if he has failed to fulfil all the conditions as set out in the rules pertaining to the course for which he has enrolled.
- (b) The Registrar may prescribe the date by which Heads of Department must advise him 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 a student shows cause why he should not be declared ineligible his case 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.

14. Student Examination Form

- (a) The Registrar shall forward to each student at least two weeks prior to the commencement of all Central Examinations an examination form showing the subjects for which the student is eligible to sit and the date and time of the examination in that subject.
- (b) The student is required to keep this form in his possession at all times during the period of the examination.

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

- (a) A student who fails to attend an examination for which he has nominated and which in the case of a Central Examination is shown on his examination form will be deemed to have sat for and failed the examination concerned except in cases where he has notified the

GENERAL EXAMINATION RULES (Continued)

Registrar before the examination commences that he has failed to attend for reasons of incapacity, ill health or other circumstances beyond his control and subsequently produces an acceptable medical or other certificate to this effect.

- (b) Should the medical or other certificate be acceptable to the Head of School, the Academic Board controlling the course shall grant the student a deferred examination.

Part VI. CONDUCT OF EXAMINATIONS

16. Entry to Examination Room

A person other than a candidate, supervisor, examiner or his nominee, chief examiner or his nominee, may not enter an examination room during an examination session or during the period of forty-five minutes immediately preceding such session except with the permission of a supervisor.

17. Time for Departure

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

18. Conditions of Entry and Departure

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.

19. 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.

GENERAL EXAMINATION RULES (Continued)

It shall be sufficient answer to any alleged breach of this rule if the candidate establishes that anything brought by him 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 a thing may be deposited.

20. 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 his 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 his nominees.

21. Cheating

A candidate shall not cheat or attempt to cheat in an examination. A person whether a candidate or not shall not do anything to assist any other examinee in his examination.

22. Supervisor's Power of Inspection

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 has not in his possession or in any way available any such thing as is specified under Rule 19 or that he is not committing or has not committed a breach of Rules 20 or 21 and the Candidate shall comply without delay with such requirement.

23. Identification

A candidate shall bring to the examination room his student examination form and shall produce or keep displayed such form in accordance with any directions given to him by notice displayed in the examination room, by directions on an examination book, by a supervisor or otherwise.

24. Places

A candidate for an examination shall upon entering an

GENERAL EXAMINATION RULES (Continued)

examination room proceed without delay to such place as he 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.

25. Candidates 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 to him or set out on any notice displayed in the examination room and shall without delay comply with any reasonable direction given to him 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 he may be dealt with under the By-Law 9(2).
- (d) All such exclusions shall be reported immediately to the Registrar or in his absence the Assistant Registrar or officer designated by the Registrar to conduct the examination and the Registrar, Assistant Registrar or other officer after hearing the supervisor the candidate and any relevant evidence may either confirm or rescind the exclusion.

26. Candidates not to Remove Papers

A candidate shall not remove from the examination room any worked script or paper provided for use by him during the course of the examination (other than the question paper supplied to him) or other material the property of the Institute.

GENERAL EXAMINATION RULES (Continued)

27. Penalties for Breach of Examination Rules

- (a) If an candidate commits a breach of any rule contained in this part of these rules, he 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 this part of these rules shall be liable in addition to any other penalty to have his examination cancelled, and in particular a candidate in breach of Rule 25 of this part of these rules shall be liable to the following penalties.
For a first breach –
 - (i) denial of credit for the subject concerned, or
 - (ii) denial of credit for all subjects taken in the same academic year.
- (c) The Registrar, Assistant Registrar or other officer shall forthwith advise the Director of any such alleged breach and after due investigation by the Director, the Director may in writing require the candidate to show cause within not less than seven days from the date of such requirement why a penalty should not be imposed under this rule. In the event of the candidate failing to show cause the Director may impose any penalty provided for under this rule.
- (d) Penalties for a further breach shall be –
 - (i) exclusion from the Institute for a period, or
 - (ii) permanent exclusion from the Institute.
 A candidate incurring either of these penalties shall have a right of appeal to the Appeals Committee.

Part VII. ASSESSMENT OF RESULTS

28. Registrar or Head of Department to Supply List of Candidates

For Central Examinations the Registrar shall supply to each examiner a list of candidates for whom a result is required in each subject.

For Departmental Examinations the Head of Department shall supply to each examiner a list of candidates for whom a result is required in each subject.

GENERAL EXAMINATION RULES (Continued)

29. Duties of Examiners

The Examiners shall furnish to the Head of Department or the Chief Examiner where such is appointed –

- (a) A list of the candidates in respect of whom results for the subject are required on which the examiner shall 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;
- (c) the result which the examiner recommends in respect of each candidate; and
- (d) an analysis of the examiner's recommendations showing the numbers of each grade of pass or failure recommended.

30. Powers and Duties of Head of Department

The Head of Department or where appointed the Chief Examiner may approve or vary the grading of results recommended for each candidate, provided always that, before making such a variation, the Head of Department or Chief Examiner shall advise the examiner concerned of the variation he proposes and consider any representation that the examiner may wish to make.

31. Powers and Duties of the Academic Board

- (a) *In Relation to the Subject being Examined*

The Head of Department or Chief Examiner shall forward to the Academic Board responsible for examination in the subject the results recommended by him together with any comments concerning these results made by the examiner concerned, in respect of each candidate. The Academic Board shall thereupon consider the results recommended for each candidate and shall determine the final result in each subject for the year, provided always that –

GENERAL EXAMINATION RULES (Continued)

- (i) the Academic Board before determining such final results may refer the recommended results to a meeting of such examiners as the Head of School may determine for advice, and
- (ii) 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.

The Academic Board shall classify each result in terms of the grading of pass as set out in Part VII of these rules.

- (b) *In Relation to the Course in Which the Student is Enrolled.*

The Head of Department responsible shall forward to the relevant Academic Board a listing of the final results of each candidate enrolled in that course who has nominated for the examination.

Where relevant the Academic Board shall consider these results in terms of the approved progression rules for each course and determine –

- (i) whether the candidate has fulfilled all of the requirements for progression to the next stage of the course;
- (ii) whether the candidate should be given conceded passes in subjects in which he has not been granted a pass;
- (iii) whether the candidate shall be granted supplementary examinations or shall be required to submit himself for such other additional means of assessment as the Academic Board shall determine.

32. 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

GENERAL EXAMINATION RULES (Continued)

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.

33. Powers of Alteration

An examination result determined by the Academic Board, and a decision concerning the granting of a supplementary to a candidate may be altered by the Head of School 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.

34. Grading of Results

- (i) A pass in each subject may be credited as an Honour (H), Credit (C), or Pass (P).
- (ii) Where the relevant Academic Board so determines in accordance with Rule 31 a pass conceded (Q) may be awarded in a subject.
- (iii) Where a student has been granted a supplementary examination in any subject he may not be subsequently credited in that subject with a grade higher than pass (P).
- (iv) Where a student has been granted a deferred examination he may be awarded a pass in terms of an Honour (H), Credit (C), Pass (P), or Pass Conceded (Q).

35. Withholding of Results

Where a candidate has failed to comply with the whole of the rules pertaining to a particular subject or course, irrespective of whether he has been permitted to sit for the examination or not, his results in either a particular subject or the whole of

GENERAL EXAMINATION RULES (Continued)

the subjects may be withheld at the discretion of the Academic Board, pending his subsequent compliance with these rules.

In such cases the Head of School will notify the Registrar of the reasons for withholding the results and the Registrar will advise the candidate in writing of these reasons and the candidate shall be given the opportunity to show cause to the Registrar why the result should not be withheld.

36. Approval of Results

Departmental Examinations –

- (a) The results of all Departmental Examinations shall be subject to approval by the relevant Academic Board.
- (b) Upon approval by the Board the results shall be forwarded to the Registrar who shall maintain a register for use in the final compilation of results.

37. Certification of Final Results

Central Examinations

The Head of School shall certify to the Registrar –

- (a) the final results in respect of each candidate in his School, after all authorities have carried out their functions and exercised any powers given them under these rules;
- (b) in the case of fixed year courses, a statement that the candidate has passed or failed the year or been granted supplementaries.

38. Release of Results

(a) *Departmental Examinations*

Upon approval of the Academic Board controlling the course, or a Committee of the Board where the authority has been delegated under Section 40, the results may be released by the Head of Department offering the subject.

(b) *Central Examinations*

Following certification of results provided for in Section 37 these will be released at the direction of the Registrar.

GENERAL EXAMINATION RULES (Continued)

39. Revaluations

The papers submitted by a candidate in any subject shall be revalued on request lodged by him with the Registrar not later than the date prescribed in the calendar and on payment of a fee prescribed by the Council.

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

40. Delegation of Authority by Academic Board

Where an Academic Board 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.

Part VIII. GROSS FAILURE

41. Candidate to be Classified as Having Achieved a Gross Failure

A candidate in any one year may be classified as having achieved a gross failure under the following circumstances.

(a) *In Unit Courses*

- (i) Where a candidate has failed twice in the same subject or unit even though he did not nominate for that subject at successive examinations, or
- (ii) where a candidate has not maintained over two successive years a rate of progress at least equal to fifty percent of that set out in the relevant course rules for normal progression.

(b) *In Fixed Year Courses*

- (i) Where a candidate has failed twice in the same year of the course, or
- (ii) in those cases where a candidate has been granted special permission to repeat only some

GENERAL EXAMINATION RULES (Continued)

of the subjects of a particular year and he has failed in any of those subjects.

42. Procedures to be Adopted

- (a) Following the certification of final results as required under Rule 37, the Head of School will forward to the Registrar a list showing those candidates who are considered by the Academic Board to have achieved gross failure at the examinations.
- (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) A student who wishes to show cause why he 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 the Head of School all submissions received and these will be considered by the Academic Board and the penalties to be imposed, if any, will be determined.

43. Penalties for Gross Failure

Where it is confirmed under Rule 41 above that a student has achieved gross failure and the student has failed under Rule 42 to show cause the following penalties may be imposed by the Academic Board –

- (a) The student may be refused enrolment in any course offered by the Institute.
- (b) The student may be refused enrolment in the course in which he has achieved a gross failure.
- (c) The student may be refused enrolment in a particular subject in which he has achieved gross failure but allowed to proceed with the course provided that subject is not mandatory in the course.
- (d) The student may be permitted to repeat a particular subject or in the case of a fixed year course a particular year but on the condition that further failure will

GENERAL EXAMINATION RULES (Continued)

result in his exclusion from enrolment in any course at the same level 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.

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.

APPLIED SCIENCE ACADEMIC BOARD

Chairman: Dr. O.J. Wordsworth.

Members: Dr. R.N. Gould, Mr. R.E. Dunlop, Dr. R.F. Cane, Dr. R.G. Everson, Mr. J.R. Saal, Mr. K.R. Macbeth, Mr. J. Gudgeon, Mr. W.C. Middleton, Mr. R.M. Blyth, Dr. V.M. Bofinger, Mr. G.M. Kimber, Mr. E.J. O'Reilly, Dr. A. Bailey, Mr. C.W. McKavanagh, Mr. C.R. McDonald, Mr. V.N. Verney, Miss C. McNaught (student), Mr. G. Monz (student).

Ex officio: Mr E. Codd (Architecture and Building),
Mr. W.M.G. Hoskins (Business Studies),
Mr. J.W. Wilby (Engineering).

ADVISORY COMMITTEE – Associate Diploma in Science (Biology).

Dr. R.G. Everson (Convenor)	Head of Department of Biology and Environmental Science, Q.I.T.
Mr. J.W. Akers	Department of Biological Sciences, Darling Downs Institute of Advanced Education.
Dr. A. Bailey	Senior Lecturer, Department of Biology and Environmental Science, Q.I.T.
Prof. J. Burton	School of Natural Resources, University of New England, Armidale.
Mr. J.F. Coaldrake	C.S.I.R.O. Cunningham Laboratories, St. Lucia, Brisbane.
Dr. K.T. Glasziou	Manager, David North Plant Research Laboratory, C.S.R.
Mr. D.S. Kells	Lecturer, Department of Biology and Environmental Science, Q.I.T.
Mr. C.R. McDonald	Senior Lecturer, Department of Paramedical Studies, Q.I.T.
Mr. B.M. Molloy	Senior Lecturer, Department of Management, Q.I.T.
Mr. B. Rigden	Senior Lecturer, Department of Civil Engineering, Q.I.T.

APPLIED SCIENCE ACADEMIC BOARD (Continued)

Dr. G. Saunders	Director of Fauna Conservation, D.P.I., Brisbane.
Mr. R. Purser	Student, 3rd year A.D.I.S. (Biology).
Miss N. Wilson	Student, 2nd year A.D.I.S. (Biology).

ADVISORY COMMITTEE – Chemistry.

Dr. R.F. Cane (Chairman)	Head, Department of Chemistry, Q.I.T.
Mr. E.J. O'Reilly	Senior Lecturer, Department of Chemistry, Q.I.T.
Dr. G.K. Douglas	Lecturer, Department of Chemistry, Q.I.T.
Mr. R.J. Noakes	Lecturer, Department of Chemistry, Q.I.T.
Dr. V. Powell	Manager, Research Department, Ampol Refineries Ltd.
Mr. L. Jones	Manager, Research & Development Department, United Packages Ltd.
Dr. E.T. White	Department of Chemical Engineering, University of Queensland.
Dr. R.J. Park	Senior Research Scientist, Meat Research Labora- tory, C.S.I.R.O.
Mr. G. Baker	Deputy Director, Department of Industrial Development.
Mr. D. Steer	Chemistry student – Q.I.T.

ADVISORY COMMITTEE – Geology.

Dr. R.F. Cane (Chairman)	Head of Department of Chemistry, Q.I.T.
Mr. B. Whelan	Church of England Grammar School, Oaklands Parade, East Brisbane. Q4169.
Mr. D. King	Mines Administration Pty. Ltd., 31 Charlotte Street, Brisbane. Q4000.

APPLIED SCIENCE ACADEMIC BOARD (Continued)

Mr. P. Grenning	Mineral Deposits Pty. Ltd., Tingira Street, Pinkenba. Q4008.
Dr. E.J. Heidecker	Department of Geology, University of Queensland, St. Lucia. Q4069.
Mr. W.D. Smith	37 Scenic Road, Kenmore, Q4069.
Mr. P.L. Ellis	Director of Environmental Control, Department of the Co-ordinator General, Executive Building, 100 George Street, Brisbane. Q4000.
Dr. V.M. Bofinger	Senior Lecturer, Department of Chemistry, Q.I.T.

ADVISORY COMMITTEE – Mathematics.

Dr. R.N. Gould (Chairman)	Head, Department of Mathematics and Computer Science, Q.I.T.
Mr. J.T. Briggs	Senior Lecturer in Mathematics, Mt. Gravatt Teachers' College.
Mr. C.H. Brown	Deputy General Manager, S.G.I.O., Brisbane.
Dr. J.L. Byrne	Senior Lecturer, Department of Mathematics and Computer Science, Q.I.T.
Mr. A.W. Coulter	Director, Computer Centre, University of Queensland.
Mr. W.J.G. Fisher	Director, Computer Centre, Q.I.T.
Mr. A.W. Goldsworthy	Manager, Information Processing Centre, S.G.I.O., Brisbane.
Dr. K.J. Gough	Senior Lecturer, Department of Mathematics and Computer Science, Q.I.T.
Mr. J. Gudgeon	Senior Lecturer, Department of Mathematics and Computer Science, Q.I.T.
Dr. V.G.M. Hart	Reader in Applied Mathematics, University of Queensland.
Mr. J.C. Kable	Head, Department of Management, Q.I.T.

APPLIED SCIENCE ACADEMIC BOARD (Continued)

Dr. J.D. Mahony Lecturer, Department of Mathematics and
Computer Science, Q.I.T.

Mr. T. Shunwah Student, 3rd year A.D.I.M., Q.I.T.

ADVISORY COMMITTEE – Medical Technology.

Mr. J.R. Saal Head, Department of Paramedical Studies, Q.I.T.
(Chairman)

Mr. E.A. Bennett Senior Lecturer, Department of Paramedical
Studies, Q.I.T.

Mr. S.R. Close Student, Department of Paramedical Studies,
Q.I.T.

Mr. D. Dalzell Personnel Officer, Commonwealth Department
of Health.

Mr. A.B. Findlay Haematologist, State Health Dept., President,
A.I.M.T.

Dr. T. Gaffney Medical Biochemist, Royal Brisbane Hospital.

Dr. W.J.W. Hanna Lecturer, Department of Chemistry, Q.I.T.

Mr. D. Kells Lecturer, Department of Biology and Environ-
mental Science, Q.I.T.

Mr. G. Lambkin Student, Department of Paramedical Studies,
Q.I.T.

Mr. M.B. Molloy Senior Lecturer in English, Q.I.T.

Mr. C.R. McDonald Senior Lecturer, Department of Paramedical
Studies, Q.I.T.

Mr. J.P. McGilvray Senior Lecturer, Department of Physics, Q.I.T.

Dr. N. Nicolaidis Pathologist, specialist practitioner.

Dr. R.L. Quinn Histopathologist, Princess Alexandra Hospital.

Mr. P. Thompson Student, Department of Paramedical Studies,
Q.I.T.

APPLIED SCIENCE ACADEMIC BOARD (Continued)

Mr. A.J. Webber	Senior Lecturer, Department of Paramedical Studies, Q.I.T.
Mr. D. Welburn	Lecturer, Department of Mathematics and Computer Science, Q.I.T.

ADVISORY COMMITTEE – Optometry.

Mr. J.R. Saal (Chairman)	Head, Department of Paramedical Studies, Q.I.T.
Mr. B.M. Blyth	Lecturer, Department of Physics, Q.I.T.
Mr. B. Blumberg	Optometrist.
Mr. W.J. Glasson	Student, Department of Paramedical Studies, Q.I.T.
Mr. D.S. Kells	Lecturer, Department of Biology and Environmental Science, Q.I.T.
Dr. G.M.S. May	Chairman, Board of Optometrical Registration.
Mrs. A.M. Reed	Optometrist.
Mr. R.J. Robinson	Optometrist.
Mr. P.G. Swann	Lecturer, Department of Paramedical Studies, Q.I.T.
Mrs. B.J.M. Tuffley	Lecturer, Department of Paramedical Studies, Q.I.T.
Mr. V.N. Verney	Senior Lecturer, Department of Paramedical Studies, Q.I.T.

ADVISORY COMMITTEE – Physics.

Dr. O.J. Wordsworth (Chairman)	Head of Physics Department, Q.I.T.
Mr. R.E. Dunlop	Senior Lecturer, Physics Department, Q.I.T.
Mr. B.M. O'Leary	Lecturer, Physics Department, Q.I.T.
Mr. L.A. Meara	Lecturer, Physics Department, Q.I.T.

APPLIED SCIENCE ACADEMIC BOARD (Continued)

Mr. W.C. Middleton	Lecturer, Physics Department, Q.I.T.
Dr. B. Garfoot	Lecturer, Department of Mathematics & Computer Science, Q.I.T.
Mr. G. Rossiter	Student, Physics Department, Q.I.T.
Mr. D. Brennan	Student, Physics Department, Q.I.T.
Mr. F.T. Barrell	Inspector of Schools, Department of Education.
Mr. M.H. Lamond	Supervising Meteorologist, Bureau of Meteorology.
Mr. R.H. Challen	Engineering Development Manager, M.I.M. Holdings Ltd.

ADVISORY COMMITTEE – Radiography.

Dr. O.J. Wordsworth (Chairman)	Head of Physics Department, Q.I.T.
Dr. J. Earwaker	Director of Radiology, X-ray Department, R.B.H.
Miss H. Heindorff	Therapy Radiographer, Q.R.I.
Dr. L. Masel	Private Radiologist and representative of Conjoint Committee.
Dr. J.P. Masel	Chairman of Q'ld Branch of College of Radiologists of Australasia.
Mr. J.P. McGilvray	Senior Lecturer, Physics Department, Q.I.T.
Miss B. Moore	Tutor Radiographer, X-ray Department, R.B.H.
Miss M. O'Shea	Tutor Radiographer, Q.R.I.
Dr. S. Roberts	Senior Radiotherapist, Q.R.I.
Mr. K.A. Stevens	Radiation Health Physicist, Department of Health.
Mr. D. K. Wilson	Diagnostic Radiographer, University Professorial Unit.

APPLIED SCIENCE ACADEMIC BOARD (Continued)

Mrs. Y. Webb Lecturer, Department of Paramedical Studies,
Q.I.T.

Dr. E.R. Jay Private Radiologist.

ADVISORY COMMITTEE – Medical Physics.

Dr. O.J. Wordsworth Head of Department of Physics, Q.I.T.
(Chairman)

Mr. C. Craven Lecturer, Department of Paramedical Studies,
Q.I.T.

Mr. J. Davies Lecturer, Physics Department, Q.I.T.

Mr. R. Dunlop Senior Lecturer, Physics Department, Q.I.T.

Dr. P.G. Livingstone Deputy Director General, Health & Medical
Services.

Mr. J. McGilvray Senior Lecturer, Physics Department, Q.I.T.

Dr. A.P. Morton Specialist Critical Care Medicine, Repatriation
General Hospital, Greenslopes.

Mr. B. Perrett A/Senior Physicist, Q.R.I.

Mr. K. Stevens Radiation Health Physicist, Department of
Health.

DEPARTMENT OF BIOLOGY AND ENVIRONMENTAL SCIENCE

Head of Department:	R.G. Everson, B.Sc. (Hons.) (Syd.), Ph.D. (Melb.), M.I. Biol., A.A.I.F.S.T.
Senior Lecturers:	A. Bailey, B.Sc. (Hons.) (L'pool), Ph.D. (Adel.), M.I. Biol. J.M. Monro, B.Sc. (Hons.) (N.E.), Ph.D. (Adel.).
Lecturers:	D.H. Barry, B.Sc. (Hons.) (Lond.). O. Cartledge, B.Sc. (Hons.) (A.N.U.), Ph.D. (Qld.). W.A. Dodd, M.Sc. (Adel.), Ph.D. (Alberta). D.S. Kells, B.Agr. Sc. (Melb.), Dip.Ed. (Melb.). C.R. King, B.Sc. (Lond.), M.Sc. (Salford). C.W. McKavanagh, B.Sc. (Hons.) (Qld.), M.I. Biol. B.J. McMahon, B.Sc. (Qld.). M.K. Ross, B.Agr.Sc. (Hons.) (Qld.), M.Sc. (Calgary). D.J. Yates, B.Agr. Sc. (Melb.), M.A.I.A.S., Ph.D. (Melb.)
Senior Tutor:	R.B. Lee, B.A. (Maine).
Support Staff: (Technician Division II and above)	A.A.J. Cillekens, Senior Laboratory Technician. E. Guindy, Laboratory Technician. K. Ilievski, Laboratory Technician.

The following rules relating to the Associate Diploma in Science (Biology Strand) are made subject to Clause No. II.1 of By-law No. 10.

ASSOCIATE DIPLOMA IN SCIENCE – BIOLOGY

1. To be eligible to enrol for the Associate Diploma in Science – Biology, an applicant must either –

- (a) achieve a minimum score of 80 semester points over 20 semester units; or
- (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary Studies.

A minimum score of sixteen semester points is required for each of the subjects English, Mathematics I, Physics and Chemistry. However, a score below the stipulated level of sixteen points may be accepted in any one subject, provided that the student gains in his total score one additional point for every point by which he falls below that level and also, that the absolute minimum for this subject be twelve (12) points.

2. Students who have sat for the Senior Examination.

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Physics, Chemistry, and one other subject gained at no more than two sittings of the Senior Examination within the five years previous to applications for enrolment. A minimum grade of four (4) points is required for each subject.

(An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Physics and Chemistry including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland School and students who have repeated Grade 12 studies in 1973 are included in this category. Such applications will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may enrol either as a day programme or evening programme student.

A day programme student is one who normally attends day classes associated with his study programme. He may, however, elect or be required to attend some evening classes.

An evening programme student is one who normally attends evening classes associated with his study programme. He may, however, elect or be required to attend some day classes.

5. For a registered student in a **day programme**, the subjects and other work of the **three years of study** are as follows:-

Semester 1 – Summer	Hrs/wk
MAA159 Mathematics I	5
CMB101 Professional Communication A	2
CHA141 Chemistry I	7
PHB101 Physics IS	4
PHB106 Experimental Physics I	3
BEA105 Human Ecology)	
BEA101 Cell Biology)	7
Semester 2 – Winter	
MAA160 Mathematics II	5
CMB102 Professional Communication B	2
CHA241 Chemistry II	7
PHB201 Physics IIS	4
PHB206 Experimental Physics II	3
BEA109 Experimental Biology	7
Semester 3 – Summer	
BEA321 Plant Physiology	6
BEA322 Plant Diversity	6
BEA390 Field Methodology I	4
MAA157 Statistics	4
PSA405 Biochemistry III	3
Elective:	4
ESA311 Earth Science III OR	
MAA305 Introduction to Computing A OR an equivalent elective.	
Semester 4 – Winter	
BEA411 Animal Physiology	6
BEA412 Animal Diversity	6
BEA490 Field Methodology II	4
PSA407 Biochemistry IVB	3
CHB482 Physical & Inorganic Chemistry IV	1
Elective:	4
BEA331 Classical & Applied Genetics OR	
ESA411 Earth Science IV OR	
MAA306 Introduction to Computing B OR an equivalent elective.	

Semester 5 – Summer		Hrs/wk
BEA535	Population Genetics	6
BEA553	Population Dynamics	6
BEA590	Experimental Projects	6
BEA500	Selected Topics in Biology	1
BEA529	Vegetation Mapping	3
	Elective:	4
PSB450	Microbiology III OR an equivalent elective.	
Semester 6 – Winter		
BEA651	Ecosystems	6
BEA656	Biosphere & Conservation	6
BEA590	Experimental Projects	6
BEA500	Selected Topics in Biology	1
BEA659	Productivity & Trophic Levels	3
	Elective:	4
PSA454	Microbiology IVC OR	
BEA331	Classical & Applied Genetics OR an equivalent elective.	

6. For a registered student in an evening programme, the subjects and other work of the six years of study are as follows:-

Semester 1 – Summer (1974)

CHA141	Chemistry I	6
BEA109	Experimental Biology	6

Semester 2 – Winter (1974)

CHA241	Chemistry II	6
BEA105	Human Ecology	6
BEA101	Cell Biology	

Semester 3 – Summer (1975)

PHB101	Physics IS	3
PHB106	Experimental Physics I	3
MAA159	Mathematics I	4
CMB102	Professional Communication B	1

Semester 4 – Winter (1975)

PHB201	Physics IIS	3
PHB206	Experimental Physics II	3
MAA160	Mathematics II	4
CMB102	Professional Communication B	1

Conduct of the fifth and subsequent semesters of this course on an evening basis will depend upon the number of enrolments received.

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of – written and/or oral tests;

general assignments;
laboratory exercises and reports;
projects, field testing, etc.

8. Students of the day programme or the evening programme gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a day or evening programme as set out in Rules 5 or 6 will be expected to enrol in the units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression. .
10. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11, 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,

except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.

11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by **day programme students** should not exceed the number of hours allocated to the semester of the programme in Rule 5 and from which the majority of units have been selected.
12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by **evening programme students** are as specified in any one year in Rule 6.
13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.
14. When quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.

Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-

- (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
15. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the area of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
 16. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these rules.
 17. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
 18. A student may under Rule 17 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the diploma must satisfactorily complete the equivalent of at least an academic year of the day programme.

ASSOCIATE DIPLOMA IN SCIENCE – BIOLOGY

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
BEA411 Animal Physiology	BEA101 Cell Biology	
PSA405 Biochemistry III	CHA241 Chemistry II	
PSA407 Biochemistry IVB	PSA405 Biochemistry III	
BEA656 Biosphere and Conservation	BEA553 Population Dynamics	
CHA241 Chemistry II	CHA141 Chemistry I	
BEA651 Ecosystems	BEA553 Population Dynamics	
PHB106 Experimental Physics I		PHB101 Physics IS
PHB206 Experimental Physics II	PHB106 Experimental Physics I	PHB201 Physics IIS
BEA590 Experimental Projects	BEA101 Cell Biology	
	BEA490 Field Methodology II	
BEA390 Field Methodology I	MAA159 Mathematics I	
MAA160 Mathematics II	MAA159 Mathematics I	
PSA450 Microbiology III	BEA109 Experimental Biology OR PSA405 Biochemistry III	
PSA454 Microbiology IVC	PSB450 Microbiology III PSA407 Biochemistry IVB	
CHB482 Physical & Inorganic Chemistry IV	CHA241 Chemistry II	
PHB101 Physics IS		PHB106 Experimental Physics I
PHB201 Physics IIS		PHB206 Experimental Physics II
BEA321 Plant Physiology	BEA101 Cell Biology	
BEA553 Population Dynamics	MAA157 Statistics	
BEA535 Population Genetics	MAA157 Statistics	
BEA659 Productivity and Trophic Levels	BEA490 Field Methodology II	
MAA157 Statistics	MAA159 Mathematics I MAA160 Mathematics II	
BEA529 Vegetation Mapping	BEA390 Field Methodology I	

The following rules relating to the Certificate in Biological Laboratory Techniques are made subject to Clause II.1 of By-law No. 10.

CERTIFICATE IN BIOLOGICAL LABORATORY TECHNIQUES

1. To be eligible to enrol for Certificate in Biological Laboratory Techniques an applicant must gain –
 - (a) four Junior Subjects – English, Advanced or Ordinary level Mathematics, Science A and Science B;
 - (b) a grade of either three (3) points or better in Advanced level Mathematics or five (5) points or better in Ordinary level Mathematics is required.
 - (c) in the event of an applicant using a grade of three (3) in Advanced Mathematics, the acceptable minimum points score shall be fifteen (15) and if using a grade of five (5) in Ordinary Mathematics, the acceptable minimum points score shall be seventeen (17);
 - (d) a minimum grade of three (3) points may be accepted in English, but the accepted minimum in all other subjects (excepting Mathematics) shall be four (4) points.

2. Students who have sat for the Junior Examination –
 - (a) a total score of not less than sixteen (16) points in the four Junior subjects – English, Mathematics B, Science A and Science B;
 - (b) a minimum grade of three (3) points may be acceptable in English, but for all other subjects the accepted minimum shall be four (4) points.

3. **Special Entry:**
 Students who do not meet the requirements for normal entry may apply for special consideration. These applications will be considered by the Admissions Committee in terms of overall academic performance.

4. A registered student may enrol either as a **day and evening programme student** or an **evening programme student**.
 A day and evening programme student will normally attend day classes for the first two years of the programme and complete his programme of study by evening attendance for one year.

5. For a registered student in a **day and evening programme** the subjects and other work are as follows:-

NORMAL COURSE PROGRAMME

(two years day and one year evening)

Day Programme:

Semester 1 – Summer

Hrs/wk

CHC110 Analytical Chemistry I

5

	Hrs/wk
CMC124 Technical Writing I	3
CHC130 Inorganic Chemistry I	2
MAC151 Mathematics IA	4
BEC100 Biology I	9
CHC151 Organic Chemistry I	5

Semester 2 – Winter

CHC210 Analytical Chemistry II	5
CMC125 Technical Speaking I	3
CHC230 Inorganic Chemistry II	2
MAC152 Mathematics IB	4
BEC200 Biology II	9
CHC251 Organic Chemistry II	5

Semester 3 – Summer

CHC351 Biological Chemistry III	4
MAC451 Mathematics IIA	4
PHC451 Certificate Physics I	4
PSC410 Biological Instrumentation III	4
PSC430 Physiology III	4
PSC451 Microbiology III	4

Semester 4 – Winter

CHC451 Biological Chemistry IV	4
MAC452 Mathematics IIB	4
PHC452 Certificate Physics II	4
PSC411 Biological Instrumentation IV	4
PSC431 Physiology IV	4
PSC452 Microbiology IV	4

Evening Programme:

Semester 5 – Summer

PSC406 Biochemistry V	3
PSC601 Histological Techniques V	3
BEC590 Biological Techniques V	3

Semester 6 – Winter

PSC407 Biochemistry VI	3
BEC621 Histological Techniques VI	3
BEC690 Biological Techniques VI	3

6. For a registered student in an evening programme, the subjects and other work are as follows:-

NORMAL COURSE PROGRAMME

(five years evening programme)

Semester 1 – Summer	Hrs/wk
CHC110 Analytical Chemistry I	3

	Hrs/wk
CMC124 Technical Writing I	1½
CHC130 Inorganic Chemistry I	1½
MAC152 Mathematics IB	3
Semester 2 – Winter	
CHC210 Analytical Chemistry II	3
CMC124 Technical Writing I	1½
CHC230 Inorganic Chemistry II	1½
MAC151 Mathematics IA	3
Semester 3 – Summer	
BEC100 Biology I	6
CHC151 Organic Chemistry I	3
Semester 4 – Winter	
BEC200 Biology II	6
CHC251 Organic Chemistry II	3
Semester 5 – Summer	
PSC430 Physiology III	3
MAC452 Mathematics IIB	3
PHC451 Certificate Physics I	3
Semester 6 – Winter	
PSC431 Physiology IV	3
MAC451 Mathematics IIA	3
PHC452 Certificate Physics II	3
Semester 7 – Summer	
PSC410 Biological Instrumentation III	3
CHC351 Biological Chemistry III	3
PSC451 Microbiology III	3
Semester 8 – Winter	
PSC411 Biological Instrumentation IV	3
CHC451 Biological Chemistry IV	3
PSC452 Microbiology IV	3
Semester 9 – Summer	
PSC406 Biochemistry V	3
PSC601 Histological Techniques V	3
BEC590 Biological Techniques V	3
Semester 10 – Winter	
PSC407 Biochemistry VI	3
BEC621 Histological Techniques VI	3
BEC690 Biological Techniques VI	3

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
- written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.
8. Students of the **day and evening programme** or the **evening programme** gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a **day and evening** or **evening programme** as set out in Rules 5 and 6 will be expected to enrol in the units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression.
10. Students who fail shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
- (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11, 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,
- except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by **day and evening programme** students should not exceed the number of hours allocated to the semester of the programme in Rule 5 and from which the majority of the units have been selected.
12. Except with the approval of the Head of Department the **maximum** number of hours allowable for study by **evening programme** students are as specified in any one year in Rule 6.
13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.

14. Where quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.

Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-

- (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
15. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
 16. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these rules.
 17. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
 18. A student may under Rule 17 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the certificate must satisfactorily complete the equivalent of at least an academic year of the day programme.

CERTIFICATE IN BIOLOGICAL LABORATORY TECHNIQUES

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
BEC590 Biological Techniques V	BEC100 Biology I BEC200 Biology II	
BEC690 Biological Techniques VI	BEC100 Biology I BEC200 Biology II	
PSC410 Biological Instrumentation III	CHC351 Biological Chemistry III	
PSC411 Biological Instrumentation IV	CHC451 Biological Chemistry IV	
PSC601 Histological Techniques V	BEC100 Biology I BEC200 Biology II	
BEC621 Histological Techniques VI	BEC100 Biology I BEC200 Biology II	
CHC210 Analytical Chemistry II	CHC110 Analytical Chemistry I	
CHC230 Inorganic Chemistry II	CHC130 Inorganic Chemistry I	
MAC451 Mathematics IIA	MAC151 Mathematics IA	
CHC251 Organic Chemistry II	CHC151 Organic Chemistry I	
CHC351 Biological Chemistry III	CHC251 Organic Chemistry II	
PSC430 Physiology III	BEC100 Biology I BEC200 Biology II CHC151 Organic Chemistry I	
PSC451 Microbiology III	BEC100 Biology I BEC200 Biology II BEC302 Biology III CHC351 Biological Chemistry III	CHC351 Biological Chemistry III
CHC451 Biological Chemistry IV	CHC351 Biological Chemistry III	
MAC452 Mathematics IIB	MAC152 Mathematics IB	
PHC452 Certificate Physics II	PHC451 Certificate Physics I	
PSC431 Physiology IV	PSC430 Physiology III	
PSC452 Microbiology IV	PSC451 Microbiology III	
PSC406 Biochemistry V	CHC451 Biological Chemistry IV	
PSC407 Biochemistry VI	PSC406 Biochemistry V	

DEPARTMENT OF CHEMISTRY

- Head of Department:** R.F. Cane, D.Sc. (Tas.), F.R.I.C., F.R.A.C.I.,
F.I.Pet., F.I.Chem.E.
- Senior Lecturers:** L.G. Amos, B.Sc. (Qld.), A.R.A.C.I.
V.M. Bofinger, B.Sc. (Hons.) (N.E.), Ph.D. (A.N.U.).
W. Draper, B.Sc. (Tech.), (Manch.), M.S. (Mass.),
Ph.D. (U. of Va.), A.R.I.C.
C.L. Graham, B.Sc. (Hons.) (Dunelm.), Ph.D.
(N^ocle, U.K.), A.R.A.C.I., A.R.I.C.
P.J. Hetherington, B.Sc. (App.) (Hons.) (Tas.),
Ph.D. (Tas.), A.R.A.C.I.
E.J. O'Reilly, B.Sc. (Hons.) (Qld.), Dip.Ed.,
A.R.A.C.I.
N. Street, B.Sc. (Melb.), Ph.D. (Melb.), F.R.A.C.I.,
M.A.I.M.M.
- Lecturers:** N.D. Bofinger, B.Sc. (N.E.), A.R.A.C.I.
L. Burwell, B.Sc. (Qld.), A.R.A.C.I.
M.R. Chambers, Ph.D. (Lond.), A.R.I.C.
G.K. Douglas, B.Sc. (Hons.) (N.E.), Ph.D. (Tas.),
A.R.A.C.I.
R.L.W. Frost, B.Sc. (Qld.), B.Ed. (Qld.), A.R.A.C.I.
P.S. Hallman, B.Sc. (Syd.), Ph.D. (Syd.), A.R.A.C.I.
W.J.W. Hanna, B.Sc. (Hons.) (Belf.), Ph.D. (Belf.).
M.P. Henry, B.Sc. (A.N.U.), Ph.D. (Essex),
A.R.A.C.I.
K.P. Herlihy, B.Sc. (Hons.) (Qld.), Dip.Ind. Chem.,
A.R.A.C.I.
G.M. Kimber, M.Sc. (Qld.), B.Ed. (Qld.), A.R.A.C.I.
D.S. Litster, B.Sc. (Hons.) (Qld), B.Ed. (Qld.).
K.R. Martin, M.Sc. (Hons.) (Auck.).
R.J. Noakes, Dip. Sugar Chem., Dip.Ind.Chem.,
A.R.A.C.I.
D.C. O'Connell, B.Sc. (Qld.), Dip.Ed., F.G.S.
W.F. Ridley, M.Sc. (Qld.).
D.P. Schweinsberg, A.S.T.C., B.Sc. (N.S.W.), M.Sc.
(Qld.), A.R.A.C.I., A.M. Aus.I.M.M.
G.Smith, B.Sc. (Qld.), Dip.Ind.Chem. *ARACI*
B.N. Venzke, M.Sc. (Qld.).
R.J. Coleman, B.Sc. (Hons.) (Tas.).
B.N. Haines, M.Sc. (Syd.).
S. Kokot, B.Sc. (Hons.), (N.S.W.), Ph.D. (N.S.W.).
E.T. Pallister, M.Sc. (N.S.W.), Ph.D. (N.S.W.),
A.R.I.C., A.R.A.C.I., A.S.T. (Chem.).
- Support Staff:** T.L. Hamilton, Laboratory Technician Division I.
(Technician Division II B. Kwiecien, Laboratory Technician Division II.
and above) A.H. Newland, Laboratory Technician Division II.
A. Schwede, Laboratory Technician Division II.
N.A. Seils, Senior Laboratory Technician Division I.
W. Skeaf, Laboratory Technician Division II.

The following rules relating to the Bachelor of Applied Science – Applied Chemistry are made subject to Clause No. II.1 of By-Law No. 10.

BACHELOR OF APPLIED SCIENCE – APPLIED CHEMISTRY

1. To be eligible to enrol for Bachelor of Applied Science – Applied Chemistry, an applicant must either –
 - (a) achieve a minimum score of 80 semester points over 20 semester units; OR
 - (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary School Studies.

A minimum score of sixteen semester points is required for each of the subjects English, Mathematics I, Physics and Chemistry. However, a score below the stipulated level of sixteen points may be accepted in any one subject, provided that the student gains in his total score one additional point for every point by which he falls below that level and also that the absolute minimum for the subject be twelve (12) points.

2. Students who have sat for the Senior Examination –

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Physics, Chemistry and one other subject, gained at no more than two sittings of the Senior Examination within the five years previous to application for enrolment. A minimum grade of four (4) points is required for each subject.

(An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Physics and Chemistry, including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland school and students who have repeated Grade 12 studies in 1973 are included in this category. Such applications will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may enrol either as a day programme or evening programme student.

A day programme student is one who normally attends day classes associated with his study programme. He may, however, elect or be required to attend some evening classes.

An evening programme student is one who normally attends evening classes associated with his study programme. He may, however, elect or be required to attend some day classes.

5. For a registered student in a **day programme**, the subjects and other work of the **three years of study** are as follows:-

Semester 1 – Summer	Hrs/wk
CHA110 Analytical Chemistry I	3
CHA130 Inorganic Chemistry I	2
CHA150 Organic Chemistry I	4
CHA170 Physical Chemistry I	4
MAA151 Mathematics I	8
PHB120 Physics I	7
Semester 2 – Winter	
CHA210 Analytical Chemistry II	3
CHA250 Organic Chemistry II	4
CHA270 Physical Chemistry II	4
MAA155 Mathematics II	4
PHB121 Physics IIT	7
Either:	
ESA210 Geology OR	8
BEA100 Biology	
Semester 3 – Summer	
CHA310 Analytical Chemistry III	4
CHA330 Inorganic Chemistry III	1
CHA350 Organic Chemistry III	5
CHA370 Physical Chemistry III	5
MAA455 Mathematics III	3
MNA041 Introduction to Business	2
MEA224 Drawing	4
Either:	
PSA405 Biochemistry III OR	3
ESA310 Mineralogy III	
Semester 4 – Winter	
CHA410 Analytical Chemistry IV	4
CHA430 Inorganic Chemistry IV	1
CHA450 Organic Chemistry IV	5
CHA470 Physical Chemistry IV	5
CMB101 Professional Communication A	2
CMB102 Professional Communication B	2
MAA456 Mathematics IV	3
Either:	
PSA406 Biochemistry IVA OR	3
ESA410 Mineralogy IV	

Semester 5 – Summer		Hrs/wk
CHA530	Inorganic Chemistry V	4
CHA550	Organic Chemistry V	6
CHA570	Physical Chemistry V	6
	Either:	
CHA510	Analytical Chemistry V OR)	6
CHA520	Chemical Technology V)	
+	Either:	
ESA510	Economic Geology V OR)	3
PSB450	Microbiology III)	
 Semester 6 – Winter		
CHA630	Inorganic Chemistry VI	2
CHA650	Organic Chemistry VI	6
CHA670	Physical Chemistry VI	6
	Either:	
CHA610	Analytical Chemistry VI OR)	6
CHA620	Chemical Technology VI)	
+	Either:	
ESA610	Economic Geology VI OR)	3
PSA453	Microbiology IVB)	

6. For a registered student in an evening programme the subjects and other work of the six years of study are as follows:-

NORMAL COURSE PROGRAMME

(six years evening programme)

Semester 1 – Summer		Hrs/wk
CHA110	Analytical Chemistry I	3
CHA170	Physical Chemistry I	3
	Either:	
ESA210	Geology OR)	6
BEA100	Biology)	
 Semester 2 – Winter		
CHA150	Organic Chemistry I	3
CHA210	Analytical Chemistry II	3
MAA151	Mathematics I	6
 Semester 3 – Summer		
CHA250	Organic Chemistry II	3
PHB120	Physics IT	6
MAA155	Mathematics II	4
 Semester 4 – Winter		
CHA130	Inorganic Chemistry I	2
CHA270	Physical Chemistry II	3
PHB121	Physics IIT	6

Semester 5 – Summer		Hrs/wk
CHA310	Analytical Chemistry III	4
CHA330	Inorganic Chemistry III	1
MAA455	Mathematics III	2
CMB101	Professional Communication A	2
MNA041	Introduction to Business	2
Semester 6 – Winter		
CHA350	Organic Chemistry III	5
CHA370	Physical Chemistry III	5
	Either:	
PSA405	Biochemistry III OR	3
ESA310	Mineralogy III	
Semester 7 – Summer		
CHA450	Organic Chemistry IV	5
CHA470	Physical Chemistry IV	5
	Either:	
PSA406	Biochemistry IVA OR	3
ESA410	Mineralogy IV	
Semester 8 – Winter		
CHA410	Analytical Chemistry IV	4
CHA430	Inorganic Chemistry IV	1
MAA456	Mathematics IV	2
MEA224	Drawing	4
Semester 9 – Summer		
CHA570	Physical Chemistry V	6
	Either:	
CHA510	Analytical Chemistry V OR	6
CHA520	Chemical Technology V	
Semester 10 – Winter		
CHA530	Inorganic Chemistry V	4
CHA550	Organic Chemistry V	6
	Either:	
ESA510	Economic Geology V OR	3
PSB450	Microbiology III	
Semester 11 – Summer		
CHA630	Inorganic Chemistry VI	2
CHA650	Organic Chemistry VI	6
	Either:	
ESA610	Economic Geology VI OR	3
PSA453	Microbiology IVB	
Semester 12 – Winter		
CHA670	Physical Chemistry VI	6

Either:	Hrs/wk
CHA610 Analytical Chemistry VI OR	6
CHA620 Chemical Technology VI	

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
- written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.
8. Students of the day programme or the evening programme gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a day or evening programme as set out in Rules 5 or 6 will be expected to enrol in the units set out for the following semester of the relevant programme in these Rules. Timetables are organised on the basis of this normal progression.
10. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
- (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11, 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,
- except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by **day programme students** should not exceed the number of hours allocated to the semester of the programme in Rule 5 and from which the majority of units have been selected.
12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by **evening programme students** are as specified in any one year in Rule 6.
13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50%

of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.

14. When quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.
Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-
 - (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
15. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
16. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these rules.
17. Before entering the fourth and subsequent years as defined in Rule 6, an evening programme student must be employed in an approved laboratory.
18. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
19. A student may under Rule 18 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the degree must satisfactorily complete the equivalent of at least an academic year of the day programme.

BACHELOR OF APPLIED SCIENCE – APPLIED CHEMISTRY

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
CHA210 Analytical Chemistry II	CHA110 Analytical Chemistry I	
CHA310 Analytical Chemistry III	CHA210 Analytical Chemistry II CHA130 Inorganic Chemistry I CHA170 Physical Chemistry I	
CHA410 Analytical Chemistry IV	CHA310 Analytical Chemistry III	
CHA510 Analytical Chemistry V	CHA410 Analytical Chemistry IV	
CHA610 Analytical Chemistry VI	CHA410 Analytical Chemistry IV	
PSA405 Biochemistry III	CHA210 Analytical Chemistry II CHA130 Inorganic Chemistry I CHA250 Organic Chemistry II CHA170 Physical Chemistry I CHA270 Physical Chemistry II	
PSA406 Biochemistry IVA	PSA405 Biochemistry III	
CHA520 Chemical Technology V	CHA470 Physical Chemistry IV	
CHA620 Chemical Technology VI	CHA520 Chemical Technology V	
CHA330 Inorganic Chemistry III	CHA130 Inorganic Chemistry I	
CHA430 Inorganic Chemistry IV	CHA130 Inorganic Chemistry I	
CHA530 Inorganic Chemistry V	CHA330 Inorganic Chemistry III	
CHA630 Inorganic Chemistry VI	CHA430 Inorganic Chemistry IV CHA530 Inorganic Chemistry V	
ESA510 Economic Geology V	ESA310 Mineralogy III ESA410 Mineralogy IV	
ESA610 Economic Geology VI	ESA310 Mineralogy III ESA410 Mineralogy IV	
MAA155 Mathematics II	MAA151 Mathematics I	
MAA455 Mathematics III	MAA155 Mathematics II	
MAA456 Mathematics IV	MAA455 Mathematics III	
PSB450 Microbiology III	PSA405 Biochemistry III	
PSA453 Microbiology IVB	PSA450 Microbiology III PSA406 Biochemistry IVA	
ESA310 Mineralogy III	ESA210 Geology	

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
ESA410 Mineralogy IV	ESA210 Geology	
CHA250 Organic Chemistry II	CHA150 Organic Chemistry I	
CHA350 Organic Chemistry III	CHA250 Organic Chemistry II	
CHA450 Organic Chemistry IV	CHA350 Organic Chemistry III	
CHA550 Organic Chemistry V	CHA450 Organic Chemistry IV	
CHA650 Organic Chemistry VI	CHA450 Organic Chemistry IV	
CHA370 Physical Chemistry III	CHA170 Physical Chemistry I	
CHA470 Physical Chemistry IV	CHA170 Physical Chemistry I	
	CHA270 Physical Chemistry II	
CHA570 Physical Chemistry V	CHA270 Physical Chemistry II	
	CHA370 Physical Chemistry III	
CHA670 Physical Chemistry VI	CHA370 Physical Chemistry III	
	CHA470 Physical Chemistry IV	

The following rules relating to the Associate Diploma in Science (Chemistry Strand) are made subject to Clause No. II.1 of By-law No. 10.

ASSOCIATE DIPLOMA IN SCIENCE – CHEMISTRY

1. To be eligible to enrol for the Associate Diploma in Science – Chemistry, an applicant must either –

- (a) achieve a minimum score of 80 semester points over 20 semester units; or
- (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary School Studies.

A minimum score of sixteen semester points is required for each of the subjects English, Mathematics I, Physics and Chemistry. However, a score below the stipulated level of sixteen points may be accepted in any one subject provided that the student gains in his total score one additional point for every point by which he falls below that level and also, that the absolute minimum for this subject be twelve (12) points.

2. Students who have sat for the Senior Examination.

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Physics, Chemistry and one other subject, gained at no more than two sittings of the Senior Examination within the five years previous to application for enrolment. A minimum grade of four (4) points is required for each subject.

(An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Physics and Chemistry including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland school and students who have repeated Grade 12 studies in 1973 are included in this category. Such applications will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may enrol either as a day programme or evening programme student.

A day programme student is one who normally attends day classes associated with his study programme. He may, however, elect or be required to attend some evening classes.

An evening programme student is one who normally attends evening classes associated with his study programme. He may, however, elect or be required to attend some day classes.

5. For a registered student in a day programme, the subjects and other work of the three years of study are as follows:-

Semester 1 – Summer		Hrs/wk
PHB101	Physics IS	4
PHB106	Experimental Physics I	3
MAA159	Mathematics I	5
CHA141	Chemistry I	7
CMB101	Professional Communication A	2
Either:		
BEA105	Human Ecology AND)	7
BEA101	Cell Biology)	
Or:		
ESA113	Earth Science I	7
Semester 2 – Winter		
PHB201	Physics IIS	4
PHB206	Experimental Physics II	3
MAA160	Mathematics II	5
CHA241	Chemistry II	7
CMB102	Professional Communication B	2
Either:		
BEA109	Experimental Biology	7
Or:		
ESA213	Earth Science II	7
Semester 3 – Summer		
CHA341	Chemistry III	8
CHA310	Analytical Chemistry III	4
THREE of:		
PSA405	Biochemistry III	4
ESA311	Earth Science III	4
PHA303	Physics IIIC	4
MAA451	Mathematics III	4
BEA350	Principles of Ecology I	4
Semester 4 – Winter		
MAA157	Statistics	4
CHA441	Chemistry IV	8
CHA410	Analytical Chemistry IV	4
THREE of:		
PSA406	Biochemistry IVA	4

	Hrs/wk
ESA411 Earth Science IV	4
PHA403 Physics IVC	4
MAA452 Mathematics IV	4
BEA450 Principles of Ecology II	4
Semester 5 – Summer	
CHA541 Chemistry V	17
Either:	
CHA510 Analytical Chemistry V OR	6
CHA520 Chemical Technology V	
+ Either:	
ESA511 Earth Science V OR)	4
PSB450 Microbiology III)	
Semester 6 – Winter	
CHA641 Chemistry VI	17
Either:	
CHA610 Analytical Chemistry VI OR)	6
CHA620 Chemical Technology VI)	
+ Either:	
ESA611 Earth Science VI OR)	4
PSA453 Microbiology IVB)	

The electives to be offered to fifth and sixth semester Chemistry students may vary from year to year depending on enrolments, time-tabling, etc. Students should therefore consult with the Head of the Chemistry Department when deciding their elective subjects.

6. For a registered student in an **evening programme**, the subjects and other work of the **six years of study** are as follows:-

	Hrs/wk
Semester 1 – Summer (1974)	
CHA141 Chemistry I	6
BEA109 Experimental Biology	6
Semester 2 – Winter (1974)	
CHA241 Chemistry II	6
BEA105 Human Ecology)	6
BEA101 Cell Biology)	
Semester 3 – Summer (1975)	
PHB101 Physics IS	3
PHB106 Experimental Physics I	3
MAA159 Mathematics I	4
CMB102 Professional Communication B	1
Semester 4 – Winter (1975)	
PHB201 Physics IIS	3
PHB206 Experimental Physics II	3

	Hrs/wk
MAA160 Mathematics II	4
CMB102 Professional Communication B	1

Conduct of the fifth and subsequent semesters of this course on an evening basis will depend upon the number of enrolments received.

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
 - written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.
8. Students of the day programme or the evening programme gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a day or evening programme as set out in Rules 5 or 6 will be expected to enrol in the units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression.
10. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11, 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,

except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by **day programme students** should not exceed the number of hours allocated to the semester of the programme in Rule 5 and from which the majority of units have been selected.
12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by **evening programme students** are as specified in any one year in Rule 6.

13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.
14. When quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.
Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-
 - (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
15. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the area of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
16. Pre-requisite and co-requisite subjects are shown in a schedule attached to these rules.
17. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
18. A student may under Rule 17 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the diploma must satisfactorily complete the equivalent of at least an academic year of the day programme.

ASSOCIATE DIPLOMA IN SCIENCE – CHEMISTRY STRAND

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
CHA310 Analytical Chemistry III	CHA241 Chemistry II	
CHA410 Analytical Chemistry IV	CHA310 Analytical Chemistry III	
CHA510 Analytical Chemistry V	CHA410 Analytical Chemistry IV	
CHA610 Analytical Chemistry VI	CHA410 Analytical Chemistry IV	
PSA405 Biochemistry III	CHA241 Chemistry II	
PSA406 Biochemistry IVA	PSA405 Biochemistry III	
CHA520 Chemical Technology V	CHA441 Chemistry IV	
CHA620 Chemical Technology VI	CHA520 Chemical Technology V	
CHA241 Chemistry II	CHA141 Chemistry I	
CHA341 Chemistry III	CHA241 Chemistry II	
CHA441 Chemistry IV	CHA341 Chemistry III	
CHA541 Chemistry V	CHA441 Chemistry IV	
CHA641 Chemistry VI	CHA541 Chemistry V	
ESA511 Earth Science V	ESA311 Earth Science III	
ESA611 Earth Science VI	ESA411 Earth Science IV	
PHB106 Experimental Physics I		PHB101 Physics IS
PHB206 Experimental Physics II	PHB106 Experimental Physics I	PHB201 Physics IIS
MAA160 Mathematics II	MAA159 Mathematics I	
MAA451 Mathematics III	MAA160 Mathematics II	
MAA452 Mathematics IV	MAA451 Mathematics III	
PSB450 Microbiology III	PSB405 Biochemistry III	
PSB453 Microbiology IVB	PSB450 Microbiology III	
	PSA406 Biochemistry IVA	
PHB101 Physics IS		PHB106 Experimental Physics I
PHB201 Physics IIS	PHB101 Physics IS	PHB206 Experimental Physics II
PHA303 Physics IIIC	PHB201 Physics IIS	
	PHB206 Experimental Physics II	
	MAA160 Mathematics II	
PHA403 Physics IVC	PHB201 Physics IIS	
	PHB206 Experimental Physics II	
MAA157 Statistics	MAA160 Mathematics II	

The following rules relating to the Associate Diploma in Applied Geology are made subject to Clause No. II.1 of By-law No. 10.

ASSOCIATE DIPLOMA IN APPLIED GEOLOGY

1. To be eligible to enrol for Associate Diploma in Applied Geology an applicant must either –

- (a) achieve a minimum score of 80 semester points over 20 semester units; OR
- (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary School Studies.

A minimum score of sixteen semester points is required for each of the subjects English, Mathematics I, Physics and Chemistry. However, a score below the stipulated level of sixteen points may be accepted in any one subject, provided that the student gains in his total score one additional point for every point by which he falls below that level and also, that the absolute minimum for this subject be twelve (12) points.

2. Students who have sat for the Senior Examination –

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Physics, Chemistry and one other subject gained at no more than two sittings of the Senior Examination within the five years previous to application for enrolment. A minimum grade of four (4) points is required for each subject.

(An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Physics and Chemistry, including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland school and students who have repeated Grade 12 studies in 1973 are included in this category. Such application will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may **only** enrol in a day programme and the subjects and other work of the **three years of study** are as follows:-

Semester 1 – Summer		Hrs/wk
ESA113	Earth Science I	7
CHA141	Chemistry I	7
PHB101	Physics IS	4
PHB106	Experimental Physics I	3
MAA159	Mathematics I	5
CMB101	Professional Communication A	2
 Semester 2 – Winter		
ESA213	Earth Science II	7
CHA241	Chemistry II	7
PHB201	Physics IIS	4
PHB206	Experimental Physics II	3
MAA160	Mathematics II	5
CMB102	Professional Communication B	2
 Semester 3 – Summer		
ESA313	Mineralogy	4
ESA323	Sedimentology	3
ESA333	Geochemistry III	2
ESA343	Surveying	3
ESA353	Structural Geology III	2
ESA363	Economic Geology III	5
ESA373	Economic Analysis for Geologists	3
CHA343	Chemistry for Geologists III	4
ESA383	Field Excursions III	
 Semester 4 – Winter		
ESA413	Petrology IV	4
ESA423	Stratigraphy & Sedimentary Petrology	6
ESA433	Geophysics IV	2
ESA443	Hydrology IV	3½
ESA453	Geochemistry IV	1½
ESA473	Law for Geologists	2
MAA157	Statistics	4
CHA443	Chemistry for Geologists IV	4
ESA483	Field Excursions IV	
 Semester 5 – Summer		
ESA513	Economic Geology V	4
ESA523	Hydrology V	4
ESA533	Exploration Geochemistry V	4
ESA543	Petrology V	3
ESA553	Field Techniques	3
ESA563	Project V	
ESA573	Field Excursions V	3
ESA583	Administration for Geologists	3

Semester 6 – Winter	Hrs/wk
ESA613 Mineragraphy and Mining Geology	3
ESA623 Petroleum Geology	4
ESA633 Exploration Geophysics VI	2
ESA643 Structural Geology VI	3
ESA653 Engineering Geology	3
ESA663 Projects VI	
ESA673 Field Excursions VI	3
ESA683 Property Evaluation for Geologists	2

5. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
 - written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.
6. Students gain credits for passed units and are required to repeat failed units only.
7. Students who pass all units in one semester of the programme as set out in Rule 4 will be expected to enrol in the units set out for the following semester of the programme. Timetables are organised on the basis of normal progression.
8. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 9 and 10; and
 - (iii) the established timetable permits the selected units to be studied concurrently,
 except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
9. Except with the approval of the Head of Department, the total of hours associated with units selected for study should not exceed the number of hours allocated to the semester of the programme in Rule 4 and from which the majority of units have been selected.
10. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.

11. Where quotas would be exceeded by the acceptance of new applicants –
 - (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
12. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
13. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these rules.
14. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rule 4, then he may be granted credit for that subject.
15. A student may under Rule 14 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the diploma must satisfactorily complete the equivalent of at least an academic year of the day programme.

ASSOCIATE DIPLOMA IN APPLIED GEOLOGY

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
CHA241 Chemistry II	CHA141 Chemistry I	
CHA343 Chemistry for Geologists III	CHA241 Chemistry II	
CHA443 Chemistry for Geologists IV	CHA343 Chemistry for Geologists III	
ESA363 Economic Geology III	ESA113 Earth Science I	
ESA513 Economic Geology V	ESA213 Earth Science II	
ESA653 Engineering Geology	ESA363 Economic Geology III	
	ESA413 Petrology IV	
	ESA423 Stratigraphy and Sediment Petrology	
	ESA463 Structural Geology IV	
PHB106 Experimental Physics I		PHB101 Physics IS
PHB206 Experimental Physics II	PHB106 Experimental Physics I	PHB201 Physics IIS
ESA533 Exploration Geochemistry V	ESA453 Geochemistry IV	
ESA633 Exploration Geophysics VI	ESA433 Geophysics IV	
ESA385 Field Excursions III	ESA113 Earth Science I	ESA343 Surveying
ESA483 Field Excursions IV	ESA213 Earth Science II	
ESA373 Field Excursions V	ESA383 Field Excursions III	
ESA673 Field Excursions VI	ESA483 Field Excursions IV	
ESA553 Field Techniques	ESA573 Field Excursions V	
	ESA463 Structural Geology III	
ESA333 Geochemistry III	ESA343 Surveying	
	CHA141 Chemistry I	
	CHA241 Chemistry II	
ESA453 Geochemistry IV	ESA333 Geochemistry III	
ESA433 Geophysics IV	PHB201 Physics IIS	
ESA523 Hydrology V	ESA443 Hydrology IV	
MAA160 Mathematics II	MAA159 Mathematics I	
ESA613 Mineragraphy and Mining Geology	ESA363 Economic Geology III	
ESA313 Mineralogy	ESA113 Earth Science I	
ESA623 Petroleum Geology	ESA523 Hydrology V	
	ESA423 Stratigraphy and Sedimentary Petrology	
ESA413 Petrology IV	ESA313 Mineralogy	
ESA543 Petrology V	ESA413 Petrology IV	
PHB101 Physics IS		PHB106 Experimental Physics I

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PHB201 Physics IIS	PHB101 Physics IS	PHB206 Experimental Physics II
ESA563 Project V	ESA413 Petrology IV ESA423 Stratigraphy and Sedimentary Petrology ESA463 Structural Geology III	ESA533 Exploration Geochemistry ESA553 Field Techniques
ESA663 Project VI	ESA563 Project V	
ESA683 Property Evaluation for Geologists	ESA373 Economic Analysis for Geologists	
ESA323 Sedimentology	ESA113 Earth Science I	
MAA157 Statistics	MAA159 Mathematics I MAA160 Mathematics II	
ESA423 Stratigraphy and Sedimentary Petrology	ESA323 Sedimentology ESA313 Mineralogy	
ESA643 Structural Geology VI	ESA353 Structural Geology III	

The following rules relating to the Certificate in Chemistry are made subject to Clause II.1 of By-law No. 10.

CERTIFICATE IN CHEMISTRY

1. To be eligible to enrol for Certificate in Chemistry an applicant must gain –
 - (a) four Junior subjects – English, Advanced or Ordinary level Mathematics, Science A and Science B;
 - (b) a grade of either three (3) points or better in Advanced level Mathematics or five (5) points or better in Ordinary level Mathematics is required;
 - (c) in the event of an applicant using a grade of three (3) in Advanced Mathematics, the acceptable minimum points score shall be fifteen (15) and if using a grade of five (5) in Ordinary Mathematics, the acceptable minimum points score shall be seventeen (17);
 - (d) a minimum grade of three (3) points may be accepted in English, but the accepted minimum in all other subjects (excepting Mathematics) shall be four (4) points.

2. Students who have sat for the Junior examination:
 - (a) a total score of not less than sixteen (16) points in the four Junior subjects – English, Mathematics B, Science A and Science B;
 - (b) a minimum grade of three (3) points may be acceptable in English, but for all other subjects the accepted minimum shall be four (4) points.

3. Special Entry:

Students who do not meet the requirements for normal entry may apply for special consideration. These applications will be considered by the Admissions Committee in terms of overall academic performance and the requirements for individual courses.

4. A registered student may enrol either as a **day and evening programme student** or an **evening programme student**.

5. For a registered student in a **day and evening programme** the subjects and other work are as follows:-

NORMAL COURSE PROGRAMME

(two years day and one year evening)

Semester 1 – Summer	Hrs/wk
CHC110 Analytical Chemistry I	6
CMC124 Technical Writing I	3
CHC130 Inorganic Chemistry I	2
MAC151 Mathematics IA	4
CHC170 Physical Chemistry I	5
CHC150 Organic Chemistry I	5

Semester 2 – Winter		Hrs/wk
CHC210	Analytical Chemistry II	6
CMC125	Technical Speaking I	3
CHC230	Inorganic Chemistry II	2
MAC152	Mathematics IB	4
CHC270	Physical Chemistry II	5
CHC250	Organic Chemistry II	5

Semester 3 – Summer

CHC310	Analytical Chemistry III	7
CHC350	Organic Chemistry III	4
CHC380	Physical & Inorganic Chemistry III	4
PHC451	Certificate Physics I	4
MAC451	Mathematics IIA	4
	Elective:	
BEC302	Biology III OR)	5
ESC310	Geology III)	

Semester 4 – Winter

CHC410	Analytical Chemistry IV	7
CHC450	Organic Chemistry IV	4
CHC480	Physical & Inorganic Chemistry IV	4
PHC452	Certificate Physics II	4
MAC452	Mathematics IIB	4
	Elective:	
BEC402	Biology IV OR)	5
ESC410	Geology IV)	

Evening Programme:**Semester 5 – Summer**

CHC550	Organic Chemistry V	3
CHC580	Physical & Inorganic Chemistry V	3
	Elective:	
PSC451	Microbiology III OR)	3
ESC510	Mineralogy V)	

Semester 6 – Winter

CHC650	Organic Chemistry VI	3
CHC680	Physical & Inorganic Chemistry VI	3
	Elective:	
PSC452	Microbiology IV OR)	3
ESC610	Mineralogy VI)	

6. For a registered student in an evening programme, the subjects and other work are as follows:-

NORMAL COURSE PROGRAMME

(five years evening programme)

Semester 1 – Summer	Hrs/wk
CHC110 Analytical Chemistry I	3

	Hrs/wk
CMC124 Technical Writing I	1½
X CHC130 Inorganic Chemistry I	1½
MAC152 Mathematics IB	3
Semester 2 – Winter	
CHC210 Analytical Chemistry II	3
CMC124 Technical Writing I	1½
CHC230 Inorganic Chemistry II	1½
MAC151 Mathematics IA	3
Semester 3 – Summer	
CHC150 Organic Chemistry I	3
CHC270 Physical Chemistry II	3
Tutorials	2
Semester 4 – Winter	
CHC250 Organic Chemistry II	3
CHC170 Physical Chemistry I	3
Tutorials	2
Semester 5 – Summer	
PHC451 Certificate Physics I	3
MAC452 Mathematics IIB	3
CHC310 Analytical Chemistry III	3
Semester 6 – Winter	
PHC452 Certificate Physics II	3
MAC451 Mathematics IIA	3
CHC410 Analytical Chemistry IV	3
Semester 7 – Summer	
CHC450 Organic Chemistry IV	3
CHC480 Physical & Inorganic Chemistry IV	3
Elective:	
BEC302 Biology III OR	}
ESC310 Geology III	
	3
Semester 8 – Winter	
CHC350 Organic Chemistry III	3
CHC380 Physical & Inorganic Chemistry III	3
Elective:	
BEC402 Biology IV OR	}
ESC410 Geology IV	
	3
Semester 9 – Summer	
CHC550 Organic Chemistry V	3
CHC580 Physical & Inorganic Chemistry V	3

		Hrs/wk
Elective:		
PSC451	Microbiology III OR	3
ESC510	Mineralogy V	
Semester 10 – Winter		
CHC650	Organic Chemistry VI	3
CHC680	Physical & Inorganic Chemistry VI	3
Elective:		
PSC452	Microbiology IV OR	3
ESC610	Mineralogy VI	

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
 - written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.
8. Students of the day and evening programme or the evening programme gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a day and evening or evening programme as set out in Rules 5 and 6 will be expected to enrol in the units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression.
10. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11, 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,

except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by day and evening programme students should not exceed the number of hours allocated to the

semester of the programme in Rule 5 and from which the majority of units have been selected.

12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by evening programme students are as specified in any one year in Rule 6.
13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.
14. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these rules.
15. When quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.
Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-
 - (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
16. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
17. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
18. A student may under Rule 17 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the certificate must satisfactorily complete the equivalent of at least an academic year of the day programme.

CERTIFICATE IN CHEMISTRY

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
CHC210 Analytical Chemistry II	CHC110 Analytical Chemistry I	
CHC310 Analytical Chemistry III	CHC210 Analytical Chemistry II	
CHC410 Analytical Chemistry IV	CHC310 Analytical Chemistry III	
PHC452 Certificate Physics II	PHC451 Certificate Physics I	
CHC230 Inorganic Chemistry II	CHC130 Inorganic Chemistry I	
MAC451 Mathematics IIA	MAC151 Mathematics IA	
MAC452 Mathematics IIB	MAC152 Mathematics IB	
PSC451 Microbiology III	BEC402 Biology IV CHC450 Organic Chemistry IV	
PSC452 Microbiology IV	PSC451 Microbiology III	
ESC510 Mineralogy V	ESC310 Geology III ESC410 Geology IV	
ESC610 Mineralogy VI	ESC310 Geology III ESC410 Geology IV	
CHC250 Organic Chemistry II	CHC150 Organic Chemistry I	
CHC350 Organic Chemistry III	CHC250 Organic Chemistry II	
CHC450 Organic Chemistry IV	CHC250 Organic Chemistry II	
CHC550 Organic Chemistry V	CHC450 Organic Chemistry IV	
CHC650 Organic Chemistry VI	CHC450 Organic Chemistry IV	
CHC380 Physical and Inorganic Chemistry III	CHC170 Physical Chemistry I	
CHC480 Physical and Inorganic Chemistry IV	CHC170 Physical Chemistry I CHC270 Physical Chemistry II	
CHC580 Physical and Inorganic Chemistry V	CHC270 Physical Chemistry II CHC380 Physical and Inorganic Chemistry III	
CHC680 Physical and Inorganic Chemistry VI	CHC380 Physical and Inorganic Chemistry III CHC480 Physical and Inorganic Chemistry IV	

DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

- Head of Department:** R.N. Gould, B.Sc. (Hons.) M.Sc. (Lond.), Ph.D. (Hull).
- Senior Lecturers:** C.M. Bothwell, B.Sc., B.Ed. (Qld.), A.L.C.M.
 J.L. Byrne, B.Sc. (Qld.), M.Sc. (S'ton.), Ph.D. (Adel.).
 P.A. Dutton, B.Sc., Dip.Ed. (Syd.), M.Sc. (N.S.W.).
 K.J. Gough, B.Sc. (Hons.), M.Sc., Ph.D. (Well.), Grad.
 N.Z.E.I.
 J. Gudgeon, B.Sc. (Hons.), (Hull), F.I.M.A.
 C.R. Jones, B.Sc. (Hons.), M.Sc. (Liv.), F.S.S.
 K.R. Macbeth, Dip.Maths., B.Sc. (Hons.) (Lond.),
 M.A.C.E.
- Lecturers:** J.S. Beck, B.Sc. (Qld.).
 C.C. Calder, B.Sc. (Hons.), M.Sc. (Lond.).
 P.T.J. Cattell, B.Sc., B.Ed. (Qld.).
 B.P. Garfoot, B.Sc. (Hons.) (N'cle., N.S.W.), Ph.D.
 (Qld.).
 C.G. Holland, B.A. (N.E.), B.Sc., B.Econ. (Qld.),
 M.I.R.E.E. (Aust.), A.A.I.M.
 M. Ilic, B.Sc. (Hons.), M.Sc. (Qld.).
 M.T. Kelly, B.Sc., Dip.Ed. (Qld.).
 M.R. Littler, Dip.Maths., B.Sc. (Hons.) (Lond.),
 L.I.M.A.
 J.D. Mahony, B.Sc. (Hons.), M.Sc. (Lond.), Ph.D.
 (Sur.), A.F.I.M.A.
 G.M. Mohay, B.Sc. (Hons.) (W.Aust.), Ph.D. (Monash).
 I.F. Ogle, B.Sc. (Hons.), M.Sc. (N.E.).
 D.J. O'Kane, B.Sc., Dip.Comp.Sc. (Qld.).
 G. Oulsnam, B.Sc. (Eng.), A.C.G.I., D.I.C. (Lond.).
 L.M. Scotney, B.Sc., Dip.Ed. (Qld.).
 B.S. Tasker, B.A. (N.E.).
 D.F. Welburn, B.Sc. (Qld.).

The following rules relating to Bachelor of Applied Science – Computing are made subject to Clause No. II.1 of By-law No. 10.

BACHELOR OF APPLIED SCIENCE – COMPUTING

1. To be eligible to enrol for Bachelor of Applied Science – Computing an applicant must either –
 - (a) achieve a minimum score of 80 semester points over 20 semester units; or
 - (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary School Studies.

A minimum score of sixteen semester points is required for each of the subjects English, Mathematics I and Mathematics II. However, a score below the stipulated level of sixteen points may be accepted in any one subject, provided that the student gains in his total score one additional point for every point by which he falls below that level and also, that the absolute minimum for this subject be twelve (12) points.

2. Students who have sat for the Senior Examination –

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Mathematics II and two other subjects gained at no more than two sittings of the Senior Examination within the five years previous to application for enrolment. A minimum grade of four (4) points is required for each subject.

(An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Mathematics II and one other subject including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland school and students who have repeated Grade 12 studies in 1973 are included in this category. Such applications will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may enrol either as a day programme or evening programme student.

A day programme student is one who normally attends day classes associated with his study programme. He may, however, elect or be required to attend some evening classes.

An evening programme student is one who normally attends evening classes associated with his study programme. He may, however, elect or be required to attend some day classes.

5. For a registered student in a day programme, the subjects and other work of the three years of study are as follows:-

NORMAL COURSE PROGRAMME

(three year day programme)

Semester 1 – Summer	Hrs/wk
MAB351 Introduction to Computing A	4
MAB353 Introduction to Computer Hardware	4
MAB355 Basic Mathematics A	4
MAB357 Applied Statistical Methods A	4
ACB111 Accounting Information Systems I	4
CMB101 Professional Communication A	1
Semester 2 – Winter	
MAB352 Introduction to Computing B	4
MAB354 Computers and Programming	4
MAB356 Basic Mathematics B	4
MAB358 Applied Statistical Methods B	4
ACB211 Accounting Information Systems II	4
CMB101 Professional Communication A	1
Semester 3 – Summer	
MAB651 Switching Theory	4
MAB653 Data Structures	4
MAB655 Numerical Analysis IA	4
MAB657 Operations Research IA	4
MNB304 Information Systems I	4
CMB102 Professional Communication B	1
Semester 4 – Winter	
MAB652 Computer Organisation I	4
MAB654 Programming Languages	4
MAB656 Numerical Analysis IB	4
MAB658 Operations Research IB	4
MNB404 Information Systems II	4
CMB102 Professional Communication B	1
Semester 5 – Summer	
MAB951 Systems Programming A	4

	Hrs/wk
MAB953 Computer Organisation II	4
MNB541 Information Systems IIIB	4
Elective subjects:*	
(a) MAB955 Mathematical Methods	4
(b) MAB957 Operations Research IIA	4
(c) MNB081 Management	4

Semester 6 – Winter

MAB952 Systems Programming B	4
MAB954 Compiler Construction	4
MNB641 Information Systems IVB	4
Elective subjects:*	
(a) MAB956 Numerical Analysis II	4
(b) MAB958 Operations Research IIB	4
(c) MNB091 Marketing	4

*Two of the three elective groupings denoted by (a), (b) and (c) must be chosen.

6. For a registered student in an **evening programme**, the subjects and other work of the **six years of study** are as follows:-

NORMAL COURSE PROGRAMME

(six years evening programme)

Semester 1 – (To commence on 5th August 1974) Hrs/wk

MAB351 Introduction to Computing A	4
MAB353 Introduction to Computer Hardware	4
ACB111 Accounting Information Systems I	4

Semester 2

MAB352 Introduction to Computing B	4
ACB211 Accounting Information Systems II	4
CMB101 Professional Communication A	2

Semester 3

MAB355 Basic Mathematics A	4
MAB357 Applied Statistical Methods A	4

Semester 4

MAB354 Computers and Programming	4
MAB356 Basic Mathematics B	4
MAB358 Applied Statistical Methods B	4

Semester 5

MAB651 Switching Theory	4
MAB653 Data Structures	4
MNB304 Information Systems I	4

	Hrs/wk
Semester 6	
MAB652 Computer Organisation I	4
MNB404 Information Systems II	4
CMB102 Professional Communication B	2
Semester 7	
MAB655 Numerical Analysis IA	4
MAB657 Operations Research IA	4
Semester 8	
MAB654 Programming Languages	4
MAB656 Numerical Analysis IB	4
MAB658 Operations Research IB	4
Semester 9	
MAB951 Systems Programming A	4
MAB953 Computer Organisation II	4
MNB541 Information Systems IIIB	4
Semester 10	
MAB952 Systems Programming B	4
MNB641 Information Systems IVB	4
Semester 11	
Elective subjects:*	
(a) MAB955 Mathematical Methods	4
(b) MAB957 Operations Research IIA	4
(c) MNB081 Management	4
Semester 12	
MAB954 Compiler Construction	4
Elective subjects:*	
(a) MAB956 Numerical Analysis II	4
(b) MAB958 Operations Research IIB	4
(c) MNB091 Marketing	4

NOTE: The odd numbered semesters of the evening course will be conducted concurrently with the even numbered semesters of the day-time course.

*Two of the three elective groupings denoted by (a), (b) and (c) must be chosen.

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
- written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.

8. Students of the day programme or the evening programme gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a day or evening programme as set out in Rules 5 or 6 will be expected to enrol in the units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression.
10. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11, 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,

except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.

11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by **day programme students** should not exceed the number of hours allocated to the semester of the programme in Rule 5 and from which the majority of units have been selected.
12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by **evening programme students** are as specified in any one year in Rule 6.
13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.
14. When quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.

Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-

- (i) normally, students applying to repeat one unit will have precedence over new applicants;

- (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
15. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
 16. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these rules.
 17. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
 18. A student may under Rule 17 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the degree must satisfactorily complete the equivalent of at least an academic year of the day programme.

BACHELOR OF APPLIED SCIENCE – COMPUTING

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
ACB111 Accounting Information Systems I		MAB351 Introduction to Computing A
ACB211 Accounting Information Systems II	ACB111 Accounting Information Systems I	
MAB358 Applied Statistical Methods B	MAB351 Introduction to Computing A MAB357 Applied Statistical Methods A	
MAB954 Compiler Construction	MAB653 Data Structures MAB654 Programming Languages	
MAB652 Computer Organisation I	MAB651 Switching Theory	
MAB953 Computer Organisation II	MAB652 Computer Organisation I	
MAB354 Computers and Programming	MAB351 Introduction to Computing A	
MAB653 Data Structures	MAB351 Introduction to Computing A	
MNB304 Information Systems I	MAB352 Introduction to Computing B	
MNB404 Information Systems II	MNB304 Information Systems I	
MNB541 Information Systems IIIB	MNB404 Information Systems II	
MNB641 Information Systems IVB	MNB541 Information Systems IIIB	
MAB352 Introduction to Computing B	MAB351 Introduction to Computing A	
MAB955 Mathematical Methods	MAB656 Numerical Analysis IB	
MAB655 Numerical Analysis IA	MAB351 Introduction to Computing A MAB355 Basic Mathematics A MAB356 Basic Mathematics B	
MAB656 Numerical Analysis IB	MAB655 Numerical Analysis IA	
MAB956 Numerical Analysis II	MAB955 Mathematical Methods	

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
MAB657 Operations Research IA	MAB351 Introduction to Computing A MAB355 Basic Mathematics A MAB356 Basic Mathematics B MAB358 Applied Statistical Methods B	
MAB658 Operations Research IB	MAB657 Operations Research IA	
MAB957 Operations Research IIA	MAB658 Operations Research IB	
MAB958 Operations Research IIB	MAB957 Operations Research IIA	
MAB654 Programming Languages	MAB352 Introduction to Computing B MAB354 Computers and Programming	
MAB651 Switching Theory	MAB353 Introduction to Computer Hardware	
MAB951 Systems Programming A	MAB354 Computers and Programming MAB652 Computer Organisation I MAB653 Data Structures	MAB953 Computer Organisation II
MAB952 Systems Programming B	MAB951 Systems Programming A	

The following rules relating to the Associate Diploma in Mathematics are made subject to Clause No. II.1 of By-law No. 10.

ASSOCIATE DIPLOMA IN MATHEMATICS

1. To be eligible to enrol for the Associate Diploma in Mathematics an applicant must either –
 - (a) achieve a minimum score of 80 semester points over 20 semester units; or
 - (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary School Studies.

A minimum score of sixteen semester points is required for each of the subjects English, Mathematics I and Mathematics II. However, a score below the stipulated level of sixteen points may be accepted in any one subject, provided that the student gains in his total score one additional point for every point by which he falls below that level and also, that the absolute minimum for this subject be twelve (12) points.

2. Students who have sat for the Senior Examination –

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Mathematics II and two other subjects gained at no more than two sittings of the Senior Examination within the five years previous to application for enrolment. A minimum grade of four (4) points is required for each subject. (An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Mathematics II and one other subject including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland school and students who have repeated Grade 12 studies in 1973 are included in this category. Such applications will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may enrol either as a day programme or evening programme student.

A day programme student is one who normally attends day classes associated with his study programme. He may, however, elect or be required to attend some evening classes.

An evening programme student is one who normally attends evening classes associated with his study programme. He may, however, elect or be required to attend some day classes.

5. For a registered student in a day programme, the subjects and other work of the three years of study are as follows:-

NORMAL COURSE PROGRAMME

(three year day programme)

Semester 1 – Summer	Hrs/wk
MAA301 Calculus and Analysis A	4
MAA305 Introduction to Computing A	4
MAA309 Modern Algebra	4
MAA335 Classical Theoretical Mechanics	4
CMB101 Professional Communication A	1
Elective ¹ from among the first year subjects offered by the Institute.	3-7
Semester 2 – Winter	
MAA302 Calculus and Analysis B	4
MAA306 Introduction to Computing B	4
MAA310 Linear Algebra	4
MAA308 Mathematical Statistics I	4
CMB101 Professional Communication A	1
Elective ¹ from among the first year subjects offered by the Institute.	3-7
Semester 3 – Summer	
CORE SUBJECTS:	
MAA601 Multivariable Calculus A	3
MAA607 Mathematical Statistics IIA	4
MAA617 Applied Differential Equations	4
CMB102 Professional Communication B	1
Option² A (Industrial Strand)	
MAA627 Operations Research IA	4
MAA613 Numerical Analysis IA	4
Option² B (Central Strand)	
MAA613 Numerical Analysis IA	4
MAA611 Multivariable Calculus B	2
Option² C (Teaching Strand)	
Electives ¹ from among the first year subjects offered by the Institute.	7-11

Semester 4 – Winter		Hrs/wk
CORE SUBJECTS:		
MAA610	Applied Linear Algebra	4
CMB102	Professional Communication B	1
Option ² A (Industrial Strand)		
MAA628	Operations Research IB	4
MAA614	Numerical Analysis IB	4
MAA606	Computers and Programming	4
MAA608	Mathematical Statistics IIB	4
Option ² B (Central Strand)		
MAA614	Numerical Analysis IB	4
MAA602	Multivariable Calculus C	3
MAA608	Mathematical Statistics IIB	4
MAA636	Introductory Advanced Dynamics	4
Option ² C (Teaching Strand)		
MAA602	Multivariable Calculus C	3
MAA626	Topics in Mathematics I	4
	Electives ¹ from among the first year subjects offered by the Institute.	7-11

Semester 5 – Summer

CORE SUBJECTS:

MAA903	Complex Variables	4
Option ² A (Industrial Strand)		
MAA611	Multivariable Calculus B	2
MAA907	Mathematical Statistics IIIA	4
MAA927	Operations Research IIA	4
MAA913	Numerical Analysis II	4
Option ² B (Central Strand)		
MAA913	Numerical Analysis II	4
	8 hrs/wk to be selected from among the following subjects:	
MAA907	Mathematical Statistics IIIA	4
MAA931	Elasticity	4
MAA933	Theoretical Electromagnetism	4
MAA921	Methods of Mathematical Physics A	4
Option ² C (Teaching Strand)		
MAA925	Topics in Mathematics IIA	4
	Electives ¹ from among the second year subjects offered by the Institute.	3-8
	4 hrs/wk to be selected from among the following subjects:	
MAA613	Numerical Analysis IA	4
MAA931	Elasticity	4
MAA921	Methods of Mathematical Physics A	4
MAA933	Theoretical Electromagnetism	4

Semester 6 – Winter**CORE SUBJECTS:**

MAA910 Algebraic Structures and Applications	4
Option² A (Industrial Strand)	
MAA602 Multivariable Calculus C	3
MAA908 Mathematical Statistics IIIB	4
MAA928 Operations Research IIB	4
Option² B (Central Strand)	
MAA902 Analysis	4
8 hrs/wk to be selected from among the following subjects:	
MAA908 Mathematical Statistics IIIB	4
MAA938 Fluid Dynamics	4
MAA934 Applied Electromagnetism	4
MAA922 Methods of Mathematical Physics B	4
Option² C (Teaching Strand)	
MAA926 Topics in Mathematics IIB	4
Electives ¹ from among the second year subjects offered by the Institute.	
	3-8
4 hrs/wk to be selected from among the following subjects:	
MAA614 Numerical Analysis IB	4
MAA938 Fluid Dynamics	4
MAA922 Methods of Mathematical Physics B	4
MAA934 Applied Electromagnetism	4
MAA606 Computers and Programming	4
MAA636 Introductory Advanced Dynamics	4
MAA608 Mathematical Statistics IIB	4

¹In certain circumstances the choice of elective may be specified by the Head of Department. The electives offered will be those for which suitable timetabling arrangements can be made. Students intending to enter the teaching profession should consult the Head of Department concerning their choice of elective as this may affect their eligibility to enter particular teacher training courses on completion of their studies at the Institute.

²The options are merely suggested groupings of subjects which it is felt would best enable students to achieve the objectives of the course. However, the needs of individual students may well cut across these arbitrary divisions. In such circumstances students should negotiate with the Head of Department concerning the choice of subjects appropriate to their particular requirements.

6. For a registered student in an evening programme, the subjects and other work of the six years of study are as follows:-

	Hrs/wk
Semester 1 – Summer	
MAA310 Linear Algebra	3
CMB101 Professional Communication A	2
Elective ¹ from among the first year subjects offered by the Institute.	
Semester 2 – Winter	
MAA309 Modern Algebra	3
MAA301 Calculus and Analysis A	3
MAA305 Introduction to Computing A	3
Semester 3 – Summer	
MAA302 Calculus and Analysis B	3
MAA308 Mathematical Statistics I	3
MAA306 Introduction to Computing B	3
Semester 4 – Winter	
MAA335 Classical Theoretical Mechanics	3
CMB102 Professional Communication B	2
Elective ¹ from among the first year subjects offered by the Institute.	
Semester 5 – Summer	
MAA601 Multivariable Calculus A	3
MAA607 Mathematical Statistics IIA	3
Semester 6 – Winter	
MAA610 Applied Linear Algebra	3
MAA608 Mathematical Statistics IIB	3
Either: (Industrial Strand)	
MAA606 Computers and Programming	3
Or: (Central Strand)	
MAA602 Multivariable Calculus C	3
Semester 7 – Summer	
MAA617 Applied Differential Equations	3
MAA613 Numerical Analysis IA	3
Option ² A (Industrial Strand)	
MAA627 Operations Research IA	3
Option ² B (Central Strand)	
MAA611 Multivariable Calculus B	2
Semester 8 – Winter	
MAA614 Numerical Analysis IB	3
Option ² A (Industrial Strand)	
MAA628 Operations Research IB	3
Option ² B (Central Strand)	
MAA636 Introductory Advanced Dynamics	3

Semester 9 – Summer	Hrs/wk
Option ² A (Industrial Strand)	
MAA903 Complex Variables	3
MAA611 Multivariable Calculus B	2
MAA913 Numerical Analysis II	3
Option ² B (Central Strand)	
MAA903 Complex Variables	3
MAA913 Numerical Analysis II	3
 Semester 10 – Winter	
Option ² A (Industrial Strand)	
MAA910 Algebraic Structures and Applications	3
MAA602 Multivariable Calculus C	3
Option ² B (Central Strand)	
MAA910 Algebraic Structures and Applications	3
MAA902 Analysis	3
 Semester 11 – Summer	
Option ² A (Industrial Strand)	
MAA927 Operations Research IIA	3
MAA907 Mathematical Statistics IIIA	3
Option ² B (Central Strand)	
A choice of two subjects to be made from the following list:-	
MAA907 Mathematical Statistics IIIA	3
MAA933 Theoretical Electromagnetism	3
MAA921 Methods of Mathematical Physics A	3
MAA931 Elasticity	3
 Semester 12 – Winter	
Option ² A (Industrial Strand)	
MAA928 Operations Research IIB	3
MAA908 Mathematical Statistics IIIB	3
Option ² B (Central Strand)	
A choice of two subjects to be made from the following list:-	
MAA908 Mathematical Statistics IIIB	3
MAA934 Applied Electromagnetism	3
MAA922 Methods of Mathematical Physics B	3
MAA938 Fluid Dynamics	3

¹In certain circumstances the choice of elective may be specified by the Head of Department. The electives offered will be those for which suitable timetabling arrangements can be made. Students intending to enter the teaching profession should consult the Head of Department concerning their choice of elective as this may affect their eligibility to enter particular teacher training courses on completion of their studies at the Institute.

²The options are merely suggested groupings of subjects which it is felt would best enable students to achieve the objectives of the course. However, the needs of individual students may well cut across these arbitrary divisions. In such circumstances students should negotiate with the Head of Department concerning the choice of subjects appropriate to their particular requirements.

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
 - written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.
8. Students of the day programme or the evening programme gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a day or evening programme as set out in Rules 5 or 6 will be expected to enrol in the units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression.
10. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next year of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11 or 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,

except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by **day programme students** should not exceed the number of hours allocated to the semester of the programme in Rule 5 and from which the majority of units have been selected.
12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by **evening programme students** are as specified in any one year in Rule 6.

13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.
14. When quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.

Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-

- (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
15. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
 16. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these rules.
 17. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
 18. A student may under Rule 17 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the diploma must satisfactorily complete the equivalent of at least an academic year of the day programme.

ASSOCIATE DIPLOMA IN MATHEMATICS

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
MAA910 Algebraic Structures with Applications	MAA309 Modern Algebra	
MAA902 Analysis	MAA601 Multivariable Calculus A	
	MAA611 Multivariable Calculus B	
MAA617 Applied Differential Equations	MAA301 Calculus and Analysis A	
	MAA302 Calculus and Analysis B	
MAA934 Applied Electromagnetism	MAA602 Multivariable Calculus C	
MAA610 Applied Linear Algebra	MAA310 Linear Algebra	
MAA302 Calculus and Analysis B		MAA301 Calculus and Analysis A
MAA335 Classical Theoretical Mechanics		MAA301 Calculus and Analysis A
MAA903 Complex Variables	MAA601 Multivariable Calculus A	
MAA606 Computers and Programming	MAA305 Introduction to Computing A	
MAA931 Elasticity	MAA335 Classical Theoretical Mechanics	
	MAA601 Multivariable Calculus A	
	MAA602 Multivariable Calculus C	
MAA938 Fluid Dynamics	MAA601 Multivariable Calculus A	
	MAA602 Multivariable Calculus C	
MAA306 Introduction to Computing B		MAA305 Introduction to Computing A
MAA636 Introductory Advanced Dynamics	MAA335 Classical Theoretical Mechanics	
	MAA301 Calculus and Analysis A	
	MAA302 Calculus and Analysis B	
	MAA601 Multivariable Calculus A	
	MAA617 Applied Differential Equations	

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
MAA308 Mathematical Statistics I		MAA302 Calculus and Analysis B
MAA607 Mathematical Statistics IIA	MAA301 Calculus and Analysis A MAA302 Calculus and Analysis B MAA308 Mathematical Statistics I	
MAA608 Mathematical Statistics IIB	MAA607 Mathematical Statistics IIA	
MAA907 Mathematical Statistics IIIA	MAA608 Mathematical Statistics IIB	
MAA908 Mathematical Statistics IIIB	MAA608 Mathematical Statistics IIB	
MAA921 Methods of Mathematical Physics A	MAA335 Classical Theoretical Mechanics MAA602 Multivariable Calculus C	
MAA922 Methods of Mathematical Physics B	MAA335 Classical Theoretical Mechanics MAA602 Multivariable Calculus C	
MAA601 Multivariable Calculus A	MAA301 Calculus and Analysis A MAA302 Calculus and Analysis B	
MAA611 Multivariable Calculus B		MAA601 Multivariable Calculus A
MAA602 Multivariable Calculus C	MAA301 Calculus and Analysis A MAA302 Calculus and Analysis B	
MAA613 Numerical Analysis IA		MAA301 Calculus and Analysis A MAA305 Introduction to Computing A
MAA614 Numerical Analysis IB	MAA301 Calculus and Analysis A MAA305 Introduction to Computing A	MAA302 Calculus and Analysis B MAA610 Applied Linear Algebra
MAA913 Numerical Analysis II	MAA613 Numerical Analysis IA MAA614 Numerical Analysis IB	
MAA627 Operations Research IA	MAA305 Introduction to Computing A MAA308 Mathematical Statistics I MAA301 Calculus and Analysis A MAA310 Linear Algebra	

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
MAA628 Operations Research IB	MAA627 Operations Research IA	
MAA927 Operations Research IIA	MAA628 Operations Research IB	
MAA928 Operations Research IIB	MAA927 Operations Research IIA	
MAA933 Theoretical Electromagnetism	MAA602 Multivariable Calculus C	

DEPARTMENT OF PARAMEDICAL STUDIES

- Head of Department:** J.R. Saal, D.M.T., F.A.I.M.T.
- Senior Lecturers:** E.A. Bennett, B.Sc. (Hons.).
C.R. McDonald, B.Sc., M.I.Biol.
V.N. Verney, D.F.C., F.B.O.A., H.D., D.Orth.
A.J. Webber, M.Sc., D.M.T., F.A.I.M.T.
- Lecturers:** J.D. Bevan, A.Q.I.T. (Optm.).
T.N. Cassidy, B.Sc.
J.F. Coulson, B. Pharm. M.Pharm., Ph.D., Ph.C.
C.J. Craven, M.Sc., A.A.A.C.B.
E.N. Fogerty, M.Sc., Ph.C.
M.L. Harland, B.Sc.
B.W. Macdonald, B.App.Sc., D.M.T., A.A.I.M.T.
K.S. McKechnie, B.Sc.
S. Ogilvie, D.M.T., A.A.I.M.T.
R.J. Sheedy, B.Sc. (Hons.).
P.P. Stallybrass, B.App.Sc., D.M.T., A.A.I.M.T.
P.G. Swann, B.Sc. (Hons.), F.B.O.A.
N.A. Tingle, B.App.Sc., D.M.T., F.A.I.M.T.
B.J.M. Tuffley, M.Sc., M.A.C.E.
H.E. Waldron, A.Q.I.T. (Optm.).
Y.W. Webb, B.Sc., Dip.Nut.Diet.
- Support Staff:** D.W. Bloxham, Workshop Demonstrator Division II.
(Technician Division II and above) B. Fieldhouse, Technologist Division II.
J.L. Findlayson, Senior Technician Division I.
S.J. Gill, Laboratory Technician Division II.
M. Lal, Laboratory Technician Division II.
G.N. Rogers, Laboratory Technician Division II.
T.W. Sweatman, Workshop Demonstrator Division II.

The following rules relating to the Degree of Bachelor of Applied Science – Medical Technology are made subject to Clause No. II.1 of By-law No. 10.

BACHELOR OF APPLIED SCIENCE – MEDICAL TECHNOLOGY

1. To be eligible to enrol for Bachelor of Applied Science – Medical Technology, an applicant must either –
 - (a) achieve a minimum score of 80 semester points over 20 semester units; OR
 - (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary School Studies.

A minimum score of sixteen (16) semester points is required for each of the subjects English, Mathematics I, Physics and Chemistry. However, a score below the stipulated level of sixteen points may be accepted in any one subject, provided that the student gains in his total score one additional point for every point by which he falls below that level and also, that the absolute minimum for this subject be twelve (12) points.

2. Students who have sat for the Senior Examination –

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Physics, Chemistry and one other subject, gained at no more than two sittings of the Senior Examination within the five years previous to application for enrolment. A minimum grade of four (4) points is required for each subject.

(An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Physics and Chemistry, including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland school and students who have repeated Grade 12 studies in 1973 are included in this category. Such applications will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may enrol either as a day programme or evening programme student.

A day programme student is one who normally attends day classes associated with his study programme. He may, however, elect or be required to attend some evening classes.

An evening programme student is one who normally attends evening classes associated with his study programme. He may, however, elect or be required to attend some day classes.

5. For a registered student in a day programme, the subjects and other work of the three years of study are as follows:-

NORMAL COURSE PROGRAMME

(three year day programme)

Semester 1 – Summer		Hrs/wk
CHA110	Analytical Chemistry I	4
BEA105	Human Ecology	3
BEA101	Cell Biology	3
CHB132	Inorganic Chemistry I	1
MAA153	Mathematics I	4
CHB152	Organic Chemistry I	5
CHB172	Physical Chemistry I	5
PHB120	Physics IT	7
Semester 2 – Winter		
CHA210	Analytical Chemistry II	4
BEA109	Experimental Biology	6
CHB232	Inorganic Chemistry II	1
MAA154	Mathematics II	4
CHB252	Organic Chemistry II	5
CHB272	Physical Chemistry II	5
PHB121	Physics IIT	7
Semester 3 – Summer		
PSB413	Biological Chemistry III	6
PSB427	General Anatomy	6
CHB312	Analytical Chemistry III	1
PSB440	Laboratory Technology III	3
PSB450	Microbiology III	3
MAB157	Statistics A	2
CMB101	Professional Communication A	2
PSB446	Medical Technology III	8
Semester 4 – Winter		
PSB414	Biological Chemistry IV	6
PSB435	Human Physiology	8
CHB482	Physical and Inorganic Chemistry IV	1
PSB441	Laboratory Technology IV	3
PSB452	Microbiology IVA	3

	Hrs/wk
MAB158 Statistics B	2
CMB102 Professional Communication B	2
PSB447 Medical Technology IV	6

Semester 5 – Summer

PSB718 Clinical Biochemistry V	4
PSB725 Haematology	8
PSB737 Basic Immunology	4
PSB753 Microbiology V	7
PSB747 Medical Technology V	6
PSB790 Histotechnology	3

Semester 6 – Winter

PSB719 Clinical Biochemistry VI	4
PSB738 Clinical Immunology	4
PSB754 Microbiology VI	7
PSB748 Medical Technology VI	14
PSB791 Histochemistry	3

6. For a registered student in an evening programme, the subjects and other work of the six years of study are as follows:-

NORMAL COURSE PROGRAMME

(six years evening programme)

Semester 1 – Summer	Hrs/wk
CHA110 Analytical Chemistry I	3
MAA153 Mathematics I	3
PHB120 Physics IT	6

Semester 2 – Winter

CHA210 Analytical Chemistry II	3
MAA154 Mathematics II	3
PHB121 Physics IIT	6

Semester 3 – Summer

BEA109 Experimental Biology	5
CHB132 Inorganic Chemistry I	1
CHB152 Organic Chemistry I	3
CHB172 Physical Chemistry I	3

Semester 4 – Winter

BEA105 Human Ecology	2
BEA101 Cell Biology	3
CHB232 Inorganic Chemistry II	1
CHB252 Organic Chemistry II	3
CHB272 Physical Chemistry II	3

Semester 5 – Summer

PSB427 General Anatomy	6
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	Hrs/wk
PSB436 Human Physiology A	4
CMB101 Professional Communication A	1
Tutorial	1
 Semester 6 – Winter	
PSB413 Biological Chemistry III	6
PSB437 Human Physiology B	4
CMB101 Professional Communication A	1
Tutorial	1
 Semester 7 – Summer	
PSB414 Biological Chemistry IV	6
MAB157 Statistics A	2
CHB312 Analytical Chemistry III	1
PSB440 Laboratory Technology III	3
 Semester 8 – Winter	
MAB158 Statistics B	2
CHB482 Physical & Inorganic Chemistry IV	1
PSB441 Laboratory Technology IV	3
PSB451 Microbiology IV	6
 Semester 9 – Summer	
PSB718 Clinical Biochemistry V	4
PSB726 Haematology A	4
PSB790 Histotechnology	3
Project Work	
 Semester 10 – Winter	
PSB719 Clinical Biochemistry VI	4
PSB727 Haematology B	4
PSB791 Histochemistry	3
Project Work	
 Semester 11 – Summer	
PSB754 Microbiology VI	7
PSB737 Basic Immunology	4
Project Work	
 Semester 12 – Winter	
PSB753 Microbiology V	7
PSB738 Clinical Immunology	4
Project Work	

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
- written and/or oral tests;
 - general assignments;

laboratory exercises and reports;
projects, field testing, etc.

8. Students of the day programme or the evening programme gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a day or evening programme as set out in Rules 5 or 6 will be expected to enrol in the units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression.
10. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11, 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme-students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,

except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by day programme students should not exceed the number of hours allocated to the semester of the programme in Rule 5 and from which the majority of units have been selected.
12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by evening programme students are as specified in any one year in Rule 6.
13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.
14. When quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.

Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-

- (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
15. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
 16. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these rules.
 17. Before entering the fourth and subsequent years as defined in Rule 6, an evening programme student must be employed in an approved laboratory.
 18. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
 19. A student may under Rule 18 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the degree must satisfactorily complete the equivalent of at least an academic year of the day programme.

BACHELOR OF APPLIED SCIENCE – MEDICAL TECHNOLOGY

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
CHA210 Analytical Chemistry II	CHA110 Analytical Chemistry I	
CHB312 Analytical Chemistry III	CHB252 Organic Chemistry II CHB172 Physical Chemistry I	
PSB737 Basic Immunology	PSB414 Biological Chemistry IV PSB435 Human Physiology PSB452 Microbiology IVA	
PSB413 Biological Chemistry III	CHA210 Analytical Chemistry II BEA101 Cell Biology CHB232 Inorganic Chemistry II CHB252 Organic Chemistry II CHB172 Physical Chemistry I CHB272 Physical Chemistry II PHB120 Physics IT	
PSB414 Biological Chemistry IV	PSB413 Biological Chemistry III	
PSB718 Clinical Biochemistry V	PSB414 Biological Chemistry IV PSB441 Laboratory Technology IV PSB435 Human Physiology	
PSB719 Clinical Biochemistry VI	PSB718 Clinical Biochemistry V	
PSB738 Clinical Immunology	PSB737 Basic Immunology	
PSB427 General Anatomy		BEA101 Cell Biology
PSB725 Haematology	PSB414 Biological Chemistry IV PSB435 Human Physiology PSB441 Laboratory Technology IV PSB446 Medical Technology III PSB447 Medical Technology IV	

<i>Subject</i>		<i>Pre-requisite</i>	<i>Co-requisite</i>
PSB726	Haematology A	PSB414	Biological Chemistry IV
		PSB435	Human Physiology
		PSB441	Laboratory Technology IV
		PSB446	Medical Technology III
		PSB447	Medical Technology IV
PSB727	Haematology B	PSB726	Haematology A
PSB791	Histochemistry	PSB790	Histotechnology
PSB790	Histotechnology	PSB414	Biological Chemistry IV
PSB435	Human Physiology	PSB435	Human Physiology
		PSB427	General Anatomy
		CHB252	Organic Chemistry II
		CHB172	Physical Chemistry I
		CHB272	Physical Chemistry II
PSB436	Human Physiology A	PSB427	General Anatomy
		CHB252	Organic Chemistry II
		CHB172	Physical Chemistry I
		CHB272	Physical Chemistry II
		PSB436	Human Physiology A
PSB437	Human Physiology B	PSB436	Human Physiology A
CHB232	Inorganic Chemistry II	CHB132	Inorganic Chemistry I
PSB440	Laboratory Technology III	CHB232	Inorganic Chemistry II
		CHA210	Analytical Chemistry II
		CHB172	Physical Chemistry I
		CHB272	Physical Chemistry II
		PHB120	Physics IT
PSB441	Laboratory Technology IV	PHB121	Physics IIT
		PSB440	Laboratory Technology III
MAA154	Mathematics II	MAA153	Mathematics I
PSB446	Medical Technology III		
		PSB413	Biological Chemistry III
		PSB427	General Anatomy
		PSB440	Laboratory Technology III
		PSB450	Microbiology III

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PSB447 Medical Technology IV		PSB414 Biological Chemistry IV PSB435 Human Physiology PSB441 Laboratory Technology IV PSB452 Microbiology IVA
PSB747 Medical Technology V	PSB414 Biological Chemistry IV PSB435 Human Physiology PSB441 Laboratory Technology IV PSB447 Medical Technology IV PSB452 Microbiology IVA PSB747 Medical Technology V	
PSB748 Medical Technology VI		
PSB450 Microbiology III	BEA109 Experimental Biology OR PSA405 Biochemistry III	PSB413 Biological Chemistry III
PSB451 Microbiology IV	BEA109 Experimental Biology BEA101 Cell Biology	PSB414 Biological Chemistry IV
PSB452 Microbiology IVA	PSB450 Microbiology III	PSB414 Biological Chemistry IV
PSB753 Microbiology V	PSB452 Microbiology IVA OR PSB451 Microbiology IV AND PSB414 Biological Chemistry IV	
PSB754 Microbiology VI	PSB452 Microbiology IVA OR PSB451 Microbiology IV	
CHB252 Organic Chemistry II	CHB152 Organic Chemistry I	
CHB482 Physical and Inorganic Chemistry IV	CHB232 Inorganic Chemistry II CHB252 Organic Chemistry II CHB272 Physical Chemistry II	
MAB157 Statistics A	MAA154 Mathematics II	
MAB158 Statistics B	MAB157 Statistics A	

The following rules relating to the Associate Diploma in Optometry are made subject to Clause II.1 of By-law No. 10.

ASSOCIATE DIPLOMA IN OPTOMETRY

1. To be eligible to enrol for the Associate Diploma in Optometry, an applicant must either –
 - (a) achieve a minimum score of 80 semester points over 20 semester units; OR
 - (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary School Studies.

A minimum score of sixteen semester points is required for each of the subjects English, Mathematics I, Physics and Chemistry. However, a score below the stipulated level of sixteen points may be accepted in any one subject, provided that the student gains in his total score one additional point for every point by which he falls below that level and also, that the absolute minimum for this subject be twelve (12) points.

2. Students who have sat for the Senior Examination –

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Physics, Chemistry and one other subject gained at no more than two sittings of the Senior Examination within the five years previous to application for enrolment. A minimum grade of four (4) points is required for each subject. (An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Physics and Chemistry, including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland school and students who have repeated Grade 12 studies in 1973 are included in this category. Such applications will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may enrol **only** in a **day programme** and the subjects and other work of the **three years of study** are as follows:-

NORMAL COURSE PROGRAMME

(three year day programme)

	Hrs/wk
Semester 1 – Summer	
PHA140 Optics I	7
BEA101 Cell Biology	3
BEA105 Human Ecology	3
PSA129 General Psychology I	2
PSA167 Ophthalmic Dispensing I	9
CMB101 Professional Communication A	2
 Semester 2 – Winter	
PHA141 Optics II	7
BEA109 Experimental Biology	6
PSA130 General Psychology II	2
PSB427 General Anatomy	6
PSA168 Ophthalmic Dispensing II	3
CMB102 Professional Communication B	2
 Semester 3 – Summer	
PSB435 Human Physiology	8
PSA428 An Introduction to General Pathology	1
PSA468 Ophthalmic Dispensing III	3
PSA402 Applied Visual Science III	4
PSA419 Clinical Optometry III	6
PSA425 Fundamentals of Visual Science III	4
 Semester 4 – Winter	
PSA465 Ocular Anatomy and Physiology	4
PSA429 An Introduction to Special Pathology	1
PSA469 Ophthalmic Dispensing IV	3
PSA403 Applied Visual Science IV	6
PSA420 Clinical Optometry IV	10
PSA426 Fundamentals of Visual Science IV	2
 Semester 5 – Summer	
PSA703 Applied Visual Science V	4
PSA720 Clinical Optometry V	14
PSA723 Contact Lens Studies	4
PSA766 Ocular Pathology V	3
Assigned Optometry	3
 Semester 6 – Winter	
PSA704 Applied Visual Science VI	4
PSA721 Clinical Optometry VI	16
PSA767 Ocular Pathology VI	1
MNA072 Introduction to Business	2
Assigned Optometry	5

5. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
 - written and/or oral tests;
 - general assignments;
 - laboratory exercises;
 - project, field testing, etc.
6. Students gain credits for passed units and are required to repeat failed units only.
7. Students who pass all units in one semester as set out in Rule 4 will be expected to enrol in the units set out for the following semester of the programme. Timetables are organised on the basis of this normal progression.
8. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 9 and 10; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,

except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
9. Except with the approval of the Head of Department, the total of hours associated with units selected for study should not exceed the number of hours allocated to the semester of the programme in Rule 4 and from which the majority of the units have been selected.
10. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.
11. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rule 4, then he may be granted credit for that subject.
12. A student may under Rule 11 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the diploma must satisfactorily complete the equivalent

ASSOCIATE DIPLOMA IN OPTOMETRY

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PSA402 Applied Visual Science III	PSA130 General Psychology II	PSA425 Fundamentals of Visual Science III
		PSA419 Clinical Optometry III
		PSA468 Ophthalmic Dispensing III
PSA403 Applied Visual Science IV	PSA402 Applied Visual Science III	PSA426 Fundamentals of Visual Science IV
		PSA420 Clinical Optometry IV
		PSA469 Ophthalmic Dispensing IV
PSA703 Applied Visual Science V		PSA766 Ocular Pathology V
		PSA723 Contact Lens Studies
		PSA720 Clinical Optometry V
PSA704 Applied Visual Science VI	PSA703 Applied Visual Science V	PSA721 Clinical Optometry VI
		PSA767 Ocular Pathology VI
PSA419 Clinical Optometry III		PSA425 Fundamentals of Visual Science III
		PSA402 Applied Visual Science III
		PSA468 Ophthalmic Dispensing III
PSA420 Clinical Optometry IV	PSA419 Clinical Optometry III	PSA426 Fundamentals of Visual Science IV
		PSA403 Applied Visual Science IV
		PSA469 Ophthalmic Dispensing IV
PSA720 Clinical Optometry V	PSA420 Clinical Optometry IV	PSA766 Ocular Pathology V
		PSA723 Contact Lens Studies
PSA721 Clinical Optometry VI	PSA723 Contact Lens Studies	PSA704 Applied Visual Science IV
	PSA720 Clinical Optometry V	PSA767 Ocular Pathology VI
PSA723 Contact Lens Studies		PSA766 Ocular Pathology V
		PSA703 Applied Visual Science V
		PSA720 Clinical Optometry V

<i>Subject</i>		<i>Pre-requisite</i>		<i>Co-requisite</i>	
PSA425	Fundamentals of Visual Science III	PSA168	Ophthalmic Dispensing II		
		PSA141	Optics II		
		PSA130	General Psychology II		
PSA426	Fundamentals of Visual Science IV	PSA425	Fundamentals of Visual Science III		
PSB427	General Anatomy			BEA101	Cell Biology
PSA130	General Psychology II	PSA129	General Psychology I		
PSB435	Human Physiology	PSB427	General Anatomy		
PSA465	Ocular Anatomy and Physiology	PSB435	Human Physiology		
PSA766	Ocular Pathology V	PSA420	Clinical Optometry IV	PSA703	Applied Visual Science V
		PSA429	An Introduction to Special Pathology	PSA720	Clinical Optometry V
				PSA723	Contact Lens Studies
PSA767	Ocular Pathology VI	PSA766	Ocular Pathology V	PSA721	Clinical Optometry VI
				PSA704	Applied Visual Science VI
PSA168	Ophthalmic Dispensing II	PSA167	Ophthalmic Dispensing I	PHA140	Optics I
PSA468	Ophthalmic Dispensing III	PSA168	Ophthalmic Dispensing II	PSA419	Clinical Optometry III
		PHA141	Optics II		
PSA469	Ophthalmic Dispensing IV	PSA468	Ophthalmic Dispensing III	PSA420	Clinical Optometry IV
				PSA403	Applied Visual Science IV
PHA141	Optics II	PHA140	Optics I		

DEPARTMENT OF PHYSICS

- Acting Head of Department:** R.E. Dunlop, B.Sc. (Hons.), M.Sc. (Qld.), A.A.I.P.
- Senior Lecturers:** J.P. McGilvray, B.Sc. (Hons.), M.Sc. (Qld.), A.A.I.P.
H.C. Rose, B.Sc. (Hons.), M.Sc. (Man.), M.Inst.P.,
A.I.M.
- Lecturers:** B.M. Blyth, A.A.I.P.
J.A. Davies, B.Sc. (Hons.)(City, London), A.A.I.P.,
A.I.M.E.E.
I.R. Edmonds, B.Sc. (Hons.), M.Sc. (Auck.), Ph.D.
(Warwick).
H.D. Ellis, B.Sc. (Hons.), Ph.D. (Durham).
R.A. Fleming, B.Sc. (Hons.), M.Sc. (Qld.), A.A.I.P.
T.G. Lewis, B.Sc., B.Ed. (Qld.), A.A.I.P.
L.A. Meara, M.Sc., B.A., A.Ed. (Qld.), A.A.I.P.
W.C. Middleton, B.Sc. (Hons.), B.Ed. (Qld.),
A.A.I.P.
R.J. Norton, B.Sc. (Qld.).
B.M. O'Leary, B.Sc., Dip.Ed. (Sydney), M.Sc.
(Surrey), A.A.I.P.
R.J. Treffene, B.Sc. (Qld.), A.A.I.P.
J.F. Whiting, B.Sc., Dip.Ed. (Qld.), A.A.I.P.
C.F. Wong, Dip.Sc. (Hong Kong), M.Sc. (McGill),
Ph.D. (Saskatch.).
- Senior Tutors:** I.R. Cowling, B.Sc. (Hons.) (Flin.), Grad. A.I.P.
B.J. Rigby, B.Sc. (Hons.), Ph.D. (Qld.), Grad. A.I.P.
- Support Staff:** P.L.J.M. Fassin, Laboratory Technician Division II
(Technician Division II
and above) R.R. Galloway, Laboratory Technician Division II.
G.W. Kibbey, Laboratory Technician Division II.
A. Waller, Technologist Division I.
B. Wheeler, Laboratory Technician Division II.

The following rules relating to the Degree of Bachelor of Applied Science – Physics are made subject to Clause II.1 of By-law No. 10.

BACHELOR OF APPLIED SCIENCE – PHYSICS

1. To be eligible to enrol for Bachelor of Applied Science – Physics, an applicant must either –
 - (a) achieve a minimum score of 80 semester points over 20 semester units; OR
 - (b) satisfy the general level as indicated in the Tertiary Entrance Statement issued by the Board of Secondary School Studies.

A minimum score of sixteen semester points is required for each of the subjects English, Mathematics I, Physics and Chemistry. However, a score below the stipulated level of sixteen points may be accepted in any one subject, provided that the student gains in his total score one additional point by which he falls below that level and also, that the absolute minimum for this subject be twelve (12) points.

2. Students who have sat for the Senior Examination –

Normal Entry: An applicant must obtain a minimum score of twenty (20) points in English, Mathematics I, Physics, Chemistry and one other subject gained at no more than two sittings of the Senior Examination within the five years previous to application for enrolment. A minimum grade of four (4) points is required for each subject.

(An applicant who fulfils the prescribed entrance requirements entirely by part-time study will be allowed three sittings of the Senior Examination within the five years previous to application for enrolment, to do so.)

Adult Entry: An applicant must obtain a minimum score of sixteen (16) points in Senior English, Mathematics I, Physics and Chemistry including a minimum grade of four (4) points in each subject. All credits must be obtained after the applicant has reached the age of 21 years, according to the regulations regarding the number of sittings in the prescribed times as they apply to full-time or part-time students.

3. **Special Entry:**

Students who do not meet the requirements for normal entry may apply for special consideration. Students who have completed the equivalent of Grade 11 study before enrolling in a Queensland school and students who have repeated Grade 12 studies in 1973 are included in this category. Such applications will be considered by the Admissions Committee in terms of their overall academic performance and the requirements for individual courses.

4. A registered student may enrol either as a day programme or evening programme student.

A day programme student is one who normally attends day classes associated with his study programme. He may, however, elect or be required to attend some evening classes.

5. For a registered student in a **day programme** that subjects and other work of the **three years of study** are as follows:-

NORMAL COURSE PROGRAMME

(three year day programme)

Semester 1 – Summer	Hrs/wk
PHB101 Physics IS	4
PHB106 Experimental Physics I	3
CHA141 Chemistry I	7
CMB101 Professional Communication A	2
MAA159 Mathematics I	5
BEA105 Human Ecology OR)	
BEA101 Cell Biology OR)	
ESA113 Earth Science I OR)	7
an equivalent subject)	
Semester 2 – Winter	
PHB201 Physics IIS	4
PHB206 Experimental Physics II	3
CHA241 Chemistry II	7
CMB102 Professional Communication B	2
MAA160 Mathematics II	5
BEA109 Experimental Biology OR)	
ESA213 Earth Science II OR)	7
an equivalent subject)	
Semester 3 – Summer	
PHB301 Physics IIIA	3
PHB302 Physics IIIB	3
PHB306 Experimental Physics III	5
MAA459 Mathematics IIIP	6
MEA270 Workshop Technology	5
ESA311 Earth Science III OR)	
MAA305 Introduction to Computing A OR)	
BEA350 Principals of Ecology I OR)	4
any other suitable subject)	
Semester 4 – Winter	
PHB401 Physics IVA	3
PHB402 Physics IVB	3
PHB406 Experimental Physics IV	5
MAA157 Statistics	4
MAA460 Mathematics IVP	6
ESA411 Earth Science IV OR)	
MAA306 Introduction to Computing B OR)	
BEA450 Principles of Ecology II OR)	4
any other suitable subject)	

Semester 5 – Summer		Hrs/wk
PHB501	Physics VA	3
PHB502	Physics VB	3
PHB503	Physics VC	3
PHB504	Electronics	8
PHB506	Experimental Physics V	9
MAA759	Mathematics VP	2

Semester 6 – Winter

PHB601	Physics VIA	3
PHB602	Physics VIB	3
PHB603	Physics VIC	3
PHB606	Experimental Physics VI	9
	Two of the following:*	
PHB607	Materials	4
PHB608	Applied Acoustics	4
PHB609	Radiation Physics A	4
PHB610	Radiation Physics B	4
PHB611	Astronomy	4

or any other suitable subject.

*The topics offered will be determined by demand and staffing.

6. For a registered student in an evening programme the subjects and other work of the six years of study are as follows:-

NORMAL COURSE PROGRAMME

(six years evening programme)

Semester 1 – Summer		Hrs/wk
CHA141	Chemistry I	6
BEA109	Experimental Biology	6

Semester 2 – Winter

CHA241	Chemistry II	6
BEA105	Human Ecology	3
BEA101	Cell Biology	3

Semester 3 – Summer (1975)

PHB101	Physics IS	3
PHB106	Experimental Physics I	3
CMB101	Professional Communication A	1
MAA159	Mathematics I	5

Semester 4 – Winter (1975)

PHB201	Physics IIS	3
PHB206	Experimental Physics II	3
CMB101	Professional Communication A	1
MAA160	Mathematics II	5

The conduct of the fifth and subsequent semesters will depend on the number of enrolments received.

7. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
- written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.
8. Students of the day programme or the evening programme gain credits for passed units and are required to repeat failed units only.
9. Students who pass all units in one semester of a day or evening programme as set out in Rules 5 or 6 will be expected to enrol in the units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression.
10. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of programme provided that –
- (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 11, 12 and 13; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,
- except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
11. Except with the approval of the Head of Department, the total of hours associated with units selected for study by **day programme students** should not exceed the number of hours allocated to the semester of the programme in Rule 5 and from which the majority of units have been selected.
12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by **evening programme students** are as specified in any one year in Rule 6.
13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.

14. When quotas for units in the day programme have been filled with students who have enrolled for the first time, but quotas in units in the evening programme have not been filled, students repeating units will be enrolled for such units in the evening programme.

Where quotas for units in both programmes would be exceeded by acceptance of new applicants:-

- (i) normally, students applying to repeat one unit will have precedence over new applicants;
 - (ii) students applying to repeat two or more units may be excluded from those units at the discretion of the Head of School on the advice of the Head of Department.
15. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
16. Pre-requisite and co-requisite subjects are shown in a Schedule attached to these Rules.
17. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 5 and 6, then he may be granted credit for that subject.
18. A student may under Rule 17 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the degree must satisfactorily complete the equivalent of at least an academic year of the day programme.

BACHELOR OF APPLIED SCIENCE – PHYSICS

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PHB608 Applied Acoustics	PHB301 Physics IIIA	
	PHB302 Physics IIIB	
	PHB401 Physics IVA	
	PHB402 Physics IVB	
	PHB306 Experimental Physics III	
	PHB406 Experimental Physics IV	
PHB611 Astronomy	MAA460 Mathematics IVP	
	PHB301 Physics IIIA	
	PHB302 Physics IIIB	
	PHB401 Physics IVA	
	PHB402 Physics IVB	
	PHB306 Experimental Physics III	
CHA241 Chemistry II	PHB406 Experimental Physics IV	
	MAA460 Mathematics IVP	
PHB504 Electronics	CHA141 Chemistry I	
	PHB101 Physics IS	
	PHB201 Physics IIS	
	PHB106 Experimental Physics I	
	PHB206 Experimental Physics II	
	PHB301 Physics IIIA	
	PHB401 Physics IVA	
	PHB302 Physics IIIB	
	PHB402 Physics IVB	
	PHB106 Experimental Physics I	
PHB101 Physics IS	PHB101 Physics IS	
PHB206 Experimental Physics II	PHB201 Physics IIS	
PHB306 Experimental Physics III	PHB106 Experimental Physics I	
	PHB101 Physics IS	PHB301 Physics IIIA
	PHB201 Physics IIS	PHB302 Physics IIIB
	PHB206 Experimental Physics II	
PHB406 Experimental Physics IV	PHB106 Experimental Physics I	
	PHB101 Physics IS	PHB401 Physics IVA
	PHB201 Physics IIS	PHB402 Physics IVB
	PHB106 Experimental Physics I	
	PHB206 Experimental Physics II	
	PHB306 Experimental Physics III	

	<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PHB506	Experimental Physics V	PHB301 Physics IIIA PHB302 Physics IIIB PHB401 Physics IVA PHB402 Physics IVB PHB306 Experimental Physics III PHB406 Experimental Physics IV MAA460 Mathematics IVP	PHB501 Physics VA PHB502 Physics VB PHB503 Physics VC
PHB606	Experimental Physics VI	PHB506 Experimental Physics V	
PHB607	Materials	PHB301 Physics IIIA PHB302 Physics IIIB PHB401 Physics IVA PHB402 Physics IVB PHB306 Experimental Physics III PHB406 Experimental Physics IV MAA460 Mathematics IVP	
MAA160	Mathematics II	MAA159 Mathematics I	
MAA459	Mathematics IIIP	MAA159 Mathematics I MAA160 Mathematics II	
MAA460	Mathematics IVP	MAA459 Mathematics IIIP	
MAA759	Mathematics VP	MAA460 Mathematics IVP	
PHB101	Physics IS		PHB106 Experimental Physics I
PHB201	Physics IIS		PHB206 Experimental Physics II
PHB301	Physics IIIA	PHB101 Physics IS PHB201 Physics IIS PHB106 Experimental Physics I PHB206 Experimental Physics II MAA159 Mathematics I MAA160 Mathematics II	PHB306 Experimental Physics III
PHB302	Physics IIIB	PHB101 Physics IS PHB201 Physics IIS PHB106 Experimental Physics I PHB206 Experimental Physics II MAA159 Mathematics I MAA160 Mathematics II	PHB306 Experimental Physics III
PHB401	Physics IVA	PHB101 Physics IS PHB201 Physics IIS PHB106 Experimental Physics I PHB206 Experimental Physics II	PHB406 Experimental Physics IV

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PHB402 Physics IVB	PHB101 Physics IS	PHB406 Experimental Physics IV
	PHB201 Physics IIS	
	PHB106 Experimental Physics I	
	PHB206 Experimental Physics II	
	PHB301 Physics IIIA	
PHB501 Physics VA	PHB302 Physics IIIB	PHB506 Experimental Physics V
	PHB401 Physics IVA	
	PHB402 Physics IVB	
	PHB306 Experimental Physics III	
	PHB406 Experimental Physics IV	
	PHB460 Mathematics IVP	
PHB502 Physics VB	PHB301 Physics IIIA	PHB506 Experimental Physics V
	PHB302 Physics IIIB	
	PHB401 Physics IVA	
	PHB402 Physics IVB	
	PHB306 Experimental Physics III	
	PHB406 Experimental Physics IV	
PHB503 Physics VC	MAA460 Mathematics IVP	PHB506 Experimental Physics V
	PHB301 Physics IIIA	
	PHB302 Physics IIIB	
	PHB401 Physics IVA	
	PHB402 Physics IVB	
	PHB306 Experimental Physics III	
PHB601 Physics VIA	PHB406 Experimental Physics IV	PHB606 Experimental Physics VI
	MAA460 Mathematics IVP	
	PHB301 Physics IIIA	
	PHB302 Physics IIIB	
	PHB401 Physics IVA	
	PHB402 Physics IVB	
PHB602 Physics VIB	PHB306 Experimental Physics III	PHB606 Experimental Physics VI
	PHB406 Experimental Physics IV	
	MAA460 Mathematics IVP	
	PHB301 Physics IIIA	
	PHB302 Physics IIIB	
	PHB401 Physics IVA	
PHB402 Physics IVB		
PHB306 Experimental Physics III		
PHB406 Experimental Physics IV		
MAA460 Mathematics IVP		

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PHB603 Physics VIC	PHB301 Physics IIIA PHB302 Physics IIIB PHB401 Physics IVA PHB402 Physics IVB PHB306 Experimental Physics III PHB406 Experimental Physics IV MAA460 Mathematics IVP	PHB606 Experimental Physics VI
PHB609 Radiation Physics A	PHB301 Physics IIIA PHB302 Physics IIIB PHB401 Physics IVA PHB402 Physics IVB PHB406 Experimental Physics IV MAA460 Mathematics IVP PHB306 Experimental Physics III	
PHB610 Radiation Physics B	PHB301 Physics IIIA PHB302 Physics IIIB PHB401 Physics IVA PHB402 Physics IVB PHB406 Experimental Physics IV MAA460 Mathematics IVP	
MAA157 Statistics	MAA159 Mathematics I MAA160 Mathematics II	

The following rules relating to the Associate Diploma in Radiography are made subject to Clause II.1 of By-law No. 10.

ASSOCIATE DIPLOMA IN RADIOGRAPHY

1. To be eligible to enrol for courses leading to the Associate Diploma in Radiography an applicant must –
 - (a) acquire a minimum total score of 64 semester points over 16 semester units;
 - (b) a minimum score of sixteen (16) points must be acquired in each of Mathematics I and Physics, but a minimum score of twelve (12) semester points may be accepted in one (not both) of English or the other subject used.
2. Students who have sat for the Senior Examination –
An applicant must acquire a minimum total score of sixteen (16) points gained at no more than two sittings of the Senior Examination within the five years previous to the application for enrolment. A minimum grade of four (4) points is required in each of Mathematics I and Physics, but a minimum grade of three (3) points may be accepted in one (not both) of English or the other subject used.
3. Candidates for enrolment in these courses must be trainees who have been accepted for employment within an approved Department or Practice. Documentary evidence of such employment must accompany the application for registration and enrolment.
4. A registered student admitted under these Rules may elect to specialise in either of the Diagnostic or Therapeutic course.
5. A registered student may enrol for evening study but with some day release from his appropriate employment and the subjects and other work comprising the Diagnostic and Therapeutic courses are those listed in Rules 6 and 7.
6. For a registered student in the Diagnostic course, the subjects and other work are as follows:-

ASSOCIATE DIPLOMA IN DIAGNOSTIC RADIOGRAPHY

- NOTE: (i) The following structure represents the “normal” course of progression for students passing all units each semester.
- (ii) A proposed course of study must be approved, prior to enrolment for any semester, by the Head of Department or other nominated staff member.

Semester 1 – Summer

Hrs/wk

PHD101 Hospital Practice & Care of Patient

1

	Hrs/wk
PHD102 Physics for Radiographers I	3
PHD103 Radiographic Technique I	1
PSD401 Anatomy and Physiology I	4
Semester 2 – Winter	
PHD202 Physics for Radiographers II	3
PHD103 Radiographic Technique I	2
PSD402 Anatomy and Physiology II	4
Semester 3 – Summer	
PHD301 Radiographic Technique II	3
PHD302 Radiographic Equipment I	4
PHB303 Introduction to Pathology	2
Semester 4 – Winter	
PHD401 Radiographic Technique III	3
PHD402 Radiographic Equipment II	4
PHD404 Radiobiology & Protection	2
Semester 5 – Summer	
PHD501 Radiographic Technique IV	3
PHD502 Radiographic Equipment III	3
PHD503 Nuclear Medicine & Allied Techniques	1
PSA129 General Psychology I OR) 2
CMB101 Professional Communication A OR	
CMB102 Professional Communication B	
Semester 6 – Winter	
PHD601 Radiographic Technique V	3
PHD602 Radiographic Equipment IV	3
PHD503 Nuclear Medicine & Applied Techniques	1
PSA130 General Psychology II OR) 2
CMB101 Professional Communication A OR	
CMB102 Professional Communication B	

7. For a registered student in the Therapeutic course, the subjects and other work are as follows:-

ASSOCIATE DIPLOMA IN THERAPEUTIC RADIOGRAPHY

- NOTE: (i) The following structure represents the “normal” course progression for students passing all units each semester.
- (ii) A proposed course of study must be approved, prior to enrolment for any semester, by the Head of Department or other nominated staff member.

	Hrs/wk
Semester 1 – Summer	
PHD101 Hospital Practice & Care of Patient	1

	Hrs/wk
PHD102 Physics for Radiographers I	3
PHD105 Preliminary Radiotherapeutic Practice	1
PSD401 Anatomy & Physiology I	4
 Semester 2 – Winter	
PHD202 Physics for Radiographers II	3
PHD204 Principles of Pathology	2
PSD402 Anatomy & Physiology II	4
 Semester 3 – Summer	
PHD305 Principles of Treatment I	2
PHD306 Radiotherapeutic Physics I	3
PHD307 Radiotherapeutic Practice I	3
PHD308 Tumour Pathology	1
 Semester 4 – Winter	
PHD405 Principles of Treatment II	2
PHD406 Radiotherapeutic Physics II	3
PHD407 Radiotherapeutic Practice II	3
PHD308 Tumour Pathology	1
 Semester 5 – Summer	
PHD504 Radiotherapeutic Practice III	3
PHD505 Radioisotopes, Principles & Practice I	2
PHD506 Programming & Data Handling I	2
PSA129 General Psychology I OR)
CMB101 Professional Communication A OR)
CMB102 Professional Communication B	2
 Semester 6 – Winter	
PHD604 Radiotherapeutic Practice IV	3
PHD605 Radioisotopes, Principles & Practice II	2
PHD606 Programming & Data Handling II	2
PSA130 General Psychology II OR)
CMB101 Professional Communication A OR)
CMB102 Professional Communication B	2

8. The method of assessment to be used in the case of each subject will be determined by the Academic Board and may comprise one or more of –
 - written and/or oral tests;
 - general assignments;
 - laboratory exercises and reports;
 - projects, field testing, etc.
9. Students gain credits for passed units and are required to repeat failed units only.
10. Students who pass all units in one semester of a day or evening programme as set out in Rules 6 and 7 will be expected to enrol in the

units set out for the following semester of the relevant programme in those Rules. Timetables are organised on the basis of this normal progression.

11. Students who fail units shall be allowed to proceed with the study of some or all of the units from the next semester of the programme provided that –
 - (i) they have successfully completed all pre-requisite units and, where applicable, have also enrolled in the co-requisite units; and
 - (ii) the hours associated with the selected programme fall between the maximum and minimum hours defined in Rules 12, 13 and 14; and
 - (iii) the established timetable permits the selected units to be studied concurrently. When timetable clashes make it necessary, day programme students may be permitted or required to attend evening classes and evening programme students may be permitted or required to attend day classes,

except that, in certain circumstances, students who fail one unit which is a pre-requisite for a second unit may nevertheless be deemed eligible to enrol in the second unit, such eligibility being determined by the Head of the Department administering the subject.
12. Except with the approval of the Head of Department, the maximum number of hours allowable for study by day release students are as specified in any one semester in Rules 6 and 7.
13. Except with the approval of the Head of Department, the total hours associated with the units selected for study shall not be less than 50% of the number of hours allocated to the semester of the programme from which the majority of the units have been selected.
14. No formal supplementary examinations will be offered following the semester examinations. However, if an examiner considers such action justified, a student may be recalled for further informal assessment before the release of the examination results. This may take the form of oral questioning or a short written test, and may cover only the areas of the unit previously shown to be below standard. On the basis of this additional testing, a pass may be granted.
15. If a student before enrolling for the course has at this Institute or elsewhere passed in a subject which is considered by the Head of Department as being equivalent to a subject prescribed under Rules 6 and 7, then he may be granted credit for that subject.
16. A student may under Rule 15 be granted credit for any number of subjects prescribed in his course of study except that in all cases, students for the diploma must satisfactorily complete the equivalent of at least an academic year of the day programme.

ASSOCIATE DIPLOMA IN DIAGNOSTIC RADIOGRAPHY

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PSD402 Anatomy and Physiology II	PSD401 Anatomy and Physiology I	
PSA130 General Psychology II	PSA129 General Psychology I	
PHD402 Radiographic Equipment II	PHD202 Physics for Radiographers II	
	PHD302 Radiographic Equipment I	
PHD502 Radiographic Equipment III	PHD402 Radiographic Equipment II	
PHD602 Radiographic Equipment IV	PHD402 Radiographic Equipment II	
PHD501 Radiographic Technique IV	PHD301 Radiographic Technique II	
	PHD401 Radiographic Technique III	
PHD601 Radiographic Technique V	PHD301 Radiographic Technique II	
	PHD401 Radiographic Technique III	

ASSOCIATE DIPLOMA IN THERAPEUTIC RADIOGRAPHY

<i>Subject</i>	<i>Pre-requisite</i>	<i>Co-requisite</i>
PSD402 Anatomy and Physiology II	PSD401 Anatomy and Physiology I	
PHD405 Principles of Treatment II	PHD305 Principles of Treatment I	
PHD505 Radioisotopes, Principles and Practice I	PHD307 Radiotherapeutic Practice I PHD407 Radiotherapeutic Practice II	
PHD605 Radioisotopes, Principles and Practice II	PHD307 Radiotherapeutic Practice I PHD407 Radiotherapeutic Practice II	
PHD306 Radiotherapeutic Physics I	PHD202 Physics for Radiographers II	
PHD406 Radiotherapeutic Physics II	PHD202 Physics for Radiographers II PHD306 Radiotherapeutic Physics I	
PHD307 Radiotherapeutic Practice I	PHD305 Principles of Treatment I PHD306 Radiotherapeutic Physics I	
PHD407 Radiotherapeutic Practice II	PHD305 Principles of Treatment I PHD306 Radiotherapeutic Physics I	
PSA130 General Psychology II	PSA129 General Psychology I	

CHANGES IN SUBJECT TITLES

1973	1974
ACB111 Accounting Information Systems	ACS111 Accounting Information Systems A
	ACS211 Accounting Information Systems B
MAA909 Algebraic Structures with Applications	MAA910 Algebraic Structures with Applications
MAA901 Analysis	MAA902 Analysis
CHA101 Analytical Chemistry I	CHA110 Analytical Chemistry I
	CHA210 Analytical Chemistry II
CHC102 Analytical Chemistry I	CHC110 Analytical Chemistry I
	CHC210 Analytical Chemistry II
CHA401 Analytical Chemistry II	CHA310 Analytical Chemistry III
	CHA410 Analytical Chemistry IV
CHC404 Analytical Chemistry II	CHC310 Analytical Chemistry III
	CHC410 Analytical Chemistry IV
CHA700 Analytical Chemistry III	CHA510 Analytical Chemistry V
	CHA610 Analytical Chemistry VI
CHA701 Analytical Chemistry IIIA	CHA510 Analytical Chemistry V
CHA702 Analytical Chemistry IIIB	CHA610 Analytical Chemistry VI
PSD401 Anatomy & Physiology	PSD401 Anatomy & Physiology I
	PSD402 Anatomy & Physiology II
MAA609 Applied Linear Algebra	MAA610 Applied Linear Algebra
MAB357 Applied Statistical Methods	MAB357 Applied Statistical Methods A
	MAB358 Applied Statistical Methods B
PSA402 Applied Visual Science I	PSA402 Applied Visual Science III
	PSA403 Applied Visual Science IV
PSA703 Applied Visual Science II	PSA703 Applied Visual Science V
	PSA704 Applied Visual Science VI
MAB355 Basic Mathematics	MAB355 Basic Mathematics A
	MAB356 Basic Mathematics B
PSA405 Biochemistry	PSA405 Biochemistry III
	PSA406 Biochemistry IVA
PSC406 Biochemistry	PSC406 Biochemistry V
	PSC407 Biochemistry VI
PSA413 Biological Chemistry	PSB413 Biological Chemistry III
	PSB414 Biological Chemistry IV
PSA414 Biological Chemistry	PSA405 Biochemistry III
	PSA407 Biochemistry IVB
CHC450 Biological Chemistry	CHC351 Biological Chemistry III
	CHC451 Biological Chemistry IV
PSA414 Biological Chemistry A (<i>A.D.I.S. - Biol.</i>)	PSA405 Biochemistry III
PSA414 Biological Chemistry A (<i>B.App.Sc. - Med.Tech.</i>)	PSA407 Biochemistry IVB
PSA415 Biological Chemistry B	PSB413 Biological Chemistry III
BEC419 Biological Instrumentation	PSB414 Biological Chemistry IV
	PSC410 Biological Instrumentation III
	PSC411 Biological Instrumentation IV
BEC691 Biological Techniques B	PSC601 Histological Techniques V
	BEC621 Histological Techniques VI

CHANGES IN SUBJECT TITLES (Continued)

1973	1974
BEC692 Biological Techniques C	BEC590 Biological Techniques V
BEA102 Biology	BEC690 Biological Techniques VI
BEC101 Biology	BEA100 Biology
	BEC100 Biology I
BEC302 Biology	BEC200 Biology II
	BEC302 Biology III
	BEC402 Biology IV
BEA101 Biology I	BEA105 Human Ecology
	BEA101 Cell Biology
	BEA109 Experimental Biology
BEA401 Biology II	BEA321 Plant Physiology
	BEA322 Plant Diversity
	BEA390 Field Methodology I
	BEA490 Field Methodology II
	BEA411 Animal Physiology
	BEA412 Animal Diversity
BEA401 Biology II (Part)	BEA331 Classic & Applied Genetics
BEA701 Biology III & Ecology	BEA535 Population Genetics
	BEA553 Population Dynamics
	BEA590 Experimental Projects
	BEA500 Selected Topics in Biology
	BEA529 Vegetation Mapping
	BEA651 Ecosystems
	BEA656 Biosphere & Conservation
	BEA659 Productivity & Trophic Levels
MAA301 Calculus & Analysis	MAA301 Calculus & Analysis A
	MAA302 Calculus & Analysis B
PHC450 Certificate Physics	PHC451 Certificate Physics I
	PHC452 Certificate Physics II
CHA720 Chemical Technology III	CHA520 Chemical Technology V
	CHA620 Chemical Technology VI
CHA721 Chemical Technology IIIA	CHA520 Chemical Technology V
CHA722 Chemical Technology IIIB	CHA620 Chemical Technology VI
CHA190 Chemistry I	CHA141 Chemistry I
	CHA241 Chemistry II
CHA490 Chemistry II	CHA341 Chemistry III
	CHA441 Chemistry IV
CHA705 Chemistry III	CHA541 Chemistry V
	CHA641 Chemistry VI
PSA718 Clinical Biochemistry	PSB718 Clinical Biochemistry V
	PSB719 Clinical Biochemistry VI
PSA419 Clinical Optometry I	PSA419 Clinical Optometry III
	PSA420 Clinical Optometry IV
PSA720 Clinical Optometry II	PSA720 Clinical Optometry V
	PSA721 Clinical Optometry VI
MAA603 Complex Variables	MAA903 Complex Variables
MAA605 Computers & Programming	MAA606 Computers & Programming

CHANGES IN SUBJECT TITLES (Continued)

1973	1974
MAA617 Differential Equations	MAA617 Applied Differential Equations
ESA101 Earth Science I	ESA113 Earth Science I
ESA110 Earth Science IA	ESA213 Earth Science II
ESA413 Earth Science IB	ESA311 Earth Science III
ESA716 Economic Geology	ESA411 Earth Science IV
PHA711 Electronics	ESA511 Earth Science V
LSC101 English	ESA611 Earth Science VI
LSA103 English Expression	ESA510 Economic Geology V
LSB101 English Expression I	ESA610 Economic Geology VI
LSB102 English Expression II	PHB504 Electronics
PHA104 Experimental Physics I	CMC124 Technical Writing I
PHA404 Experimental Physics II	CMC125 Technical Speaking I
PHA704 Experimental Physics III	CMB101 Professional Communication A
MAA937 Fluid Dynamics	CMB102 Professional Communication B
PSA425 Fundamental Visual Science	CMB101 Professional Communication A
PSA428 General Pathology	CMB102 Professional Communication B
PSA129 General Psychology	PHB106 Experimental Physics I
ESA128 Geology	PHB206 Experimental Physics II
ESC131 Geology	PHB306 Experimental Physics III
PSA722 Haematology (F/T)	PHB406 Experimental Physics IV
PSA722 Haematology (P/T)	PHB506 Experimental Physics V
PSA790 Histotechnology	PHB606 Experimental Physics VI
PSA435 Human Physiology (F/T)	MAA938 Fluid Dynamics
PSA435 Human Physiology (P/T)	PSA425 Fundamental Visual Science III
PSA737 Immunology	PSA426 Fundamental Visual Science IV
MNB410 Information Systems I	PSA428 An Introduction to General Pathology
MNB710 Information Systems II	PSA429 An Introduction to Special Pathology
	PSA129 General Psychology I
	PSA130 General Psychology II
	ESA210 Geology
	ESC310 Geology
	ESC410 Geology
	PSB725 Haematology
	PSB726 Haematology A
	PSB727 Haematology B
	PSB790 Histotechnology
	PSB791 Histochemistry
	PSB435 Human Physiology
	PSB436 Human Physiology A
	PSB437 Human Physiology B
	PSB737 Basic Immunology
	PSB738 Clinical Immunology
	MNB304 Information Systems I
	MNB404 Information Systems II
	MNB541 Information Systems IIIB
	MNB641 Information Systems IVB

CHANGES IN SUBJECT TITLES (Continued)

1973	1974
CHC130 Inorganic Chemistry	CHC130 Inorganic Chemistry I
CHA132 Inorganic Chemistry I (<i>B.App.Sc. - Applied Chemistry</i>)	CHC230 Inorganic Chemistry II
CHA132 Inorganic Chemistry I (<i>B.App.Sc. - Med.Tech.</i>)	CHA130 Inorganic Chemistry I
CHA432 Inorganic Chemistry II	CHB132 Inorganic Chemistry I
CHA435 Inorganic Chemistry II (Part) (<i>A.D.I.S. - Biol.</i>)	CHB232 Inorganic Chemistry II
CHA435 Inorganic Chemistry II (<i>B.App.Sc. - Med.Tech.</i>)	CHA330 Inorganic Chemistry III
CHA730 Inorganic Chemistry III	CHA430 Inorganic Chemistry IV
CHA731 Inorganic Chemistry IIIA	CHB482 Physical & Inorganic Chemistry IV
CHA732 Inorganic Chemistry IIIB	CHB312 Analytical Chemistry III
MAA305 Introduction to Computing	CHB482 Physical & Inorganic Chemistry IV
MAB351 Introduction to Computing	CHA530 Inorganic Chemistry V
MNA424 Introduction to Business	CHA630 Inorganic Chemistry VI
PSA440 Laboratory Technology	CHA530 Inorganic Chemistry V
BEA321 Local Biology	CHA630 Inorganic Chemistry VI
MNB712 Management	MAA305 Introduction to Computing A
MNB711 Marketing	MAA306 Introduction to Computing B
MAA307 Mathematical Statistics I	MAB351 Introduction to Computing A
MAA607 Mathematical Statistics II	MAB352 Introduction to Computing B
MAA907 Mathematical Statistics III	MNA041 Introduction to Business
MAA908 Mathematical Statistics IV	PSB440 Laboratory Technology III
MAA159 Mathematics I	PSB441 Laboratory Technology IV
MAC151 Mathematics Ii	BEA350 Principles of Ecology I
MAA151 Mathematics IA	BEA450 Principles of Ecology II
MAA153 Mathematics IA	MNB081 Management
MAA155 Mathematics IB	MNB091 Marketing
MAA451 Mathematics II	MAA308 Mathematical Statistics I
MAA459 Mathematics IIP	MAA607 Mathematical Statistics IIA
MAA455 Mathematics II (Statistics)	MAA608 Mathematical Statistics IIB
MAA759 Mathematics IIIP	MAA907 Mathematical Statistics IIIA
	MAA908 Mathematical Statistics IIIB
	MAA159 Mathematics I
	MAA160 Mathematics II
	MAC152 Mathematics IB
	MAC151 Mathematics IA
	MAA151 Mathematics I
	MAA153 Mathematics I
	MAA154 Mathematics II
	MAA155 Mathematics II
	MAA451 Mathematics III
	MAA452 Mathematics IV
	MAA459 Mathematics IIIP
	MAA460 Mathematics IVP
	MAA455 Mathematics III
	MAA456 Mathematics IV
	MAA759 Mathematics VP

CHANGES IN SUBJECT TITLES (Continued)

1973	1974
MAC451 Mathematics & Statistics	MAC452 Mathematics IIB
PSA747 Medical Laboratory Technology II	MAC451 Mathematics IIA
PSA446 Medical Technology I	PSB747 Medical Technology V
MAA921 Methods of Mathematical Physics I	PSB748 Medical Technology VI
MAA922 Methods of Mathematical Physics II	PSB446 Microbiology III
PSA750 Microbiology	PSB447 Microbiology IV
PSC451 Microbiology	MAA921 Methods of Mathematical Physics A
PSA452 Microbiology I (<i>B.App.Sc. - Med.Tech. - F/T</i>)	MAA922 Methods of Mathematical Physics B
PSA452 Microbiology I (<i>A.D.I.S. - Biol.</i>)	PSB450 Microbiology III
PSA452 Microbiology I (<i>B.App.Sc. - Med.Tech. - P/T</i>)	PSB453 Microbiology IVB
PSA753 Microbiology II)	PSC451 Microbiology III
PSA775 Parasitology)	PSC452 Microbiology IV
ESA434 Mineralogy	PSB450 Microbiology III
ESC437 Mineralogy	PSB452 Microbiology IVA
MAA309 Modern & Linear Algebra	PSB450 Microbiology III
MAA601 Multivariable Calculus IA	PSB454 Microbiology IVC
MAA602 Multivariable Calculus IB	PSB451 Microbiology IV
MAA611 Multivariable Calculus Part II	PSB753 Microbiology V
MAA613 Numerical Analysis I	PSB754 Microbiology VI
MAB655 Numerical Analysis I	ESA310 Mineralogy III
PSA766 Ocular Pathology	ESA410 Mineralogy IV
MAA627 Operations Research I	ESC510 Mineralogy V
MAB657 Operations Research I	ESC610 Mineralogy VI
MAB957 Operations Research II	MAA309 Modern Algebra
PSA167 Ophthalmic Dispensing I	MAA310 Linear Algebra
PSA468 Ophthalmic Dispensing II	MAA601 Multivariable Calculus A
	MAA602 Multivariable Calculus C
	MAA611 Multivariable Calculus B
	MAA613 Numerical Analysis IA
	MAA614 Numerical Analysis IB
	MAB655 Numerical Analysis IA
	MAB656 Numerical Analysis IB
	PSA766 Ocular Pathology V
	PSA767 Ocular Pathology VI
	MAA627 Operations Research IA
	MAA628 Operations Research IB
	MAB657 Operations Research IA
	MAB658 Operations Research IB
	MAB957 Operations Research IIA
	MAB958 Operations Research IIB
	PSA167 Ophthalmic Dispensing I
	PSA168 Ophthalmic Dispensing II
	PSA468 Ophthalmic Dispensing III
	PSA469 Ophthalmic Dispensing IV

CHANGES IN SUBJECT TITLES (Continued)

1973	1974
CHA150 Organic Chemistry I	CHA150 Organic Chemistry I
CHA155 Organic Chemistry I	CHA250 Organic Chemistry II
CHC154 Organic Chemistry I (<i>C.I.C.</i>)	CHB152 Organic Chemistry I
CHC154 Organic Chemistry I (<i>C.B.L.T.</i>)	CHB252 Organic Chemistry II
CHA151 Organic Chemistry IA	CHC150 Organic Chemistry I
CHA156 Organic Chemistry IA	CHC250 Organic Chemistry II
CHA152 Organic Chemistry IB	CHC151 Organic Chemistry I
CHA157 Organic Chemistry IB	CHC251 Organic Chemistry II
CHA450 Organic Chemistry II	CHA150 Organic Chemistry I
CHC458 Organic Chemistry II	CHB152 Organic Chemistry I
CHA451 Organic Chemistry IIA	CHA250 Organic Chemistry II
CHA452 Organic Chemistry IIB	CHB252 Organic Chemistry II
CHA750 Organic Chemistry III	CHA350 Organic Chemistry III
CHC762 Organic Chemistry III	CHA450 Organic Chemistry IV
CHA751 Organic Chemistry IIIA	CHC450 Organic Chemistry IV
CHA752 Organic Chemistry IIIB	CHC350 Organic Chemistry III
PSA775 Parasitology)	CHA350 Organic Chemistry III
PSA753 Microbiology II)	CHA450 Organic Chemistry IV
CHA175 Physical Chemistry	CHA550 Organic Chemistry V
CHA170 Physical Chemistry I	CHA650 Organic Chemistry VI
CHC170 Physical Chemistry I	CHC550 Organic Chemistry V
CHA171 Physical Chemistry IA	CHC650 Organic Chemistry VI
CHA176 Physical Chemistry IA	CHA550 Organic Chemistry V
CHA172 Physical Chemistry IB	CHA650 Organic Chemistry VI
CHA177 Physical Chemistry IB	PSB753 Microbiology V
CHA270 Physical Chemistry II	PSB754 Microbiology VI
CHA471 Physical Chemistry IIA	CHB172 Physical Chemistry I
CHA472 Physical Chemistry IIB	CHB272 Physical Chemistry II
CHA771 Physical Chemistry IIIA	CHA170 Physical Chemistry I
CHA772 Physical Chemistry IIIB	CHA270 Physical Chemistry II
CHC483 Physical & Inorganic Chemistry II	CHC270 Physical Chemistry II
	CHC170 Physical Chemistry I
	CHA170 Physical Chemistry I
	CHB172 Physical Chemistry I
	CHA270 Physical Chemistry II
	CHB172 Physical Chemistry II
	CHA370 Physical Chemistry III
	CHA470 Physical Chemistry IV
	CHA370 Physical Chemistry III
	CHA470 Physical Chemistry IV
	CHA570 Physical Chemistry V
	CHA670 Physical Chemistry VI
	CHC480 Physical & Inorganic Chemistry IV
	CHC380 Physical & Inorganic Chemistry III

CHANGES IN SUBJECT TITLES (Continued)

1973	1974
CHC784 Physical & Inorganic Chemistry III	CHC580 Physical & Inorganic Chemistry V
	CHC680 Physical & Inorganic Chemistry VI
PHA120 Physics IB	PHB120 Physics IT
PHA121 Physics IC	PHB121 Physics IIT
PHA122 Physics ID	PHB120 Physics IT
PHA101 Physics IS	PHB121 Physics IIT
	PHB101 Physics IS
PHA401 Physics IIA	PHB201 Physics IIS
	PHB301 Physics IIIA
PHA402 Physics IIB	PHB401 Physics IVA
	PHB302 Physics IIIB
PHA405 Physics IIC	PHB402 Physics IVB
	PHA303 Physics IIIC
PHA701 Physics IIIA	PHA403 Physics IVC
	PHB501 Physics VA
PHA702 Physics IIIB	PHB601 Physics VIA
	PHB502 Physics VB
PHA703 Physics IIIC	PHB602 Physics VIB
	PHB503 Physics VC
PHD102 Physics for Radiographers	PHB603 Physics VIC
	PHD102 Physics for Radiographers I
PSC430 Physiology	PHD202 Physics for Radiographers II
	PSC430 Physiology III
PHD104 Principles of Pathology	PSC431 Physiology IV
PHA710 Radiation Physics	PHD204 Principles of Pathology
	PHB609 Radiation Physics A
PHD103 Radiographic Technique A	PHB610 Radiation Physics B
MAA157 Statistics	PHD103 Radiographic Technique I
(<i>B.App.Sc. - Med.Tech.</i>)	MAB157 Statistics A
MAB951 Systems Programming	MAB158 Statistics B
	MAB951 Systems Programming A
MAA925 Topics in Mathematics	MAB952 Systems Programming B
	MAA626 Topics in Mathematics I
	MAA925 Topics in Mathematics IIA
	MAA926 Topics in Mathematics IIB

ACB111 Accounting Information Systems I

A course containing an introduction to accounting concepts, ledger accounts and the double entry system, the accounting cycle. Accounting for cash, debtors and creditors, stocks, fixed assets, revenue and expenses.

ACB211 Accounting Information Systems II

A continuation of ACS111 covering accounting for ownership, departmental and branch accounts, holding companies and group accounts, managerial accounting, cost estimation, cost-volume-profit decisions, business investment decisions and capital budgeting.

ESA583 Administration for Geologists

Organisation and management; mineral industries studies, company structure.

MAA910 Algebraic Structures with Applications

Boolean algebra; sets and functions; monoids; groups; rings and ideals; commutative rings; polynomial rings over integral domains and over fields; finite fields; modules.

MAA902 Analysis

Measure and integration, Riemann-Stieltjes, Lebesgue-Stieltjes and Lebesgue integrals; differentiation and integration as inverse processes; product measure for plane sets, functional analysis; metric and topological spaces; the contraction mapping principle; Hilbert space; self adjoint operators.

CHA110 Analytical Chemistry I

A course in the basic theoretical and practical principles of chemical analysis, including semimicro qualitative analysis, and titrimetric analysis, leading to the determination of simple substances.

CHC110 Analytical Chemistry I

A course in the basic principles of qualitative analysis, including group analysis and dry tests.

CHA210 Analytical Chemistry II

A continuing course in the theoretical and practical principles of analytical chemistry, including further titrimetric analysis and gravimetric analysis, leading to determination of simple substances.

CHC210 Analytical Chemistry II

A course in the basic principles of the theory and practice of titrimetric and gravimetric analysis.

CHA310 Analytical Chemistry III

A continuing course in the theoretical and practical principles of classical analytical methods using gravimetric, titrimetric and UV-visible spectrophotometric techniques, leading to the analysis of more complex molecules.

SYNOPSES (Continued)

CHB312 Analytical Chemistry III

Biochemical relevance of pH. Instrumental analytical techniques used in the pathology laboratory.

CHC310 Analytical Chemistry III

A course giving further practice in qualitative analysis (including semimicro qualitative analysis), volumetric analysis and gravimetric analysis. Includes analysis of ores, alloys and limestones.

CHA410 Analytical Chemistry IV

A course in the theoretical and practical principles of analytical methods of chromatography (including gas chromatography) and solvent extraction; a study of organic analytical reagents.

CHC410 Analytical Chemistry IV

A continuing course giving further practice in the techniques of volumetric and gravimetric analysis and an introduction to industrial analytical techniques.

CHA510 Analytical Chemistry V

A course in modern methods of chemical analysis covering flame, x-ray and electrical excitation spectroscopy; UV-visible spectrophotometry and infrared spectrophotometry; fluorimetry; light scattering methods; thermal analysis and electroanalytical techniques. The laboratory program includes the application of modern methods to the analysis of complex materials and commercial products.

CHA610 Analytical Chemistry VI

A course in the principles and techniques of nuclear and radiochemistry; NMR, NQR, ESR, ORD and fluorescence spectroscopy; an introduction to the applications of computers to chemistry. Air pollution detection and control.

PSD401 Anatomy & Physiology I

An elementary unit in which the structure and function of cells, tissues, organs and systems are discussed.

PSD402 Anatomy & Physiology II

The elaboration and integration of the structure and function of the organs and functions studied in PSD401.

BEA412 Animal Diversity

The range and form of animal types and their classification, the functional anatomy and diversity of organ systems and developmental and evolutionary aspects of animal diversity are covered.

BEA411 Animal Physiology

Emphasis is placed on basic processes of adaptation with an experimental approach to animal function. Such processes include thermal regulation,

SYNOPSSES (Continued)**BEA411 Animal Physiology (Continued)**

preservation of ionic and osmotic balance, migration, hibernation, perception, learning, growth and repair.

PSA428 An Introduction to General Pathology

A course introducing the principles of the study of disease and dealing with the causes and nature of circulatory disorders, degenerative processes, metabolic and nutritional disorders, disturbances of development and growth, inflammation, infections and infestations, regeneration and repair, and neoplasma.

PSA429 An Introduction to Special Pathology

A course introducing the applications of general pathology to the study of diseases of the heart and circulatory system, digestive system, respiratory system, urogenital system, endocrine system, and the central nervous system.

PHB608 Applied Acoustics

A course of 15 lectures and associated practical work. Standards, principles of methods and instrumentation used in vibration, noise and sound measurements with emphasis upon architectural acoustics and traffic, industrial and community noise. Brief treatment of underwater acoustics and recording and reproduction of sound. Legal and technical aspects of professional practice.

MAA617 Applied Differential Equations

Ordinary differential equations, geometric interpretations, exact equations, variables separable, linear and homogeneous types; second and higher order equations, D operator techniques, singularities, Frobenius' series solution; Sturm-Liouville systems; Laplace transform methods; systems of linear equations; partial differential equations, classification of elliptic, parabolic and hyperbolic types, separation of variables, heat, wave and telegraph equations.

MAA934 Applied Electromagnetism

Maxwells equations; waveguide structures; antenna theory.

MAA610 Applied Linear Algebra

Finite dimensional vector spaces, bases, subspaces, linear mappings, rank; polynomials, roots, polynomials in several variables, characteristic equation of a matrix; Hermitian matrices; Unitary matrices, similarity transforms, eigenvalues and eigenvectors, canonical forms; quadratic forms, positive definite forms, reduction to canonical forms; Euclidean and unitary spaces, Cauchy-Schwartz inequality, Gram-Schmidt orthogonalisation process, orthonormal bases; functions of matrices, matrix and vector norms.

MAB357 Applied Statistical Methods A

Introduction to the theory of probability and probability distributions. Collection and representation of data; parameters and statistics. Elementary treatment of sampling theory leading to the Normal, t , F and X^2 sampling distributions. Statistical estimation and tests of hypotheses based on the Normal t , F and X^2 distributions.

MAB 358 Applied Statistical Methods B

Introduction to non-parametric tests of hypotheses. Simple and multiple linear regression. Correlation. Fundamentals of experimental design and the analysis of variance.

PSA 402 Applied Visual Science III

The investigation of vision, relative and absolute. The objective determination of visual states, including retinoscopy, heratometry, bio-microscopy and ophthalmoscopy. The combination of natural vision and designed optical appliances.

PSA 403 Applied Visual Science IV

A full treatment of visual states, including objective and subjective symptomatology. Eye strain and visual hygiene. The course is especially designed to equip students with necessary theory to undertake evaluation of live subjects in PSA 420.

PSA 703 Applied Visual Science V

The extensity and intensity of the visual field. The physiological field and variations of it. The state and requirements of binocular vision. Binocular vision anomalies. The colour sense, its attributes, and qualities. The anomalies of colour vision.

PSA 704 Applied Visual Science VI

Public health optometry, including all aspects wherein vision plays a part. The elements of illumination engineering. Vision in Industry. Subnormal vision. The partially-sighted person. Forensic Optometry.

PHB 611 Astronomy

A course of 15 lectures and associated practical work on the fundamentals of astronomy.

PSB 737 Basic Immunology

A study of the mechanisms of the immune process including the nature of antigens, antibodies, antigen-antibody reactions, antibody formation, control of the humoral and cell-mediated immune responses, hypersensitivity and allergy and immunisation of man against infections.

MAB 355 Basic Mathematics A

An introductory course in mathematics providing the necessary mathematical basis for computing and covering vector spaces, matrices and eigenvalues and eigenvectors.

MAB 356 Basic Mathematics B

A continuation of MAB 355 covering the topics complex numbers, functions of a real variable and cartesian and polar co-ordinates.

SYNOPSIS (Continued)

PSA405 Biochemistry III

An introductory course for biologists and industrial chemists, dealing with the chemistry and properties of biological molecules. Emphasis is placed on correlating chemical structure with biological activity, so the basic aim of the course is to teach students to predict logically the behaviour of biochemical systems. Topics covered include amino acids, proteins, enzymes, coenzymes, carbohydrates and lipids.

PSA406 Biochemistry IVA

This course deals with the production and utilisation of energy in living organisms and the metabolic interrelationships of the compounds encountered in PSA405. Topics of particular interest to industrial chemists (e.g. tanning, insecticides) are discussed and the practical work includes inspection tours of selected industries.

PSA407 Biochemistry IVB

This course is an extension of PSA405 for biology students. Topics discussed include bioenergetics, carbohydrate and lipid metabolism, chemistry and function of nucleic acids, photosynthesis and protein biosynthesis.

PSC406 Biochemistry V

A study of the chemistry of living processes. The practical work is designed to illustrate the lectures and includes study of enzymic behaviour and metabolism. Topics covered include aspects of protein function, carbohydrate and lipid metabolism.

PSC407 Biochemistry VI

An extension of the course PSC406. Practical work includes methods and techniques of biochemistry in biological fields. Topics covered include photosynthesis, integration and control of metabolism and protein synthesis.

CHC351 Biological Chemistry III

An introduction to the structure and shape of complex organic molecules of biological importance. This includes topics such as chain and ring forms of molecules; rotation; D and L terminology; structural, geometrical, optical isomerism. Carbohydrates: structure, shape, chemistry and uses of selected monosaccharides, disaccharides and polysaccharides.

A 45 hour laboratory programme complements the above theory course.

PSB413 Biological Chemistry III

A course designed for medical technologists as an introduction to a study of biological molecules and biological transformations at the molecular level with particular emphasis on cell structure and function, the chemistry of proteins, enzymology, energy production and utilization, the chemistry of carbohydrates and basic carbohydrate metabolism.

SYNOPSIS (Continued)

CHC451 Biological Chemistry IV

Structure, shape, chemistry and functions of triglycerides, phospholipids, steroids, terpenes and plant pigments. The structure, shape, chemistry and properties of amino acids, peptides and proteins. Biochemical basis of genetics, including the shape, structure and chemistry of nucleic acids, and their role in protein biosynthesis.

A 45 hour laboratory programme complements the above theory course.

PSB414 Biological Chemistry IV

An extension of PSA414, considering further aspects of carbohydrate metabolism in mammals, the chemistry and metabolism of lipids, the basic chemistry and metabolism of porphyrins with emphasis on haemoglobin, the basic catabolism of amino acids, the chemistry and function of the nucleic acids, protein biosynthesis and the molecular bases of genetic mutation, the integration of metabolic schemes and the biochemistry of histological preparation and staining.

PSC410 Biological Instrumentation III

This subject deals with the foundations of instrumentation in physical chemistry. Simple analytical instruments are considered, together with the theoretical basis of their operation.

PSC411 Biological Instrumentation IV

This subject deals more comprehensively with the application of instrumentation to laboratory analytical routines encountered in biological work.

BEC590 Biological Techniques V

A subject with elective sub-units in the following areas: entomological techniques, museum techniques, plant and animal breeding, parasitology, animal care.

BEC690 Biological Techniques VI

A subject with elective sub-units in the following areas: laboratory management, plant care and propagation, biological photography and illustration, field studies, pollution technology.

BEA100 Biology

This subject of the A.D.I.C. course covers a similar syllabus to BEA101 and BEA105, but includes extra experimental and tutorial work.

BEC100 Biology I

This subject provides an integrated course in general biology, based on the Biological Sciences Curriculum Study and emphasising an experimental approach to understanding science.

SYNOPSIS (Continued)**BEC200 Biology II**

A course in general biology with the emphasis on human ecology in which the role of man in the biosphere is explored and discussed with reference to basic ecology and human value systems.

BEC302 Biology III

A course in general biology adapted from the Biological Sciences Curriculum Study emphasising an experimental approach to the solution of biological problems. This subject is a prescribed elective for the Certificate in Chemistry.

BEC402 Biology IV

A broad course in human ecology in which the role of man in the biosphere is explored and discussed with reference to basic ecology and human value systems. This subject is a prescribed elective for the Certificate in Chemistry.

BEA656 Biosphere and Conservation

Analysis of contributing processes to stability of the biosphere, constituents of the biosphere, impact of human culture on these and the problems that must be faced in conservation of the biosphere and maintenance of a suitable human habitat.

MAA301 Calculus and Analysis A

Differentiation with applications; Analytical geometry of the conics; Complex numbers, Argand diagram, Demoiivres theorem; Integral calculus with applications.

MAA302 Calculus and Analysis B

Basic properties of the real number system; functions and continuity; differentiability; Rolle, first mean-value and Taylor theorems; Riemann integration; fundamental theorem of calculus; infinite series.

BEA101 Cell Biology

The subject introduces the biology of the cell as the relationship between structure and function. Physico-chemical principles basic to life at the cellular level are emphasised although actual chemistry is kept to a minimum. This provides a frame work for more advanced courses and underscores the relevance of the physical sciences to contemporary biology.

PHC451 Certificate Physics I

Basic measurement in physics, mechanics, gravitation, geometrical and physical optics. The course also includes laboratory work.

PHC452 Certificate Physics II

Heat, kinetic theory, static and current electricity, magnetic fields, electromagnetic waves, elementary quantum principles and the atomic nucleus. The course also includes laboratory work.

CHA520 Chemical Technology V

Fluid mechanics. Transportation of fluids. Measurement of fluid flow. Heat transfer and heat transfer operations. Particle mechanics. Mechanical operations. Mass transfer and mass transfer operations. Introduction to automatic process control. Chemical plant economics. Industrial toxicology. Industrial safety. Process plant administration.

CHA620 Chemical Technology VI

Applied chemical kinetics and process engineering design. Industrial chemistry (including selected unit processes) and technology (food, minerals, energy). Technological economics. Systems. Resources Technology. Environmental chemistry and technology. Technology assessment.

CHA141 Chemistry I

A course designed (together with CHA241) for non-continuing students in Chemistry.

- (a) Inorganic Chemistry: as for CHB132.
- (b) Physical Chemistry: theory as for CHA170 with some deletions.
- (c) Organic Chemistry: the chemistry of aliphatic and aromatic compounds.
- (d) Laboratory: a laboratory course designed to complement the above theory.

CHA241 Chemistry II

- (a) Inorganic Chemistry: as for CHB232.
- (b) Physical Chemistry: theory as for CHA270 with some deletions.
- (c) Organic Chemistry: continuing study of aliphatic and aromatic compounds.
- (d) Laboratory: a laboratory course designed to complement the above theory.

For students intending to pursue the Associate Diploma in Science (Chemistry Strand) course in third semester, a reading list for further study will be recommended at the end of the course.

CHA341 Chemistry III

For the theory component, see CHA330 Inorganic Chemistry III, CHA350 Organic Chemistry III and CHA370 Physical Chemistry III.

The practical component of this subject of three hours per week will be divided between Organic Chemistry and Physical Chemistry. This will include more advanced experiments in each discipline.

CHA441 Chemistry IV

For the theory component see CHA430 Inorganic Chemistry IV, CHA450 Organic Chemistry IV and CHA470 Physical Chemistry IV.

The practical component of this subject of three hours per week will be divided

SYNOPSIS (Continued)

CHA441 Chemistry IV (Continued)

between Organic Chemistry and Physical Chemistry. This will include more advanced experiments in each discipline.

CHA541 Chemistry V

For the theory component, see CHA530 Inorganic Chemistry V, CHA550 Organic Chemistry V and CHA570 Physical Chemistry V.

The practical component of this subject is divided amongst Inorganic Chemistry, Organic Chemistry and Physical Chemistry. This will include further advanced experiments in each discipline.

CHA641 Chemistry VI

For the theory component, see CHA630 Inorganic Chemistry VI, CHA650 Organic Chemistry VI and CHA670 Physical Chemistry VI.

The practical component of this subject is divided amongst Inorganic Chemistry, Organic Chemistry and Physical Chemistry. This will include further advanced experiments in each discipline.

CHA343 Chemistry for Geologists III

A course in the theory and practice of instrumental and other methods of rock and mineral analysis.

CHA443 Chemistry for Geologists IV

Chemistry relevant to the understanding of crystallization from melts and metamorphic reactions. Organic chemistry of coal and petroleum. Further practice in analysis of rocks and minerals.

BEA331 Classical and Applied Genetics

This course is designed to give students an understanding of Mendelian, bacterial and biochemical genetics. Emphasis is placed upon critical experiments in the development of the subject and the implication of the theory in animal and plant breeding. Appropriate excursions are included.

MAA335 Classical Theoretical Mechanics

Kinematics of a particle; Newton's laws of motion; dynamics of a particle in one and two dimensions; work, power and energy; linear and angular momentum; impulsive motion; statics of a particle and of a rigid body.

PSB718 Clinical Biochemistry V

This course introduces the study of chemical aspects of human life in health and illness and discusses the application of chemical laboratory methods to diagnosis, control of treatment and prevention of disease. Topics include kidney, pancreas, and liver functions, and the metabolism of lipids and proteins.

PSB719 Clinical Biochemistry VI

This course further develops clinical biochemistry with emphasis on enzymes,

SYNOPSIS (Continued)

PSB719 Clinical Biochemistry VI (Continued)

electrolytes, blood gases, drugs, vitamins, gastric function, function of the thyroid and adrenal gland, autoanalyses and quality control.

PSB738 Clinical Immunology

A study of the application of immunological principles including the theoretical and practical aspects of blood group serology. Topics include blood group systems; the selection of blood for transfusion; antenatal serology; immunoglobulinopathies; tissue typing; and laboratory tests for syphilis, autoimmune disease, pregnancy and detection of Australian antigen.

PSA419 Clinical Optometry III

Application of the theory of PSA402 to human beings. The aim is for students to acquire knowledge of the classical concepts of human visual states.

PSA420 Clinical Optometry IV

Application of the theory of PSA403 to human beings. The aim is for students to acquire knowledge of the classical concepts of human visual states.

PSA720 Clinical Optometry V

Application of the theory of PSA703 to human beings. The aim is for students to acquire knowledge of the variations from the classical concepts of human visual states.

PSA721 Clinical Optometry VI

The application of the theory of PSA704 to human beings. The aim is for students to acquire knowledge of variations from the classical concepts of human visual states.

MAB954 Compiler Construction

A course which deals with the techniques involved in the analysis of source language and the generation of efficient object code. Assembly techniques, syntax, one pass techniques, registers, storage, subroutines and functions, compiler languages.

MAA903 Complex Variables

Elementary functions, e^z , $\sin z$, $\log z$ etc; analytic functions, Cauchy-Riemann equations; integration; Cauchy's theorem, maximum modulus principle, Liouville's theorem, fundamental theorem of algebra; series, Taylor and Laurent series, classification of singularities; the residue theorem; contour integrals; analytic continuation; conformal mapping; boundary value problems; integral transforms.

MAB652 Computer Organisation I

This course introduces the methods by which logic modules are used to perform the functions of the central processor unit of a computer. Non-decimal number systems. Counters, comparitors, shift registers and parity

SYNOPSIS (Continued)

MAB652 Computer Organisation I (Continued)

checkers. Characteristics of magnetic cores. Characteristics of drum, disk and magnetic tape recording materials.

MAB953 Computer Organisation II

A course dealing with system organisation and architecture, augmented by design projects and the evaluation of designs by simulation. Input-output facilities. System organisation. Reliability. Description and simulation techniques. Data transmission.

MAA606 Computers and Programming

Computer structure and machine language; addressing techniques; representation of data; symbolic coding and assembly systems; selected programming techniques, macros, program segmentation and linkage; compiling techniques for high level languages; computer systems organisation, system and utility programs.

MAB354 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.

PSA723 Contact Lens Studies

A series of lectures, demonstrations, and practical sessions designed to equip the student with the theoretical background so that he may proceed to live subject experimentation and practice in PSA721. Lens history, development, and fitting procedures. The altered physiological state with appliances in situ. Patient selection and aftercare.

The course will include lectures on the optics of contact lenses, and the anatomy and physiology of relevant ocular structures.

MAB653 Data Structures

An introduction to the data structures used in computer storage. Basic concepts of data. Linear lists and strings. Arrays and orthogonal lists. Tree structures. Storage systems and structures. Storage allocation and collection. Multilinked structures. Sorting techniques. Symbol tables and searching. Data structures in programming languages.

MEA224 Drawing

A basic course in Drawing to enable students to understand engineering drawings. Subject matter will include geometrical constructions; orthographic projection; sectioning and dimensioning; oblique, parallel and isometric drawings; simple loci problems.

ESA113 Earth Science I

An introductory course in selected aspects of earth science. Basic geological principles and theories; uniformitarianism, superposition, evolution, geologic time. Origin and general constitution of the earth and the solar system. Physical and chemical properties of the earth. The concepts of isostasy, plate tectonics, orogeny, epeirogeny, eustatic adjustment, convention, heat flow, etc. Crystallography; unit cells, crystal systems and classes, symmetry elements, crystallographic laws, habit, parameters, indices, twinning, etc. Mineralogy; chemical and morphological classification of minerals, detailed study of various silicate groups. The structures, textures, mineralogies, modes of occurrence, origins, and classification of igneous, sedimentary, and metamorphic rocks. Physical geology; weathering, erosional processes. Field excursions as required.

ESA213 Earth Science II

A course in selected aspects of earth science. Structural geology; the origin, morphology, geometrical aspects, and recognition of faults, joints, folds, unconformities, and related structures. Stereographic and orthographic solution of geological problems; other methods of data presentation. Geomorphology; topographic features resulting from erosion by marine, fluvial, glacial, and aeolian agencies. Topographic maps and the interpretation of landform. Pedology; factors of soil formation, soil components, chemical activity, climate and leaching, erosion, solonisation, study of the major soil groups. Hydrology; sources of groundwater, its storage, movement, exploitation and utilization. Economic geology; processes in the formation and accumulation of metalliferous and non-metalliferous economic materials. Palaeontology; formation and preservation of fossils, the use of fossils, the principles of biological classification and nomenclature, evolutionary theory. Systematic palaeontology; classification, morphology, evolution and ecology of the major phyla within the plant and animal kingdoms. Stratigraphy; stratigraphic principles, subdivision of strata, concept of facies, geological time scale, stratigraphy of Queensland and its relationship to the stratigraphy of Australia as a whole. Field excursions as required.

ESA311 Earth Science III

An introduction to geologic materials. Topics discussed include an outline of basic geological principles and theories; the origin and constitution of the earth; earth processes; introductory mineralogy; the origins, modes of occurrence, variations, and classifications of igneous, sedimentary, and metamorphic rocks.

ESA411 Earth Science IV

An introduction to geologic processes. Topics discussed include structural geology, elementary hydrology, weathering processes, soils, erosion, geomorphology, the principles of palaeontology and historical geology, introductory economic geology.

ESA511 Earth Science V

Optical mineralogy and the use of the petrographic microscope. A more

SYNOPSIS (Continued)

ESA511 Earth Science V (Continued)

detailed study of igneous and metamorphic rocks and processes.

ESA611 Earth Science VI

Processes of formation of sedimentary rocks; petrology of sandstones and limestones. Palaeontological principles; evolutionary theory. Systematic palaeontology; classification morphology, evolution, and ecology of the major invertebrate phyla. An outline of the stratigraphy of Australia and its relation to the tectonic evolution of the Australian continent.

ESA373 Economic Analysis for Geologists

Local and overseas investment; world mineral commodity markets; mineral development financing; taxation; mineral statistics; mineral industries studies.

ESA363 Economic Geology III

A systematic review of metalliferous and non-metalliferous economic materials covering aspects of mineralogy, genesis, use and value, mining beneficiation, major overseas deposits, Australian deposits. Laboratory techniques for testing and evaluating economic materials. Chemical mineralogy. Froth flotation.

ESA510 Economic Geology V

Geochemical evolution of the earth. Theoretical and practical aspects of the study of minerals in polished section. Fundamental processes of ore formation. Applied geochemical analysis. Norm calculations.

ESA513 Economic Geology V

Detailed studies of the genesis, discovery, exploitation, and usage of economic materials. Clay technology.

ESA610 Economic Geology VI

Magmatic geochemistry; fate of major and minor elements in magmatic processes, particularly differentiation. Phase relationships. Geochemistry of sedimentary rocks. Sedimentary elemental differentiation. Eh/pH factors in sedimentation. Geochemical/geological sampling; type of sample randomisation, replicability, grid set-ups, techniques of taking samples, types of averages and their significance. Reserve calculations and classification. Prospecting geochemistry.

BEA651 Ecosystems

To establish an understanding of the reactions between organisms and their environment (including other organisms). World biomes are described. The concept of ecosystem management is introduced with reference to local examples.

MAA931 Elasticity

Cartesian tensors; analysis of strain; analysis of motion; analysis of stress;

SYNOPSIS (Continued)

MAA931 Elasticity (Continued)

fundamental axioms of continua; constitutive equations; classical elasticity; rubber elasticity.

PHB504 Electronics

A course of lectures and laboratory work on the theory and application of solid state devices. Includes diodes, transistors, FET, integrated circuits (analogue and digital), RF circuits, pulse circuits and digital circuits.

ESA653 Engineering Geology

The application of geology to engineering practice. Introductory soil mechanics and rock mechanics. An introduction to design. Foundation and materials studies. Site analysis. Case history studies.

BEA109 Experimental Biology

This unit emphasises investigations of problems in selected areas of biology. The student is encouraged to be creative in approaching the experimental work, and is expected to design and execute experiments in attempting to solve problems posed. Further extension of the programme as necessary allows for skill and understanding to be applied to problems existing at the periphery of each experimental area. A basic background in biology is an advantage for this unit, but not essential.

PHB106 Experimental Physics I

A course of laboratory work including introductory experimental method and skills, and laboratory experiments.

PHB206 Experimental Physics II

A course of laboratory work including both set experiments and short experimental investigations.

PHB306 Experimental Physics III

A course in practical work designed to train students in the method and details of experimentation. Contains a study of experimental method, advanced experimental skills and laboratory experiments.

PHB406 Experimental Physics IV

A course of practical work consisting of some set experiments, but mainly a supervised experimental project.

PHB506 Experimental Physics V

Laboratory and field work in applied physics with emphasis on open ended experiments with modern equipment.

PHB606 Experimental Physics VI

A course of experimental physics consisting mainly of a supervised project.

SYNOPSIS (Continued)

PHB606 Experimental Physics VI (Continued)

Students will also be required to present seminars on their project and on approved topics of their choice.

BEA590 Experimental Projects

This unit in which students pursue in depth one or more projects selected in consultation with a staff member, has the following aims –

1. to develop skills in laboratory and field practice;
2. to utilise biological research, literature and library resources;
3. to develop skills in written communication.

ESA533 Exploration Geochemistry V

Techniques for establishing fundamental regional geochemical patterns. The application of geochemistry to the discovery of economic ore deposits and to environmental problems. The study of case histories. A report of a field project embracing geochemical exploration techniques.

ESA633 Exploration Geophysics VI

The reduction and manipulation of geophysical data, and their interpretation in geological terms. Also included are field data acquisition and laboratory analog modelling.

ESA383 Field Excursions III

A series of weekend and extended (5 days or more) excursions to selected areas of interest. It will be necessary for students to submit assignments, as required, based on these excursions.

ESA483 Field Excursions IV

A series of week-end and extended (5 days or more) excursions to selected areas of interest. It will be necessary for students to submit assignments, as required, based on these excursions.

ESA573 Field Excursions V

A series of week-end and extended (5 days or more) excursions to selected areas of interest. It will be necessary for students to submit assignments, as required, based on these excursions.

ESA673 Field Excursions VI

A series of week-end and extended (5 days or more) excursions to selected areas of interest. It will be necessary for students to submit assignments, as required, based on these excursions.

BEA390 Field Methodology I

Computer programming, population sampling methods, introduction to surveying.

SYNOPSIS (Continued)

BEA490 Field Methodology II

Environmental data collection, aerial photography, photo interpretation, collection and preservation of specimens.

ESA553 Field Techniques

Methods of recording, analysing, and presenting field data. Techniques for detailed mapping, reconnaissance and traverse methods, geobotany, sampling procedure. Preparation of photogeological maps and reports.

MAA938 Fluid Dynamics

Mathematical models of fluid motion; dimensional analysis and similitude; incompressible potential flow; introduction to boundary layer equations.

PSA425 Fundamentals of Visual Science III

A study of the eye and the visual processes relating pure optics to basic physiology. All forms of ocular image formation. The schematic eye. The reduced eye. Ocular performance. The compensation for aberrations. Physiological departures from the normality of the ocular systems. Focusing and fixating adjustment of the ocular system. Retinal image quality. Resolving power of the eye.

PSA426 Fundamentals of Visual Science IV

A study of the eye and the visual processes including the psychology of the visual process. The visual functions of man. Light sense, colour sense, form sense. Laws relating visual sensations to the initial stimulus and resultant perception. Visual phenomena from retinal stimulation. Monocular and binocular vision. Spatial localisation.

PSB427 General Anatomy

A course dealing with the gross anatomy and microscopic structure of the human body. Consideration is given to the structure of cells, tissues and organ systems.

PSA129 General Psychology I

The course covers a general introduction to the social determinants of behaviour. The course deals with the early social behaviours in the developmental stage and traces the processes of socialisation that occur throughout life.

Reference is made to pressures to conformity and specific culture factors which influence behaviour.

PSA130 General Psychology II

The course covers two areas. The first is perception and psychophysics. Specific reference is made to experimental and measurement factors. The second area is concerned with general psychological adjustment and adaptation with specific reference being made to the observation and measurement of individual differences.

SYNOPSIS (Continued)**ESA333 Geochemistry III**

The general distribution of the elements and their associations. Geochemical mobility within the outer crust, primary and secondary dispersions. Recognition and interpretation of geochemical anomalies by statistical and graphical methods. Techniques of sampling.

ESA453 Geochemistry IV

Techniques for the rationalisation and plotting of geochemical data, preparation of geochemical maps and reports.

ESA210 Geology

Outline of basic geological principles and theories. Origin and constitution of the earth. Global tectonics. Geologic time. Introductory mineralogy and petrology. Fundamental philosophical principles. Structural geology; attitude of strata, joints, faults, and folds. Geomorphology; weathering processes, soils; marine, river, and wind erosion, glaciation. Historical geology; outline of the geological history of Queensland. Introductory economic geology.

ESC310 Geology III

An introduction to geologic materials, emphasising chemical concepts and processes. Aspects studied include the origin and constitution of the earth; introductory mineralogy; igneous, sedimentary, and metamorphic petrology.

ESC410 Geology IV

An introduction to geological processes including a study of physical and structural geology, geomorphology, stratigraphy, and economic geology.

ESA433 Geophysics IV

An introduction to the theory of exploration geophysics. Methods studied include gravity, magnetics, radiometric, well logging, seismic refraction and reflection, electrical resistivity, induced polarisation and electromagnetics.

PSB725 Haematology

This course of study is a combination of PSB726 and PSB727.

PSB726 Haematology A

A course of study on the origin and development of blood cells, basic haematological techniques, the application of automation and quality control to haematological techniques, haemocytochemistry, and the general principles used in the laboratory evaluation of anaemia.

PSB727 Haematology B

A course of study involving the laboratory investigation of the diseases of the blood and blood forming organs. Topics include the anaemia, haemoglobinopathies, leukaemias and related conditions, bleeding disorders, paediatric and geriatric haematology.

SYNOPSIS (Continued)

PSB791 Histochemistry

A study of the theoretical and practical basis of the histochemistry of proteins, carbohydrates, lipids, enzymes, applied proteins, and micro-substances as well as the chemical and physical basis of the Remanowsky stains, ultramicroscopy, microspectrophotometric analysis, and fluorescence methods of identification. The practical component provides experience in histochemical analysis.

PSC601 Histological Techniques V

A course on the fixation, preparation and interpretation of histological material of animal origin. Relevant instruments, including the compound microscope are studied.

BEC621 Histological Techniques VI

Preservation and preparation of plant tissues for microscopy, electron microscopy or macroscopic observation, with attention to relevant instrumentation.

PSB790 Histotechnology

A study of the theoretical and practical aspects of the preparation of cells, tissues and organs for microscopical examination. The course emphasises the chemical and physical basis of histotechnology and provides experience in a range of histological procedures.

PHD101 Hospital Practice & Care of Patient

An introductory unit emphasizing the importance of patients and their care. The care and preparation of patients, first aid, the principles of infection, sterilization and asepsis are discussed at an elementary level.

BEA105 Human Ecology

A comprehensive study of human ecology and of the interplay between biological and cultural processes; the bases for concern about environmental change; the nature and extent of pollution, and its abatement; behaviour and role of individuals, communities and institutions; involvement of value systems, economics and law; prospects for the future.

PSB435 Human Physiology

This theoretical and practical course provides a comprehensive survey of the functions of cells, tissues, organs, and systems in the human body. Stress is placed on fundamental physiological principles.

PSB436 Human Physiology A

A study of systematic physiology covering basic areas in theoretical and experimental aspects. Topics considered include: the physiology of the cell, tissues and organs, blood and body fluids, cardiovascular, renal and alimentary systems.

PSB437 Human Physiology B

A continuing study of systematic physiology surveying respiratory, endocrine, and nervous systems. Basic nutrition. Adaptation of environmental stress.

SYNOPSIS (Continued)

ESA443 Hydrology IV

Groundwater hydrology, emphasising the theoretical aspects of the subject. Consideration is given to basic equations of flow, the properties of water-bearing materials; the performance of pumping bores in steady-state and unsteady states, and in confined and unconfined aquifers.

ESA523 Hydrology V

A continuation of the subject matter of ESA443 Hydrology IV, with the emphasis on practical aspects. The analysis of pumping tests made under a wide variety of geological conditions is studied, together with flow net analysis and the prediction of safe long-term pumping rates.

MNB304 Information Systems I

A course introducing the concepts and objectives involved in the use of the computer as a management tool in organisations. Content covers basic analysis and design of data processing systems.

MNB404 Information Systems II

A continuation of MNB304 covering systems methodology, systems specification and systems design requirements.

MNB541 Information Systems IIIB

A course containing the methodology of random access techniques, detailed system requirements for both batch and real time systems and data base management technology.

MNB641 Information Systems IVB

A continuation of MNB541 containing in addition, computer management and operations control and control of systems projects.

CHA130 Inorganic Chemistry I

A theoretical course dealing with the modern views on the structure of the atom with particular reference to the electron configuration in relation to the periodic classification and reactivity of various elements. Topics include covalent bonding and shapes of molecules; ionic crystals and lattice energy; co-ordinate bonding and an introduction to co-ordination chemistry, including nomenclature, formation and some applications; a survey of the chemistry of typical elements.

(A combination of CHB132 and CHB232.)

CHB132 Inorganic Chemistry I

A theoretical course covering modern atomic theory, electron configuration of elements, covalent bonding of simple molecules.

CHC130 Inorganic Chemistry I

An introductory course in Inorganic Chemistry covering atomic theory, bonding and organisation of the elements according to electronic structure.

SYNOPSIS (Continued)

CHB232 Inorganic Chemistry II

A further course in introductory Inorganic Chemistry covering classification and properties of the elements, shapes of molecules, bonding in solids and co-ordination chemistry.

CHC230 Inorganic Chemistry II

A continuing introductory course in Inorganic Chemistry covering the periodic table, group chemistry and the chemistry of industrial processes.

CHA330 Inorganic Chemistry III

A course on co-ordination chemistry covering bonding, isomerism and nomenclature, aqueous chemistry, reactions, commercial, analytical and biological applications.

CHA430 Inorganic Chemistry IV

Introductory structural chemistry of solids, especially metals and their binary compounds, extraction of metals, magnetic behaviour of compounds of metals, the chemistry of selected inorganic materials.

CHA530 Inorganic Chemistry V

A course in theoretical inorganic chemistry, in organometallic chemistry, in x-ray diffractometry and vibrational spectroscopy.

CHA630 Inorganic Chemistry VI

A course covering the chemistry of selected non-metals; lanthanides and actinides; chemistry of metals, alloys, semiconductors, insulators and defect solids.

MNA072 & MNA041 Introduction to Business

The course will introduce to students two important fields, management and economics, as they affect the profession of optometry. It will discuss planning, organizing, staffing, controlling, and budgeting. It will deal with economic concepts that are relevant to a profession, such as the economic flow concept, the role of the government, and the effects of monetary and fiscal policies, and will show the financial methods used to set up and run a professional practice.

MAB353 Introduction to Computer Hardware

A course designed to provide the necessary background for subsequent hardware topics. Basic set algebra. Boolean algebra and propositional logic. Circuit theory. Semi-conductor physics. Circuitry.

and (Part) – Introductory Electronics

This half-semester subject introduces the student to the theory and practice of electrical and electronic circuits. It includes DC and AC circuit analysis, physics of semiconductors, simple electronic amplifiers, integrated circuits and logic circuitry. Laboratory work is also included.

SYNOPSIS (Continued)

MAA305 Introduction to Computing A

The FORTRAN programming language; Elementary Algol programming, computer applications illustrating the role of the computer in modern business, scientific and industrial environments; use of remote terminals.

MAB351 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. Programming and computing systems. Debugging and verification. Data representation. Special programming topics. Organisation and characteristics of computers. Analysis of numerical and non-numerical problems. Programming in Fortran and ALGOL. Survey of computers, languages, systems and applications.

MAA306 Introduction to Computing B

The COBOL programming language; the JEAN conversational language; use of non-standard peripheral equipment, magnetic tapes and discs, digital plotters; use of system supplied packages.

MAB352 Introduction to Computing B

A course covering basic aspects of business data processing. Programming in COBOL.

PHD303 Introduction to Pathology

An introductory unit in which aetiology and pathology of various systems are discussed.

MAA636 Introductory Advanced Dynamics

Motion of a particle in a plane, central orbits, motion under the inverse square law; motion of a system of particles; motion of a rigid body in two and three dimensions; generalised co-ordinates; Lagrange equations, small vibrations.

PSB440 Laboratory Technology III

A course dealing with the practical aspects of instrumental analysis in the clinical laboratory. While the purely theoretical aspects of a number of topics are dealt with in CHB312 from a chemical point of view, in this course the theoretical aspects covered deal with the physical principles embodied in the instruments. Emphasis is placed throughout on the effective use of the instruments. Topics include photometry, spectrophotometry, pH measurement, control of pH and autoanalysis.

PSB441 Laboratory Technology IV

This course deals with biochemical techniques encountered in the clinical laboratory. Topics include electrophoresis, chromatography (gas, adsorption, thin layer and ion exchange), gel filtration, radio-isotope techniques and

SYNOPSES (Continued)

PSB441 Laboratory Technology IV (Continued)

aspects of microscopy. Emphasis is placed on the practical aspects of the maintenance of accuracy, precision and control in the clinical laboratory.

ESA473 Law for Geologists

Mining, petroleum, and land laws; types of land tenure, especially mining leases.

MAA310 Linear Algebra

Vectors; vector spaces, spanning, linear dependence, bases, orthogonality; matrices, transposition, multiplication, linear transformations; determinants; inverse matrices, systems of linear equations; eigenvalues and eigenvectors; quadratic forms.

MNB081 Management

This course introduces the theory of organisational behaviour, human relations and management techniques. Function of management. Behaviour in an organisation. The supervisor and the work group.

MNB091 Marketing

A course introducing the concepts of marketing and the sales function. Marketing systems and the role of management. Marketing research. The sales function. Product planning. Sales forecasting.

PHB607 Materials

A course of 15 lectures and associated practical work on the diffusion processes in crystal lattices, point defect impurities, dislocations, elastic and plastic deformation of materials, and mechanical properties of materials.

MAB955 Mathematical Methods

Series, ordinary differential equations, functions of several variables, partial differential equations.

MAA308 Mathematical Statistics I

Basic statistics, histograms, permutations and combinations, distributions; sample and population; Event spaces; probability; mathematical expectation; linear regression and correlation; analysis of variance.

MAA607 Mathematical Statistics IIA

Distributions and their moments; sampling theory, estimation, confidence intervals, tests of hypothesis, applications of the t , chi-square and F distributions; quality control.

MAA608 Mathematical Statistics IIB

Theory of bivariate and multivariate probability distributions; moment generating function of distributions; Beta and Gamma distributions; design

SYNOPSIS (Continued)

MAA608 Mathematical Statistics IIB (Continued)

of experiments, two factor and three factor models; fixed random and mixed models; 2 factorial designs; multiple linear regression; curvilinear regression.

MAA907 Mathematical Statistics IIIA

Transformations of random variables having specified probability density functions, operational methods and their applications; order statistics, their distribution and confidence intervals; estimation, concept of "sufficient statistics", the Rao-Blackwell theorem; elementary stochastic processes; introduction to the analysis of time series.

MAA908 Mathematical Statistics IIIB

Balanced incomplete block designs; analysis of covariance applied to 1 factor and 2 factor designs; the problem of missing data; application of orthogonal polynomials to quantitative factors in experimental designs; linear models (matrix approach); quadratic forms, multivariate normal distribution.

MAA151 Mathematics I

Differential calculus; integral calculus; numerical methods; partial differentiation; differential equations; complex numbers; matrices; determinants; applications of mathematics in physical chemistry.

MAA153 Mathematics I

Graphical techniques; complex numbers; matrices, determinants; numerical methods; binomial theorem; hyperbolic functions; inverse functions; differentiation; applications of differentiation; partial differentiation.

MAA159 Mathematics I

Fundamental concepts; differentiation and applications; indefinite integration; partial differentiation; complex numbers; elementary differential equations.

MAC151 Mathematics IA

Revision and extension of fundamental arithmetic and algebraic concepts from Junior; graphs, their construction and uses; introduction to elementary co-ordinate geometry, differential and integral calculus.

MAA154 Mathematics II

Integral calculus with applications; elementary differential equations; organisation and analysis of data; random samples; basic probability theorems.

MAC152 Mathematics IB

Revision and extension of fundamental arithmetic and algebraic concepts from Junior; probability, elementary statistical ideas, data organisation, distributions, random sampling, hypothesis testing, confidence limits.

MAA155 Mathematics II

Organisation and analysis of data; random samples; basic probability theorems;

SYNOPSIS (Continued)

MAA155 Mathematics II (Continued)

random variables; probability distributions; sampling theory, estimation theory and statistical quality control; tests of hypotheses; curve fitting, least squares method; regression and correlation.

MAA160 Mathematics II

Infinite sequences and series; applications of definite integration; approximate methods; analytic geometry; matrices and vectors; dynamics.

MAC451 Mathematics IIA

Binomial Theorem; Remainder Theorem; applications of differentiation to rates of change, rates of reaction, maxima and minima; e and natural logarithms, differentiation of simple exponential and logarithmic functions, growth and decay; definite integral; area under a curve, applications.

MAC452 Mathematics IIB

Variation; linear simultaneous equations; weighted averages; graphs, linear programming; elementary sampling theory, t -test; chi-squared goodness of fit and contingency tables; regression; control charts; analysis of variance.

MAA451 Mathematics III

Further partial differentiation applications, Lagrange multipliers; ordinary and partial differential equations including use of Laplace Transformations.

MAA455 Mathematics III

Distributions – F – non-parametric. Type I and Type II errors. Multiple regression – curvilinear regression – orthogonal polynomials.

MAA459 Mathematics IIIP

A course of calculus or several variables, vector analysis and ordinary differential equations with applications particularly relevant to physics.

MAA452 Mathematics IV

Line integrals, multiple integrals; Fourier Series; partial differential equations; functions of a complex variable, elementary mapping applications.

MAA456 Mathematics IV

Experimental Design – 1 factor, 2 factor, balanced incomplete blocks – factorial experiments – confounding.

MAA460 Mathematics IVP

A course of ordinary and partial differential equations and functions of a complex variable with applications particularly relevant to physics.

MAA759 Mathematics VP

A course of tensor analysis, analysis, further ordinary differential equations, Boolean algebra with applications particularly relevant to physics.

SYNOPSES (Continued)

MAA915 Mathematics with Technological Applications

An introduction to selected mathematical topics which are designed to develop insight into the mathematical knowledge and techniques employed in science and engineering and in the solution of management and planning problems. Areas from which topics may be selected include mathematical statistics, operations research, control of physical systems, hydraulics, digital and analogue computing.

PSB446 Medical Technology III

An introduction into techniques of medical technology and the concepts of pathology (PSA428), instruction in use of the library. Written assignments, museum demonstrations, tutorials and seminars are also undertaken.

PSB447 Medical Technology IV

An introduction into techniques of medical technology and the concepts of pathology (PSA429) and instruction in use of the library. Written assignments, museum demonstrations, tutorials and seminars are also undertaken.

PSB747 Medical Technology V

Students will select an approved project in a discipline within the field of medical technology and under the guidance of a supervisor conduct a literature survey and prepare a plan for experimental approach. Discussions and seminars on other topics are also undertaken.

PSB748 Medical Technology VI

The experimental work planned in PSB747 will be undertaken under a supervisor, the work recorded in a short thesis and presented at a seminar. Discussions and seminars on other topics are also undertaken.

MAA921 Methods of Mathematical Physics A

Distributions and waves; parabolic equations and Fourier integrals; Laplace's equation and complex variables; general theory of eigenvalues and eigenfunctions.

MAA922 Methods of Mathematical Physics B

Greens' functions; equations of motion; cylindrical eigenfunctions; spherical eigenfunctions.

PSB450 Microbiology III

An introductory core unit of lectures and practical exercises in microbiology dealing with cytology, nutrition, genetics, control of microbial populations, and principles of taxonomy.

PSC451 Microbiology III

An introduction to microbiology dealing with the cytology, staining reactions, growth and death of bacteria and an introduction to immunology and mycology.

SYNOPSIS (Continued)

PSB451 Microbiology IV

An introductory unit in microbiology combining PSB450 and PSB452.

PSC452 Microbiology IV

An extension of PSC451 which includes elementary classification of microorganisms and methods used in isolation and identification of bacteria with particular reference to those organisms important to man and his environment.

PSB452 Microbiology IVA

An extension of the core course in microbiology (PSB450) which includes bacterial metabolism and biochemical reactions used in the identification of bacteria which cause disease in man, an introduction to immunology, an introduction to antibiotics and microbiological aspects of public health.

PSA453 Microbiology IVB

An extension of the core course in microbiology (PSB450) with emphasis on the applications of microbiology in industry. Topics studied include the enzymic capabilities of microorganisms and their applications in laboratory identification of bacteria and in industrial fermentations; an introduction to the microbiology of foods from the viewpoint of spoilage and public health problems; bacteriological control of water and sewage.

PSA454 Microbiology IVC

An extension of the core course in microbiology (PSB450) with emphasis on the applications of microbiology in industry, public health and the environment. Topics studied include the enzymic capability of microorganisms and its application in laboratory identification of bacteria and in degradation of industrial waste; water and sewage microbiology; soil microbiology and biodegradation; an introduction to food microbiology from the viewpoint of spoilage and public health problems.

PSB 753 Microbiology V

A study of clinical bacteriology (80 semester hours) dealing with the characteristics, isolation and identification of bacteria implicated in human disease, the collection and examination of clinical specimens and antibiotic sensitivity tests on laboratory isolates. An introduction to virology (25 semester hours) includes characteristics of viruses commonly causing disease in man and methods used in laboratory diagnosis of human viral diseases.

PSB 754 Microbiology VI

A study of parasitology (85 semester hours) directed towards the laboratory diagnosis of parasitic disease in man. It consists of a systematic study of identification, life history, incidence, modes of infection, epidemiology and control of the parasites of man. Emphasis is placed on parasites evident in Australia and on those most likely to penetrate the quarantine barrier. A study of clinical mycology (20 semester hours) including characterisation of fungi responsible for systemic and superficial infections in man.

SYNOPSIS (Continued)

ESA613 Mineragraphy and Mining Geology

Methods of mineral search, ore prediction, exploratory drilling and mining geology. The study of minerals in polished sections and the megascopic and microscopic examination of suites of ore and associated rocks.

ESA313 Mineralogy

An extension of the chemical and structural study of mineral groups and mineral paragenesis. The examination of additional mineral species and the use of advanced methods of mineral identification. The theory and methods of optical mineralogy; the study of minerals as grain mounts and thin sections.

ESA310 Mineralogy III

Introduction to crystallography and its application to mineral identification. Systematic treatment of mineral groups, covering aspects of structure, chemistry, properties, and uses.

ESA410 Mineralogy IV

Introduction to the theory and methods of optical mineralogy. Mineral relationships as shown by igneous, sedimentary, and metamorphic petrology. Introduction to geochemistry.

ESC510 Mineralogy V

Fundamentals of crystallography including crystal systems, forms, and symmetry. Stereographic projection of crystals. Systematic treatment of mineral groups, covering aspects of structure, chemistry, properties and uses. Introduction to ore genesis. Techniques of mineral identification.

ESC610 Mineralogy VI

Introduction to the theory and methods of optical mineralogy and mineragraphy, including a practical study of thin and polished sections. Prospecting geochemistry, sampling and reserve calculation. Elementary ore beneficiation. X-ray crystallography.

MAA309 Modern Algebra

Logic; set theory; operations; relations; functions; mathematical systems; groups; rings; integral domains; fields; polynomials over a field.

MAA601 Multivariable Calculus A

Real valued functions of several variables, Taylor series, maxima and minima, Lagrange multipliers, Jacobians, approximations, multiple integration; change of variables; Delta and Gamma functions; calculus of variations, extrema of an integral, the Euler equation.

MAA611 Multivariable Calculus B

Fourier methods, general fourier series with respect to an orthonormal basis with applications to standard boundary value problems; integral transforms of

SYNOPSIS (Continued)

MAA611 Multivariable Calculus B (Continued)

Fourier and Laplace; series and integrals; Riemann integration, uniform convergence of series and integrals.

MAA602 Multivariable Calculus C

Vectors in three dimensions; vector functions of a real variable; differential vector calculus, directional derivative, gradient, scalar and vector fields, divergence, curl, orthogonal curvilinear co-ordinates; integral vector calculus, line, surface and volume integrals, Greens' theorem, the divergence theorem, Stokes' theorem.

PHD503 Nuclear Medicine & Allied Techniques

An introductory discussion on physics and instrumentation of nuclear medicine and allied techniques.

MAA613 Numerical Analysis IA

Computing aids; use of tables, calculating machines, computers; types of error and propagation of errors; solution of non-linear equations, acceleration of convergence; interpolation and approximation, numerical quadrature; numerical solution of ordinary differential equations.

MAB655 Numerical Analysis IA

A course in numerical methods developed and evaluated from the standpoint of efficiency, accuracy and suitability for high speed digital computing. Computing aids, errors, solution of non-linear equations, interpolation and approximation, numerical quadrature and numerical solutions of ordinary differential equations.

MAA614 Numerical Analysis IB

Systems of linear equations, solution by Gaussian elimination and by compact methods; row interchange; iterative methods of solution; matrix inversion; ill-conditioning; accuracy of solution; measure of work; eigenvalues and eigenvectors, power method, matrix deflation for subdominant roots and vectors.

MAB656 Numerical Analysis IB

An extension of MAB655 covering systems of linear equations and further experience with the eigenvalue problem.

MAA913 Numerical Analysis II

Interpolation and approximation; ordinary differential equations; partial differential equations; eigenvalue problem, symmetric matrices, Tridiagonalisation and Jacobi methods.

MAB956 Numerical Analysis II

Interpolation and approximation, solution of ordinary differential equations, partial differential equations, numerical integration and quadrature, linear systems, iterative methods for obtaining eigenvalues and eigenvectors.

SYNOPSIS (Continued)

PSA465 Ocular Anatomy & Physiology

This anatomy course provides a survey of the prenatal and postnatal development of the human eye, followed by a consideration of the macroscopic and microscopic structure. A series of lectures, demonstrations, and practical experiments are designed to give the student an understanding of the physiology of the ocular mechanism and its related structures.

PSA766 Ocular Pathology V

A series of lectures designed to equip the student with the ability to recognise ocular pathology, and to take the appropriate action. The visual and non-visual symptomatology of eye disease. The ocular manifestations of general disease. Congenital, degenerative, traumatic, inflammatory, and neoplastic anomalies. The pediatric and geriatric eye.

PSA767 Ocular Pathology VI

A series of demonstrations verifying the subject matter of PSA766.

MAA627 Operations Research IA

Linear programming; integer and non-linear programming; networks.

MAB657 Operations Research IA

A course intended to introduce students to the techniques used in achieving a systematic and rational approach to the problems involved in the control of systems. Formulating the problem, measurement of efficiency and utility, data availability and model construction and linear programming.

MAA628 Operations Research IB

Dynamic programming; search; queuing.

MAB658 Operations Research IB

An extension of MAB657 covering networks, reliability, replacement, maintenance, inventory and queues.

MAA927 Operations Research IIA

Formulating the problem; measurement of efficiency and utility; data availability and model construction; simulation and Monte-Carlo methods.

MAB957 Operations Research IIA

A course containing advanced linear programming, integer and non-linear programming, dynamic programming and search problems.

MAA928 Operations Research IIB

Reliability, replacement and maintenance; corporate modelling techniques; industrial scheduling; artificial intelligence and heuristic methods.

SYNOPSIS (Continued)

MAB958 Operations Research IIB

An extension of MAB957 containing simulation and Monte-Carlo methods, corporate modelling techniques, industrial scheduling, artificial intelligence and heuristic methods.

PSA167 Ophthalmic Dispensing I

A series of lectures and demonstrations to give the student an understanding of mechanical optics and optical appliances from the dispensing and manufacturing aspects.

PSA168 Ophthalmic Dispensing II

An extension of the theoretical knowledge of PSA167 leading to practical application.

PSA468 Ophthalmic Dispensing III

The time allotted for this subject will be spent in practical sessions enabling the student to acquire some vocational skill.

PSA469 Ophthalmic Dispensing IV

The time allotted for this subject will be spent in actual workshop practice in optometry clinic perfecting a vocational skill.

PHA140 Optics I

Geometrical optics is developed from first principles to give a broad treatment of mirrors, prisms, lenses optical instruments, and photometry. Colour theory and measurement are also covered.

PHA 141 Optics II

More difficult aspects of geometrical optics than those treated in PHA 140 are covered. These include the effects of apertures, the monochromatic aberrations and the general theory of paraxial optical systems. Basic theory is applied to the effects of form and design of ophthalmic lenses, and contact lenses. Physical optics is studied also the amalgamation of physical and geometrical optics.

CHA 150 Organic Chemistry I

A course in the fundamental principles of the chemistry of simple organic chemicals, together with their industrial and biological importance. A reaction mechanism/functional group approach is used to promote comprehension of the way in which reactions occur. Modern spectroscopic and chromatographic techniques are emphasised. Topics include reactions of the carbon-hydrogen bond, carbon-halogen bond, hydroxyl group, ethers, thiols and thioethers, amino group and the carbon-carbon double bond.

CHB 152 Organic Chemistry I

The course introduces the students to the fundamental principles and reactions of organic chemistry by the reaction mechanism/functional group approach,

SYNOPSIS (Continued)

CHB152 Organic Chemistry I (Continued)

with appropriate examples drawn from the bio-sciences. Modern chromatographic and spectroscopic techniques are emphasised. Topics include reactions of the carbon-hydrogen bond, carbon-halogen bond, hydroxyl group, ethers, thiols and thio-ethers, amino groups and the carbon-carbon double bond.

CHC150, CHC151 Organic Chemistry I

An introduction to the formulae, analysis, atomic and molecular structure of carbon compounds. Nomenclature, preparation, reactions and properties of alkanes, alkenes, alkynes, aromatic hydrocarbons, alkyl and aryl halides.

A 45 hour laboratory program complements the theory course.

CHA250 Organic Chemistry II

A continuing course in the fundamental principles of the chemistry of simple organic molecules. Topics include the reactions of the carbon-oxygen double bond (aldehydes and ketones), the acyl group (carboxylic acids and derivatives), carbon-carbon triple bond, carbon-nitrogen triple bond, the aromatic nucleus; petroleum, petrochemicals and coal.

CHB252 Organic Chemistry II

The course deals with the principles and concepts of organic chemistry along the mechanistic basis initiated in CHB152. Topics discussed include: the reactions of the carbon-oxygen double bond, aldehydes, carbohydrates, ketones, the acyl group (carboxylic acids and derivatives), carbon-carbon triple bond, carbon-nitrogen triple bond, aromaticity, amino acids and proteins, chemical structure and biological activity, colour in organic compounds, dyes, heterocyclic compounds – natural products, the action of drugs.

CHC250, CHC251 Organic Chemistry II

This course follows directly from CHC150, Organic Chemistry I. It deals with the nomenclature, preparation, reactions and properties of alcohols, phenols, ethers, aldehydes and ketones, acids and their functional derivatives, amines and diazonium salts.

A 45 hour laboratory program complements the theory course.

CHA350 Organic Chemistry III

A continuing course in the fundamental chemistry of more complex organic molecules together with their industrial and biological importance. Increasing use is made of modern spectrographic and chromatographic techniques. Topics include the reactions of polyfunctional compounds, stereochemistry and instrumental techniques in organic chemistry.

CHC350 Organic Chemistry III

A course in organic chemistry which assumes knowledge of fundamental principles. Covers stereochemistry, polyhydric alcohols, oils, fats, soaps and detergents, sugars (monosaccharides and disaccharides), polycyclic aromatics.

A 45 hour laboratory program complements the theory course.

SYNOPSSES (Continued)

CHA450 Organic Chemistry IV

A continuing course in the chemistry of more complex, organic molecules. Topics include, aromatic chemistry and aromaticity; heterocyclic, organo-metallic chemistry and organic chemical technology.

CHC450 Organic Chemistry IV

A course in organic chemistry which assumes knowledge of fundamental principles. Covers hydroxy- and amino-acids, proteins and peptides, poly-functional carbonyl compounds, chemistry of polymers.

A 45 hour laboratory program complements the theory course.

CHA550 Organic Chemistry V

A course in advanced organic chemistry, including studies in physical organic chemistry, natural and synthetic high polymers. Advanced spectrographic and chromatographic techniques are widely used.

CHC550 Organic Chemistry V

A continuing course in organic chemistry which provides an introduction to heterocyclic chemistry, carbohydrates and polysaccharides.

A 30 hour laboratory program complements the theory course.

CHA650 Organic Chemistry VI

A course in advanced chemistry dealing with complex organic molecules of biological importance. The involvement of these molecules in biosynthetic, metabolic and reproductive processes are emphasised. Topics include: proteins, nucleic acids, nucleotides, vitamins, carbohydrates, alkaloids, terpenes, steroids, food and nutrition chemistry.

CHC650 Organic Chemistry VI

A course consisting of a study of industrial processes selected from the following industrial areas: sugar processing, milk processing, oil fats and waxes; brewing; plastics; food preservation; petroleum.

A 30 hour laboratory program complements the theory course.

ESA623 Petroleum Geology

Drilling techniques applied to petroleum geology. Oil well logging; geophysical methods, lithologic and drilling time logs. Sedimentary basin analysis in petroleum exploration; well log correlation, the use of regional geophysical surveys, preparation of different types of palaeogeographic maps from surface and subsurface data. The recognition of specific types of petroleum traps from subsurface data.

ESA413 Petrology IV

The principles and theories relating to the occurrence, genesis, and diversification of igneous rocks, with particular reference to the major igneous rock

SYNOPSIS (Continued)

ESA413 Petrology IV (Continued)

groups. A detailed study of metamorphism and metamorphic facies. Mega-scope and microscopic examination of igneous and metamorphic rocks.

ESA543 Petrology V

Extension of the concepts studied in ESA413 Petrology IV with emphasis on the more exotic rock types. Assignments form an integral part of this unit. Practical work includes the study of selected rock suites.

CHC380 Physical and Inorganic Chemistry III

The topics in this stage of the continuing course in chemistry include: atomic and molecular spectra; ultraviolet and visible spectrophotometry; flame photometry; atomic absorption spectrophotometry; nephelometry and turbidimetry; chromatography including column, thin layer and gas chromatography. The topics covered are illustrated by experimentation with particular emphasis on the development of good instrumental techniques.

CHB482 Physical and Inorganic Chemistry IV

The co-ordination chemistry of biological systems, dyes and stains. Thermodynamics and kinetics of biological systems.

CHC480 Physical and Inorganic Chemistry IV

The topics in this stage of the continuing course include: galvanic cells; potentiometric titrations, electrodeposition and coulometry, surface chemistry and colloids. The topics are covered to a depth suitable for a technician in training for a position in a chemical laboratory. The topics are well illustrated by experimentation with emphasis on the development of good experimental techniques.

CHC580 Physical and Inorganic Chemistry V

The topics in this stage of the continuing course include: chemical kinetics; transference numbers; infrared spectroscopy; phase equilibria. The topics are treated at a depth suitable for a technician training for a position in a chemical laboratory. The principles and techniques are illustrated by a series of suitable laboratory experiments.

CHC680 Physical and Inorganic Chemistry VI

This is the final stage of a continuing course and the topics include the first law of thermodynamics and thermochemistry; the second law of thermodynamics and its application to chemical equilibrium and galvanic cells; radioactivity and nuclear chemistry and co-ordination chemistry.

CHA170 Physical Chemistry I

This is the first stage of a continuing course in the fundamental principles that underlie chemical transformations. The topics dealt with include: the kinetic theory of gases including compressibility factors and the Lennard-Jones potential; chemical equilibrium and an introduction to thermodynamic

SYNOPSIS (Continued)

CHA170 Physical Chemistry I (Continued)

concepts; equilibria in solutions of electrolytes with special emphasis on pH calculations, buffer solutions, solubility product, titrations and indicators; the conductance of electrolytes including applications to conductometric titrations, ionic mobility and transference numbers.

CHB172 Physical Chemistry I

This course provides a basis in the fundamental principles of physical chemistry and in the treatment of the topics, emphasis is placed on applications to biological systems. Topics treated include equilibria in electrolyte solutions with emphasis on buffer solutions; properties of liquids and the phase rule; properties of solutions including fractional distillation, partial miscibility, steam distillation and osmosis.

CHC170 Physical Chemistry I

This is the first stage of a continuing course in the basic principles of chemistry. Some of the topics are: properties of gases, chemical equilibrium; equilibria in electrolyte solutions with emphasis on buffer solutions, indicators and titrations; solubility product. The topics are covered to a depth suitable for a technician in training for a position in a chemical laboratory. The principles are exemplified by experimentation in the laboratory.

CHA270 Physical Chemistry II

This subject continues the introduction to physical chemistry started in CHA170 and enlarges on the laws of thermodynamics introducing the three laws. Other topics include the properties of dilute solutions, Raoult's law, and the phase rule. Galvanic cells are treated with reference to the standard hydrogen electrode, reversible electrodes and the Nernst equation. Reaction kinetics is introduced.

CHB272 Physical Chemistry II

This is the second stage in a course in the fundamental principles of physical chemistry with emphasis placed on biological systems. Among the topics covered are the following: The gas laws for ideal and non ideal systems; first law of thermodynamics and thermochemistry; galvanic cells including applications to the determination of pH and potentiometric titrations; colloids.

CHC270 Physical Chemistry II

This is the second stage of a continuing course in the principles of chemistry: Among the topics covered are the following: laws of dilute solutions, heterogeneous equilibria, colligative properties; solution chemistry; properties of liquids; conductance of solutions; oxidation and reduction. The topics are covered to a depth suitable for a technician in training for a position in a chemical laboratory. The principles and techniques involved are well illustrated by laboratory experimentation.

SYNOPSIS (Continued)

CHA 370 Physical Chemistry III

This subject introduces more advanced physical chemistry than CHA170 or CHA 270 and covers the properties of matter, expands the treatment of reaction kinetics and deals with molecular spectroscopy and surface chemistry.

CHA 470 Physical Chemistry IV

The introduction to thermodynamics given in CHA 270 is enlarged on and expanded in this course and the three laws are covered in detail. The phase rule is derived and discussed at length and illustrated with many practical applications.

CHA 570 Physical Chemistry V

In this subject, more detailed thermodynamics are discussed with particular reference to partial molar quantities and the concept of statistical mechanics. Phase equilibria in application to such practical examples as petroleum reservoir fluids and the cement and ceramic industries are studied in detail.

Electrochemistry and corrosion, with particular reference to practical applications are also studied in this subject.

CHA 670 Physical Chemistry VI

This final undergraduate course in physical chemistry deals with reaction kinetics including chain and branched chain reactions, and experimental methods of determining fast reaction rates. Surface and colloid chemistry also taught deals with the stability of suspensions, foams and emulsions. Heterogeneous catalysis is discussed in regard to the catalytic activity of metals, metal oxides and semi-conductors and to the kinetics and mechanism of typical reaction.

PHB 101 Physics IS

A course of lectures on linear and rotational mechanics, properties of matter, D.C. electricity, fields, thermometry, thermodynamics and geometrical optics.

PHB 120 Physics IT

A course of lectures, demonstrations and laboratory work in basic physical measurements, mechanics, properties of matter, heat, sound, AC and DC circuit theory, fields, waves and optics.

PHB 201 Physics IIS

A course of lectures on electricity and magnetism, SHM, waves, polarization, physical optics, crystals and X-ray diffraction, microscopic physics and semi-conductor theory.

SYNOPSIS (Continued)

PHB 121 Physics IIT

A course of lectures, demonstrations and laboratory work in elementary quantum principles, atomic structure of matter, nuclear physics and radioactivity.

PHB 301 Physics IIIA

A study of AC theory, electronics and applied nuclear physics.

PHB 302 Physics IIIB

A study of vibrations, waves and optics.

PHA 303 Physics IIIC

A study of AC theory, electronics and applied nuclear physics. Also includes laboratory work.

PHB 401 Physics IVA

A study of statistical mechanics, thermodynamics and vacuum physics.

PHB 401 Physics IVB

A study of mechanics, electrostatics and magnetostatics.

PHA 403 Physics IVC

A study of statistical mechanics, thermodynamics and vacuum physics. Also includes laboratory work.

PHB 501 Physics VA

A course of lectures on special relativity and quantum mechanics.

PHB 502 Physics VB

A course of lectures on applied nuclear physics, neutron physics and reactor technology.

PHB 503 Physics VC

A course of lectures on acoustics, ultrasonics and geophysics.

PHB 601 Physics VIA

A course of lectures on the physics of materials, including mechanical, thermal and electrical properties.

SYNOPSIS (Continued)

PHB 602 Physics VIB

A course of lectures on physical techniques and instrumentation.

PHB 603 Physics VIC

A course of lectures on electromagnetic wave theory. Includes wave equation, plane and spherical wave solutions, properties of plane waves, reflection, refraction, wave guides, cavity resonators and radiation theory.

PHD 102 Physics for Radiographers I

An introductory unit largely reviewing material presented in secondary school. Electricity, magnetism, the physics of radiation and mathematics are discussed with an emphasis on the relevance to radiography.

PHD 202 Physics for Radiographers II

An introductory unit dealing with X-rays; their interaction with matter and their measurement with an emphasis on relevance to radiography.

PSC 430 Physiology III

An introductory study of Human Physiology in which the lectures serve as a background to the performance of techniques in the practical section of the course. Topics include the elementary physiology of cells, tissues, organs and systems.

PSC 431 Physiology IV

An extension of the systematic physiology of PSC 430. Elementary nutrition. Integration and adaptation.

BEA 322 Plant Diversity

Introduces students to the characteristic morphological, anatomical and reproductive features of the major plant taxa as a basis for subsequent studies, and to complement a parallel session in plant physiology. The student is expected to develop a critical attitude to the investigation of plant species and to become familiar with relevant literature. Current aspects of research within plant groups are discussed.

BEA 321 Plant Physiology

The processes that support the life of plants are discussed and form the basis of experimental study. Application of statistics is encouraged wherever applicable. Nutrition, adaptation, respiration, photosynthesis, transpiration, translocation, morphogenesis are among topics covered.

SYNOPSIS (Continued)

BEA 553 Population Dynamics

Appreciation of population processes, influence of environment and self-regulation on population growth. History on consequences of the growth of human populations. Pest control and harvesting. Population sampling methods, predictive value of computer simulation.

BEA 535 Population Genetics

The objective is to illustrate through a quantitative approach the part played by such processes as mutation, genetic drift, inbreeding and outbreeding, etc., in evolutionary development.

PHD 105 Preliminary Radiotherapeutic Practice

An introductory unit dealing with beam directing devices and mathematics pertinent to the use of such devices.

BEA 530 Principles of Ecology I

This and its companion unit form a broad introductory course for non-biology majors who wish to acquire insight into the relationship between organisms and their environment. The history of ecology is studied; the concepts of succession, habitat, ecological niche are considered. The autecology of important species and their place in ecosystems is discussed. Field practice is included.

BEA 450 Principles of Ecology II

Global energy, the biosphere, food webs, productivity, impact of mankind and conservation are among topics covered. The relationship between resource utilisation and long term stability of ecosystems is discussed. Australian examples are employed where possible.

PHD 204 Principles of Pathology

An introductory unit dealing with elementary pathology, the biological effects and clinical aspects of radiation.

PHD 305 Principles of Treatment I

After consideration of biological and physical principles, the treatment of cancer at various sites in the body are discussed in detail.

PHD 405 Principles of Treatment II

A continuation of the detailed discussion started in PHD 305.

SYNOPSIS (Continued)

BEA 659 Productivity and Trophic Levels

A field-based intensive course in quantitative and qualitative analysis of feeding and energy conversion by organisms.

CMB 101 Professional Communication A

A course aimed at providing vocationally useful material and experience in the fields of oral and written communication. Special forms of communication. Effective communication. Logic and evidence. Tone in writing. Use of a library.

CMB 102 Professional Communication B

Introduction to practical vocational speech situations. Theory and practice of the conduct of meetings, seminars and other conferences. Evaluation of effectiveness of communication.

PHD 506 Programming & Data Handling I

An introductory discussion on the principles of computing and computers.

PHD 606 Programming & Data Handling II

An introductory discussion on data acquisition, evaluation, retrieval and storage.

MAB 654 Programming Languages

This course surveys the significant features of existing programming languages with particular emphasis on the concepts abstracted from these languages. Structure of simple statements, structure of algorithmic languages, list processing and string manipulation languages, topics in programming languages.

ESA 563 Project V

Students are required to produce an original detailed geological map of an area, collect and collate samples and information including a geochemical survey. Some preparation of samples for further analysis is required.

ESA 663 Project VI

The detailed analysis of samples and information resulting from work done in ESA 563 Project V. Interpretation of these results. The preparation and presentation of a thesis representing original work by the student.

ESA 683 Property Evaluation for Geologists

Valuation acts in Australia. Methods of valuation on industrial and mineral properties, sampling, testing. Methods of acquisition and compensation. Valuation reports.

SYNOPSIS (Continued)

PHB609 Radiation Physics A

A course of 15 lectures and associated laboratory work dealing with the basic principles of ionizing radiations and their use.

PHB610 Radiation Physics B

A course of 15 lectures and associated laboratory work dealing with the applications of X-rays and radioactive isotopes in the industrial and biological fields, and including an introduction to health physics.

PHD404 Radiobiology & Protection

An introductory discussion on radiobiology and protection relevant to diagnostic radiography.

PHD302 Radiographic Equipment I

Detailed discussion of the design, rating and circuitry of X-ray generator components.

PHD402 Radiographic Equipment II

Completion of topics discussed in PHD302; discussion of complete X-ray generator. Discussion of equipment used for beam collimation, reduction of scatter and fluoroscopy.

PHD502 Radiographic Equipment III

Discussion on technology of radiographic equipment and techniques of correct use in advanced radiographic procedures, including recent developments in specialized equipment.

PHD602 Radiographic Equipment IV

Discussion on technology of radiographic equipment and techniques of correct use in advanced radiographic procedures, including recent developments in specialized equipment.

PHD103 Radiographic Technique I

An introductory subject in which the photographic process, processing, materials, techniques and equipment relevant to radiography are discussed.

PHD301 Radiographic Technique II

Detailed discussion of elementary positioning for radiographic techniques and procedures including care and management of the patient.

SYNOPSIS (Continued)

PHD 401 Radiographic Technique III

Detailed discussion of elementary positioning for radiographic techniques and procedures including care and management of the patient.

PHD 501 Radiographic Technique IV

An amplification of materials in PHD 301 and PHD 401 in relation to more extensive procedures necessary for specialised radiographic examinations.

PHD 601 Radiographic Technique V

An amplification of materials in PHD 301 and PHD 401 in relation to more extensive procedures necessary for specialised radiographic examinations.

PHD 505 Radioisotopes, Principles & Practice I

Principles of radioisotope physics and instrumentation. Brief discussion of principles of thermography and ultrasonics.

PHD 605 Radioisotopes, Principles & Practice II

Discussion on clinical and practical applications of radioisotopes plus discussion on biological effects and protection relevant to handling of unsealed sources.

PHD 306 Radiotherapeutic Physics I

Detailed discussion of therapeutic X-ray generator components, the equipment and principles of megavoltage and telecuric therapy and rotation therapy.

PHD 406 Radiotherapy Physics II

Measurement and dosimetry of external beam X - and α - radiation relevant to radiotherapy. Technical aspects of sealed radio-active materials used in radiotherapy. Protection relevant to therapeutic radiography.

PHD 307 Radiotherapeutic Practice I

Detailed consideration of planning procedures and principles, including mathematical and technical applications.

PHD 407 Radiotherapeutic Practice II

Detailed consideration of planning procedures and principles, including mathematical and technical applications.

SYNOPSIS (Continued)

PHD 504 Radiotherapeutic Practice III

This unit covers full details of techniques and procedures used in treatment with emphasis on practical consideration.

PHD 604 Radiotherapeutic Practice IV

This unit covers full details of techniques and procedures used in treatment with emphasis on practical considerations.

ESA 323 Sedimentology

Processes of formation of sedimentary rocks; weathering, sediment transportation by different media, deposition. Relationships between tectonics and sedimentation. Sedimentary structures and the textures of sedimentary rocks. Sedimentary provenance; lithification and diagenesis. Sandstones; principles of classification, petrology and concept of maturity.

BEA 500 Selected Topics in Biology

This Biology unit is specifically to allow advanced students to develop interests and skills not otherwise catered for in formal course work. Preparation and presentation of seminar material, mutual evaluation and cultivation of skills in discussion of a broad range of topics of biological and social importance form the basis of the unit. Guest specialist lecturers are involved in the programme.

MAA 157 Statistics

A course in statistical methods involving elementary probability; discrete and continuous probability distributions; sampling theory; t ; χ^2 and F distributions; statistical inference; regression and correlation and experimental design.

MAB 157 Statistics A

A course in statistical methods involving elementary probability, discrete and continuous probability distributions; sampling theory; t -distribution and estimation theory.

MAB 158 Statistics B

A course in statistical techniques involving statistical inference; χ^2 and F distribution; regression and correlation and experimental design.

ESA 423 Stratigraphy & Sedimentary Petrology

Stratigraphic subdivision and nomenclature. Facies relationships; transgression and regression. Use of fossils in stratigraphy; principles of correlation and the application of palaeontological zones. Stratigraphy of Australia based on the tectonic evolution of the continent from the Precambrian to the present day.

SYNOPSIS (Continued)

ESA 423 Stratigraphy & Sedimentary Petrology (Continued)

Limestones; composition, classification, and environments of deposition of recent and ancient carbonates. Diagenesis of carbonate sediments. Dolomites and other carbonate rocks. Characteristics and origins of other biogenic and chemical sedimentary rocks such as cherts, phosphorites, and iron-stones. Pyroclastic rocks. Techniques in sedimentology. Marine geology; topography and structure of the continental margins, deep ocean floor topography and sediments. Organic reefs; composition, morphology, and origin.

Composition and origin, of petroleum and the nature of the source beds. Migration and accumulation of petroleum and natural gas. The formation of structural, stratigraphic, and combination forms of petroleum traps.

ESA 353 Structural Geology III

Stress-strain relationships, rock deformation by brittle fracture, petrofabrics; geometric, kinematic and dynamic analysis of folded rocks.

ESA 643 Structural Geology VI

Geotectonics. Structure of the earth's crust. World structural patterns. Salt tectonics. Deformation of lineations in folded rocks. Folding of inclined surfaces, unconformities, super-imposed folding. Structural methods for exploration.

ESA 343 Surveying

Theories of surface and sub-surface surveying techniques; their application and practice. The principles of photogrammetry and photointerpretation and methods of photogeological mapping.

MAB 651 Switching Theory

This course is concerned with the theoretical foundations and mathematical techniques associated with the design of logical circuits. Development of switching algebra. Simplification of combinational networks. Modes of sequential circuit operation. Synthesis of sequential circuits. Delays.

MAB 951 Systems Programming A

A course consisting of batch processing systems programs, multiprogramming and multiprocessor systems, addressing techniques, process and data modules and job scheduling.

MAB 952 Systems Programming B

An extension of MAB 951 containing file system organisation and management, explicit input-output references, real time systems and virtual memory.

CMC 125 Technical Speaking I

An introduction to the techniques of effective spoken communication. Basic principles of communication theory. Causes of breakdown. Individual speech training. Meeting procedure. Group communication. Debating. Interviewing.

CMC 124 Technical Writing I

An introduction to the techniques of effective written communication. Reasons for written communication breakdown. Essay writing. Roles of grammar and language. Comprehension. Newspaper articles. Business Reports. Letters. Short stories and essays as vehicles of communication.

MAA 933 Theoretical Electromagnetism

Maxwells equations; the electrostatic field, magnetostatics; electromagnetic waves; radiation.

MAA 626 Topics in Mathematics I

Mathematics of finance; economic statics; comparative statics; dynamic analysis; linear programming; graph theory and structural models in society; stochastic processes; theory of games.

MAA 925 Topics in Mathematics IIA

Chronological development of mathematics to the middle ages; review of developments within major areas of elementary mathematics to the middle ages, number, computation, geometry; famous mathematicians from the middle ages.

MAA 926 Topics in Mathematics IIB

Plane geometry; geometrics of dimension greater than 2; transformations; invariants; Euclidean geometry; non-Euclidean geometry.

PHD 308 Tumour Pathology

An introduction to aetiology, incidence, classification and metastasis of tumours of man.

BEA 529 Vegetation Mapping

An intensive field-based course in vegetation mapping having recourse to techniques acquired in BEA 390 and BEA 490 Field Methodology.

SYNOPSIS (Continued)

MEA 270 Workshop Technology

A course of lectures and practical work on introductory engineering drawing, design, engineering materials, workshop tools and practices. One term will be spent in the drawing office and three hours per week in each of the other terms on practical work in the workshops.