Memorial University of Newfoundland

SENATE

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

SENATE

The regular meeting of Senate was held on Tuesday, February 13, 1996, at 8:00 p.m. in Room E5004.

31. PRESENT

The President, Dr. J. Tuinman, Dr. K. Keough, Dr. K. Bindon, Dean W. Blake, Dean I. Bowmer, Mr. G. Collins, Mr. R. Ellis, Professor M. Lamb, Dean A. Law, Dean W. Ludlow, Dean T. Murphy, Mr. L. O'Reilly, Dean T. Piper, Dr. J. Pennell, Dean R. Seshadri, Acting Dean C. Sharpe, Ms. D. Whalen (for Dr. G. Skanes), Dr. M. Volk, Dr. A. Aboulazm, Dr. P. Allderdice, Dr. G. Bassler, Mr. E. Brown, Dr. J. Evans, Dr. G. Gardner, Dr. L. Gillespie, Dr. S. Goddard, Dr. G. Gunther, Dr. M. Haddara, Dr. G. Handcock, Dr. R. Haines, Professor K. Hestekin, Dr. O. Janzen, Captain W. Norman, Dr. M. Paul, Dr. R. Payne, Dr. R. Pickavance, Dr. N. Rich, Dr. R. Rompkey, Dr. G. Sabin, Dr. S. Saha, Dr. D. Treslan, Dr. D. Tulett, Dr. C. Turner, Professor Y. Walton, Professor D. Walsh, Dr. M. Wernerheim, Dr. H. Williams, Mr. K. Carter, Ms. M. Fara-On, Mr. M. Carley, Mr. S. Ennis, Mr. P. Thornhill, Mr. S. Musseau, Mr. B. Penney, Mr. T. Scott.

The President welcomed Dean I. Bowmer, recently appointed as Dean of Medicine and new student representatives Mr. Ken Carter (graduate student) and Mr. Tony Scott (Marine Institute).

32. APOLOGIES FOR ABSENCE

Dr. C. Harley, Dr. G. Kealey, Dr. V. Maxwell, Dr. T. Patel.

33. MINUTES

The Minutes of the meeting held on January 17, 1996, were taken as read and confirmed.

34. REPORT OF THE COMMITTEE ON HONORARY DEGREES AND CEREMONIAL

It was moved by Dr. Bindon, seconded by Dr. Gunther and carried that Clause IV.A.2. of the Senate By-Laws and Procedures be set aside to allow Senate to consider this item without the usual five days prior notice.

The name of a candidate recommended by the Committee on Honorary Degrees and Ceremonial was presented to the Senate for awarding of a doctoral degree honoris causa. Dr. K. Bindon made a brief statement about the candidate and members were given the opportunity to discuss the merits of the candidates before voting. Upon voting by a show of hands the candidates was approved by at least a two-thirds majority vote.

35. *REPORT OF THE SENATE COMMITTEE ON UNDERGRADUATE STUDIES

It was agreed by separate motion where necessary, that the report of the Executive Committee be approved.

35.1 Classification of Work Term Students

Page 54, 1995-96 Calendar, following the heading D. Classification of Students, amend clause 1.a) to read as follows:

"1.a) Full-time Students: (i) Students who have

been duly admitted to this University and who are duly registered for the duration of any semester or session in at least three courses or the equivalent are termed Full-time Students. For the Spring Semester (including Intersession and Summer Session), students who register for a total of at least three courses, whether they be session courses or semester courses, such that the student is taking at least one course at any time during the twelve-week semester, will be deemed Full-time Students.
(ii) Students who have been admitted to any of the co-operative education programmes and who are registered for the duration of any semester in the required work term are termed Full-time Students.

Notwithstanding the above, provided he or she has been duly admitted...as President of the Union."

Delete current clause "b) Part-Time Students" and replace with the following:

"b) Part-Time Students: Students who have been duly admitted to the University and who are registered for one or two courses or the equivalent in any semester or session are termed Part-time Students."

35.2 School of Social Work

Replace the calendar changes relating to New Programme: REGULATIONS FOR THE DIPLOMA IN SOCIAL WORK, approved by Senate at the meeting held on September 12, 1995, with the following:

"REGULATIONS FOR THE DIPLOMA IN SOCIAL WORK

A programme leading to the Diploma in Social Work will be offered by the School of Social Work to groups of students identified as having particular needs, and will be delivered as funding is available and in consultation with an advisor

committee including representatives of the group identified as having particular needs. In the first instance this Diploma was developed to meet the needs of members of the Labrador Inuit Association.

When the Diploma in Social Work is to be offered to a group of students identified as having particular needs, an advisory committee will be created including leaders from the community or group from which the students are drawn, representatives of the School of Social Work and representatives of students in the programme. This committee will advise on specific programme design, student admission, instructor selection and orientation, and programme planning and evaluation.

1. To be eligible for admission to the Diploma in Social Work programme, students must be admissible to the university. Applicants must submit a School of Social Work application to the Office of the Registrar and must be recommended for admission by an admissions committee of the School of Social Work.

2. Students who have not been registered for courses at Memorial for either of the two semesters immediately preceding their application for admission to the Diploma programme must complete a general application for admission/re-admission to the university and submit it to the Office of the Registrar prior to the deadline date as outlined in the university diary.

3. Students in the Diploma in Social Work are expected in the course of their studies to be either in employment in a human service role, or to engage in 500 hours of volunteer work in the human services and/or in community leadership. Volunteer work must be in accordance with criteria approved by the specific diploma programme

advisory committee.

4. Section C, Academic Standards and Promotion, will apply to students in the Diploma in Social Work.

5. Students who have been awarded the Diploma in Social Work and who complete the remaining arts and science courses required for admission to the School of Social Work while maintaining an average of at least 65%, can apply for admission to and will be considered for admission under the last sentence of clause five of the admission/re-admission policy of the School of Social Work.

6. The following courses are required for the Diploma in Social Work:

two courses in English;
two courses in Psychology; and
one course in Sociology;
one course in Anthropology;
Women s Studies 2000;
two courses in Linguistics, either for Inuktitut speakers or non-speakers (Linguistics 2020/2021 or 2025/2026);
Social Work 2700 Introduction to Social Work;
Social Work 2510 Social Administration: Introduction to Social Policy Formulation and Analysis;
Social Work 3230 Cultural Camp;
Social Work 3211 Human Behaviour and Social Environment: Individual and Families;
Social Work 3220 Human Behaviour and Social Environment: Groups and Society;
Social Work 3511 Social Administration: Aboriginal People and Social Policy;
Social Work 3320 Methods and Skills for Intervention: Communication and Relationships;
Social Work 3321 Methods and Skills for Intervention:

Assessment of Individuals and Families in Community Context;
Social Work 3520 Social Administration: Formal Communication for Professional Practice;
Social Work 3530 Social Administration: Aboriginal Social Development: Community and Programme Development Aboriginal Communities;
Schedule A Elective"

Following the course description for Social Work 3511: Aboriginal People and Social Policy, add the following prerequisite:

"Prerequisites: Social Work 2700, 2510."

35.3 School of Physical Education and Athletics

Page 259, 1995-96 Calendar, following the heading Regulations for the Degree of Bachelor of Physical Education, subheading Programme of Study, delete Clause 7 and renumber current Clause 8 as Clause 7.

Page 260, following the heading Regulations for the Degree of Bachelor of Physical Education (Honours), delete Clause 9.

Amend all references to the Bachelor of Physical Education Degree (BPE) to read as follows:

"Bachelor of Physical Education (Co-operative)"

Amend all references to the Bachelor of Physical Education (Honours) to read as follows:

"Bachelor of Physical Education Honours (Co-operative)"

Page 260, following the subheading Evaluation and Promotion, under Clause 18, amend the last sentence to read as follows:

"...Late reports may not be evaluated, unless..."

Amend Clause 19 to read as follows:

"19) The overall evaluation of the work term is the responsibility of the School of Physical Education and Athletics.

Two components are considered in work term evaluation: on-the-job performance and the Work Report. Each component is evaluated separately.

Evaluation of the work term will result in the assignment of one of the following promotion recommendations:

a) PASS WITH DISTINCTION: Indicates excellent performance in both the work report and work performance. The student is commended for his/her outstanding performance in each of the required components; pass with distinction has been awarded to each of the work report and work performance.

b) PASS: Indicates that performance meets expectations in both the work report and work performance. The student fully meets the requirements of a passing work report and completely satisfactory work term performance.

c) FAIL: Indicates failing performance in the work report and/or work performance.

For promotion from the work term, a student must obtain PASS WITH DISTINCTION or PASS.

On-the-job performance is assessed..."

Amend Clause 20 to read as follows:

"20) If a student fails to achieve promotion from

a work term, the student will be required....

A given work term....

Notwithstanding the above, a student who does not achieve promotion and who..."

35.4. Faculty of Arts - Harlow Campus Semester

Page 119, 1995-96 Calendar, immediately before the heading Course Descriptions, highlight and insert the following:

"HARLOW CAMPUS SEMESTER

This is an integrated interdisciplinary programme offered at the Harlow Campus, England, normally consisting of five credits. The content of the programme changes each time the semester is offered, as does the allocation of credits between departments. Students wishing to enrol in a Harlow Semester must have completed at least sixteen courses, and satisfy any prerequisites which may be required. Enrolment is competitive. The relevant admission criteria, as well as other information, may be obtained from the Office of the Dean of Arts."

35.5 Medieval Studies Programme

Page 155, 1995-96 Calendar, following the entry for Medieval Studies 3002, insert the following:

"3003. Christianity in the Middle Ages. (Same as Religious Studies 3560). A study of the development of Christianity in the West from the eleventh century to the eve of the Reformation, through an examination of its principal thinkers and the most significant societal forces and events: the crusades, the universities, monasticism, religious dissent, and mysticism. Prerequisite: Religious Studies 2130.

3004. Medieval Philosophy. (Same as Philosophy 3760). Developments in philosophy from Augustine to Ockham."

Page 163, following the course title for Religious Studies 3560. Christianity in the Middle Ages, insert:

"(Same as Medieval Studies 3003)"

Page 157, following the course title for Philosophy 3760. Medieval Philosophy, insert:

"(Same as Medieval Studies 3004)"

35.6 Department of History

Page 151, 1995-96 Calendar, delete current course descriptions for History 4230 and 4231, and replace with the following:

"4230.Special Topics in Newfoundland History I. Specialized studies in the History of Newfoundland to the mid-nineteenth century.

4231. Special Topics in Newfoundland History II. Specialized studies in the History of Newfoundland since the mid-nineteenth century.
NOTE: Credit may not be obtained for both History 4231 and Political Science 4731."

35.7 Department of English

Page 132, 1995-96 Calendar, delete the current course descriptions for English 4060 and English 4061, and replace with the following:

"English 4060. Victorian Literature I. A study of selected works by such writers as Carlyle, Tennyson, the Brownings, the Bronte,s, Arnold, and Morris.

English 4061. Victorian Literature II. A study of selected works by such writers as Dickens, Thackeray, Gaskell, George Eliot, Meredith, Trollope, and the Rossettis."

35.8 Department of Linguistics

Page 151, 1995-96 Calendar, following the heading Linguistics, sub-heading Honours and Joint Honours Degrees, delete current Clause 2, and replace with the following:

"2. An Honours degree in Linguistics must include twenty Linguistics courses of which the following are required: 2103, 2104, 2210, 2500, 3000, 3100, 3104, 3201, 3500, 3850, 4001 (and/or 4110), 4201, 4999, and at least one of 4150, 4210, 4220, 4350, 4400, 4500, 4700, 4850, 4950 (or 4951). Students should choose courses in consultation with their Honours dissertation supervisor, to ensure that the needs and interests of the individual candidate are met, and to take into account the availability of courses which the department is able to offer. The Honours or Joint Honours student must also meet a language requirement of two university courses or the equivalent in a second language. Under very special circumstances the Head of the Department may prescribe two advanced courses in English dialectology in place of the above second language requirement."

Page 152, following the heading Minor Programmes, amend clause 4) Concentration in Linguistics for B.Ed. Students, to include Linguistics 3000, as follows:

"A minimum of six...as follows: Linguistics 1100/2100, 2103, 2104, 2210, plus two of Linguistics 2150, 2500, 3000, 3100, 3104, 3150, 3201, 3212, 3850. At least one..."

Page 151, delete the current course description for Linguistics 3201 and replace with the following:

"3201. Generative Phonology. The purpose of this course is to provide the student with a thorough grounding in Generative Phonology. The first part of the course will be a review of general phonological terms, concepts and methodology. The remainder of the course will present the basic terms, concepts, and methods in some detail. The following topics will be discussed: distinctive features, redundancy, segmental and sequential constraints, underlying representations, rule ordering, abstract and concrete analyses, different types of phonological processes, syllable structure, the analysis of tone, and morphophonological analysis.
Prerequisites: Linguistics 2103 and 2104."

35.9. Department of Psychology

Page 218, 1995-96 Calendar following the heading, Psychology, insert the following:

"ADMISSION TO MAJOR AND MINOR PROGRAMMES

Admission to the Major and Minor programmes in the Department of Psychology is competitive and selective. Students who wish to enter these programmes must submit a "Declaration/Change of Academic Programme" form to the Psychology Department by June 1 for Fall semester registration and by October 1 for Winter semester. To be eligible for admission, students must have completed the eight courses listed below with an average of at least 65% in Psychology 1000/1001 and an overall average of at least 60% in Psychology, English, and Mathematics:

a. Psychology 1000, 1001
b. English 1080 and one of 1101, 1102,

1103, or 1110, or equivalents.

c. Mathematics 1000 or two of 1080, 1081, 1050, 1051

d. Two electives (three if Mathematics 1000 is completed).

Students who fulfil the eligibility requirements compete for a limited number of available spaces. Selection is based on academic performance as determined by the average of grades in the Psychology, English, and Mathematics courses specified above. Applicants will be informed in writing whether or not they have been accepted within two weeks after the final date for filing applications."

35.10 Department of Folklore

Page 133, 1995-96 Calendar, following the heading Major in Folklore, delete the paragraph

"Students who declare a major in Folklore...and Folklore 2100."

and replace with the following:

"Students who declare a major in Folklore should have completed Folklore 1000 (or 2000); it is recommended that students intending to major in Folklore take Folklore 2100 as early in their programmes as possible."

Following the heading Minor in Folklore, delete the paragraph

"Students who declare a minor in Folklore...and Folklore 2100."

and replace with the following:

"Students who declare a minor in Folklore should have completed Folklore 1000 (or 2000); it is

recommended that students intending to minor in Folklore take Folklore 2100 as early in their programmes as possible."

Page 134, delete the current Note following the course description for Folklore 2100 and replace with the following:

"NOTE: It is strongly recommended that majors and minors take this course before taking 3000 and 4000 level courses."

Page 133, following the heading Honours Degree in Folklore, delete the paragraph "See General Regulations for Honours Degree. An Honours candidate...in consultation with the Head of Department." and replace with the following:

"See General Regulations for Honours Degree. An Honours candidate in Folklore must complete a minimum of 20 courses, including the 12 as prescribed for the Major in Folklore. The remaining courses will normally include ONE of the following required options:

a) Folklore 400X
b) Folklore 4998
c) Folklore 4999"

Delete the current section "Combined Honours Degree in Folklore and English or Sociology/Anthropology or Others" and replace with the following:

"JOINT HONOURS DEGREE IN FOLKLORE AND ANOTHER MAJOR DISCIPLINE

See General Regulations for Honours Degrees. A minimum of 28 courses in the two subjects selected, with the approval of the Heads of both Departments, is required.

Of the courses required in the two subjects

selected, not fewer than 14, and not more than 17, must come from each discipline. The candidate may choose the discipline in which to complete the Honours Essay or the Comprehensive examination. If the student chooses the 400X option, the Folklore component will consist of the 12-course major in Folklore plus 400X, for a maximum of 17 courses. Students are advised to choose an option as soon as possible after declaring the second subject of the Joint Honours degree."

Page 135, following the entry for 400X, insert the following:

"4998. Honours Comprehensive Examination. This may be written or oral, or a combination of both (1 credit).

4999. Honours Essay (1 credit)."

35.11 *Department of Religious Studies

Page 161, 1995-96 Calendar, following the heading Religious Studies, subheading Course List, delete current course title for Religious Studies 2011 and replace with the following:

"2011. Introduction to Asian Religious Traditions."

Page 162, delete current course Religious Studies 3420 in its entirety, and replace with Religious Studies 3421 Confucianism, and Religious Studies 3422 Taoism, as follows:

"3421. Confucianism. A description of Confucianism as it developed in classical times with Confucius, Mencius, and Hsun-tzu to its status in the twentieth century in Chinese, Japanese, and Korean societies.
Prerequisites: Religious Studies 2011.
Note: Credit may not be obtained for both 3421

and the former 3420.

"3422. Taoism. A study of the philosophical Taoist tradition in the works of Lao-tzu, Chuang-tzu, and Lieh-tzu, as well as its development in Neo-Taoism and its influence in East Asian culture.
Prerequisite: Religious Studies 2011.
Note: Credit may not be obtained for both 3422 and the former 3420."

New Course

2811. Introduction to Contemporary Religious Movements. An introduction to contemporary religious movements in the west, including modern witchcraft, Neo-pagan religions, Mother Earth Spirituality, UFO religion, and the New Age Movement.

Page 161, following the heading General Degree, amend clause 2 c) as follows:

Delete 3420 and insert 3421 and 3422.

35.12 Department of Philosophy

Page 156, 1995-96 Calendar, following the heading Philosophy, delete the entire section beginning "PHILOSOPHY PROGRAMMES..." up to but not including "COURSE LIST", and replace with the following:

"Minor Programme: The minor programme in Philosophy consists of a minimum of eight courses which must be chosen in accordance with the following requirements:

Philosophy 1200 or 2200 - (Principles of Philosophy)
Philosophy 2210 (Logic) or 2220 (Principles of Human Knowledge)
Philosophy 2230 (Moral Philosophy) or 3400

(Political Philosophy)
Philosophy 2701 (History of Ancient Philosophy) or 2702 (History of Modern Philosophy)
A major author course i.e. ONE of 3730 (Plato), 3740 (Aristotle), 3800 (Descartes), 3840 (Hume), 3850 (Kant)
Three other Philosophy courses

Note 1: Students declaring a Minor in Philosophy may choose to have a programme advisor by mutual agreement with a member of the Philosophy department.

Note 2: Of the courses numbered 1001-1003 and those numbered 2800-2810, not more than TWO may be counted towards the Minor.

Major Programme: The major programme in Philosophy consists of a minimum of twelve courses chosen in accordance with the following requirements:

Philosophy 1200 or 2200 (Principles of Philosophy)
Philosophy 2210 (Logic)
Philosophy 2220 (Principles of Human Knowledge)
Philosophy 2230 (Moral Philosophy) or 3400 (Political Philosophy)
Philosophy 2701 (History of Ancient Philosophy) or 2702 (History of Modern Philosophy)
Philosophy 3730 (Plato) or 3740 (Aristotle)
Philosophy 3800 (Descartes) or 3850 (Kant) or 3840 (Hume)
Philosophy 3910 (Analytic) or 3920 (Phenomenology)
One course in the 4700-4790 series
One course in the 4800-4890 series
Two other Philosophy courses.

Note: Students declaring a major in Philosophy must choose a programme advisor in consultation with the Head of the department and the faculty member concerned.

Honours Programme: The full Honours programme requires a minimum of TWENTY Philosophy courses; joint Honours requires FIFTEEN Philosophy courses. These must include:

Philosophy 1200 or 2200 (Principles of Philosophy)
Philosophy 2210 (Logic)
Philosophy 2220 (Principles of Human Knowledge)
Philosophy 2230 (Moral Philosophy) or 3400 (Political Philosophy)
Philosophy 2701 (History of Ancient Philosophy) or 2702 (History of Modern Philosophy)
Philosophy 3730 (Plato) or 3740 (Aristotle)
Philosophy 3800 (Descartes) or 3840 (Hume) or 3850 (Kant)
Philosophy 3910 (Analytic Philosophy)
Philosophy 3920 (Phenomenology)
One course in the 4700-4790 series
One course in the 4800-4890 series
One other 4000 level course
One of Philosophy 4998 (Comprehensive Examination) or 4999 (Honours Dissertation).
Candidates for joint Honours must choose 4998*
Candidates for full Honours may take 4999 only with permission of the Department.
Other Philosophy courses to a total of 20 for Full Honours, 15 for Joint Honours.

*Note: Candidates for Joint Honours who elect to fulfill the honours requirement in the other discipline are not required to take the comprehensive Examination.
(See General Regulations for the Honours degree of Bachelor of Arts)"

Page 156, before the list of 3000 level courses, insert the following:

"Note: Except with permission of the department, Philosophy 1200/2200 is a prerequisite for all Philosophy courses beyond the 2000 level)."

Page 157, before the list of 4000 level courses insert the following:

"Note: Except with permission of the department, students will not be admitted to 4000 level courses without having completed a minimum of two courses at the 3000 level."

Page 156, delete the Prerequisite following the course description for Philosophy 3120.

Page 157, delete the Note following the course description for Philosophy 3851.

35.13 Department of Psychology

Page 221, 1995-96 Calendar, following the course description for Psychology 2900, amend Note to read as follows:

"Note: Credit may not be obtained for both Psychology 2900 and any of the following: Psychology 2925, Statistics 2500, Statistics 2510, Statistics 2550."

Page 221, following the course description for Psychology 2901, amend Note to read as follows:

"Note: Credit may not be obtained for both Psychology 2901 and any of the following: Psychology 2950, Statistics 2501, Statistics 2560, the former Statistics 2511."

35.14 Women's Studies Programme

Page 168, 1995-96 Calendar, following the heading Women's Studies, delete entire entry and replace with the following:

"WOMEN'S STUDIES

Programme Coordinator: Dr. P.K. Artiss

The Minor in Women's Studies is a multi-disciplinary programme offered to candidates for the degrees of Bachelor of Arts and Bachelor of Science. The Minor programme is an alternative to a Minor offered by a single department and satisfies the degree requirement for a Minor.

The objective of the programme is to explore the experience and contributions of women from the perspective of different academic disciplines and to compare the situation of women in society with that of men. Assumptions about women and gender differences and the social implications of these assumptions will be explored. While consideration will be given to socially relevant issues, attention will also be paid to the implications for academic disciplines of the research on women and their contribution to society.

REGULATIONS

Students who minor in Women's Studies shall complete a minimum of eight courses which shall include the following:

1) Women's Studies 2000

2) Women's Studies 4000

3) A minimum of four courses from List A below taken in at least three different subject areas.

4) Two further courses to be chosen from Lists A and/or B below. One of these courses may be a selected topics or directed readings course in any Arts subject relevant to the Minor programme.

A selected topics course or directed readings course included in a student's minor programme must be approved in advance by the Committee on

Undergraduate Studies on the recommendation of the Programme Coordinator. For more information about Special Topics courses, see General Regulations, item O. Special Topics Courses.

5) Not more than one course in the student's Major Programme may also be used to satisfy the requirements of the Minor in Women's Studies.

COURSE LIST

Required Courses:

Women's Studies 2000. An Interdisciplinary Introduction to Women's Studies. An interdisciplinary introduction to the major concepts, issues and debates of Women's Studies.

Women's Studies 4000. Seminar in Women's Studies. An interdisciplinary seminar designed to focus on women's issues, and on theories and methodologies of women's studies.
Three hour seminar per week.
Prerequisites: Students must normally have completed Women's Studies 2000 and five other Women's Studies Programme courses before taking Women's Studies 4000. In exceptional cases, students without these prerequisites may be accepted into the course, with the approval of the Instructor of WSTD 4000 and the Programme Coordinator.

Optional Courses:

Women's Studies 2001. Women and Science. An investigation of historical and contemporary contributions of women scientists, especially Canadians; different sciences and how they study women; and feminist and other perspectives on gender and science.
Three hours of lectures per week.

Women's Studies 3000-3010. Special Topics in Women's Studies.

Women's Studies 4107. Women and Technological Change. (Same as Sociology 4107). This advanced seminar will provide an interdisciplinary survey of the effects of technology on women's lives. Topics could include: The historical development of domestic technology; changes in workplace technology and their impact on women; assessing technologies from a feminist perspective; the design of technological systems; biomedical and reproductive technologies; information technologies; biotechnology; developments in architecture and design; women, development, and technology; women and weapons technology; women and ecology; future technological change and women's lives. The course will combine seminar discussions of reading with films, workplace tours and guest speakers.
Note: Credit may not be obtained for both Women's Studies/Sociology 4107 and the former Women's Studies 3009.

List A

English 3817	Writing and Gender
English 3830	Women Writers
History 3760	Women in Western Society and Culture,(I)
History 3770	Women in Western Society and Culture,(II)
Linguistics 3212	Language, Sex and Gender
Political Science 3140	Feminist Political Theory
Political Science 3340	Women and Politics
Psychology 2540	Psychology of Gender and Sex Roles
Religious Studies 2800	Women in Western Religions
Religious Studies 2801	Women in Eastern Religions
Sociology/	

Anthropology 3314 Gender and Society
Sociology/
Anthropology 4092 Gender and Social Theory
Sociology/Anthropology A special topics course from the block 3314-3325 dealing with gender and society (excluding 3316, 3317 and 3320)
Women's Studies 2001 Women and Science
Women's Studies 3000-
3010 (excluding 3009) Special Topics in Women's Studies
Women's Studies/
Sociology 4107 Women and Technological Change

List B
Education 3565 Gender and Schooling
Philosophy 2805 Contemporary Issues
Psychology 3533 Sexual Behaviour
Religious Studies
3650 Religion and Social Justice
Sociology/
Anthropology 2270 Families
Social Work 5522 Women and Social Welfare

NOTES:
1) Normal prerequisites and waiver policies in the respective departments will apply.

2) Education 3565 may be applied to the Bachelor of Arts or Bachelor of Science degree only in the case of students who complete the Women's Studies Minor Programme."

35.15 Department of Linguistics

Page 154, 1995-96 Calendar, following the entry "4950-51. Special Topics in Linguistics.", insert the following:

"Prerequisite: Permission of the instructor."

35.16 Department of French and Spanish

Page 136, following the heading French and Spanish, subheading French Major Programme, amend current clause 4) to read as follows:

"4) All students majoring in French must spend at least 4 weeks in an approved francophone institution in a French-speaking area."

35.17 Department of History

Page 148, 1995-96 Calendar, following the heading History, subheading Honours Degree, amend current Clause 2 to read as follows:

"2. For consideration as entrants during the Fall semester, students must make application by 30 June; for the Winter semester, by 1 November. Applications received after 30 June will be considered for the Winter semester; applications received after 1 November will be considered for the next Fall Semester. Students intending to complete... Head or delegate."

35.18 *Department of Economics

New courses:

Economics 2550. Economic Statistics and Data Analysis. Analysis of economic statistics and the use of economic data. A course designed to introduce students to the task of economic data collection, description and analysis. Emphasis will be on interpretation and analysis of data using computer software programmes.

Prerequisite: Statistics 2500 or equivalent.

Economics 3360. Labour Market Economics. This is an intermediate course concentrating on Canadian labour issues. The course investigates the labour market decisions that workers face and the influence of government decisions. Course topics also include factors affecting a firm's demand for labour, wage determination in non-union market, the role of unions, the various structure of wages and wage differentials in the Canadian setting. NOTE: Students who have completed the former Economics 4360 may not receive credit for Economics 3360.

Economics 4361. Labour Market Theory and Income Distribution. Survey of alternative theories of labour market economics. An examination of theories of income distribution and of alternative income security programmes used to alleviate poverty.

Delete the Calendar entries for Economics 3060, Economics 4021 and Economics 4360.

Page 126, following the subheading General Degree, delete current Clause 3, and replace with the following:

"3. Economics 2550, 3000 and 3010 are prerequisites for all 4000-level courses."

Amend current Clause 6 to read as follows:

"6. Candidates who undertake a Major in Economics shall complete Statistics 2500 and at least 13 courses in Economics of which:

a) 2010, 2020, 2550, 3000, 3001, 3010 and 3550 are obligatory.

b) Six courses shall be chosen from among the

various Economics courses in consultation with the Head of the Department or delegate, at least three of which shall be at 4000 level.

c) Candidates may, with the approval of the Head of the Department or delegate, substitute Statistics 2510 for Statistics 2500."

Page 127, following the subheading Honours Degree, amend current Clause 3 to read as follows:

"3. Candidates are required to complete at least 20 courses in Economics, of which: 2010, 2020, 2550, 3000, 3001, 3010, 3011, 3550, 3551, 4550, 4551 shall be chosen."

Amend current Clause 4 to read as follows:

"4. Eight electives in Economics shall be chosen in consultation with the Head of the Department or delegate, at least three of which shall be at 4000 level. In addition, Economics Honours candidates are required to write a dissertation."

Amend current Clause 5 to read as follows:

"5. ...; and to complete Statistics 2500."

Page 127, following the subheading Minor in Economics, amend Clause 2 to read as follows:

"2. Four electives shall be chosen in consultation with the Head of the Department or Delegate."

Page 128, delete the Prerequisites for Economics 4550.

35.19 *Department of German and Russian

Page 147, 1995-96 Calendar, following the heading German and Russian Language and Literature, subheading Russian, amend first and second paragraphs to read as follows:

"Russian 1000 and 1001 are prerequisites for all other Russian courses except Russian 2030, 2031, 2600, 2601, 2900, 2901 and 3910.

Russian 2600, 2601, 2900, 2901 and 3910 may not be used as part of the requirement of two courses in a second language."

Page 147, delete current course description for Russian 2030, and replace with the following:

"This course is specifically designed for those who wish to gain a reading knowledge of Russian relevant to their professional, business or academic disciplines and relevant knowledge of life in contemporary Russia. It is intended for senior undergraduate or graduate students, as well as professionals and business people. No previous knowledge of Russian is required,"

Page 147, following the subheading Russian Studies Minor, delete "Economics 3060 Economics of Capitalism and Socialism"

New Course:

"3910. The Post-Soviet Era. This course is designed to study the relationship between radical changes in Russia since 1985 and the effects of perestroika and glasnost on Russian literature, journalism, film and Russian cultural life of the post-Soviet era.
No prerequisites, lectures are given in English."

35.20 Department of Mathematics and Statistics

Page 210, 1995-96 Calendar, following the heading Honours in Applied Mathematics, amend as follows:

In section a) delete "AM4131" and insert, in sequence, "AM4162".

In section d) insert "AM4131" in sequence.

35.21 *Department of Earth Sciences

New course:

"3179. Geophysical Analysis. Vector Calculus; curvilinear coordinates; line, surface and volume integration; integral theorems; the derivation and application of geophysically important partial differential equations - Laplace's equation to the Earth's gravity and magnetic fields, the diffusion equation to the Earth's heat flow, and the wave equation to electromagnetic and seismological phenomena; geophysical uses of Legendre functions; Fourier analysis in geophysics; introductory Cartesian tensors. This course has a laboratory component to familiarize the student with practical applications of the tools discussed.
Lectures: Three hours per week.
Laboratories: Three hours per week.
Prerequisites: Mathematics 2000, Mathematics 2050, Physics 2055.

Page 208, insert Earth Sciences 3179 in the prerequisite list for each of the Earth Sciences courses 4160, 4171, 4173, and 4179.

Page 207, delete Earth Sciences 3161, Solid Earth Physics I.

Page 208, amend the title of Earth Sciences 4160 from Solid Earth Physics II to Solid Earth Physics.

Page 205, following the heading Minor in Earth Sciences, delete 3161 from clause b) and add 3179.

Page 186, following the heading Regulations for the Honours Degree of Bachelor of Science, subheading 2) Course Requirements, make the

following changes:

Amend the Note following Clause 2)a)(ii) as follows:

"NOTE: The requirements for an Honours Degree of Bachelor of Science cannot be completed in 40 courses if any of the following three statements is true: (i) the student is a major in Chemistry, Earth Sciences, or Physics and has completed Mathematics 1080; (ii) the student is a major in Chemistry or Physics and has completed Chemistry 1800; (iii) the student is a candidate for the Honours BSc degree in Chemistry, Physics, or a geophysics specialization within Earth Sciences, and has completed Physics 1201. Such students will only meet the degree requirement after completing 41, 42 or 43 courses."

In the Notes following Clause 2)b)(i), delete Note 4) in its entirety.

Page 204, following the heading Earth Sciences, subheading Programmes in Earth Sciences, amend entry on 40 and 45 course programmes to read as follows:

"The following undergraduate programmes are available:

40 course programmes
- Honours or General degrees in Earth Sciences
- Joint Major in Earth Sciences/Physics

45 course programmes
- Joint Honours in Earth Sciences/Physics
- Joint Honours in Biology and Earth Sciences
- Joint Honours in Earth Sciences/Chemistry
- Joint Honours in Geography/Earth Sciences"

Page 205, following the heading Major Programmes in Earth Sciences, subheading Common Block of Required Courses, amend as follows:

Delete "All majors in Earth Sciences must complete the following courses", and replace with the following:

"All majors in Earth Sciences must complete those courses specified in points (a) through (d). Students should examine prerequisites of 3000-level courses in order to decide which course to select under points (c) and (d)."

Amend Clause c) to read "c) Mathematics 2000 or Statistics 2510".

Insert new clause d) as follows:

"d) Biology 2120 (or Biology 1001 and 1002), or Physics 2055."

In the paragraph starting "*Some students may find it necessary", delete the words "Earth Sciences (Geophysics) students" and replace with "Students pursuing a geophysics specialization within Earth Sciences,"

Page 205, delete the word "Geology" from the heading Honours B.Sc. Degree in Earth Sciences (Geology).

Following the above heading, delete the word "Geology" from the second paragraph "In addition to the common block...degree in Earth Sciences (Geology):"

Delete "d) Biology 2120 (or Biology 1001 and 1002)."

Delete the section headed "Honours B.Sc. Degree in Earth Sciences (Geophysics)" in its entirety.

Delete the word "Geology" from the heading "General B.Sc. Degree in Earth Sciences (Geology).

Following the above heading, delete the work "Geology" from the paragraph "In addition to the common block...degree in Earth Sciences (Geology)."

Delete "d) Biology 2120 (or Biology 1001 and 1002)."

In the paragraph following clause g) delete the word "(Geology)" from the first sentence.

Page 206, delete the section headed General B.Sc. Degree in Earth Sciences (Geophysics)" in its entirety.

Following the heading General Notes for all Earth Sciences Programmes and Courses, under Note 2, delete the words "(Geology) or Earth Sciences (Geophysics)" from Note 2).

Page 206, following the heading General Notes for All Earth Sciences Programmes and Courses, delete current Note 4) and replace with the following:

"4) Courses 2310, 3400, 3600 and 3701 have compulsory field components held immediately before the first week of the fall semester. The field components for courses 3400, 3600 and 3701 are integrated into a single field school. Additional field experience is available to students who enroll in Earth Sciences 4905, which has prerequisites of Earth Sciences 3053 and 3400. The field component for course 2310, the integrated field school at third-year level, and the field course 4905 each require payment of a participation fee to cover costs for logistics and equipment. Students who intend to participate in field components or the field course 4905 must consult with instructors for details well in advance of attempting telephone registration. In the fall semester of third and fourth years, a

number of full-day field exercises are normally run by swapping Earth Sciences lecture and laboratory slots."

In the course descriptions for 3400 and 3600, delete the following sentence:

"This course includes a compulsory techniques component (field plus laboratory projects) immediately preceding the start of the Fall Semester."

In the course description for 3400, 3600, and 3701, insert the following sentence:

"This course requires, as part of its laboratory component, satisfactory completion of the one-week third-year field school which takes place immediately preceding the start of the fall semester."

35.22 Department of Biology

Page 196, 1995-96 Calendar, following the heading Course List, delete NOTE 2) in its entirety.

Amend the entry for 2120. Biology for Students of Earth and Food Sciences as follows:

Delete the words "and Food" from the course title.

Delete the words "and Food Science" from the first sentence of the course description.

Delete "Food Science majors: no prerequisites."

Delete the words "and Food Science majors" from NOTE: 1).

Page 197, following the course description for 3050. Introduction to Microbiology, delete current prerequisite, and replace with the following:

"Prerequisite: Chemistry 2440 or 2401 or 2420. Either Chemistry 2401 or 2420 may be used as a corequisite."

Page 195, following the heading Biology, subheading Entrance Requirements, delete current paragraph 2, and replace with the following:

"To be considered for admission to the programme students must have completed Biology 1001/1002 with an average of at least 65%. In addition, applicants will normally have completed the following six courses(or their equivalents) and must have a minimum overall average of 60% in these six.

- English 1080, 1110 or equivalent
- Mathematics 1080/1081 (or Mathematics 1000 only)
- Chemistry 1000/1001 or Physics 1200/1201 or Physics 1050/1052
- (If Mathematics 1000 taken, any one other first year course)"

35.23 Department of Biochemistry

Page 191, 1995-96 Calendar, following the heading Biochemistry Programme, subheading General Degree in Biochemistry, delete current first paragraph and replace with the following:

"Entry to the Biochemistry Majors programme is based on academic standing. To be considered for admission to the programme students must have at least 10 credits and have successfully completed the following courses (or their equivalents) with a minimum overall average of 60%. In addition, students must have completed Chemistry 1000/1001 with an average of at least 65%.

a) English 1080, 1110 (or equivalent)

b) Chemistry 1000, 1001
c) Mathematics 1000, 1001 (or Math 1080, 1081)
d) Physics 1050, 1052 (or Physics 1200, 1201)"

Page 192, following the heading Nutrition Programme, subheading General Degree in Nutrition, delete current first paragraph and replace with the following:

"Entry to the Nutrition majors programme is based on academic standing. To be considered for admission to the programme students must have at least 10 credits and have successfully completed the following courses (or their equivalents) with a minimum overall average of 60% and an average of at least 65% in Chemistry 1000/1001.

a) English 1080, 1110 (or equivalent)
b) Chemistry 1000, 1001
c) Mathematics 1080, 1081 (or Mathematics 1000 and one elective)
d) Physics 1200, 1201 (or Physics 1050, 1052)"

Page 192, following the heading Biochemistry Programme, subheading Honours Degree in Biochemistry, in the second paragraph "Required courses...", delete current clause h) and replace with:

"h) Statistics 2550 or equivalent."

Page 192, following the subheading General Degree in Nutrition, in the second paragraph "Required courses...", delete current clause e) and replace with:

"e) Statistics 2550 or equivalent."

Page 193, following the heading Professional Programme in Dietetics, subheading General Degree in Dietetics, in the first paragraph, delete current clause e) and replace with:

e) Statistics 2550 or equivalent."

Page 191, following the heading Biochemistry Programme, subheading General Degree in Biochemistry, in the second paragraph "Required courses..." insert new clauses f) and g) as follows:

"f) Mathematics 1001 for those students who did not complete it in the first year

g) Physics 2050 for those students who have completed Physics 1200 and 1201."

Page 192, following the heading Professional Programme in Dietetics, delete the first paragraph and replace with:

"For professional qualification as a dietitian, students are required to complete the degree in Dietetics, followed by an approved Dietetic Internship."

Page 193, following the heading Course List, delete the entries for Biochemistry 3100 and Biochemistry 3102 in their entirety.

Under the same heading, following the course description for Biochemistry 3106, delete current NOTE and replace with the following:

"NOTE: Credit may be obtained for only one of Biochemistry 3106, the former Biochemistry 3102 or Pharmacy 3111."

Under the same heading, delete the NOTE following the entry for Biochemistry 3107 and Biochemistry 4103.

Under the same heading, delete the entry for Biochemistry 3401 in its entirety and replace

with:

"3052. Food Microbiology. Study of the microbiology of water and food with regard to the beneficial and detrimental roles of microorganisms on interaction with these systems. Emphasis will be on the microbiology of food, fermentations, food spoilage and food borne vectors of human disease. Enrollment priority will be given to students in the Nutrition and Dietetics programmes where this is a required course.
Prerequisite: Biology 3050
Lectures: Two hours per week
Laboratory: Four hours per week

Note: Credit can be received for only one of Biochemistry 3052, the former Biochemistry 3401 and Biology 3052."

35.24 Department of Mathematics and Statistics

Submission from the Faculty Council of Science for information only. This item was previously approved by Senate on December 19, 1995, subject to the approval of the Faculty Council of Science.

35.25 Department of Geography

Page 144, following the entry for 3800, insert the following:

3900-3909. Special Topics in Geography. Topics to be studied will be announced.
Prerequisite: Permission of the instructor and the Head of the Department.

35.26 Department of Physics

Page 215, 1995-96 Calendar, delete the section Physics, subheadings Programmes in Physics, Minor in Physics, Major in Physics, Honours in Physics, Table of Credit Restrictions and Course

List in its entirety and replace with the following:

"PHYSICS

PROGRAMMES IN PHYSICS

The following undergraduate programmes are available in the Department:

- Major in Physics
- Honours in Physics
- Applied Mathematics/Physics Joint Honours
- Physics/Chemistry Joint Honours
- Physics/Computer Science Joint Honours
- Physics/Computer Science Joint Major
- Physics/Earth Sciences Joint Honours
- Physics/Earth Sciences Joint Major
- Minor in Physics

Details of these joint programmes are given after the Honours B.Sc. Regulations. Other joint programmes may be arranged in consultation with the departments concerned.

NOTES: 1) The attention of students intending to follow any one of the programmes listed above is drawn to the University Regulations governing the appropriate degree. Additional Departmental requirements are given below.

2) Faculty advisors are appointed to provide advice to students who are registered in, or who are considering registering in, any of the programmes. Students are urged to consult with these advisors at their earliest opportunity in order to ensure that they select appropriate courses and programmes. Students with credits in Physics courses which are not listed in this calendar should consult with the Department.

3) The accelerated, six course stream consisting

of Physics 1050, 1054, 2053, 2054, 2055 and 2056, or alternatively the seven course stream of Physics 1020, 1021, 1054, 2053, 2054, 2055 and 2056 is intended to provide a cohesive overview of Physics for potential Physics majors.

4) Physics 1050 is open to and recommended for students who have completed Level II Physics, Level III Physics and Level III Advanced Mathematics. Mathematics 1000 must be taken at the same time as, or be completed prior to, taking Physics 1050.

5) Physics 1020 is intended for students who do not qualify for Physics 1050, and while it may be taken by students who have no background in Physics it is recommended that students wishing to take Physics 1020 should have completed at least one of Level II and Level III Physics. Students who complete Physics 1020 and Mathematics 1000 are eligible for admission to Physics 1054.

6) For the purposes of fulfilling Physics degree requirements and prerequisites for higher level physics courses Physics 1020/1054 will be considered equivalent to Physics 1050/1054 provided the following criteria are satisfied

- Completed Level II and Level III Physics
- Completed Physics 1020 with a grade of A
- Completed Mathematics 1000

Such students are not required to take Physics 1021

7) Physics 1000 is primarily intended for non-science majors, and may not be taken in lieu of any other first year courses. Physics 1000 may be taken as a preparatory course for Physics 1020 and 1021 by students who do not have a high level of general attainment in Level III examinations and who have not completed Levels II and III Physics. Students taking Physics 1000 as a preparatory course are encouraged to take

foundation Mathematics or Mathematics 1080 concurrently. Physics 1000 may not be used as one of the Physics courses required for a Major or Honours degree in Physics, nor as one of the 26 science courses required for the B.Sc. degree. Students may receive credit for only one of Physics 1000, 1050 and 1020.

8) Students who have successfully completed Advanced Placement courses in both Physics and Mathematics will normally be eligible for direct entry into Physics 1054, 2053 and 2054, all of which are offered in the Fall semester. Such students are advised to consult the Department.

9) Physics 2000 is offered at Sir Wilfred Grenfell College only. It may not be used as one of the Physics courses required for a Major or Honours degree in Physics, nor as one of the 26 science courses required for the B.Sc. degree.

10) Where circumstances warrant, any prerequisites listed below may be waived by the Head of the Department.

11) Supplementary examinations will be allowed in certain Physics courses which have written final examinations. Students should refer to the Faculty of Science Degree regulations for details.

MINOR IN PHYSICS

A minor in Physics will consist of eight Physics courses to include Physics 1050, 1054 (or 1020, 1021 and 1054), 2053, 2054, 2055, 2056. For those students whose major is Chemistry, the eight Physics courses will not include P2053.

MAJOR IN PHYSICS

The following courses are prescribed:

a) English 1080 and English 1110 (or equivalent).
b) Chemistry 1000 and 1001 or equivalents
c) Mathematics 1000 and 1001, or Mathematics 1080, 1081 and 1001
d) Mathematics 2000 and AM/PM 3260.
e) Physics 1050 and 1054, or Physics 1020, 1021 and 1054.
f) A minimum of 11 additional courses in Physics which shall include courses numbered 2053, 2054, 2055, 2056, 3220, 3400, 3500, 3550, 3750, 3751, and 3900.
g) Physics 3810 or AM/PM 3202

Mathematics 1001 and 2000 are prerequisites to many Physics courses and should be completed by the end of second year. AM/PM 3260 is corequisite to Physics 3220 and should be completed before the winter of the third year. Those who intend to make a career in Physics should note that additional Physics courses are strongly recommended.

HONOURS IN PHYSICS

The following courses are prescribed:

a) English 1080 and English 1110 (or equivalent).
b) Chemistry 1000 and 1001.
c) Mathematics 1000 (or 1080 and 1081) and 1001.
d) Mathematics 2000, 2001 and AM/PM 3260.
e) Computer Science 3731.
f) Physics 1050 and 1054 (or 1020, 1021, and 1054)
g) Physics 2053, 2054, 2055, 2056, 3220, 3230, 3400, 3410, 3500, 3550, 3600, 3750, 3751, 3820, 3821, 3900, 3920, 4500, 4850, 490A/B.
h) Physics 3810 or AM/PM 3202.
i) One of Physics 4200, 4205, 4210, 4820.
j) One of Physics 4000, 4600, 4710, 4851.
k) Four applicable elective courses*

NOTE: Certain of the graduate courses may be taken in the final year of the Honours Programme with the permission of the Head of the Department.

*Chemistry 1800, Mathematics 1080 and 1081, and Physics 1020 and 1021 may not be used as electives in the 40 courses required for the Honours programme under k) above. Inclusion of Chemistry 1800, substitution of Mathematics 1080 and 1081 for Mathematics 1000, or substitution of Physics 1020 and 1021 for Physics 1050 will each increase the number of courses required for the Honours Physics programme by one.

An Honours thesis is to be presented on work undertaken by the candidate under the guidance of a Department of Physics faculty member. The thesis comprises the two credit course Physics 490A/B. Students should seek departmental advice regarding a thesis project no later than the winter preceding the semester in which the project will be started.

The Honours Physics programme in and beyond the third year requires a familiarity with computer programming. In choosing electives for this programme, students should note that the prerequisites for Computer Science 3731 include Computer Science 2602 or Computer Science 2710 or permission of the Head of Computer Science.

The Department recommends that students wishing to complete the Honours Physics programme in 40 courses follow the schedule given below. This schedule is intended for students who qualify for Physics 1050 and 1054. Other suggested course schedules are available from the Head of the Department.

Year	Semester I	Semester II
I	English 1080	English 1110

1101, 1102)

	Chemistry 1000	Chemistry 1001
	Mathematics 1000	Mathematics 1001
	Physics 1050	Physics 1054
	Elective	Elective or Physics 2056
II	Mathematics 2000	Mathematics 2001
	Physics 2053	AM/PM 3202
	Physics 2054	AM/PM 3260
	Elective	Physics 2055
	Elective	Physics 2056 or Elective
III	Physics 3220	Physics 3230
	Physics 3400	Physics 3750
	Physics 3550	Physics 3500
	Physics 3600	Physics 3900
	Physics 3820	Physics 3821
IV	Physics 3751	Physics 3410
	Physics 4500	Physics 3920
	Physics 490A	Physics 490B
	Physics 4850	Physics Elective
	Computer Science 3731	Physics Elective

TABLE OF CREDIT RESTRICTIONS:

CREDIT MAY BE OBTAINED FOR ONLY ONE COURSE FROM EACH OF THE PAIRS OF COURSES LISTED IN THIS TABLE.

Present Course	Former Course	Present Course	Former Course
1020	1200	2055	2550
1021	1201	2056	2700
1021	1051	3220	3200
1054	1052	3230	2210
1054	2050	3750	3700
1054	2200	3750	3850
2053	2450	490A/B	4990
2054	2550		

Physics 1021 and the former Physics 1201 will be

considered equivalent for prerequisite purposes. Physics 1054 and the former Physics 1052 and 2050 will be considered equivalent for prerequisite purposes.

NOT ALL COURSES ARE OFFERED EVERY YEAR. STUDENTS SHOULD CHECK WITH THE DEPARTMENT PRIOR TO REGISTRATION TO PLAN PROGRAMMES.

COURSE LIST

1000. Introduction to Physics. An introduction for non-science majors, to motion, force, energy, momentum, fluids, and selected topics from optics, electricity and magnetism. Emphasis is placed on the concepts and processes of physics with investigations of relevant physics phenomena in our natural environment. Ample time is reserved for the application of fundamental mathematical processes to the solution of physics problems.
Lectures: Four hours per week.
Laboratory: Three hours per week.
NOTE: Students considering taking this course are referred to note 7 above.

1020. Introductory Physics I (F) & (W). A non-calculus based introduction to mechanics.
Prerequisite: Mathematics 1000 or 1080, which may be taken concurrently. It is recommended that students have completed at least one of level II and level III high school physics courses, however this course may be completed by someone who has no physics background provided some extra effort is made.
Lectures: Three hours per week plus an optional one hour tutorial.
Laboratory and/or Tutorial: Up to three hours per week.

1021. Introductory Physics II (W). A non-calculus based introduction to fluids, wave motion, light, optics, electricity and magnetism.

Prerequisite: Physics 1020 or 1050. Mathematics 1000 or 1081, which may be taken concurrently.
Lectures: Three hours per week plus an optional one hour tutorial.
Laboratory and/or Tutorial: Up to three hours per week.

1050. General Physics I: Mechanics (F). A calculus based introduction to mechanics. The course will emphasize problem solving.
Prerequisite: Mathematics 1000, which may be taken concurrently.
Lectures: Three hours per week.
Laboratory and/or Tutorial: Up to three hours per week.

1054. General Physics II: Computational Physics and Data Analysis (F) & (W). An introduction to computer-based data acquisition and analysis, numerical analysis, and problem solving. These processes are combined with introductions to probability and statistics, complex numbers and matrix algebra, with particular application to oscillations and waves.
Prerequisites: Physics 1050 or 1020 and Mathematics 1001. Math 1001 may be taken concurrently.
Lectures and Laboratories: Up to 5 hours per week
NOTE: This course will be offered for the first time in the Winter semester of 1997.

2000. Physics in Contemporary Society. The nature of scientific thinking; the scientific method, the logic of physics, concepts used in physical science, objectivity versus subjectivity, science and philosophy. Physical concepts; concepts of space, time, causality, identity, energy. Concepts of relativity, quantum concepts, concepts in thermodynamics, concepts of matter.
Lectures: Two hours per week - instructional address and discussion; one hour per week - general discussion.

NOTE: Students considering taking this course are referred to note 9 above.

2040. Applied Physics for Life Sciences I. The following topics will be included: body mechanics, elementary fluid mechanics, heat and energy processes, bio-electricity and bio-magnetism.
Prerequisites: Any two first year Physics courses except Physics 1000.
Lectures: Three hours per week.
Laboratory: Three hours per week.

2041. Applied Physics for Life Sciences II. A continuation of discussion of topics available to Life Sciences including Psychology: sound, Physics of hearing, optics, Physics of vision, colours, optical instruments, molecular processes, radiation Physics. This course may be taken by students who have not completed Physics 2040.
Prerequisites: Any two first year Physics courses except Physics 1000.
Lectures: Three hours per week.
Laboratory: Three hours per week.

2050. Introductory Physics III (F). This course prepares students who have taken Physics 1200 and 1201 for additional courses in Physics. It reviews material of Physics 1200 and 1201, but at a calculus based level.
Prerequisite: Physics 1201, and Mathematics 1000 or 1081.
Lectures: Three hours per week.
NOTE: Credit cannot be obtained for Physics 2050 by students who have already completed Physics 1052. This course will be offered for the last time in the Fall semester of 1996.

2053. General Physics III: Fluids and Thermal Physics (F). Introduction to sound, elasticity, fluid mechanics, thermodynamics, kinetic theory and statistical mechanics.
Prerequisites: Mathematics 1001, Physics 1050 (or

1020 and 1021), and Physics 1054. Mathematics 1001 and Physics 1054 may be taken concurrently.
Lectures: Three hours per week.
Laboratory: Three hours per week.

2054. General Physics IV: Electromagnetism, Light and Optics (F) & (W). Electrostatics, currents and Ohm s law, magnetism, electromagnetic induction, electromagnetic waves, geometric optics, interference and diffraction.
Prerequisites: Mathematics 1001, Physics 1050 (or 1020 and 1021), and Physics 1054. Mathematics 1001 and Physics 1054 may be taken concurrently.
Lectures: Three hours per week.
Laboratory: Three hours per week.

2055. General Physics V: Electricity and Magnetism (W). Gauss' Law, the electrostatic potential, capacitance, magnetic forces and the magnetic field, electromagnetic induction, magnetic materials, ac circuits, superconductivity, the displacement current and Maxwell's equations.
Prerequisites: Math 2000 and Physics 2054. Math 2000 may be taken concurrently.
Lectures: Three hours per week.
Laboratory: Three hours per week.

2056. General Physics VI: Modern Physics (W). Special relativity, quanta of light, atomic structure and spectral lines, quantum structure of atoms and molecules, nuclei and elementary particles.
Prerequisites: Mathematics 1001, Physics 1050 (or 1020 and 1021), and Physics 1054. Mathematics 1001 and Physics 1054 may be taken concurrently.
Lectures: Three hours per week.
Laboratory: Three hours per week.

2151. Stellar Astronomy and Astrophysics (F) & (W). Atomic structure and spectra. The sun: radiation, energetics, magnetic field. Stars: distance, velocity, size, atmospheres, interiors.

Variable stars, multiple stars, clusters and stellar associations. Stellar evolution, interstellar matter, structure of the Milky Way Galaxy. Exterior galaxies, quasi-stellar objects, pulsars. Cosmology.
Prerequisites: Two semester courses in Mathematics at the first year level.
Lectures: Three hours per week.

3150. Astrophysics I (F). Review of macroscopic and microscopic physics. The sun: luminosity, mass, spectrum, photosphere, corona, interior. Principles of stellar structure; radiative and convective transport of energy. The virial theorem. Thermonuclear fusion; temperature dependence; the solar neutrino problem. Nucleo-synthesis; the curve of binding energy; the synthesis of heavy elements. White dwarfs, neutron stars, and black holes; degenerate electron and neutron gases; Chandrasekhar's Limit. Population I and Population II stars; the Hertzsprung-Russell diagram; relationships among luminosity, mass, and effective temperature for main sequence dwarfs. Evolution of post main sequence stars.
Prerequisites: Physics 2053, 2054 and 2056.
Lectures: Three hours per week.

3151. Astrophysics II (W). Stellar spectra and classification of stars. Hertzsprung-Russell diagram; equations of stellar structure for a star in equilibrium; temperature and density dependencies of nuclear processes. Formation and classification of binary stars; mass and energy transfer in binary star systems; semidetached binaries; cataclysmic variables, pulsars, etc. Galaxies and galactic structure; active galactic nuclei; cosmological redshift. Cosmology.
Prerequisites: Physics 3150 and 3220.
Lectures: Three hours per week.

3220. Classical Mechanics I (F). Kinematics and

dynamics of a particle. Moving reference systems. Celestial mechanics. Systems of particles.
Prerequisites: Physics 1050 (or 1020 and 1021), Physics 1054 and AM/PM 3260. AM/PM 3260 may be taken concurrently.
Lectures: Three hours per week.

3230. Classical Mechanics II (F). Rigid body motion. Lagrange's equations. Hamilton's equations. Vibrations. Special theory of relativity.
Prerequisites: Physics 3220 and 3810 (or AM/PM 3202) and AM/PM 3260.
Lectures: Three hours per week.

3300. Introduction to Physical Oceanography (F). The course deals with the physics of processes in the ocean, but provides an integrated view of the whole field of oceanography. The importance of physical processes to other aspects of oceanography is treated.
Prerequisites: Physics 2053 and Mathematics 2000.
Lectures: Three hours per week.

3400. Thermodynamics (F). The first and second laws of thermodynamics. Entropy. Thermodynamics of real substances. Kinetic theory of matter. Introduction to statistical mechanics.
Prerequisites: Mathematics 2000, Physics 2053 and Physics 2056.
Lectures: Three hours per week.

3410. Statistical Mechanics (W). Ensembles. Classical and quantum statistical mechanics. Statistical mechanics of phase transitions. Advanced topics in statistical mechanics.
Prerequisites: Physics 3400 and 3750.
Lectures: Three hours per week.

3500. Electromagnetic Fields I (W). Electrostatic Field: field, potential, Poisson's equation, Laplace's equation, capacitance,

dielectrics, polarization, electric displacement, boundary conditions. Magnetic Field: electric current and magnetic field, vector potential, Lorentz force and relativity, changing magnetic field, inductance, magnetic materials, magnetization. Maxwell's equations.
Prerequisites: Physics 2055 and 3810 (or AM/PM 3202).
Lectures: Three hours per week.

3550. Electric Circuits (F). Circuit elements. Simple resistive circuits. Techniques of circuit analysis. Topology in circuit analysis. Operational amplifiers. Reactive circuit elements. Natural response and step response of RL, RC and RLC circuits. Circuits driven by sinusoidal sources. Mutual inductance. Series and parallel resonance. Laplace transforms in the analysis of frequency response.
Prerequisites: Physics 2055, Mathematics 2050 and AM/PM 3260 which may be taken concurrently.
Lectures and Laboratory: Not more than six hours per week.

3551. Analogue Electronics (W). Review of network analysis. Feedback. Electron tubes. Semiconductor diodes. Introduction to transistors. Introduction to amplifiers. Small signal models. Small signal analysis of amplifiers. Operational amplifiers. Selected topics in circuit design such as biasing, voltage regulators and power circuits, noise.
Prerequisites: Physics 2055, 2056, 3550 and AM/PM 3260.
Lectures and Laboratory: Not more than six hours per week.
This course is recommended for students with an interest in experimental Physics.

3600. Optics (F). Geometrical Optics: thin lenses, thick lenses, mirrors, matrix methods in the treatment of optical systems. Two-beam and

multiple-beam interference phenomena. Fraunhofer and Fresnel Diffraction. Introduction to Maxwell's Theory: reflection, transmission, and polarization.
Prerequisites: Mathematics 2000 and Physics 2055.
Lectures: Three hours per week.

3750. Quantum Physics I (W). Wave-particle duality of nature. Introduction to Quantum Mechanics. Schr"dinger equation. One electron atoms. Quantum statistics.
Prerequisites: Physics 2053, 2055, 2056, 3220, 3810 (or AM/PM 3202) and AM/PM 3260.
Lectures: Three hours per week.

3751. Quantum Physics II (W). Multielectron atoms. Molecules. Solids - conductors and semiconductors. Superconductors. Magnetic properties. Nuclear models. Nuclear decay and nuclear reactions. Properties and interactions of elementary particles.
Prerequisite: Physics 3750.
Lectures: Three hours per week.

3810. Mathematical Analysis (F). Differential calculus of multivariable functions, gradient vector and its applications. Lagrange multipliers, calculus of variations and its applications to mechanics, differentials. Multiple integration, change of variables, applications. Vector analysis, line and surface integrals; Green's theorem, Stokes' and divergence theorems, applications.
Prerequisites: Mathematics 2000 and two of Physics 2053, 2054, 2055 or 2056.
Lectures: Three hours per week.

3820. Mathematical Physics II (F). Functions of a complex variable; residue calculus. Introduction to Cartesian tensor analysis. Matrix eigenvalues and eigenvectors. Diagonalization of tensors. Matrix formulation of quantum mechanics.

Quantum mechanical spin. Vector differential operators in curvilinear coordinate systems. Partial differential equations of Mathematical Physics and boundary value problems; derivation of the classical equations, separation of variables; Helmholtz equation in spherical polar coordinates. Prerequisites: Mathematics 2001, AM/PM 3260, and Physics 3810 (or AM/PM 3202). At least two other Physics courses numbered 3000 or higher. Lectures: Three hours per week.

3821. Mathematical Physics III (W). Further topics on partial differential equations of Mathematical Physics and boundary value problems; Sturm-Liouville theory, Fourier series, generalized Fourier series, introduction to the theory of distributions, Dirac delta function, Green's functions, Bessel functions, â functions, Legendre functions, spherical harmonics. Prerequisite: Physics 3820. Lectures: Three hours per week.

3900. Physics Laboratory I (W). A selection of experiments based primarily on material covered in the third year courses. Prerequisites: At least three of Physics 3400, 3500, 3550, 3600 and 3750, which may be taken concurrently. Physics 3550 is recommended. Laboratory: Six hours per week.

3920. Physics Laboratory II (F). A selection of experiments based primarily on Modern Physics at the intermediate level. Prerequisite: Physics 3900. Laboratory: Six hours per week.

4000. Solid State Physics. Crystal structure and binding, phonons and lattice vibrations, thermal properties of solids. Electrons in solids, energy bands, semi-conductors, superconductivity, dielectric properties. Magnetic properties of solids.

Prerequisites: Physics 3410 and 3751.
Lectures: Three hours per week.

4200. Classical Mechanics III. Review of Lagrange's equations. Hamilton's canonical equations. Variational principles. N”ther's theorem for particles. Special relativity of particles and the electromagnetic field. Special topics at an advanced level.
Prerequisites: Physics 3230 and 3821.
Lectures: Three hours per week.

4205. Introduction to Fluid Dynamics. (Same as Applied Mathematics 4180). Basic observations, mass conservation, vorticity, stress, hydrostatics, rate of strain, momentum conservation (Navier-Stokes equation), simple viscous and inviscid flows, Reynolds number, boundary layers, Bernoulli's and Kelvin's theorems, potential flows, water waves, thermodynamics.
Prerequisites: Physics 3230 and either AM 4160 or Physics 3821.
Lectures: Three hours per week.

4210. Continuum Mechanics. Kinematics of deformation and flow, dynamics of deformable matter, energetics of deformation. Constitutive relations for ideal materials. Linear theory of elasticity. Dynamics of a viscous fluid. Viscoelasticity. Emphasis is on applications to physical phenomena.
Prerequisites: Physics 3230 and 3821.
Lectures: Three hours per week.

4500. Electromagnetic Fields II (F). Multipole expansions, electrostatic fields as boundary value problems, polarizability of molecules in dielectric media, Clausius-Mossotti relation, gauges. Electromagnetic Waves: Poynting's theorem, reflection and transmission of electromagnetic waves, cavity resonators, wave

guides. Electromagnetic Radiation: dipoles, antennas, quantum mechanics and electromagnetic interactions. Selected topics in electrodynamics and applied electromagnetism.
Prerequisites: Physics 3500, 3821.
Lectures: Three hours per week.

4600. Optics and Spectroscopy. Review of basic topics in physical optics; interference and diffraction with quasi-monochromatic and polychromatic light, spatial resolution, polarization and crystal media, dispersion. Selected topics in intermediate and advanced optics. Spectroscopic instruments.
Prerequisites: Physics 3500, 3600 and 3821.
Lectures: Three hours per week.

4700. Atomic and Molecular Physics. Advanced topics in atomic and molecular physics.
Prerequisites: Physics 3500, 3751 and 3821.
Lectures: Three hours per week.

4710. Nuclear Physics. Properties of stable nuclei and nuclear forces. Nuclear models. Detection of nuclear radiation: interaction of nuclear radiation with matter, nuclear detectors, statistics of nuclear counting à, and decay. Nuclear reactions. Deuteron and nuclear forces.
Prerequisites: Physics 3500, 3751 and 3821.
Lectures: Three hours per week.

4820. Mathematical Physics IV. Integral transforms. Linear integral equations. Advanced topics selected from: calculus of variations, Green's functions, theory of groups.
Prerequisite: Physics 3821.
Lectures: Three hours per week.

4850. Quantum Mechanics (F). Postulates of quantum mechanics. Operators and operator algebra. Matrix representations. Spin and magnetic fields. Approximation methods: WKB method, time

independent perturbation theory, time dependent perturbation theory, variational methods. Elementary scattering theory.
Prerequisites: Physics 3230, 3750, 3821.
Lectures: Three hours per week.

4851. Advanced Quantum Mechanics (W). General formulation of quantum mechanics, measurement theory and operators. Hilbert spaces. Advanced topics selected from: electron in a strong magnetic field and the Aharonov-Bohm effect; advanced scattering theory; systems of identical particles; Feynman path integral formulation of quantum mechanics; relativistic quantum mechanics; second quantization; symmetry and group theory; density matrix and mixtures.
Prerequisite: Physics 4850.
Lectures: Three hours per week.

4900. Senior Laboratory. Selected experiments supplementing the work of the senior Physics courses.
Laboratory: A minimum of six hours per week.

490A/B. Honours Physics Thesis."

35.27 Joint Honours in Geography and Earth Sciences

Page 189, following the subheading Joint Honours in Geography/Earth Sciences (B.Sc. Only), delete current entry in its entirety and replace with the following:

"The following courses will be required. A few prerequisites are not met by this list of courses, and students are advised to obtain advice from instructors in such cases to be sure that they are prepared for course material. Both departmental Heads can advise students on a workable sequencing of courses to complete the degree in a timely manner.

a) Two courses in first-year English; Geography 1011; Earth Sciences 1000 and 1001; Mathematics 1000 and 1001 OR Mathematics 1080, 1081 and 1001;

Chemistry 1000 and 1001; Physics 1050 and 1052 OR Physics 1200 and 1201.

b) One of Geography 2220, Statistics 2500, 2510.

c) Biology 2120 or Biology 1001 and 1002.

d) Geography 2102, 2195, 2302, 3230.

e) Earth Sciences 2030, 2031, 2310 and 2502.

f) Either Earth Sciences 499A and 499B, or Geography 4990 and 4999.

g) Seven additional Geography courses, of which at least four must be selected from the group Geography 2200, 3110, 3120, 3140, 3150, 3250, 3260, 3325, and of which at least two must be at 4000-level.

h) Seven additional Earth Sciences courses, of which at least three must be at 3000-level and at least two must be at 4000-level. Earth Sciences 2150, 2914, 2915 and 4310 cannot be used to fulfill this requirement.

i) Other courses to complete the prescribed minimum of 45 courses for the Honours degree, with at least 28 courses in Geography and Earth Sciences combined.

The topic of the Honours dissertation must be chosen with the approval of both Departments. A faculty member of either Department may act as supervisor.

Any change in the programme of study must have the prior approval of the Heads of the two Departments

concerned."

35.28 Department of Psychology

Page 220-221, following the heading Course Descriptions, delete current entries for Psychology 2440 and Psychology 3450 in their entirety and replace with the following:

"2440. Human Memory and Cognition. An introduction to the basic principles of human memory and information processing. Topics covered will include the organization, representation and retrieval of information in memory, attention, pattern recognition, language processing, mental imagery, reasoning, problem solving, and decision making. There will be an emphasis on the application of basic principles to real life situations.
Prerequisites: Psychology 1000 and 1001.
NOTE: Credit may not be obtained for both Psychology 2440 and either of the following: Psychology 3450, Psychology 2425."

"3450. Human Cognition. An introduction to the experimental study of the mental representations and processes involved in human cognition. Topics such as attention, perception and pattern recognition, concepts and the organization of knowledge, language processes, mental imagery, reasoning, problem solving, decision making and skilled performance will be covered with an emphasis on experimental analysis and techniques.
Prerequisite: Psychology 2900.
Laboratory period weekly.
Note: Credit may not be obtained for both Psychology 3450 and either of the following: Psychology 2440, Psychology 2425."

Page 222, following the course description for Psychology 3650, delete current prerequisites and replace with the following:

"Prerequisites: Psychology 2901 and one laboratory course from Clause 1(b) of the requirements for a Major in Psychology."

Page 219, following the heading Requirements for a Major in Behavioural Neuroscience (B.Sc. Only), amend clause 2 (b) to read as follows:

"2 (b) Chemistry 1000, 1001, and 2440 or 2400/2401."

Following the heading Requirements for Honours in Behavioural Neuroscience (B.Sc. Only), make the following changes:

Amend Clause 1) to read as follows:

"1) Honours students shall complete the courses required for a Major in Behavioural Neuroscience and the following: Psychology 3900, 499A, and 499B."

Amend Clause 2) to read as follows:

"2) In accordance with Clause 6.i. of the Regulations for the Honours Degree of Bachelor of Science, Honours candidates must obtain a grade of "B" or better, OR an average of 75% or higher in all the required courses listed in Clauses 1 and 3 of the requirements for a major in Behavioural Neuroscience and Clause 1 of the requirements for honours in Behavioural Neuroscience, except those at the 1000 level."

Page 220, following the heading Course Descriptions, insert the following:

"Non-restricted courses

Note: These courses are open to all students who have the appropriate prerequisites.

Psychology 1000 and 1001 are prerequisites for all Psychology courses. Students who intend to major in Psychology should note that each course marked with an asterisk is credit-restricted with a Majors laboratory course; consequently, taking these courses will reduce your options in the Majors programme.

1000 and 1001. Introduction to Psychology.
2010.* The Psychology of Human Development I.
2011. The Psychology of Human Developmen II.
2012. The Psychology of Human Development III.
2100.* Attitudes and Social Cognition.
2120.* Interpersonal and Group Processes.
2240.* Survey of Learning.
2440.* Human Memory and Cognition.
2530. Mathematical Psychology.
2540. Psychology of Gender and Sex Roles.
2560. Intelligence.
2610.* Personality.
2800. Drugs and Behaviour.
2810.* Brain and Behaviour.
3350. Psychology of Sound.
3400. Psycholinguistics.
3430. The Psychology of Thinking.
3501. Industrial Psychology.
3533. Sexual Behaviour.
3610. Altered States of Consciousness.
3640.* The Psychology of Abnormal Behaviour.
4810. Human Neuropsychology.

Majors Courses

Note: These courses are restricted to Majors and Minors in Psychology and Behavioural Neuroscience.

2160. Social Psychology: Group Processes.
2250. Learning.
2360. Perception I.
2450. Human Memory.
2620. The Experimental Study of Personality.

2850. Behavioural Neuroscience.
2900. Design and Analysis I.
2901. Design and Analysis II.
3050. Developmental Psychology I.
3051. Developmental Psychology II.
3052. The Psychology of Aging.
3100. Social Psychology: Social Cognition.
3251. Advanced Learning.
3252. Learning Processes and Drug Effects.
3360. Perception II.
3450. Human Cognition.
3650. The Experimental Study of Abnormal Behaviour.
3750. Animal Behaviour I.
3800. Physiological Psychology.
3900. Design and analysis III.
4050. Selected Topics in Developmental Psychology I.
4051. Selected Topics in Developmental Psychology II.
4150. Selected Topics in Social Psychology I.
4151. Selected Topics in Social Psychology II.
4152. Selected Topics in Applied Social Psychology.
4250. Selected Topics in Learning and Motivation I.
4251. Selected Topics in Learning and Motivation II.
4350. Selected Topics in Perception I.
4351. Selected Topics in Perception II.
4400. Selected Topics in Cognition I.
4401. Selected Topics in Cognition II.
460X. Internship in Child Behaviour Modification.
4610. Selected Topics in Personality I.
4620. Selected Topics in Personality II.
4640. Selected Topics in Applied Behavioural Analysis Procedures with Children.
4650. Selected Topics in Abnormal Behaviour I.
4651. Selected Topics in Abnormal Behaviour II.
4701. Animal Behaviour II.
4750. Selected Topics in Animal Behaviour I.
4751. Selected Topics in Animal Behaviour II.
4850. Selected Topics in Physiological Psychology I.
4851. Selected Topics in Physiological

Psychology II.
4900. Selected Topics in Psychometrics and Data Analysis I.
4901. Selected Topics in Psychometrics and Data Analysis II.
4910. Systems in Contemporary Psychology.
499A/499B Honours Dissertation."

Page 218, following the heading Psychology, delete the section"General" in its entirety.

Page 222, delete the heading "Selected Topics" and the general description that follows it.

Page 218, immediately before the heading Requirements for a Major in Psychology, insert the following:

"ADMISSION TO HONOURS PROGRAMMES

The Honours programmes in the Department of Psychology are designed for students who would like to concentrate their studies or pursue graduate work. Students who wish to be admitted to these programmes must submit an "Application for Admission to Honours Programme Faculties of Arts or Science" to the Psychology Department by June 1 for Fall semester registration and by October 1 for Winter semester. To be eligible for admission, students must have completed at least six courses beyond the 1000 level from the list of courses required for a Major and obtained in these courses a grade of "B" or better, or an average of 75% or higher. Students who fulfill the eligibility requirements compete for a limited number of available spaces. Selection is based on academic performance as determined by the average of grades in the courses identified above; the recommendation of a potential thesis supervisor may also be considered. Applicants will be informed in writing whether or not they have been accepted within two weeks after the final date for

submitting applications.

Note: Students are advised to consult the general regulations for Honours in Psychology.

Page 219, following the heading Requirements for Honours in Psychology, delete Clause 1 and renumber Clauses 2, 3, 4, and 5 as 1, 2, 3, and 4 respectively.

35.29 Department of Earth Sciences

Page 188, 1995-96 Calendar, delete "GEOLOGY" from the heading of the joint programme with Biology, to read as follows:

"BIOLOGY AND EARTH SCIENCES JOINT HONOURS"

Following the above heading, delete current Clauses d) and f) and replace with the following:

"d) Earth Sciences 2030, 2031, 2310, 2502; plus a minimum of 8 other Earth Science courses from 2000- to 4000-level, at least one of which must be at 4000-level. Earth Sciences 2150, 2914, 2915 and 4310 cannot be used to fulfill this requirement. Career-related streams outlined in the departmental Student Handbook should be used as a guide to course selection so as to achieve a concentration in one facet of Earth Sciences."

"f) Other courses to complete the prescribed minimum of 45 courses for the Honours degree, with at least 28 courses in Biology and Earth Sciences combined."

35.30 Department of Biology

Page 197, 1995-96 following the heading Biology, subheading Courses, insert the following"

"3052. Food Microbiology. (Same as Biochemistry 3052) This course is administered by the

Department of Biochemistry.
Enrollment priority will be given to students in the Nutrition and Dietetics programmes where this is a required course.
Prerequisite: Biology 3050.
Note: Credit may not be obtained for both Biology 3052 and the former Biochemistry 3401."

Page 188, following the heading Statistics/Biology Joint Honours (B.Sc. only), delete current Clause d) and replace with the following:

d) Chemistry 2440 (or 2400 and 2401). Biochemistry 2101 and 3106. Computer Science 2602."

Page 195, following the heading General Degree - Major in Biology, delete the line which currently reads "Physics 1200/1201 or 1050/1052" and replace with the following:

"Physics 1020/1021 or 1050/1054"

Page 198, amend the entry for Biology 4510. Distribution Patterns in the Sea, as follows:

Following the end of the last sentence of the course description (...management of marine resources.) insert the following sentence:

"It is recommended (but not required) that students take Biology 3710, 3711 and 4505 beforehand."

Delete the Prerequisite for Biology 4510, and replace with the following:

"Prerequisite or corequisite: Biology 4605."

35.31 Department of Mathematics and Statistics

Page 209, 1995-96 Calendar, following the heading

Mathematics and Statistics, subheading Regulations, delete the second sentence of Clause 5 and replace with the following:

"Credit may be obtained for only one of Statistics 2501, 2511, 2560 and Psychology 2901."

Page 211, following the subheading Minor in Statistics, delete the current Clause a) and replace with the following:

"a) Mathematics 1000, 1001; Statistics 2500 or 2510 or 2550; Statistics 2501 or 2560."

35.32 Department of Biochemistry

Page 192, 1995-96 Calendar, following the heading Nutrition Programme, subheading Honours Degree in Nutrition, in the second paragraph

"Required courses...", delete existing clauses (a) to (c) and replace with the following:

"a) Biochemistry 3107, 4002

b) Two additional 4000-level Biochemistry courses

c) Either Biochemistry 499A/B, or 4999 plus one additional 4000-level Biochemistry course."

Page 192, following the heading Honours Degree in Biochemistry, delete existing clause (d) and replace with the following:

"d) At least two courses from Biochemistry 3200, 3201, Biology 3050, 3060, 3250, 3530, 4200, 4245, 4404."

Under the same heading, delete existing paragraph "Those courses..." and replace with the following:

"Those courses in which a grade "B" or an average of 75% or higher are required, as specified in paragraph 6(i) of the Regulations for the Honours Degree of Bachelor of Science, are fifteen Biochemistry courses and five other courses (beyond the 1000-level) chosen from Biochemistry, Biology, or Chemistry."

Page 193, following the subheading Course List, delete the calendar entry for Biochemistry 2430, and replace with the following:

"1430. Biochemistry for Nurses. An introduction to the chemistry and structure-function relationships of carbohydrates, lipids and proteins. Basic metabolism of carbohydrates and fats, with emphasis on the biochemical fluctuations that occur in human health and disease. A brief introduction to molecular genetics. This course may not be used for credit to fulfil the requirements for a major in the Department of Biochemistry. Entry into this course is restricted to students in the School of Nursing.
Prerequisite: Level 3 Chemistry or Chemistry 1800
Lectures: Three hours per week
Tutorial: One two-hour case study on alternate weeks
Note: Credit may be obtained for only one of Biochemistry 1430 and the former 2430."

Page 195, under the same heading, following the course description for Biochemistry 4502 amend Prerequisites as follows:

Delete "and permission of the Head".

35.33 Physics/Biochemistry Joint Honours

Page 187, following the heading Joint Programmes, insert a new programme as follows:

"PHYSICS/BIOCHEMISTRY JOINT HONOURS

The following courses are prescribed:

a) English 1080 and 1110 (or equivalent), Chemistry 1000 and 1001, Mathematics 1000 and 1001 (or 1080, 1081 and 1001), Physics 1050 and 1054 (or 1020, 1021 and 1054).

b) Chemistry 2300, 2400, 2401.

c) Mathematics 2000, 2001, Applied Mathematics/Pure Mathematics 3260, either Applied Mathematics/Pure Mathematics 3202 or Physics 3810.

d) Biochemistry 2100, 2101, 3105, 3106, 3107, 311A/B; plus four courses to be selected from Biochemistry 4002, 4101, 4102, 4103, 4104, 4200 and 4201; plus one course to be selected from Biochemistry 4210 or 4211.

e) Physics 2054, 2055, 2056, 3220, 3400, 3500, 3750, 3820, 3821, 3900, plus one 4000-level Physics course.

f) One course to be selected from Physics 3150, 3300, 3410, 3751. Physics 3751 is recommended.

g) Either Physics 490A/B or Biochemistry 499A/B.

h) Other courses to complete the prescribed minimum of 45 courses for the Joint Honours degree."

35.34 Department of Earth Sciences

Page 186, 1995-96 Calendar, following the heading Regulations for the Honours Degree of Bachelor of Science, amend the NOTE following Clause 2.a)(ii) to read as follows:

"NOTE: The requirements for an Honours Degree of Bachelor of Science cannot be completed in 40 courses if any of the following three statements is true: (i) the student is a major in Chemistry, Earth Sciences, or Physics and has completed Mathematics 1080; (ii) the student is a major in Chemistry or Physics and has completed Chemistry 1800; (iii) the student is a candidate for the Honours BSc degree in Chemistry, Physics, or a geophysics specialization within Earth Sciences, and has completed Physics 1021. Such students will only meet the degree requirements after completing 41, 42 or 43 courses."

Page 188, following the heading Biology and Earth Sciences Joint Honours, amend current Clause (a) to read as follows:

"a) English 1080 and 1110 (or equivalents), Mathematics 1000 (or 1080 and 1081) and 1001, Biology 1001 and 1002, Earth Sciences 1000 and 1001, Chemistry 1000 and 1001, Physics 1020 and 1021 (or 1050 and 1054)."

Page 189, following the heading Joint Honours in Geography/Earth Sciences (B.Sc. Only, amend current Clause (a) to read as follows:

a) Two courses in first-year English; Geography 1011; Earth Sciences 1000 and 1001; Mathematics 1000 and 1001 OR Mathematics 1080, 1081 and 1001;

Chemistry 1000 and 1001; Physics 1050 and 1054 OR Physics 1020 and 1021."

Page 189, following the heading Earth Sciences (Geology)/Chemistry Joint Honours, delete (Geology) from the title of the programme and amend Clause (a) to read as follows:

"a) English 1080 and 1110 (or equivalents), Mathematics 1000 (or 1080 and 1081) and 1001,

Earth Sciences 1000 and 1001, Chemistry 1000 and 1001, Physics 1050 and 1054 (or Physics 1020, 1021 and 1054)."

Page 189, following the heading Joint Honours in Earth Sciences/Physics, amend Clause (a) to read as follows:

"a) English 1080 and 1110 (or equivalents), Mathematics 1000 (or 1080 and 1081) and 1001, Earth Sciences 1000 and 1001, Chemistry 1000 and 1001, Physics 1050 and 1054 (or Physics 1020, 1021 and 1054)."

Page 191, following the heading Joint Major in Earth Sciences/Physics, amend Clause (a) to read as follows:

"a) English 1080 and 1110 (or equivalents), Mathematics 1000 (or 1080 and 1081) and 1001, Earth Sciences 1000 and 1001, Chemistry 1000 and 1001, Physics 1050 and 1054 (or Physics 1020, 1021 and 1054)."

Page 205, following the heading Common Block of Required Courses, amend Clause (a) and the following note marked by an asterisk to read as follows:

"a) English 1080 and 1110 (or equivalent), Mathematics 1000* and 1001, Earth Sciences 1000 and 1001, Chemistry 1000 and 1001, Physics 1050* and 1054*."

*Some students may find it necessary or desirable to substitute Mathematics 1080 and 1081, and/or Physics 1020 and 1021 for specified first-year Mathematics and Physics requirements. Students pursuing a geophysics specialization within Earth Sciences, if they elect to take Physics 1020 and 1021, must also complete Physics 1054 as a prerequisite for higher level Physics courses. If

these alternate course combinations are selected, the number of courses required to satisfy point (a) may exceed ten. For Honours B.Sc. programmes, students who complete such additional courses under point (a) will only be able to graduate after completing more than 40 courses. For General B.Sc. programmes, such additional courses under point (a) count as credits toward the 40 course degree."

Page 205, following the heading Honours B.Sc. Degree in Earth Sciences, amend clause (h) to read as follows:

"h) Additional courses from departments in the Faculties of Arts or Science so as to achieve a total of 40 courses for the honours degree. Earth Sciences 2150, 2914 and 2915 are eligible additional courses. Mathematics 1080 and 1081; and Physics 1020, 1021 and 1054 are all excluded as additional courses; these courses can only be used to satisfy point (a) of the common block of required courses. Students are encouraged to complete a minor in another department."

Following the course description for Earth Sciences 2030, amend Prerequisites to read as follows:

"Prerequisites: Earth Sciences 1000, Chemistry 1001. Physics 1054 (or Physics 1021) and its Mathematics prerequisite are strongly recommended.
Co-requisite: Earth Sciences 2502."

Following the course description for Earth Sciences 2310, amend Prerequisites to read as follows:

"Prerequisites: Earth Sciences 1001, Mathematics 1000 (or Mathematics 1081), Physics 1054 (or Physics 1021), and permission of the Head of Department."

Following the course description for Earth Sciences 2400 amend Prerequisites to read as follows:

"Prerequisites: Earth Sciences 1000, Chemistry 1001, Mathematics 1000 (or Mathematics 1081), Physics 1054 (or Physics 1021)."

Following the course description for Earth Sciences 3400 amend Prerequisites to read as follows:

"Prerequisite: Earth Sciences 2310."

Following the course description for Earth Sciences 3701 amend Prerequisites to read as follows:

"Prerequisites: Earth Sciences 2310 and 2031."

35.35 Department of Geography

Page 143, 1995-96 Calendar, delete the course Geography/Biology 3170 Wildlife Management.

Page 142, following the heading Geography, subheading Major in Geography (B.A. or B.Sc.), amend Clause 1)C: to read as follows:

"C: 3000, 3610, 3620, 3800"

Page 144, following the course description for Geography 3800, insert the letter "(C)".

Page 143, following the course description for Geography 2195 delete the Co-requisites.

Page 145, following the course description for Geography 3260 amend prerequisites to read as follows:

"Prerequisites: Geography 2195, Computer Science 2602 (or equivalent, with permission of instructor and the Head of Department), Geography 2220 or Statistics 2500 or Statistics 2510."

Page 143, delete the entry for Geography 3220. Air Photo Interpretation.

Delete the course title for Geography 3250 and replace with the following:

"Geography 3250. Introduction to Remote Sensing."

Following the course description for Geography 3250, amend Prerequisites to read as follows:

"Prerequisites: Geography 2195, and Geography 2220 or Statistics 2500 or Statistics 2510."

Page 142, following the heading Geography, subheading Major in Geography (B.A. or B.Sc.), amend clause 1)A to read as follows:

"A: 2200, 3200, 3250, 3260"

Page 143, following the course description for Geography 3250, add the letter designation (A).

35.36 Department of Biochemistry

Page 187, 1995-96 Calendar, following the heading Joint Programmes, insert new programme as follows:

"BIOCHEMISTRY (NUTRITION)/PSYCHOLOGY (BEHAVIORAL NEUROSCIENCE) JOINT HONOURS

The following courses (or equivalents) are required:

a) Chemistry 1000 and 1001, Biology 1001 and 1002, Mathematics 1080 and 1081 (or 1000), Physics 1020 (or 1050) and 1021 (or 1054),

English 1080 and 1110.

b) Biochemistry 2100, 2101, 3106, 311A/B, 3200, 3201, 4002, 4300, 4301, 4302, 4502.

c) Psychology 1000, 1001, 2900, 2901, 2850, 3800, 3900, 4910; one of 4850 or 4851; one further Psychology course from the Selected Topics; two laboratory courses from two different areas chosen from those listed in Clause 1(d) of the requirements for a Major in Behavioural Neuroscience.

d) Either Biochemistry 499A /B or Psychology 499A/B.

e) Chemistry 2400 and 2401.

f) One course in Computer Science

g) Other courses to complete at least the prescribed minimum of forty-five courses for the Joint Honours Degree.

NOTE: In accordance with Clause 6.i. of the Regulations for the Honours Degree of Bachelor of Science, Honours candidates must obtain a grade of "B" or better, OR an average of 75% or higher in all the required courses listed in Clauses (b), (c) and (d) above, except those at the 1000 level."

Insert new programme as follows:

"BIOCHEMISTRY/PSYCHOLOGY (BEHAVIOURAL NEUROSCIENCE) JOINT HONOURS

The following courses (or equivalents) are required:

a) Chemistry 1000 and 1001, Biology 1001 and 1002, Mathematics 1000 (or 1080 and 1081) and

1001, Physics 1050 and 1054 (or Physics 1020, 1021, 1054) English 1080 and 1110.

b) Biochemistry 2100, 2101, 3105, 3106, 3107, 311A/B; one of 4210 or 4211; four of 4002, 4101, 4102, 4103, 4104, 4200, 4201, 4220.

c) Psychology 1000, 1001, 2900, 2901, 2850, 3800, 3900, 4910; one of 4850 or 4851; one further Psychology course from the Selected Topics; two laboratory courses from two different areas chosen from those listed in Clause 1(d) of the requirements for a Major in Behavioural Neuroscience.

d) Either Biochemistry 499A/B or Psychology 499A/B

e) Chemistry 2300, 2400, 2401.

f) One course in Computer Science.

g) Other courses to complete at least the prescribed minimum of forty-five courses for the Joint Honours Degree.

NOTE: In accordance with Clause 6.i. of the Regulations for the Honours Degree of Bachelor of Science, Honours candidates must obtain a grade of "B" or better, OR an average of 75% or higher in all the required courses listed in Clauses (b), (c) and (d) above, except those at the 1000 level."

35.37 Department of Biology

Page 197, 1995-96 Calendar, delete the calendar entry for Biology 3170. Wildlife Management.

Page 187, following the heading Joint Programmes, subheading Joint Honours in Cell Biology/Microbiology and Biochemistry, in the

first paragraph, amend the reference to 1000-level Physics courses to read as follows:

"Physics 1050 and 1054 (or 1020, 1021 and 1054)"

Following the subheading Joint Honours Biology and Earth Sciences, in paragraph a), amend the reference to 1000-level Physics courses to read as follows:

"Physics 1020 and 1021 (or 1050 and 1054)"

Following the subheading Joint Honours in Biology/Psychology, in paragraph a), amend the reference to 1000-level Physics courses to read as follows:

"Physics 1020 and 1021"

Following the subheading Statistics/Biology Joint Honours, in paragraph a), amend the reference to 1000-level Physics courses to read as follows:

"Physics 1020 and 1021"

Page 195, following the heading Biology, subheading General Degree - Major in Biology, in the third paragraph, amend the reference to 1000-level Physics courses to read as follows:

"Physics 1020/1021 or 1050/1054"

Page 197, following the course description for 3060. Principles of Cell Biology, in the prerequisite line, amend the reference to Physics to read as follows:

"Physics 1021 or 1054"

Following the course description for 3710. The Aquatic Environment, in the prerequisite line amend the reference to 1000-level Physics to read

as follows:

"Physics 1021 or 1054"

Following the course description for 3610. Boreal Ecology, amend the prerequisite line to read as follows:

"Prerequisites: Biology 2010 and 2600. Statistics 2550 or equivalent."

Page 199, following the course description for 4750. Fisheries Ecology, amend the prerequisite line to read as follows:

"Prerequisites: Biology 3295 and permission of the Instructor."

35.38 Department of Geography

Page 188, 1995-96 Calendar, following the heading Joint Honours Degree in Computer Science and Geography, under regulation 2) Geography Requirements, amend second paragraph to read as follows:

"A total of at least fifteen Geography courses is required for the Joint Honours: 1010, 1011, 2001, 2102, 2195, 2302, 3200, 3250, 3260, and six of 4200, 4220, 4250, 4261, 4262, 4290, 4291, 4292."

Page 190, following the heading Joint Major in Computer Science and Geography, amend regulation 2) Geography Requirements, to read as follows:

"A total of at least twelve Geography courses is required for the joint major: 1010 or 1000, 1011 or 1001, 2001, 2102, 2195, 2302, 3200, 3250, 3260, and three of: 4200, 4250, 4261, 4262, 4290."

Page 142, following the heading Geography, subheading Major in Geography (B.A. or B.Sc.),

amend clause 3)b) of the current B.Sc. course requirements as follows:

Delete: "Physics 1200 and 1201, or 1050 and 1052" and replace with the following:

"Physics 1020 and 1021 (or 1050 and 1054)"

Page 143, following the course descriptions for Geography 2195 and 2220, delete current prerequisites and replace with the following:

"Prerequisites: Mathematics 1000, or 1050 and 1051, or 1080 and 1081."

35.39 Department of Chemistry

Page 187, 1995-96 Calendar, following the heading Chemistry/Biochemistry Joint Honours Degree, delete entire entry and replace with the following:

"The following courses (or their equivalents) are required:

a) Chemistry 1000 and 1001, Mathematics 1000 and 1001, Physics 1050 and 1054, two courses in first year English. Biology 1001 and 1002 are highly recommended.
b) Mathematics 2000, Applied Mathematics/Pure Mathematics 3260, Physics 2054 and 2058.
c) Chemistry 2210, 2300, 2400, 2401, 3100, 3211, 3300, 3301, 3400, 3401, 3500; 4100 or 4101; and two further 4000-level Chemistry courses.
d) Biochemistry 2100, 2101, 311A/B, 3105, 3106, 3107; either 4210 or 4211; and four of 4002, 4101, 4102, 4103, 4104, 4200, 4201, 4220.
e) Either Chemistry 490A/B or Biochemistry 499A/B.
f) Other courses to complete the prescribed minimum of 45 courses for the Joint Honours Degree.

Page 189, following the heading Earth Sciences/Chemistry Joint Honours Degree, amend clauses a) and e) as follows:

Clause a): Delete "Physics 1050 and 1052 (or 1200, 1201 and 2050)" and replace with "Physics 1050 (or 1020 and 1021) and 1054."

Clause e) Delete "Physics 2055 and 2552 would be desirable electives."

Following the heading Applied Mathematics/Chemistry Joint Honours (B.Sc. Only), amend the first paragraph as follows:

Delete "Physics 1050 and 1052 (or 1200, 1201 and 2050) and replace with "Physics 1050 (or 1020 and 1021) and 1054..."

Page 190, following the heading Physics/Chemistry Joint Honours, amend as follows:

Delete current clause a) and replace with the following:

"a) Mathematics 2000, 2001, and Applied Mathematics/Pure Mathematics 3260. Mathematics 2050 is recommended."

Delete current clause b) and replace with the following:

"b) Physics 1050 (or 1020 and 1021) and 1054."

Page 199, following the heading Chemistry, subheading General Degree-Major in Chemistry, amend as follows:

Delete current clause b) and replace with the following:

"b) Physics 1050 (or 1020 and 1021), 1054, 2054 and 2056."

Delete paragraph "The following courses in Biology and Biochemistry are recommended...Biochemistry 311A/B."

Delete the paragraph "Prospective Chemistry Majors in their first year should take a) ... e) 2 electives", and replace with the following:

"To be admitted as a Chemistry Major, students must have completed ten courses at the first year level, including Chemistry 1000, 1001, Physics 1050, 1054 (or 1020 and 1021), Mathematics 1000, 1001 (or 1080, 1081) English 1080, 1110 (or equivalent) and two electives. In addition, students must obtain a grade of 65% or better in each of Chemistry 1000, 1001 (or a combined average of 65% in Chemistry 1000 and 1001 and the permission of the head of the Department) and a minimum average of 60% in eight of the ten first year courses."

Page 200, following the heading Honours Degree in Chemistry, subheading Required Courses, amend as follows:

Delete clause b) and replace with the following:

"b) Physics 1050 (or 1020, 1021), 1054, 2054 and 2056."

Delete the paragraph "The following courses in Biology and Biochemistry are recommended...Biochemistry 4220."

In the paragraph beginning "Prospective Honours students in Chemistry in their first year should take:", delete current clause c) and replace with the following:

"c) Physics 1050 and 1054 or 1020 and 1021."

In the NOTE: "Chemistry 1800, Physics 1200, Mathematics 1080 may not be included...an Honours degree.", delete "Physics 1200" and replace with "Physics 1020".

Delete the entry for 105A/B Introductory General Chemistry in its entirety, including NOTE.

Delete current course description for Chemistry 2210 Introductory Inorganic Chemistry and replace with the following:

"Chemistry of selected s, p, and d block elements. Introduction to crystal and molecular structures and to molecular orbital and crystal field theories."

Following the course description for 2400 (F) and 2401 (W) Introductory Organic Chemistry, delete current prerequisite and replace with the following:

"Prerequisite: A grade of 65% or better in each of Chemistry 1000 and 1001 (or equivalent courses) or a combined average of 65% in Chemistry 1000 and 1001 and the permission of the Head of the Department. Chemistry 2400 is a prerequisite for Chemistry 2401."

Page 201, following the course description for 3300. Physical Chemistry I, amend prerequisites as follows:

Delete "Physics 1052 (or 2050) and 2054" and replace with the following:

"Physics 1054 and 2054"

Delete "Permission may be given to take Physics 2054 concurrently with Chemistry 3300" and replace

with the following:

"Physics 2054 may be taken concurrently with Chemistry 3300"

Amend the Prerequisites for Chemistry 3301. Physical Chemistry II to read as follows:

"Prerequisites: Chemistry 3300, Applied Mathematics/Pure Mathematics 3260, Physics 2056. Physics 2056 may be taken concurrently with Chemistry 3300."

Page 202, in the course title for 4401(W) (formerly 400B). Physical Organic Chemistry, delete "400B" and replace with "440B"

Page 189, following the heading Earth Sciences/Chemistry Joint Honours, amend clause e) as follows:

Delete second sentence "Physics 2055 and 2552 would be desirable electives."

35.40 Department of Physics

Page 188, 1995-96 Calendar, following the heading Joint Honours in Computer Science and Physics, amend as follows:

Amend clause 3)a) to read as follows:

"3)a) Physics 1050 and 1054, or Physics 1020, 1021 and 1054."

Amend clause 6)b) to read as follows:

"6)b) Mathematics 2000, 2001, and AM/PM 3260."

Page 190, following the heading Applied Mathematics/Physics Joint Honours, amend clause b) to read as follows:

" Physics 1050 and 1054, or Physics 1020, 1021 and 1054."

Page 191, following the heading Joint Major in Computer Science/Physics, amend as follows:

Amend clause 3)a) to read as follows:

"3)a) Physics 1050 and 1054, or Physics 1020, 1021 and 1054."

Amend clause b) to read as follows:

"Mathematics 2000, Statistics 2510 and AM/PM 3260."

35.41 Department of Psychology

Page 222, 1995-96 Calendar, following the course description for Psychology 4910, amend prerequisites to read as follows:

"Twenty-six University courses including (a) two Psychology laboratory courses from Clause 1(b) of the requirements for a Major in Psychology or (b) Psychology 3425 or (c) Psychology 3950."

Page 221, following the course description for 2900, amend the credit restriction note to read as follows:

"Note: Credit may not be obtained for both Psychology 2900 and any of the following: Psychology 2925, Statistics 2500, Statistics 2510, Statistics 2550."

Following the course description for Psychology 2901, amend the credit restriction note to read as follows:

"Note: Credit may not be obtained for both

Psychology 2901 and any of the following: Psychology 2950, Statistics 2501, Statistics 2560."

Page 219, following the heading Psychology, subheading Requirements for a Major in Psychology, amend clause 2(c) to read as follows:

"c) Either Chemistry 1000 and 1001 or equivalents; OR Physics 1020 (or 1050) and 1021 (or 1054)."

Page 219, following the subheading Requirements for a Major in Behavioural Neuroscience (B.Sc. only), amend clause 2(c) to read as follows:

"c) Physics 1020 (or 1050) and 1021 (or 1054)."

35.42 Department of Computer Science

Page 202, 1995-95 Calendar, following the heading Computer Science, subheading Programmes in Computer Science, insert the following:

"k) Computer Science/Physics Joint Honours."

Following the subheading Honours in Computer Science, amend Note 2) as follows:

Delete "or Physics 2552"

Page 203, following the subheading Third Year Courses, insert the following:

"3718. Programming in the Small (F). The main objective of this course is to demonstrate the tools and techniques used in the construction of small software systems. The software tools and techniques to be covered include C++, analysis and design of software components, software construction tools (e.g. linkers, builders, debuggers), software library use and design, and

system integration.
Prerequisite: CS 2711 and CS 2741."

35.43 Department of Earth Sciences

Page 191, following the heading Course Descriptions, delete Notes 1 and 2 in their entirety.

Immediately before the heading Course Descriptions, insert new section to read as follows:

"WAIVER OF REGULATIONS FOR UNDERGRADUATE STUDENTS

Where circumstances warrant, any prerequisite or prerequisites lifted in Departmental Regulations may be waived by the required Head of the Department. Any Department Regulations may be waived by the appropriate Committee on Undergraduate Studies upon request of the Head of the Department concerned."

35.44 Department of Psychology

Page 221, 1995-96 Calendar, delete the current course description for Psychology 2850. Behavioural Neuroscience and replace with the following:

"2850. Behavioural Neuroscience. A survey of knowledge about brain mechanisms of behaviour and the methods used to generate this knowledge. Topics will include the following: basic neuroanatomy and neurophysiology, somatosensory systems and pain, reward, mental illness, sleep and arousal, developmental neurobiology, sexual development and behaviour, regulation of eating and body weight, learning and memory, and cortical function, including cortical mediation of language. Prerequisite: Psychology 2900

Laboratory period weekly
NOTE: Credit may not be obtained for both Psychology 2850 and any of the following: Psychology 2810, Psychology 2825, the former Psychology 2500."

35.45 Proposed Calendar Change to "Schedule A"

Page 186, 1995-96 Calendar, following the heading Regulations for the General Degree of Bachelor of Science, subheading Schedule A, delete the current NOTE 1) and replace with the following:

"NOTES: 1) Subject to overall Degree Regulations a candidate may complete a maximum of fourteen courses in the case of a General Degree, thirteen courses in the case of a Joint Honours Degree and eight courses in the case of an Honours Degree chosen from the following list:"

Amend (i) to read as follows:

"(i) All courses in the Faculty of Arts, to a maximum of fourteen, thirteen or eight as stated above."

Delete the current NOTE 2) and replace with the following:

"No courses in Schedule A may be used to fulfill the Science course requirement for the Honours or General degrees, with the exceptions that courses cross-listed with the Faculty of Science shall count as Science courses."

35.46 *Sir Wilfred Grenfell College

Page 56, 1995-96 Calendar, following the heading General Academic Regulations, subheading H. Regulations for a Second Degree, amend paragraph 2 of Clause 5 to read as follows:

"A student who has received a bachelor's degree from this University may complete the requirements for another major (or in the case of Sir Wilfred Grenfell College another specialization) within that degree. Such a student will not be awarded the same degree again but a notation indicating the completion of the second major (or in the case of Sir Wilfred Grenfell College completion of the second specialization) requirements will be included on the student's academic record."

Page 80, following the heading General Regulations, subheading Specialization Requirements, insert a new clause 2.b), as follows:

"2.b) With the permission of the appropriate coordinators, students may complete a double specialization provided that they complete all the requirements for both specializations."

Renumber the current clauses 2.b) to read 2.c), 2.c) to read 2.d) and 2.d) to read 2.e).

Page 82, following the entry Requirements for a Specialization in Psychology, insert the following:

REQUIREMENTS FOR HONOURS IN PSYCHOLOGY (B.A. ONLY)

The Bachelor of Arts (Honours) degree in Psychology at Sir Wilfred Grenfell College offers greater concentration in a discipline than is required for the completion of a general degree while still meeting the Core Programme requirements of the Grenfell College Bachelor's degree. The Honours degree also requires a higher level of academic achievement than required for the general degree. The Bachelor of Arts (Honours) in Psychology at Sir Wilfred Grenfell College is a 40-credit programme normally

requiring four years for completion. The following requirements govern the Bachelor of Arts (Honours) in Psychology at Sir Wilfred Grenfell College of Memorial University of Newfoundland.

Declaration of Intent

Candidates shall submit a declaration of intent to pursue the Bachelor of Arts (Honours) degree in Psychology to the Coordinator of the Psychology department and to the College Registrar, in writing, not later than the beginning of the candidate's fifth semester.

Academic Standing

In order to obtain the Bachelor of Arts (Honours) degree in Psychology the candidate shall obtain:

i. A grade of 70% or better, OR an average of 75% or higher in the minimum number of courses (including the required courses) in the Honours subject prescribed by the Department concerned, excluding the 1000-level courses. A grade of 70% or better must be obtained in the Honours thesis courses (Psychology 4951 and 4959).

AND

ii. An average of at least 1.75 points on the total number of courses required of the degree. (See General Regulation F, Classification of Degrees, for explanation of the point system.)

Note: Students who wish to fulfil the requirements of i. above using repeated of substituted courses must obtain approval of the Coordinator of Psychology and the Committee on Undergraduate Studies. The Honours thesis courses

may not be repeated.

Residence Requirements

To qualify for the Bachelor of Arts (Honours) Degree in Psychology at Sir Wilfred Grenfell College, a candidate shall attend Memorial University for at least six semesters as a full-time student, except with special permission of the Academic Studies Committee.

Course Requirements for Bachelor of Arts (Honours) in Psychology

a) Students must meet the Core and Cognate Requirements for Grenfell College Bachelor of Arts degree with a specialization in Psychology degree.

b) Candidates must complete: Psychology 1000, 1001, 2925, 2950, 2025, 2125, 2225, 2425, 2625, 2825, 3950, 4910, 4925.

c) Candidates must complete five of Psychology 3025, 3125, 3225, 3325, 3425, 3525, 3625, 3626, 3627, 3628, 3725, 3825.

d) Honours candidates are required to complete a two-semester research project, Psychology 4951 and 4959.

Honours Thesis

The Honours project sequence (Psychology 4951 and 4959) involves the production of an Honours thesis. This thesis will be evaluated by the thesis supervisor and an additional faculty member selected by mutual consent of the candidate and the supervisor.

Page 96, following the heading Psychology, subheading Senior Courses, insert new courses as

follows:

"4951. Honours Project in Psychology I. Under the supervision of a Faculty member, each student will independently review an area of psychology and prepare a thesis proposal for further investigation.
Prerequisites: Ten courses in Psychology including 3950 (or permission of the Coordinator of Psychology).
Notes: Credit may not be obtained for both Psychology 4950 and 4951.
Psychology 4951 is limited to Honours candidates."

"4959. Honours Project in Psychology II. This is a continuation of Psychology 4951. Under the supervision of a Faculty member, each student will independently carry out an approved project which will result in an honours thesis.
Prerequisite: Psychology 4951 (or the permission of the coordinator of Psychology).
Note: Psychology 4959 is limited to Honours candidates.

Page 96, following the description for Psychology 4950. Independent Project in Psychology, add the following Note:

"Note: Credit may not be obtained for both Psychology 4950 and Psychology 4951."

Page 82, following the heading Requirements for a Specialization in Psychology, amend clause A.1) to read as follows:

"Psychology 1000, 1001, 2925, 2950, 3950, 4910, 4925, and one of 4950 or 4951."

Page 88, following the heading Course Descriptions, subheading Classics, insert new courses as follows:

"Classics 2800. Classical Drama I. A comprehensive study of the development of Greek tragedy and the satyr-play in their social, literary and technical context, through discussions of the origins of Greek tragedy, illustrated lectures on the development and technical aspects of the Greek theatre structures, and comprehensive analyses of plays from the major writers of the genres.

Classics 2801. Classical Drama II. A continuation of the work done in Classics 2800. A comprehensive study of the development of Greek comedy and Roman tragedy and comedy in their social, literary and technical context, through discussions of the origins of Greek comedy and Roman tragedy and comedy, illustrated lectures on the development and technical aspects of the roman theatre structures, and comprehensive analyses of plays from the major writers of the genres.
Prerequisite: Classics 2800.

Classics 2055. Women in Greece and Rome. An examination of the role of women in ancient Greece and Rome from the perspectives of religion, literature, art, society, and politics. Critical assessments of the scholarship and methodologies (including feminist methodologies) relevant to this topic will be included."

Page 92, following the heading History, following the course description for History 1101, Introduction to History, amend prerequisite to read as follows:

"Prerequisite: History 1100 or History 1000."

Page 99, delete the entry for "Bachelor of Fine Arts (Visual Arts)" in its entirety and replace with the following:

"BACHELOR OF FINE ARTS (VISUAL ARTS)

The Bachelor of Fine Arts (Visual Arts) degree programme is a professional programme designed to educate and train the student in the history, theory and practice of the visual arts. Courses are offered in Drawing, Painting, Sculpture, Printmaking, Photography, Multi-media Digital Imaging and Digital Multi-Media, and Art History. The curriculum is devised with the aim of producing well-rounded generalists with a solid grounding in all aspects of the visual arts. It illustrates the philosophy that artistic freedom and creative expression require both technical skill and intellectual vision, acquired through a disciplined application of effort and a critical awareness of artistic issues, past and present.

In addition to Studio and Art History courses, the student will take a number of appropriate academic courses, chosen in consultation with the Department. It is intended that academic courses be chosen which will enhance the Bachelor of Fine Arts (Visual Arts) programme and provide, as far as possible, a broad exposure to the liberal arts. The first year of the programme consists of intensive foundation courses in Drawing, Two-Dimensional Design and Three-Dimensional Design in preparation for Introductory studio courses in the second year. In the third year, two areas of studio emphasis will be chosen from among the following studio disciplines: Drawing, Painting, Sculpture, Printmaking, Photography, Multi-media. To satisfy requirements for the studio emphasis a student must complete a total of six courses in each of his/her chosen areas of emphasis consisting of two 2000 level courses, two 3000 level courses and two 4000 level courses. In the fourth year, studio courses are conducted as tutorials, that is students will work independently on projects and confer regularly with instructors.

It is recognized that students in the Bachelor of Fine Arts (Visual Arts) programme must have occasional opportunities to view important works of art first-hand. Arrangements will therefore be made where possible for students in the third and fourth year of study to visit major art centres.

ADMISSION REQUIREMENTS

1. Academic Requirements

Applicants will meet the regular admission requirements of the University.

2. Portfolio Submission

All applicants will be required to submit a portfolio of previous art work and a completed Departmental application form before April 30 of the year in which entry is sought. Although it is assumed that applicants will have had no previous formal training in art, evidence of suitability for study in the visual arts is required. Instructions for the submission of portfolios will be provided by the Department of Visual Arts upon request. Enrollment in the Bachelor of Fine Arts (Visual Arts) programme is limited and selection is competitive.

3. Transfers from other universities/colleges

See Admission to the University, B.6., page 51.

GENERAL NOTES

1. All courses in Visual Arts, excepting Art History courses, are restricted to students enrolled in the Bachelor of Fine Arts (Visual Arts) degree programme.

2. The Bachelor of Fine Arts (Visual Arts) programme is rigorous and demanding and it is

assumed that students will be enrolled for full-time study. A student who withdraws from a course may put his/her programme in jeopardy or be unable to complete the degree in the normally allotted time.

3. Where circumstances warrant, any prerequisite(s) for Visual Arts courses may be waived by the Head of the Department.

4. Any Departmental regulations may be waived upon request of the Head of the Department by the appropriate Committee on Undergraduate Studies.

5. A candidate may not change the area of his/her studio emphasis without the written permission of the Head of the Department. In cases where permission is granted, the student shall be required to fulfill all requirements for the new studio emphasis.

ACADEMIC PERFORMANCE

1. Attendance at all studio courses is considered vital to the programme and will be required. It will be used as part of the evaluation.

2.a) Students who fail a course in a studio discipline shall not take more advanced courses in that discipline until the failed course has been satisfactorily completed.

b) Students who fail any studio course will be required to repeat that course and obtain a grade of at least 65%.

3. Students must normally complete all 1000 level studio courses before advancing to any 2000 level studio course.

4. A candidate whose average in Visual Arts courses falls below 65% in any semester will be

placed on probation by the Department of Visual Arts.

5. A candidate will be required to withdraw from the programme if:

a) The candidate's cumulative average in Visual Arts courses required for the programme falls below 65%.

OR

b) The candidate's average in Visual Arts courses falls below 65% in each of two consecutive semesters of enrolment in the programme.

6. Students who have voluntarily withdrawn from the Bachelor of Fine Arts (Visual Arts) programme and wish to re-enter must re-apply by April 30 for the upcoming Fall semester, or by August 30 for the upcoming Winter Semester.

7. Students who have been required to withdraw from the Bachelor of Fine Arts (Visual Arts) programme and wish to re-enter must re-apply in competition after a lapse of two semesters by April 30 for the upcoming academic year.

8. Candidates who have been required to withdraw twice from the Bachelor of Fine Arts (Visual Arts) programme shall be ineligible for further admission.

9. Students denied promotion with a cumulative average below 60% in Visual Arts courses who are re-admitted to the programme will normally be required to repeat all the Visual Arts courses of the term, including all the courses which have been passed (in a semester when the courses are normally offered).

10. Students denied promotion with a cumulative

average of at least 60% in Visual Arts courses who are re-admitted to the programme will be required to repeat the failed Visual Arts courses only (in a semester when such courses are normally offered).

DEGREE REGULATIONS

To be awarded the degree of Bachelor of Fine Arts (Visual Arts) a student shall successfully complete 44 courses as follows:

1. Two courses in English.

2. Six academic elective courses chosen in consultation with the Department.

3. Eight courses in Art History, including Visual Arts 2700, 2701.

4. Visual Arts 100A/B; 110A/B; 120A/B; 2000/2001; 3000/3001.

5. Three of a, b, c, d, or e.

a) Visual Arts 2100 and 2101
b) Visual Arts 2200 and 2201
c) Visual Arts 2310 and 2311, or 2320 and 2321
d) Visual Arts 2400 and 2401
e) Visual Arts 2600 and 2601

6. Two of a, b, c, d, e. (Studio emphasis)

a) Visual Arts 3100/3101
b) Visual Arts 3200/3201
c) Visual Arts 3310/3311 or 3320/3321
d) Visual Arts 3400/3401
e) Visual Arts 3500/3501

7. Two of a, b, c, d, e, or f. (Studio Emphasis)

a) Visual Arts 4000/4001

b) Visual Arts 4100/4101
c) Visual Arts 4200/4201
d) Visual Arts 4310/4311 or 4320/4321
e) Visual Arts 4400/4401
f) Visual Arts 4500/4501

8. Four studio electives at 2000 or 3000 level (in area other than studio emphasis)

Notes: 1) Visual Arts 2300 and 2301 are not accepted as credits towards the Bachelor of Fine Arts Degree.

2) Graduation Work. One work of art done during the fourth year will be selected by the Department, in consultation with the student, and retained for the permanent collection of the College.

Programme:

Year 1 - Foundation Year
- Drawing I, A/B (100)
- Two-D Design A/B (110)
- Three-D Design A/B (120)
- Two Art History Courses
- Two English Language and Literature

Year 2 - Second Year Drawing I, II
- 2000/2001
- Three of:
- Introductory Painting I, II (2100, 2101)
- Introductory Sculpture I, II (2200, 2201)
- Introductory Printmaking I, II (2310 and 2311 or 2320 and 2321)
- Introductory Photography I, II (2400, 2401)
- Introductory Digital Imaging I, II (2600/2601)
- Two Art History Courses
- Two Academic Electives*

Year 3 - Intermediate Drawing I, II
- 3000/3001

- Two of:
    - Intermediate Painting I, II (3100/3101)
    - Intermediate Sculpture I, II (3200/3201)
    - Intermediate Relief and/or Intaglio I,II 3310/3311), or Intermediat Serigraphy and/or Lithography I, II (3320, 3321)
    - Intermediate Photography I, II (3400/3401)
    - Multi-Media I, II (3500/3501)
    - Two 2000 or 3000 level Studio Electives (in area other than studio emphasis)
    - Two Art History Courses
    - Two Academic Electives*

Year 4

- Two of:
    - Advanced Drawing I, II (4000/4001)
    - Advanced Painting I, II (4100/4101)
    - Advanced Sculpture I, II (4200/4201)
    - Advanced Relief and/or Intaglio I, II (4310/4311), or Advanced Serigraphy and/or Lithography I, II (4320/4321)
    - Advanced Photography I, II,(4400/4401)
    - Multi-Media III, IV (4500/4501)
    - Two 2000 or 3000 level Studio Electives (in area other than studio emphasis)
    - Two Art History Courses
    - Two Academic Electives*

    * To be chosen in consultation with the Department of Visual Arts.

STUDIO COURSES

Studio courses are offered in the following subjects: Drawing, Two-dimensional design, Three-dimensional design, Painting, Sculpture, Printmaking, Photography and Multi-media, Digital Imaging and Digital Multi-Media. Courses in a studio subject consist of six hours of practical

work in a studio class each week. Assigned projects will require that considerable additional studio work be done outside scheduled class time. Students will supply their own artist's materials. All courses may not be offered every year. Please consult the Department prior to registration to confirm course offerings.

COURSE DESCRIPTIONS

1st Year

100A/B. Drawing I. The fundamentals of drawing with study of line, tone, shape, volume, form, texture, space. Emphasis on drawing the human figure and studio problems. Attendance required.
Studio: Six hours per week.
Co-requisites: Visual Arts 110A/B, 120A/B.

110A/B. Two Dimensional Design and Media. Principles of color theory and color mixing. Painting techniques in various media. Emphasis on rendering of form in space and organization of two dimensional surface through studio problems. Attendance Required.
Studio: Six hours per week.
Co-requisites: Visual Arts 100A/B, 120A/B.

120A/B. Three Dimensional Design and Media. Three dimensional form and spatial organization. Exploration of sculptural media through studio problems. Attendance required.
Studio: Six hours per week.
Co-requisites: Visual Arts 100A/B, 110A/B.

2nd Year

2000. Second Year Drawing I. Development of drawing skills with emphasis on the human figure and studio problems. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 100A/B.

2001. Second Year Drawing II. A continuation of the work begun in Visual Arts 2000. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2000.

2100. Introductory Painting I. Painting media applied to problems of spatial structure, light, color, volume and surface relationships.
Studio: Six hours per week. Attendance required.
Prerequisite: Visual Arts 110A/B.

2101. Introductory Painting II. A continuation of the work begun in Visual Arts 2100. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2100.

2200. Introductory Sculpture I. Development of accurate and expressive control of three-dimensional media. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 120A/B.

2201. Introductory Sculpture II. A continuation of the work begun in Visual Arts 2200. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2200.

2300. Introductory Printmaking I. Introduction to printmaking techniques. Relief, Intaglio, Serigraphy, Lithography. Attendance Required.
Studio: Six hours per week.

2301. Introductory Printmaking II. A continuation of the work begun in Visual Arts 2300. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2300.

2310. Introductory Printmaking I: Relief. An intensive exploration of Relief Printmaking concepts and techniques using wood and lino. Attendance required.
Studio: Six hours per week.

2311. Introductory Printmaking II: Intaglio. An intensive exploration of Intaglio Printmaking concepts and techniques. Also includes monoprint and collograph experience. A continuation of the Printmaking stream begun in 2310. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2310.

2320. Introductory Printmaking I: Serigraphy. An intensive exploration of Serigraphic Printmaking concepts and techniques. Attendance required.
Studio: Six hours per week.

2321. Introductory Printmaking II: Lithography. An intensive exploration of Lithographic Printmaking concepts and techniques. A continuation of the Printmaking stream begun in 2320. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2320.

2400. Introductory Photography I. Basic techniques of black and white photography including negative exposure, film development and print production. Attendance required.
Studio: Six hours per week.

2401. Introductory Photography II. A continuation of the work begun in Visual Arts 2400. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2400.

2600. Introductory Digital Imaging I. An

introduction to the computer as an art-making tool. Computer basics. Creation acquisition, manipulation and output of digital images using several applications. Attendance required.

2601. Introductory Digital Imaging II. A continuation of the work begun in Visual Arts 2600. Students will learn to create original artworks directly on the computer and how to incorporate images from other sources using a color scanner. The ethics, aesthetics and theory of digital image-making for artists will also be addressed. Attendance required.

3rd Year

3000. Intermediate Drawing I. Further development of drawing skills. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 200A/B.

3001. Intermediate Drawing II. A continuation of the work begun in Visual Arts 3000. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3000.

3100. Intermediate Painting I. Continued development of painting stressing personal expression and critical awareness. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2101.

3101. Intermediate Painting II. Continuation of Visual Arts 3100. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3100.

3200. Intermediate Sculpture I. Continued development of skills in sculpture media.

Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2201.

3201. Intermediate Sculpture II. Continuation of Visual Arts 3200.
Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3200.

3310. Intermediate Relief and/or Intaglio I. Projects in Printmaking. Relief and/or Intaglio. In consultation with the instructor students will select the medium or combination or media in which to work. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2311.

3311. Intermediate Relief and/or Intaglio II. Projects in Printmaking. Relief and/or Intaglio. In consultation with the instructor students will select the medium or combination or media in which to work. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3310.

3320. Intermediate Serigraphy and/or Lithography I. Projects in Printmaking. Serigraphy and/or Lithography. In consultation with the instructor students will select the medium or combination or media in which to work. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2321.

3321. Intermediate Serigraphy and/or Lithography II. Projects in Printmaking. Serigraphy and/or Lithography. In consultation with the instructor students will select the medium or combination or media in which to work. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3320.

3400. Intermediate Photography I. Critical evaluation of photographs. Continued development of photographic skills, use of color and larger camera formats. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 2401.

3401. Intermediate Photography II. Continuation of Visual Arts 3400.
Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3400.

3500. Multi-media I. Projects in combined media.
Attendance required.
Studio: Six hours per week.
Prerequisite: Permission of the Department.

3501. Multi-media II. Continuation of Visual Arts 3500. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3500.

3510. Digital Multi-Media I. An exploration of computer based multi-media production on the computer involving 2-D and 3-D graphics, animation, video, sound and text. Attendance required.

3511. Digital Multi-Media II. A continuation of the work begun in Visual Arts 3510. Students will learn how to create original artworks directly on the computer and how to incorporate still images, moving images, sound and text using a color scanner, video camera, video cassette recorder, midi devices, etc. The ethics, aesthetics and theory of digital multi-media production for artists will also be addressed. Attendance required.

4th year

4000. Advanced Drawing I. Advanced projects in drawing. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3001.

4001. Advanced Drawing II. Continuation of Visual Arts 4000.
Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 4000.

4100. Advanced Painting I. Advanced projects in painting. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3101.

4101. Advanced Painting II. Continuation of Visual Arts 4100. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 4100.

4200. Advanced Sculpture I. Advanced projects in sculpture. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3201.

4201. Advanced Sculpture II. Continuation of Visual Arts 4200. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 4200.

4310. Advanced Relief and/or Intaglio I.
Projects in Printmaking. Relief and/or Intaglio.
In consultation with the instructor students will select the medium or combination or media in which to work. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3311 or any four credits in Printmaking.

4311. Advanced Relief and/or Intaglio II.
Projects in Printmaking. Relief and/or Intaglio.

In consultation with the instructor students will select the medium or combination or media in which to work. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 4310.

4320. Advanced Serigraphy and/or Lithography I. Projects in Printmaking. Serigraphy and/or Lithography. In consultation with the instructor students will select the medium or combination or media in which to work. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3321 or any four credits in Printmaking.

4321. Advanced Serigraphy and/or Lithography II. Projects in Printmaking. Serigraphy and/or Lithography. In consultation with the instructor students will select the medium or combination or media in which to work. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 4320.

4400. Advanced Photography I. Advanced projects in Photography. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3401.

4401. Advanced Photography II. Continuation of Visual Arts 4400. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 4400.

4500. Multi-media III. Advanced projects in multi-media. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 3501.

4501. Multi-media IV. Continuation of Visual Arts 4500. Attendance required.
Studio: Six hours per week.
Prerequisite: Visual Arts 4500.

ART HISTORY COURSES

2700. Art History Survey I. (Same as History 2700). The history of art from pre-historic times to the Renaissance.
Lectures: Three hours per week.

2701. Art History Survey II. (Same as History 2701). The history of art from the Renaissance to the 20th century.
Lectures: Three hours per week.

3700. Art History: The Italian Renaissance. (Same as History 3700). An overview of the art and architecture of Renaissance Italy with an emphasis upon the historical context in which art was produced.

3701. Art History: The Renaissance Outside Italy. (Same as History 3701). The Renaissance outside Italy from the late 14th century and the International style through the 16th century. As with the Italian Renaissance the art and architecture will be discussed in its historical context.

3702-3721. Art History: Special Topics. The range of special topics might include:
- Early Renaissance Art
- Art of the Later Renaissance
- Canadian Art to 1900
- 20th Century Canadian Art
- American Art to 1900
- 20th Century American Art

3620. Philosophy of Art. (Same as Philosophy 3620). Introduction to aesthetics; applications in Visual Arts, music and drama.

3820. Religion and the Arts. (Same as Religious Studies 3820). An examination of the role of art

in the expression of religious ideas, together with a study of specific religious themes and concerns in one or more of the following: literature, film, music, painting, sculpture, and dance.
Prerequisite: Religious Studies 2810 or permission of the Department of Religious Studies.

4700-4729. Art History: Special Topics. The range of senior topics might include:
- History of European Art in the Middle Ages
- Art of the later Middle Art
- 17th and 18th Century Art
- 19th Century Art
- Modern Art I
- Modern Art II
- Art of the Ancient Near East
- Oriental Art

Prerequisite: Permission of the Department.

4730. Art History: Modern Art I. (Same as History 4730). A comprehensive survey of Western Art from 1750 to 1885 with an emphasis on painting and sculpture.

4731. Art History: Modern Art II. (Same as History 4731). A compre-hensive survey of western art from 1885 to the present day.

4740. Current Issues in Art. Studies in Contemporary Art.
Lectures: Three hours per week.
Prerequisite: Permission of Department.

4741. Art Criticism. Theories of Art Criticism.
Lectures: Three hours per week.
Prerequisite: Permission of Department."

35.47 Faculty of Education

Page 233, following the heading Regulations for the Degree of Bachelor of Education (Secondary),

under Clause 3.b.(iv), delete Education 4155.

35.48 Faculty of Engineering and Applied Science

It was moved by Dr. Aboulazm, seconded by Captain Norman and carried that Clause IV.A.2 of the Senate By-Laws and Procedures be set aside to permit consideration of a memorandum dated February 8, 1996 from Dr. Aboulazm concerning the Bridging Programme between two Marine Institute Diploma Programmes and the Naval Architecture and Ocean Engineering degree Programme.

In his memorandum, Dr. Aboulazm expressed concern about the length of time it would take for students from the Marine Institute who transfer to the Faculty of Engineering and Applied Science to complete the degree programme. He asked that consultation continue in an attempt to develop a more favourable and competitive bridging arrangement for students.

Following a lengthy discussion, Dr. Haddara assured Senate that the Faculty of Engineering and Applied Science will continue to monitor the Marine Institute graduates admitted to the degree programme, and if anything can be done to better the agreement it will be done.

It was then moved by Dr. Treslan, seconded by Mr. O'Reilly and carried that the Bridging Programme for Graduates of the Naval Architecture Technology Diploma and Marine Systems Design Technology Diploma from the Marine Institute be approved.

It was moved by Dr. Treslan, seconded by Dean Seshadri and carried that the calendar changes relating to the Core Programme for Direct Entry be approved with the understanding that consultation will continue between the Faculty of Engineering and Applied Science and the Department of English with respect to the reduction from two courses to

one course in the English requirement for the Engineering programme, and that a written report will be made to Senate before the beginning of the next academic year.

It was moved by Dr. Treslan, seconded by Dr. Gunther and carried that the calendar changes regarding the discontinuation of the Forestry Programme at the St. John's campus be approved.

The following calendar changes incorporate revisions from the three motions stated above.

Page 315, replace the Chart for the Undergraduate Engineering Core Programme with the following:

CHART OF THE UNDERGRADUATE
ENGINEERING CORE PROGRAMME

(SEE MEMORIAL UNIVERSITY CALENDAR FOR CHART)

Page 322, 1995-96 Calendar, delete the entire entry "Faculty of Engineering and Applied Science" up to but not including "Course List" and replace with the following:

"FACULTY OF ENGINEERING AND APPLIED SCIENCE

ENGINEERING

Terms A, B, 1 and 2 comprise the core programme taken by all students. The specialized programmes of Civil, Electrical, Mechanical, and Naval Architecture and Ocean Engineering are offered in Terms 3 through 8. Where electives are available in Complementary Studies the selection must be approved by the Associate Dean (Undergraduate Studies). All electives in Terms 3 through 8 must be approved by the Discipline Chairman.

The Forestry programme is integrated with the

University of New Brunswick's five-year Forestry Degree programme. Following the satisfactory completion of the programme at Memorial University of Newfoundland, the student is admitted into the programme at the University of New Brunswick with advanced standing. This Programme will not be offered on the St. John s campus after April, 1997.

CIVIL ENGINEERING

In the nineteenth century, Civil Engineering was defined as, "The art of directing the great sources and powers of nature...for the use and convenience of man". Still valid today, the definition indicates that civil engineers are involved in serving people by providing some of the essentials (e.g., water supplies, shelter and transportation) necessary for civilized life. The oldest of the engineering professions, Civil Engineering deals with the planning, design, and construction of such things as roads, railways, harbours, docks, tunnels, bridges, buildings, water supplies, hydroelectric power development, and sewage collection, treatment and disposal systems.

The programme provides a broad introduction to the scientific principles and engineering techniques necessary for an understanding of the fundamental problems tackled by civil engineers. It also permits students to choose in later terms between two options: environmental and municipal engineering, and construction and structural engineering.

ELECTRICAL ENGINEERING

The basic fundamentals of the discipline of Electrical Engineering are covered in a core curriculum which extends through to Term 4. Upon entering Term 5, students must choose either the standard Electrical Engineering option or the Computer and Communications Engineering option,

whereupon they will spend a further two terms taking a core appropriate to their selected option. In recognition of the considerable diversity of careers available to electrical engineers, students are given latitude in the final two terms to choose from a wide range of electives in speciality areas appropriate to their option. Electives can be tailored to meet the needs of those who plan to go straight into industry as well as those who wish to join the increasing number of our graduates who are pursuing advanced degrees. Irrespective of their option or ultimate goals, all students are expected to carry out an individual project in their final term demonstrating their mastery of the discipline.

MECHANICAL ENGINEERING

Mechanical Engineering is a highly diversified discipline encompassing the design, manufacture, and utilization of mechanical and thermal energy systems for the service of society. This activity requires a thorough knowledge of materials, mathematics, and the physical sciences, and an ability to apply this knowledge to the synthesis of economical and socially acceptable solutions to engineering problems.

The Mechanical Programme provides students with a sufficiently general background to engage in the diverse activities of Mechanical Engineering. The judicious selection of elective courses in Terms 7 and 8 permits students who have identified specific areas of interest to direct their programmes accordingly. Electives may be chosen from those designated as Mechanical Engineering or, with approval, from courses offered by other disciplines within and outside engineering. Students can thereby tailor their programmes to meet career goals in areas such as research and development, industry, design, resource utilization, offshore development and ocean engineering.

NAVAL ARCHITECTURE AND OCEAN ENGINEERING

Naval architects conceive, design and construct ships, offshore structures and other floating equipment to survive and operate in a marine environment and to serve the needs of the ocean-going community. A naval architect is an engineer with the working knowledge of several disciplines and expertise in one of the basic areas of structural, hydrodynamical, or marine systems design. The role of naval architects now reaches beyond the confines of shipyards and design offices.

The Naval Architecture and Ocean Engineering Programme is the only accredited undergraduate programme specifically in naval architecture in Canada. The programme is designed both to provide graduates for the traditional role in shipbuilding and to provide for highly qualified professionals who can work in related ocean industries such as marine services; offshore engineering; submersibles and other advanced marine vehicles. The undergraduate programme is also a thorough preparation for graduate studies, research and consulting in ocean engineering.

CONTINUING ENGINEERING EDUCATION

The Faculty of Engineering and Applied Science has a firm commitment to Continuing Engineering Education. A variety of seminars and short courses are offered in St. John's and in other centres so that practicing engineers may participate in Continuing Engineering programmes aimed at maintaining and improving their competence.

FORESTRY

The art and science of forestry offers professional foresters the opportunity to address and to solve some of the most important technical, economic, and

social challenges of our time. Built on the recognition that forests must be managed so as to meet our needs without jeopardizing the needs of future generations, modern forestry aims at the sustainable management of our forests for society as a whole. Modern forestry not only addresses economic concerns but also concerns about forest ecosystem degradation, aquatic environment, wildlife habitat, recreational usage, spiritual values, and the global environment.

The integrated Memorial University of Newfoundland - University of New Brunswick Forestry Programme is composed of a basic core that focuses on the management of the forest resource, plus a number of electives to allow students to pursue personal interests. A broad range of areas is covered in the core including the basic sciences, the forest ecosystem, measurement and analyses, forestry as a business, social aspects of forestry, and the design of management intervention. A graduate of the B.Sc.F. programme is an integrated resource manager.

BACHELOR OF ENGINEERING DEGREE PROGRAMME

NOTE: Students intending to undertake the Engineering programme should note that it is possible to enter Term 1 only in the Fall Semester (September of each year). Attention is also drawn to the admission regulations below.

The Bachelor of Engineering Degree at Memorial University is set up as a Co-operative Programme, under which regular full-time academic study is alternated with equal periods of full-time work in positions related to the student's future career.

PROGRAMME OF STUDY

It is possible for students to pursue studies in Civil, Electrical, Mechanical, or Naval

Architecture and Ocean Engineering.

The Engineering Programme consists of ten academic terms and six work terms. For historic reasons, the first two academic terms are designated A and B with the remaining eight being numbered one through eight. All students must complete a prescribed core of courses in the first four academic terms. Students choose their discipline specialization upon entering Term 3 (the fifth Academic Term). Some of the courses offered in Academic Terms 3 to 8 are taken by all students, others are offered in more than one discipline, but most technical courses in Academic Terms 3 to 8 are specific to the individual disciplines. Students should refer to the charts preceding this section for the detailed course requirements in each phase of their programme.

General Management of the work terms in the Co-operative Engineering Programme, is the responsibility of the Faculty Office of Co-operative Education. The Office, through its coordinators, is responsible for assisting potential employers to become involved in the programme, for the continual development of employment opportunities, for counselling of students, for monitoring them on their work assignments and for the evaluation of the work term.

It is clear that our society is becoming increasingly dependent on technology. This imposes the requirement that Professional Engineers not only be technically able but also be prepared to exercise social responsibility in the execution of their work. Course projects oriented toward professional practice, the work terms, the complementary studies component of the academic curriculum and a continuing emphasis on public and personal safety throughout the entire programme help to develop responsible attitudes. Moreover,

the students learn to communicate effectively with their colleagues, other professionals and the rest of the community on issues extending beyond specialized technical matters.

The Complementary Studies component has been developed to make students aware of the function and responsibilities of the Professional Engineer in society and the impact that engineering in all its forms has on environmental, economic, social and cultural aspects of our society. This complements the technical expertise and communications skills developed and practised in all components of the programme. The Complementary component is the same for all disciplines.

There is an "Engineering Profession Seminar" which is a three hour seminar offered in the fall term to Term I students. Issues include, but are not limited to: professional practice, gender issues, bearing of the Association of Professional Engineers and Geoscientists of Newfoundland code of ethics on students' behaviour.

Public and personal safety concerns are developed in the student through a number of avenues. Special non credit seminars by the Office of Co-operative Education are given to the Term 2 students which introduce the student to the work environment and include discussion on occupational health and safety legislation. Safety concepts continue to be stressed throughout the curriculum in all disciplines, particularly in the design courses, and many students receive special safety training from their employers during the work terms.

A two week surveying field school (Engineering 470W) for prospective Civil engineering students, and Electrical Engineering workshop (Engineering 480W) for prospective Electrical Engineering students and a Mechanical/Naval Architecture and

Ocean Engineering workshop (Engineering 290W) for prospective Mechanical Engineering and Naval Architecture and Ocean Engineering students are conducted on campus once during each calendar year. The surveying field school, the Electrical Engineering workshop and the Mechanical/Naval Architecture workshop are held concurrently in the period following the Winter Semester engineering examinations and prior to the commencement of the Spring Semester. The two workshops and the field school have common lectures which deal with public, personal and industrial safety, occupational health and safety legislation, quality issues and professional practice.

All students registering for the course Engineering 4702 – Engineering Surveying must have previously participated in the work of the field school or have been granted exemption from the field school by the Undergraduate Studies Committee of the Faculty. Satisfactory completion of the field school or acceptable equivalent experience, is a prerequisite to graduation for all Civil Engineering students.

All students who anticipate pursuing studies in Electrical Engineering should participate in the Electrical Engineering workshop or receive exemption from the workshop, granted by the Undergraduate Studies Committee of the Faculty. Satisfactory completion of the workshop is a prerequisite for graduation.

All students who anticipate pursuing studies in Mechanical and Naval Architecture and Ocean Engineering should participate in 290W Mechanical/Naval Architecture and Ocean Engineering Workshop or receive exemption from the workshop, granted by the Undergraduate Studies Committee of the Faculty. Satisfactory completion of the workshop is a prerequisite for graduation.

With the permission of the Office of Co-operative Education students may rearrange the starting or finishing dates of their work term in order to complete the surveying field school, the Electrical Engineering workshop or the Mechanical/Naval Architecture and Ocean Engineering workshop and to have a one week vacation. It is anticipated that students will attend the surveying field school, the Electrical Engineering workshop or the Mechanical/Naval Architecture workshop either at the beginning of Work Term 1 or the end of Work Term 2.

The 'Software Applications Laboratory', Engineering 100W, is a non-credit (Pass/Fail) laboratory course which will be covered in the first six weeks of Term I. Students who demonstrate adequate knowledge of the software covered in the course will be exempt from this course.

By being exposed to the world of work, under supervision, during their academic careers, students are provided with a broader and richer preparation for life and work. The experience gained in the industrial and professional environment should give them maturity and breadth of understanding, so enabling them to define more clearly their educational and career interests and objectives. Much of the experience gained in this type of programme would not be available to students until after graduation in a conventional programme. This experience makes a significant contribution to their total education.

During work terms students are brought into direct contact with the engineering profession, exposed to actual practical problems, expected to assume ever increasing responsibility in employment as their education advances, and introduced to engineering projects and installations far beyond the scope of those which could be provided in the University.

The experience should provide maturing prospective engineers with an early appreciation of the economic, social and personal aspects of Engineering through direct association with professionals in a technical environment.

Matching between students and employers is accomplished through a placement process which is the responsibility of the Co-operative Education Services Centre. Job notices are posted and students may apply for up to twelve interviews. Employers' representatives interview students, after which the employers rank students in order of preference.

Job offers are made to students based on employer rankings. Students are then placed to fit expressed preferences. The Faculty does not guarantee placement, but every effort is made to ensure that appropriate employment is made available. In the case of students who are required to withdraw from the programme, the Faculty has no responsibility for placement until they have been re-admitted to the programme.

Salaries paid to co-operative students are determined within the employer's own wage structure, and can be expected to increase as the student progresses through the programme and assumes more responsibility. However, students should not expect the income from work terms to make them completely self-supporting.

Students in the Co-operative Programme give permission to prospective employers, in the course of the interview process, to have access to their records, which contain their academic marks and their work term evaluations. After placement, students may not withdraw from a specific job situation unless prior permission is obtained from the Office of Co-operative Education.

A list of employers participating in the Co-operative Engineering Programme is given on page 336.

The Co-operative Programme affords an excellent preparation for a career requiring such high standards of professional judgement.

Upon the successful completion of the undergraduate programme in Engineering as approved by the Faculty Council and Senate, candidates will be awarded the degree of Bachelor of Engineering.

ENGINEERING REGULATIONS

NOTE: A student may appeal against any decision of the Faculty as indicated below, and any Faculty regulation may be waived by Faculty Council or, on behalf of the Council, by the Appeal Committee or Undergraduate Studies Committee of the Faculty, as follows, provided that no General University Regulation is contravened by the waiver. Appeals, and applications from students for a waiver or other variance of the Engineering and Applied Science Regulations, must be submitted in writing to the Office of the Associate Dean (Undergraduate) for submission to the appropriate committee. Unless otherwise stated in the pertinent portion of the Regulations, the time limit for an application for the waiver or other variance, is as stated below in this Note.

(a) A waiver of an admission requirement may be granted by the Undergraduate Studies Committee upon recommendation by the Faculty Admissions Committee.

(b) Appeals against decisions of the Faculty Admissions Committee and appeals against promotion decisions of Faculty Council will be considered by the Faculty Appeal Committee. An appeal against

promotion decisions of Faculty Council will normally only be considered upon presentation of evidence which has not been placed before Faculty Council. Any such appeal must be made within one month of the issue of the decision of the Admission Committee or within one month of the issue of results by the Registrar, as the case may be. When a student has requested a re-read of an examination paper which may affect an appeal that appeal must nevertheless be made within one month of the issue of the original results, and consideration of the appeal will be delayed until the result of the re-read is available.

(c) A request for exemption from a course or courses required in the Engineering programme, the substitution of a course by another course, or any other variation of the requirements of the academic terms, will be considered by the Faculty Undergraduate Studies Committee upon recommendation by the Associate Dean (Undergraduate) in an application concerning Core courses, or upon recommendation by the relevant Discipline Chair concerning all other courses. Any such request must be received at least one week before the last day to add courses in the semester in question.

(d) A request for exemption from a work term, and for any other variation in the requirements for the work terms, will be considered by the Faculty Undergraduate Studies Committee, upon recommendation by the Office of Co-operative Education.

Any such request must be received before or on the last day to drop courses without academic prejudice in the semester in question. Only when the circumstances which may justify a variance in the requirements occur unavoidably after this drop date, will a later application be entertained, at the discretion of the Committee.

An appeal against a decision by the Faculty Appeal Committee or by the Faculty Undergraduate Studies Committee of the Faculty should be directed to the Senate Committee on Undergraduate Studies.

ADMISSION MODES

Direct Entry: Students may apply for direct entry into first year Engineering when they apply to the University from high school. Direct admission from high school is normally based upon the student being admitted to the University and having sufficient prerequisites in Mathematics and the Physical Sciences to be able to complete First Year Engineering courses in their first year of University.

Fast Track: Exceptionally well prepared students may apply for direct entry into second year Engineering (Term 1) from high school. Direct admission into second year is normally based upon a student being admitted to the University, having advanced placement equivalent to University credit in Physics, Mathematics and Chemistry and having an admission average of at least 80% in the final year of high school.

Entry from within the University: students registered in other programmes within, or other campuses of, the University may apply for entry into second year Engineering (Term 1). Such entry is normally based upon the same criteria as promotion from first year Engineering into second year (see section 5) under Examinations and Promotions, except that a second credit in a course chosen from one of the departments listed in section 5.c under Examinations and Promotions may be substituted for Engineering 1000; students will be required to make up Engineering 1000 in Term 1.

Bridge Programme in Naval Architecture & Ocean

Engineering: Graduates from the Naval Architecture Programme or Marine Systems Design Programme at the

Marine Institute will be admitted to Term 4 in the Naval Architecture and Ocean Engineering Programme in the Faculty of Engineering and Applied Science after finishing a bridging programme consisting of two academic terms: the Fall and the Winter.

To be admitted to the bridging programme, students should have completed a diploma in Naval Architecture or Marine Systems Design from the Marine Institute with a cumulative average of at least 75%.

Other Entry: students are occasionally admitted to later terms in Engineering from other institutions. Such entry is normally based on a detailed analysis of the student s record and is handled on a case by case basis.

ADMISSIONS

1) All complete applications for admission or re-admission to the Faculty of Engineering and Applied Science must be submitted to the Registrar's Office. A complete application includes an application to Engineering, an application to the University (for those who have not registered for courses in Memorial University in either of the two preceding semesters) and supporting documentation (when necessary). Application forms are available at the Registrar's Office and the General Office of the Faculty of Engineering. Applications to Term A or Term 1 should be submitted no later than March 1st of the year in which admission is sought. The Faculty Admissions Committee will begin reviewing applications after this date.

NOTE: Students intending to register for courses at this University or at another institution during the summer months who are considering entry into

Engineering must still apply by March 1st.

Applications for all subsequent terms should be submitted at least two months prior to the commencement of that term. Any application received after the relevant deadline will be considered as time and space permit.

Attention is also drawn to the subsequent admission regulations and to the fact that re-admission to the University does not necessarily constitute admission to Engineering.

2) Admission to the Faculty of Engineering and Applied Science is on the basis of a competition for a limited number of places. The primary criterion used in reaching decisions on applications for admission is the Admission Committee's judgement of the likelihood of an applicant succeeding in the programme.

Success in the programme depends on meeting the requirements of both academic and work terms. The Admissions Committee will assess the likelihood of an applicant being able to meet the promotions requirements outlined below.

The Faculty expects students admitted to the programme to have and retain the knowledge and skills corresponding to the admission criteria listed in these regulations. This grounding in mathematics and the sciences, and the ability to communicate in writing and orally are the foundation of all the academic courses and the work terms in the programme. The student is expected to build on this foundation, developing the technical and communication skills expected of a professional engineer. The Faculty may require confirmation, through an interview or other means, that an applicant is able to meet the expectations of the Faculty in this respect.

A student of engineering should be able to obtain a work term position through the job competition for each work term but the University does not guarantee to place the student in a full-time paid position in each work term. Placement will depend on the availability of positions and choices made by both employers and students. Employers are only likely to offer positions to students who can demonstrate the academic and personal qualities which fit them for the work concerned. Students must be able to communicate in job applications and interviews and as required during the work term. Some assistance in the strengthening of communication skills is available for all students in the Faculty and in particular for students who initially have some difficulty in meeting these requirements. Nevertheless a student who cannot meet the demands of the job competition may be required by the Faculty to withdraw until he or she can demonstrate an ability to continue in the programme.

3) In evaluating applications the Admissions Committee takes into account the strengths and weaknesses in a candidate's academic background, and motivation towards obtaining an engineering degree. Students with weak overall academic records are unlikely to be admitted.

4) Applicants seeking admission through transfer from another institution must have achieved an equivalent standing in comparable subjects. The applicant is responsible for having certified documentation to this effect forwarded from the relevant institution(s) to the University Registrar's Office.

5) Students from areas where English is not the common language must provide certified translations of documentation and may be required to prove, by test, their proficiency in English.

6) An applicant for admission with advanced standing is responsible for having certified documentation attesting to his or her academic and relevant work experience forwarded from the university(s) or institution(s) previously attended to the University Registrar's Office. Each such application when complete will be considered by the Faculty Admissions Committee. No applicant will be admitted beyond Term 5. Because of the importance of the work experience in the cooperative programme three work terms are considered an absolute minimum requirement.

7) An applicant of mature age who has been away from full-time formal education for at least four years may be admitted, if the applicant can satisfy the Admissions Committee that he or she has the knowledge and capability to succeed in the programme. This knowledge may, for instance, have been acquired in studies to a sufficiently high level in engineering or another discipline.

8) Engineering students to whom promotion is denied are no longer in the Engineering programme. Subject to Sections 12 and 14 of the regulations on Examinations and Promotions, such students may be permitted to repeat unsuccessful terms. Those wishing to do so must apply for re-admission in accordance with the Faculty and University re-admission regulations. These applications will be judged by the Faculty Admissions Committee.

EXAMINATIONS AND PROMOTIONS

1) The Faculty constitutes the examining body for all engineering examinations. The standing of every student will be assessed at the end of each academic term beyond Terms A and B and at the end of each Work Term by Faculty Council. The decisions of Faculty Council will be issued to individual students by the Registrar. The status of students in Terms A and B will be governed by the general

academic regulations of the University.

2) Any student has the right to appeal any decision made by the Faculty in regard to his or her promotion. Any such appeal must be made in writing to the Chairman of the Appeals Committee, Faculty of Engineering and Applied Science, within one month of the issue of results by the Registrar.

3) To be promoted a student must, in addition to obtaining the requisite marks and average, complete and deliver all laboratory, project work, and work reports as required.

4) The Faculty Council or the Appeals Committee of the Faculty of Engineering and Applied Science may promote a student notwithstanding promotion requirements given below. A decision of this nature will be made only for reasons acceptable to Faculty Council or the Appeals Committee as appropriate, and in the case of a student thought likely to succeed in future terms.

Academic Terms

5) Students registered in Engineering for academic Term B must satisfy the following criteria to be able to be promoted to academic Term 1:

a) The student must obtain credit in each of the following courses:

Engineering 1000, - English 1080, - Chemistry 1001, - Physics 1021, Mathematics 1001.

b) The student must obtain one credit in each of Chemistry, Physics, and Mathematics, in addition to those specified in (a).

c) The student must obtain one credit in courses chosen from Anthropology, Classics, Folklore,

Geography, History, Linguistics, Philosophy, Political Science, Psychology, Religious Studies, Sociology, or in a second language.

d) The student must obtain one additional credit.

e) The student must obtain an average of 65% in the set of courses comprising of the 5 courses specified in (a) and the one course specified in (c).

f) At least 60% must have been achieved in each of Engineering 1000, Chemistry 1001, Physics 1021 and Mathematics 1001.

6) For the purposes of promotion extra courses required of students as a condition of entry directly into academic Term 1 (or later) will be considered part of their programme.

7) At the end of any of academic Terms 1 to 7, a student must have an average of at least 60% to continue in the programme. Students with an average of at least 60% and with a mark of at least 50% in each engineering course taken as part of their programme will be given a clear promotion. Students with an average of at least 60% and with one or more marks below 50% in engineering courses taken as part of their programme will be given a probationary promotion.

8) At the end of the academic Term 8, a student must have an average of at least 60% with a mark of at least 50% in each course taken as part of the programme to be recommended for graduation. A student with an average of at least 60% and with one or more marks below 50% in courses taken as part of the programme will be given a probationary status. A student with a probationary status at the end of academic Term 8 will not be recommended for graduation until the student's status is transferred to that of a clear promotion.

9) Transfer from a probationary status to a clear promotion or, in the case of academic Term 8 to be recommended for graduation, will entail satisfying the Faculty that the student is competent in the subject of the course in which the student has failed to achieve 50%. This will normally entail re-examination, upon which the student will be declared to have passed or failed a test of competency in the subject concerned, without the assignment of a numerical grade on the test. Re-examination may be written, oral, or a combination of both formats.

Remedial studies, including courses, may be recommended to be completed before re-examination.

10) A student with a probationary promotion at the end of academic Term 1 will be re-examined in the subject matter of the failed course(s) no later than the 1st week of the subsequent semester. A student who is successful in all the required re-examinations will be promoted to academic Term 2.

Failure to submit to re-examination or a failure in re-examination will result in denial of promotion.

11) A student with a probationary promotion at the end of academic Terms 2 to 7 will continue to the subsequent work term. However, entry into the next academic term will normally be allowed only when the Faculty is satisfied, through the re-examination provided for in section 9, that the student is competent in the subject matter of the failed courses.

12) A re-examination after academic Terms 2 to 8 will be at a time determined by the Faculty, but not later than the first week of the second semester after the semester in which the course was failed. Failure to submit to the re-examination or failure in the re-examination will result in denial

of promotion or, in the case of course failures in academic Term 8, denial of a recommendation for graduation.

13) Re-examination may be deferred, subject to the General Regulations governing deferred final examinations; however, a student who is successful in a deferred re-examination may not be permitted to register for the subsequent academic term if the deferred re-examination is after the normal registration period for that term.

14) Students denied promotion with an average mark below 60% may be readmitted to the programme and will normally be required to repeat all the work of the term, including courses which have been passed. With the permission of the Undergraduate Studies Committee of the Faculty, an elective course may be replaced by a course deemed to be equivalent.

15) Students denied promotion with an average mark of at least 60% will be required to repeat just the failed courses, in a semester when the courses are normally offered (along with other courses in the University if the student so wishes).

16) A student may not repeat a given academic term more than once when repetition is due in part or entirely to a failure to achieve the average mark required for promotion, and a student may not repeat more than two academic terms in the entire programme for which repetition is required for this reason. Academic terms or courses repeated because of failure to achieve a pass mark in individual courses, while the required overall average for the term was achieved, are excluded from this prohibition.

17) Students may be required to withdraw from the programme at any time if, in the opinion of the Faculty Council, they are unlikely to profit from continued attendance.

18) For clear promotion during the Bridging Programme in Naval Architecture and Ocean Engineering, students are required to have an overall average of at least 60% and 50% in each subject. Students who fail one or more subjects but maintain an overall average of 60% qualify for a probationary promotion, subject to a re-examination in the failed subjects.

Students promoted from the Winter Term of the Bridging Programme will be admitted to Term 4 of the Engineering Programme. In Term 4, students will be required to do only five courses and will be exempted from one of the following courses:

1. Ship Statics, Engr 4011 (students having a Diploma in Naval Architecture)

2. Thermodynamics I, Engr. 4321 (students having a Diploma in Marine Systems Design)

Work Terms

19) Work terms are scheduled in the "Plan of Operation for the Co-operative Engineering Programme". Work terms and academic terms must be completed in the sequence shown. The dates for starting and finishing each work term are shown in the University Diary. Successful completion of the work term requirements is prerequisite to graduation.

A student may, with the permission of the Office of Co-operative Education, be self employed during a work term, provided that the student and the Office of Co-operative Education agree at the start of the work term on the information to be provided to the Office so that it can evaluate the student's work during the term.

A student who is unable to obtain a work term job

or work in approved self employment within four weeks from the start of the work term will be expected to undertake work under contract to a client within the Faculty, another entity in the University, a company, municipality, non-profit organization, or the like. The contract work may be part-time, or occupy only a portion of the semester, and may allow the student to earn an income in other ways. The contract, whether paid or unpaid, must be approved by the Office of Co-operative Education.

20) A competition for work term employment is organized by the Office of Co-operative Education.

Students may request interviews for up to 12 jobs offered in the competition.

Students registered in the Engineering programme give permission for the Office of Co-operative Education to supply their Cooperative Engineering student resume to potential employers.

All placements through the job competition are for a minimum of two work terms. Students who do not comply with the above will not be allowed to enter the succeeding job competition. Exceptions to this rule are made for jobs specified for a single work term or for justified reasons agreed to by the student, employer and Office of Co-operative Education.

21) Students may obtain their own work term jobs outside the competition. Such jobs must be confirmed by letter from the employer and approved by the Office of Co-operative Education on or before the first day on which the student commences work.

A student may, with the permission of the Office of Co-operative Education, be self employed during a work term, provided that the student and the Office

of Co-operative Education agree at the start of the work term on the information to be provided to the Office so that it can evaluate the student's work during the term.

A student who is unable to obtain a work term job or work in approved self employment within four weeks from the start of the work term will be expected to undertake work under contract to a client within the Faculty, another entity in the University, a company, municipality, non-profit organization, or the like. The contract work may be part-time, or occupy only a portion of the semester, and may allow the student to earn an income in other ways. The contract, whether paid or unpaid, must be approved by the Office of Co-operative Education.

When neither an approved full-time work position nor an approved contract has been obtained in work Terms 1, 2, or 3, the Faculty Undergraduate Studies Committee may approve a programme which provides the affected students with technical and professional experience expected in these work terms. The programme must be such that the development of the students' technical and professional development, including the development of the students' communication skills, through the programme can be monitored and assessed by the Office of Co-operative Education with criteria equivalent to those used for full-time paid work term positions. Normally, a student may not take part in this type of programme more than twice.

22) Students who fail to obtain an approved work term job for the first work term, and who have demonstrated deficiencies in communication and other skills which may have hindered their placement, may be required to take Engineering 011W, Engineering Practice Programme, in place of the work term. Engineering 011W will be treated as equivalent to a work term for the purposes of

evaluation and promotion.

23) A student may be exempted from any work term requirements if he or she submits medical and/or other evidence to support such exemption, to the Undergraduate Studies Committee through the Office of Co-operative Education.

24) A student who has successfully completed at least two work terms in full-time recognized paid employment, and has not failed a work term, can be excused without academic prejudice from one subsequent work term, provided that the student applies in writing to the Undergraduate Studies Committee of the Faculty through the Office of Co-operative Education not later than the fourth week of the academic term immediately prior to the work term from which they wish to be excused. The permission so granted in this case is conditional on the successful completion of the academic term and can only be granted once.

25) A Work Report must be submitted each work term on some phase of the student's current employment. This report must be approved by the employer and submitted to the Office of Co-operative Education on or before the deadline date shown in the University Diary. Evidence of the student's ability to gather material relating to the job, analyse it effectively and present it in a clear, logical and concise form, will be required in the report. Late reports may not be graded, unless prior permission for a late report has been given by the Office of Co-operative Education.

26) The overall evaluation of the work term is the responsibility of the Office of Co-operative Education.

Two components are considered in work term evaluation: on-the-job performance and the Work Report. Each component is graded separately. An

overall average of at least 60% together with a grade of at least 50% in each component, is required for promotion.

On-the-job performance is assessed by a co-ordinator using information gathered during the work term and input from the employer towards the end of the work term. Formal written documentation from the employer is sought.

The Work Report is evaluated by a co-ordinator or delegate. If an employer designates a report to be of a confidential nature, both employer and co-ordinator must agree as to the methods to protect the confidentiality of such a report before the report may be accepted for evaluation.

27) Students who fail a work term will normally repeat that work term in a work situation approved by the Office of Co-operative Education. A given work term may be repeated only once, and not more than two work terms may be repeated in the entire programme.

Notwithstanding the above, a student who does not achieve a passing grade and who in the opinion of the Faculty Council can benefit from a remedial programme, may be permitted an extension of time not to exceed the end of the Regular Registration Period of the subsequent semester to complete the requirements of the work term.

28) Students who fail to honour an agreement to work with an employer, or who leave the co-operative employment without prior approval of the Office of Co-operative Education, or who conduct themselves in such a manner as to cause their discharge from the job, will normally be awarded a Failed Work Term.

NOTE: Students should also refer to the General Regulations of the University.

COURSE NUMBERING

With the exception of Engineering 1000, courses offered by the Faculty of Engineering and Applied Science are identified by a four-digit numbering system, each digit signifying the following:

FIRST - Academic term during which the course is normally offered

SECOND - The primary areas of study, namely: 1 - Complementary Studies 2 - Structure and Behaviour of Materials 3 - Physical Concepts 4 - Mathematics 5 - Engineering Design 6 - Resource-Related 7 - Civil Engineering 8 - Electrical Engineering 9 - Mechanical Engineering 0 - Naval Architecture and Ocean Engineering

THIRD - Course grouping within areas or programmes

FOURTH - Course sequence or revision."

New Courses:

1000. An Introduction to Engineering. What is engineering? Historical perspective. Creativity and design. Engineering problem solving. Fields of engineering. Communication skills. Ethics and professional responsibility.

1405. Engineering Mathematics I. Linear systems and matrices, vector spaces, sequences & series, complex numbers, parametric and polar curves.

2422. Engineering Mathematics II. Partial differentiation, ordinary differential equations, Laplace transforms, applications.

1313. Mechanics I. Statics with an Introduction to Dynamics. Introduction to vector algebra. Coplanar and non-coplanar force systems, equivalent force

systems, moments and equilibrium, emphasizing the use of free body diagrams. Analysis of trusses, frames and machines. Dry friction. Centers of gravity and centroids. Moments of inertia of areas. Geometric aspects of particle motion (kinematics).

2313. Mechanics II. Kinematics and Kinetics of Rigid Bodies. Kinematics, review of particle kinematics, rigid body kinematics in a plane, introduction to rigid body kinematics in 3-D. Kinetics (particle and rigid body theory), force-acceleration, work-energy, impulse momentum. Engineering applications of rigid body kinematics and kinetics.

Delete the following courses:

Engineering 1404. Linear Algebra
Engineering 1412. Intermediate Calculus
Engineering 1312. Mechanics I
Engineering 2312. Mechanics II

Page 338, following the heading Forestry, subheading General Comments, insert the following:

"N.B. The following Forestry programme will not be offered on the St. John's campus after April 1997."

Delete the following courses:

Engineering 6611. Mining Fundamentals.
Engineering 6802-6805. Project Design Laboratories
Engineering 6801. Project Design Lab in Computers
Engineering 6802. Project Design lab in Power and Control
Engineering 6805. Project Design Lab in Electronics and Instrumentation
Engineering 6831. Thermal and Fluid Mechanics for Electrical Engineers
Engineering 6851. Analog Electronics II
Engineering 7876. Communication Principles
Engineering 7878. Noise in Communications

Engineering 7822. Filter Synthesis

New Courses

Engineering 7717. Applied Environmental Science and Engineering. Nature and scope of environmental problems; concept of sustainable development; natural environmental hazards; introduction to ecology, microbiology and epidemiology; basic concepts of environmental quality parameters and standards; solid and hazardous wastes; atmospheric, noise, and water pollution, their measurements, and control. Relevant laboratory exercises.

Engineering 7718. Environmental Geotechniques. Basic soil mineralogy; soil water interaction; typical wastes and contaminants; soil contaminant interaction; introduction to advection, adsorption, and diffusion; basic contaminant transport modelling for solutes and NAPL; site investigation and sampling; containment structures and liners; design and monitoring of landfills; relevant field work and laboratories.

Engineering 8706. Analysis and Design of Structural Components. Background for structural component design methods, Concepts of Structural Stability, Theory of beam-columns, Elastic and inelastic strength, Development of design equations, Lateral stability, Torsional-flexural buckling, Introduction to plates; bending, overall and local buckling, Stiffening of structural elements, Design procedures for stiffeners, Composite member design, Special topics related to member and overall stability.

Engineering 8707. Maintenance and Rehabilitation of Structures. Deterioration and Failure in Structures: Causes and Survey Results - Material Properties and Factors Contributing to Deterioration - Quality Assurance for Construction - Investigation and Diagnosis of Defects and

Damages in Structures - Condition-based Maintenance of Structures - Repair Strategies - Structural and Non-Structural Repair - Case Studies on (1) Damage Assessment; and (ii) Structural Inspection, Maintenance and Repair.

Engineering 8713. Municipal Engineering. Planning of municipal services; estimating water demands; design and analysis of water distribution systems and appurtenances; methods of water treatment; estimating waste water quantity; design of sanitary sewer systems; methods of waste water treatment; solid waste disposal and management. Relevant laboratory, field trips, and case studies.

Delete Engineering 7715. Environmental Engineering

Re-number and re-name Engineering 8716 as:

Engineering 7716. Hydrotechnical Engineering

Re-number and re-name Engineering 8738 as:

Engineering 7738. Construction Management

Re-number and re-name Engineering 7723 as:

Faculty of Engineering and Applied Science (cont'd)

Engineering 8723. Geotechnical Engineering III

Page 321, 1995-96 Calendar, following the chart of the Naval Architecture and Ocean Engineering Curriculum, insert the following new chart:

CHART OF BRIDGING PROGRAMME FOR
NAVAL ARCHITECTURE & OCEAN ENGINEERING

(SEE MEMORIAL UNIVERSITY CALENDAR FOR CHART)

Delete the chart for the Civil Engineering Curriculum on page

316 and replace with the following two charts:

(SEE MEMORIAL UNIVERSITY CALENDAR FOR CHARTS)

35.49 *School of Nursing

Page 287, 1995-96 Calendar, following the heading Nursing and before the subheading Philosophy insert the following:

"The requirements listed below are to be followed ONLY by students admitted prior to the Fall 1996 semester."

Page 290, following the heading Course List, delete the following courses as scheduled:

1996-97 Calendar: N2010 Introduction to Nursing
N2101 Anatomy & Physiology I
N2102 Anatomy & Physiology II
N2250 Pathology
N2260 Nutrition & Pharmacology
Chemistry 2420 Organic Chemistry
Biochemistry 2430 - Biochemistry

for Nurses
1997-98 Calendar: N3040 Nursing of the Childbearing Family I
N3050 Nursing Care of Children I
N3060 Nursing Care of Adults I
N3340 Nursing of the Childbearing Family II
N3350 Nursing Care of Children II
N3360 Nursing Care of Adults II
N3370 Extended Clinical

1998-99 Calendar: N4030 Nursing the Aged I
N4321 Mental Health Nursing I
N4322 Mental Health Nursing II
N4330 Nursing the Aged II

1999-2000 Calendar: N5000 Advanced Nursing Practice I
N5300 Advanced Nursing Practice II
N5311 Care of Childbearing Families
N5312 Care of Children and Families
N5313 Care of the Aged
N5314 Care of Adults in Acute Care Settings
N5315 Mental Health Nursing

Page 289, 1995-96 Calendar, delete the entry Programme of Studies: Bachelor of Nursing (Post-R.N.) in its entirety and replace with the following:

"PROGRAMME OF STUDIES: BACHELOR OF NURSING (POST-RN)

Admission Requirements

1. a. For the purpose of admission to the School of Nursing, a Registered Nurse is a Nurse who is currently registered in Newfoundland or eligible to register in Newfoundland.

b. It is required that students have a current, practising licence in Newfoundland before taking courses with clinical components.

NOTE: Qualified applicants will be admitted to the programme as resources permit.

2. a. Admission to the School of Nursing is on the basis of competition for a limited number of places. Selection of candidates will normally be based on academic performance in the following four courses required for the programme.

- One science course (refer to science requirements below)
- One first year English course

- One Philosophy course from the 2800 to 2810 series or Religious Studies 2610
- One elective

b. Preference for admission will be given to applicants with at least one year of experience in clinical practice.

NOTE: Post-RN students not admitted to the School of Nursing may be permitted to take the 2000 level nursing courses as space permits.

Programme Regulations

Forty credits are required for the completion of the degree. Fifteen unspecified transfer Nursing credits are normally awarded on the basis of successful completion of a diploma programme in Nursing.

The required courses beyond the four normally required for admission are as follows:

Nursing Courses (14)

2040, 2230, 2700, 3023, 4002, 4010, 4310, 4701, 4702, 5210, 5220, 5700 and two clinical focus courses. The clinical focus courses should be selected from one of the following:

a) Nursing of the Aged N4710 and N4713
b) Advanced Nursing Care of Adults N4720 and N4723
c) Psychiatric/Mental Health Nursing N4730 and N4733
d) Maternity Nursing N4740 and N4742

All clinical focus courses are not offered every year. Please consult the School of Nursing for further information on when they will be offered.

Science Requirements

Either: (i) Two from the following courses:
Biochemistry 1430, Biology 3051, Nursing 2740

or (ii) Science courses such that a student has at least two courses at the 2000 level or above in one of the following subject areas: Biochemistry, Biology, Chemistry, Computer Science, Mathematics, Physics. Courses listed below cannot be used to fulfill the science requirement:

- Science 115A & B
- Biology 2040 or 2041
- Chemistry 2600 or 2601
- Mathematics 2090
- Physics 2151
- Statistics 2500 or equivalent

NOTE: a) Science courses may have prerequisites which students must fulfill and are encouraged to complete as part of their admission requirements. b) Nursing 2740, Biochemistry 1430 and Biology 3051 are highly recommended. Sciences without a laboratory component are acceptable. c) It is also highly recommended that students take the science courses early in their programme as many nursing courses build on this science foundation.

Other Courses

a) Statistics 2500 or equivalent

b) Elective courses to make up 40 credits. Of these, at least three should be at the 2000 level or above.

NOTES:
1) Students should consult the Calendar and contact the appropriate Department for prerequisite requirements.

2) Each semester selected courses in the BN (Post-

RN) programme will be available through distance education. Courses which are offered through distance education may not be offered on campus during the same semester. Students are advised to check with the School of Nursing for more information regarding course offerings.

3) The School of Nursing reserves the right to select sites and nursing courses offered by distance education based on:

a) faculty availability
b) availability of support needed to meet course and programme objectives
c) minimum enrollment to support each course.

4) Students are encouraged to contact the School of Nursing should they change their part-time/full-time status."

Page 295, delete the Bachelor of Nursing (Post-RN) Programme Outline and replace with the following:

(SEE MEMORIAL UNIVERSITY CALENDAR FOR CHART)

Page 290, following the heading Course List, delete the following courses:

N3021 Counselling I
N4711 Nursing of the Aged II
N4712 Nursing of the Aged III
N4721 Advanced Nursing Care of Adults II
N4722 Advanced Nursing Care of Adults III
N4731 Psychiatric/Mental Health Nursing II
N4732 Psychiatric/Mental Health Nursing III
N4741 Maternity Nursing II

Add the following Courses:

N3023. Counselling. The main areas of focus are on communication theories and individual and group counselling. The course content includes selected

personality theories and related counselling theories.

N4713. Nursing Care of the Aged II - This clinical course will focus on the application in institutional and/or community settings of knowledge acquired in N4710.

N4723. Advanced Nursing Care of Adults II. This clinical course will require students to work with patients who have acute and/or chronic illnesses. The emphasis will be application of knowledge acquired in N4720.

N4733. Psychiatric/Mental Health Nursing II. This clinical practicum course will focus on the mental health needs and problems of clients in community based and in-patient settings. It will provide the opportunity for students to implement counselling, health teaching and advanced assessment skills with individual families and groups. The course will include analysis of sociocultural ethical-legal factors/issues affecting mental health.

Delete the current course title for Nursing 4742. Maternity Nursing III and replace with the following:

N4742. Maternity Nursing II.

New Courses:

N2740. Current Concepts in Human Physiology. This course reviews the physiology of the cell and of major body systems. It provides the foundation for the concepts developed in pathophysiology and pharmacology.

N3023. Counselling. The main areas of focus are on communication theories and individual and group counselling. The course content includes selected personality and related counselling theories.

N4713. Nursing of the Aged II. This clinical course will focus on the application in institutional and/or community settings of knowledge acquired in N4710.
Prerequisites: N2230, N3023
Corequisites: N4701, N4702, N4710
Clinical: Eight hours per week.

N4723. Advanced Nursing Care of Adults II. This clinical course will require students to work with patients who have acute and/or chronic illnesses. The emphasis will be application of knowledge acquired in N4720.
Corequisites: N4701, N4702, N4720
Clinical: Eight hours per week.

N4733. Psychiatric/Mental Health Nursing II. This clinical practicum course will focus on the mental health needs and problems of clients in community based and inpatient settings. It will provide the opportunity for students to implement counselling, health teaching and advanced assessment skills with individuals, families, and groups. The course will include analysis of sociocultural and ethical-legal factors/issues affecting mental health.
Prerequisite: N3023
Corequisites: N4730, N4701, N4702
Clinical: Eight hours per week.

Amendments to the Collaborative Nursing Programme approved by Senate on May 9, 1995:

Delete all references to the Diploma Exit Option and Collaborative Nursing Programme, Post-Diploma Entry as follows:

Delete the section "Programme of Studies: Diploma in Nursing" in its entirety.

Delete the section "Characteristics of the Diploma Graduate" in its entirety.

Delete the section "Programme Requirements" in its entirety, i.e. "Nursing Courses (24), Other Courses (6), Elective Courses (4)" and "Additional Elective Course (1)"

Delete the Note: "Nursing courses which are designed for the BN (Post-RN) programme...and the course professor."

Delete the section "Registration Examinations" in its entirety.

Delete the section "Collaborative Nursing Programme, Post-Diploma Entry" in its entirety.

Delete the section "Admission" in its entirety.

Delete the section "Programme Requirements" in its entirety, i.e.

"Nursing courses (7)

4101, 4103, 4104, 4110, 4501, 4512, 4513"

Elective course (1)

Any credit course within the university."

Delete the words "diploma exit option" from Year III, Spring column of the table, "Suggested Sequencing of Courses".

Delete the title "Four Year Collaborative Nursing Programme" and replace with "Four Year Bachelor of Nursing Programme (Collaborative)".

Following the heading Mission Statement, delete "Collaborative Nursing Education Programme" in the first paragraph and replace with "Bachelor of Nursing (Collaborative) Programme".

In the second paragraph replace "The Collaborative Education programme" with "The Bachelor of Nursing (Collaborative) Programme.

Delete "General Regulations for the Collaborative Nursing Programme" with "General Regulations for the Bachelor of Nursing (Collaborative) Programme".

Following the heading Admission delete "Collaborative Nursing Programme" in items 1 - 6 and replace with "Bachelor of Nursing (Collaborative) Programme".

Following the heading Academic Standards and Promotion, delete "Collaborative Nursing Programme" in items 4, 5 and 8 and replace with "Bachelor of Nursing (Collaborative) Programme".

Following the heading Programme of Studies: Bachelor of Nursing, subheading Characteristics of the Degree Graduate, replace "Collaborative Nursing Education Programme" in the first paragraph with "Bachelor of Nursing (Collaborative) Programme".

Following the heading Programme Requirements, in the Note, delete "Collaborative Nursing Programme with "Bachelor of Nursing (Collaborative) Programme".

Following the heading Registration Examinations delete Collaborative Nursing Education Programme in paragraph three with "Bachelor of Nursing (Collaborative) Programme".

Delete the last sentence of the course description for N3520, N3521, N3522. Extended Practice III, "For students exiting with a diploma, there will be a seminar at the end of the clinical experience."

Delete the current course description and Prerequisite for N4513 and replace with the following:

"N4513 Nursing Practice Elective. This course provides students with the opportunity to practise nursing with a client population and in a setting of their choice. Students apply and test knowledge from nursing and related disciplines in this selected clinical setting. The course also enables students to further develop their professional roles.
Prerequisite: N4101, N4501. Approval from the Undergraduate Studies Committee.
Clinical: Forty hours per week for four weeks."

Add "Bachelor of Nursing (Collaborative) Programme" to the title for the table "Suggested Sequencing of Courses".

New Courses:

N4750. Primary Health Care Nursing I. This course will explore the concept and principles of primary health care, focusing on the role of the nurse. Emphasis will be placed on community development and empowerment, and population-focused strategies will be explored. Select models of primary health care nursing will be analyzed.
Corequisites: N3023, N5210
Prerequisites: N4010
Lecture: Three hours per week.

N4751. Primary Health Care Nursing II. This course fill focus on the application of knowledge acquired in PHCI to a community setting. The focus will be on assessing a community, planning and implementing to meet an identified community health need and evaluating the implementation.
Prerequisites: N4010
Corequisites: N4750 and N5210
Clinical: 8 hours per week or 16 hours per week for 6 weeks.

35.50 School of Pharmacy

Page 301, 1995-96 Calender, following the heading Evaluation and Promotion, insert a new Clause 9, as follows:

"Students obtaining a failing grade in pharmacy courses due to exceptional circumstances may be permitted to write supplementary examinations subject to normal appeal process by the student. Such an appeal must be made in writing [within one week of release of grades]."

The present Clauses 9, 10 and 11 are to be renumbered Clauses 10, 11 and 12.

Page 303, following the heading Courses in the Second Year of Pharmacy Studies, following the end of Elective (F) and Elective (W), insert the following:

"(At least one of the Pharmacy elective courses must be completed to satisfy the elective requirement in the pharmacy programme.)"

Page 303, following the heading Courses in the Third Year of Pharmacy Studies, following the end of Elective (F), insert the following:

"(At least one of the Pharmacy elective courses must be completed to satisfy the elective requirement in the pharmacy programme.)"

35.51 School of Music

Page 171, 1995-96 Calendar, following the heading School of Music, insert after the subheading Admission Requirements and Academic Standards", the following:

"NOTE: The Bachelor of Music degree is under revision. Students who entered the programme prior to September 1996 may continue under the

regulations in this Calendar. Students entering the programme in September 1996 will follow the new programme. Contact the School of Music for details."

35.52 Faculty of Medicine

Page 281, 1995-96 Calendar, delete the entire section following the heading Course List to the bottom of page 282, and replace with the following:

"The courses in the first two years of medical studies, also known as the preclerkship phase of the medical curriculum, form an integrated continuum. Each of the four courses is composed of several individual components. The third and fourth year of medical studies proves clinical experience in the affiliated teaching hospitals and community sites of Memorial University. The student will be a member of the patient care team and will have graded and supervised responsibility. Students will also be required to attend seminars and lectures within the clerkship and will also be required to attend a preclerkship preparation course immediately prior to starting the clinical rotations.

Courses in the First and Second Year of Medical Studies

Course 5600 - Basic Science of Medicine I (6 credit hours)

This is an integrated course with several components including biochemistry, physiology of excitable tissues, systems physiology, immunology, cell biology, genetics, microbiology, nutrition, pharmacology, pathology and anatomy. This course introduces students to the biology of the normal human and provides the foundation of the basic science of medicine. A wide range of teaching methods are used including lectures, small group

sessions, laboratory demonstrations, seminars and open discussions. The principles of research are also introduced and the student may initiate research opportunities that are carried through subsequent courses in the curriculum.

Course 6600 - Basic Science of Medicine II - continuation of Basic Science of Medicine I (6 credit hours)

Course 5640 - Community Medicine I (6 credit hours)

This course introduces several subject areas in community medicine including health promotion, disease prevention, biostatistics, epidemiology, social and organizational factors in health, environmental and occupational health, community nutrition and behavioural sciences. Lectures and small group sessions are complemented with practical experience obtained through group research projects and field teaching in the community in both a rural and urban context. Aspects of medical ethics relative to community medicine are integrated throughout the course. Emphasis is placed on understanding the determinants of health and illness and the context in which they occur.

Course 6640 - Community Medicine II - continuation of Community Medicine I (9 credit hours)

Course 5610 - Clinical Skills I (6 credit hours)

Students are first introduced to the main elements of the medical interview and techniques of counselling. The student is then expected to acquire skill in examining normal individuals and eliciting symptoms and signs in patients and presenting the findings in a logical and comprehensive manner. Emphasis is placed on developing a sympathetic and understanding approach

to the patient being examined. The course also provides an integrated approach to clinical symptoms and signs as manifestations of disordered function or structure. Ethical issues playing a significant role in assessment and management of clinical problems are considered.

Course 6610 – Clinical Skills II – continuation of Clinical Skills I (9 credit hours)

Course 5650 – Integrated Study of Disease I (9 credit hours)

This course will involve studying diseases of the major organ systems. This will include integration with the pathophysiological basis of disease, pathology and pharmacology. The course will also include the relevant aspects of preventive medicine, clinical genetics, clinical epidemiology and occupational medicine.

Course 6650 – Integrated Study of Disease II – continuation of Integrated Study of Disease I (9 credit hours)

Courses in the Third and Fourth Year of Medical Studies

Year three is approximately 12 months duration beginning September and continuing to the following September. It is composed of the core courses 7200–7250 and some elective courses. Year four begins immediately upon completion of year three and continues to the following May. Year four includes elective and selective courses and course 7280.

7200 – internal medicine (9 credit hours)
7210 – surgery (9 credit hours)
7220 – psychiatry (9 credit hours)
7230 – pediatrics (9 credit hours)
7240 – rural family practice (9 credit hours)

7250 - obstetrics/gynecology (9 credit hours)
7260-7269 - electives (15 credit hours)
7270-7279 - selectives (18 credit hours)
7280 - applied basic and life science academic course (3 credit hours)"

Page 278, following the heading Outline of Teaching Programme, delete current paragraphs 2, 3, 4 and 5, and replace with the following:

"The first two years of medical studies comprise the preclerkship phase of the curriculum. Basic medical sciences are taught primarily in the first year of medical studies. Upon completion of this course, the integrated study of disease course commences. The course includes an interdisciplinary study of all major bodily systems. In addition, the student learns about the major diseases and their manifestations as preparation for participation in the clinical clerkship.

During both the first and second years of medical studies, the students undertake instruction in community medicine and clinical skills. At the end of the second year, the student is expected to be able to take a history, perform a thorough physical examination and to derive a logical diagnosis.

In the final portion of the MD programme, the student rotates through the major specialties in hospital and community settings. In this two-year portion of the curriculum, the student participates in the clinical care team and begins to assume the responsibilities which are associated with the care of patients."

Page 280, following the heading Evaluation and Promotion, delete current Clause 3) and replace with the following:

"3) For years 1 and 2, evaluations of each student's performance are conducted by the course

chairs and instructors in each course or course components. The results of these evaluations are expressed on a three point internal scale as outstanding, pass or fail.

In the third and fourth years, evaluations covering discipline rotations, electives and selectives are conducted by the discipline coordinators and the electives and selectives coordinators. There is an internal five point scale of outstanding, above average, average, below average and fail. The applied basic and life science academic course taught during the clerkship is graded in the same fashion as courses in the preclerkship phase of the curriculum"

Sections 3 a), 3 b) and 3 c) are unchanged.

Report of the Academic Council of Graduate Studies

35.53 Revision of General Regulation J.3 Governing Theses and Reports

Page 379, following the heading General Regulations, subheading J) Theses and Reports, delete Clause 3. Evaluation of Masters Theses and Reports in its entirety and replace with the following:

"3. Evaluation of Masters Theses and Reports

A.i. Final examiners for the thesis/report will be appointed by the Dean on the recommendation of the academic unit. There will be two examiners for a Master's thesis. Examiners shall normally be those who have completed a graduate degree at the doctoral level, including a thesis/report, in the discipline or cognate area. Those serving as examiners shall not have been involved in the preparation of the thesis/report.

ii. Examination of the thesis/report will result in one of the following recommendations by each examiner. The thesis/report is:

a) acceptable without modifications; or
b) acceptable, although minor modifications are required. Minor modifications may include corrections of typographical errors and errors in nomenclature, improvement in phrasing, or rewriting of small sections of the thesis/report; or
c) unacceptable. The thesis/report requires major modification and re-examination. Major modifications signify the rectification of one or more of the following deficiencies: (1)mis-interpretation and/or misuse of the matter covered, omission of relevant materials, unfounded conclusions, illogicality of argument and the like; (2) bad writing, (3) unacceptable physical presentation, or
(d) totally unacceptable - the thesis report is failed.

B. If both examiners recommend that the thesis/report is totally unacceptable, then the thesis will be failed, and shall not be re-examined.

C. If either examiner recommends that the thesis/report is unacceptable, and this recommendation is accepted by the Dean, then the student may apply to the Dean for permission to resubmit the thesis for re-examination in one of the following ways:

i. to submit a modified thesis/report to the original examiners.
ii. to submit a modified thesis/report to two new examiners.
iii. to submit the original thesis/report to

the Examination Board to be appointed by the Dean.

D. If a thesis/report is re-examined, the candidate will not be awarded a pass unless all examiners find the thesis acceptable.

E. Under no circumstances may a thesis/report be re-examined more than once."

35.54 Department of Earth Sciences

Page 414, 1995-96 Calendar, following the heading Earth Sciences, subheading Master of Science, insert new regulation 5 as follows:

"5. In an attempt to ensure that Master of Science thesis projects can be completed in a timely manner, each candidate for the M.Sc. degree must prepare a thesis proposal, normally no longer than 5 pages, to be submitted to the Head no later than 6 months after entering the programme. This proposal will be evaluated according to departmental guidelines."

Re-number the existing regulations 5 and 6 as 6 and 7.

35.55 *Faculty of Education

Page 394, 1995-96 Calendar, following the heading Regulations Governing the Degree of Master of Education, and following Notes 1) and 2), introductory paragraph to be amended as follows:

"The Master of Education is offered in the following areas: Educational Leadership, Teaching and Learning, Educational Psychology, and Post-Secondary Education."

Page 394, following the subheading B) Programme of Study, amend clause B1. to read as follows:

"Candidates for the Master of Education (Educational Leadership, Teaching and Learning, Educational Psychology, and Post-Secondary Education) shall be required to complete a minimum of ..."

Page 395, following the subheading C) Period of Study, delete last sentence in current regulations and replace with the following:

"Completion of some programme components may require full-time study on the University campus."

Page 305, following the subheading E) Thesis or Report, amend last sentence in current regulations to read as follows:

"See School of Graduate Studies General Regulation J. Theses and Reports."

Page 395, following the subheading H) Specific Programmes, insert new subsection 4, as follows:

"4. Post-Secondary Education

The graduate programme in post-secondary studies is designed to prepare candidates to function in a variety of roles in informal and formal post-secondary learning environments (including academic, technical, professional, adult basic education programmes, and student services/development).

Four subspecialties and a generalist option are available in this programme. The four subspecialties are: Curriculum and Learning, which focuses on teaching and learning of adults, and on developing programmes and courses in post-secondary settings; Leadership, which is designed to prepare candidates to function in administrative positions

in post-secondary setting; Counselling which focuses on the preparation of counsellors in post-secondary settings; and Student Services/Development, which is designed to prepare candidates to function as student services personnel in post-secondary settings. The generalist option offers a broader preparation by allowing for a combination of courses from two or more subspecialties.

a. Admission Requirements

In addition to meeting the requirements in the general degree regulations, applicants must normally have a minimum of two years of successful experience in working with adult learners.

b. Candidates for the Master of Education (Post-Secondary) shall be required to complete course units in the following areas that form the programme core for all four subspecialties – Curriculum and Learning, Leadership, Counselling, Student Services/Development – and the generalist option.

- three course units in research designs and methods in education
- three course units in the foundations of post-secondary programmes
- three course units in adult learning and development

c. Students on the thesis route shall be required to successfully complete not fewer than 9 course units in addition to those required in H. 4(b) for a total of at least 18 course units. Included in the selection must be at least two course units in research in addition to the courses required in H. 4(b) above.

Students on the internship, project and paper

folio routes shall be required to complete not fewer than 15 course units in addition to those required in H. 4 (b) for a total of at least 24 course units.

Courses must be appropriate to the programme and chosen in consultation with the advisor.

Page 397, following the subheading Courses, insert the following new courses:

6801. Foundations of Post-Secondary Programmes (3 units)
6802. Adult Learning and Development (3 units)
6822. Foundations of Instructional Design in Post-Secondary Institutions (1 unit)
6823. Principles of Programme Design and Development (3 units)
6831. Organization and Administration of Student Services for the Adult Learner (2 units)
6832. Issues and Trends in the Administration of Post-Secondary Education (2 units)
6840. Counselling Communities (2 units)
6940. Administration of Student Services in Higher Education (2 units)
6941. Student Development Theory, Services and Programmes in Higher Education (3 units)

35.56 Faculty of Business Administration

Page 392, 1995-96 Calendar, delete the entry "Regulations Governing the Degree of Master of Business Administration" in its entirety and replace with the following:

"REGULATIONS GOVERNING THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

Associate Professor and Dean
W.R.P. Blake

Associate Professor and Associate Dean
H.F. MacKenzie
The degree of Master of Business Administration is offered by full-time or part-time study.

These regulations must be read in conjunction with the General Regulations of the School of Graduate Studies of Memorial University.

A) QUALIFICATIONS FOR ADMISSION

1. Admission is limited and competitive. To be considered for admission to the Master of Business Administration programme, an applicant shall normally hold at least a Bachelor's degree, with a minimum B standing, from an institution recognized by Senate. In exceptional cases, applicants who have not completed an undergraduate degree, but who meet all other requirements, may be considered for admission. Preference will be given to those who have completed several years of university studies, present a high GMAT score and have a minimum of 10 years of full-time managerial and executive experience. The Faculty may also take into account relevant professional credentials. Applicants, who do not meet normal admission requirements, may be required to complete, with a high level of achievement, certain undergraduate courses before being considered for admission.

2. Applicants must achieve a satisfactory total score on the Graduate Management Admission Test (GMAT), as well as an appropriate balance of verbal and quantitative GMAT score components. Specific information regarding test centres, dates, registration procedure and deadlines can be obtained by writing to: Educational Testing Service/GMAT, P.O. Box 6103, Princeton, New Jersey, U.S.A., 08541-6103.

3. Applicants with relevant employment experience will normally receive preference during evaluation of applications.

4. When circumstances warrant, and only on the strong recommendation of the Faculty of Business Administration, consideration may be given to candidates who do not meet some of the above requirements.

5. Applicants who did not complete a four-year baccalaureate degree at a recognized university where English is the primary language of instruction must normally achieve a score of 580 (or higher) on the Test of English as a Foreign Language (TOEFL). Those submitting results of the Test of Written English (TWE) as well, with a score of 4 or better, will receive preference in the evaluation of English proficiency. Information regarding both tests is available from the Educational Testing Service.

B) DEADLINES FOR APPLICATIONS

Applications and all supporting documents must be received not later than June 15 from Canadian applicants wishing to enter full-time or part-time studies in the Fall semester. Foreign applicants are considered for entry in the Fall Semester only, and must complete documentation by May 15.

Canadian applicants planning to enter as part-time students in the winter (January) or spring (May) semester must apply and submit the required documentation at least two months before the beginning of the semester to which admission is sought. Individuals submitting applications later than the above dates are not assured of consideration for admission to the programme in the semester desired; their applications will be processed only if time and resources permit.

C) PROCEDURE FOR ADMISSION

1. Applications for admission to the MBA programme must be made on the appropriate form, in duplicate, to the School of Graduate Studies.

2. The following documents must be submitted in support of the official application form:

a) Letters of appraisal from three referees, at least one of whom has had close professional contact with the applicant within the last two years, and at least one of whom is capable of appraising the applicant's academic potential as a graduate student.

b) Two copies of the Faculty's Employment Experience Information Form.

c) Two official transcripts from each university or other post-secondary institution previously attended, to be sent directly by its Registrar (or equivalent officer) to the School of Graduate Studies. If not recorded on the transcript, official evidence of completion of undergraduate degree must also be submitted.

d) The official GMAT score report, to be sent directly by the Educational Testing Service. The code number for Memorial University is 0885.

e) Where applicable, an official TOEFL score report, to be forwarded directly by the Educational Testing Service. As indicated above, overseas applicants have a stronger case if they also submit official results of the Test of Written English (TWE).

Note: Application files are evaluated only when all required items have been received.

3. Admission shall be by the Dean of the School of Graduate Studies on the recommendation of the Faculty of Business Administration. Upon notification from the Dean of the School of Graduate Studies of acceptance into the MBA programme, applicants must give written notice to the School of Graduate Studies of their intention to register. Such notice must be received by the

Office of the Dean within 30 days of notification of acceptance, or three weeks prior to semester registration.

D) ADVANCED STANDING

1. Candidates holding an undergraduate business degree will be considered for direct entry to Term 3. Such candidates will be required to complete B8107 - Managing in the Canadian Environment, B8209 - Management Skills, and eight programme electives. The Faculty s Committee on Graduate Studies reserves the right to impose additional course requirements on individuals whose undergraduate business degree is not considered strong enough in all areas to merit direct entry to Term 3.
2. The Faculty s Committee on Graduate Studies may recommend advanced standing (for certain term 1 and term 2 courses only) at the time of admission to the MBA programme. After admission and normally not later than one week after registration, candidates may apply for advanced standing (for certain term 1 and term 2 courses only). In either case, the following information must be submitted to the Associate Dean, Faculty of Business Administration, for evaluation by the Faculty s Committee on Graduate Studies:

a) a detailed course outline for each course to be considered in the application for advanced standing;
b) a description of the method of evaluation used in each such course, the grades received, and the completion dates.

E) PROGRAMMES OF STUDY

1. The programmes of study include:

a) a 20-course programme (equivalent to four semesters of full-time study) for candidates entering with an undergraduate degree in any area other than business. Eleven of the programme courses are compulsory and are specified in Table 1; the remaining nine programme courses are electives.
b) a 10-course programme (equivalent to two semesters of full-time study) for candidates

entering with an undergraduate business degree. Two of the programme courses are compulsory and are specified in Table 2; the remaining eight programme courses are electives.

2. Electives may be chosen from among the following:

a) approved business electives as listed in Table III;

b) up to two courses from other graduate programmes within the School of Graduate Studies, as approved by the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration;

c) a Research Project or projects, which may be assigned up to three course credits, as approved by the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration;

d) any other course or project deemed to be of satisfactory content and rigor as approved by the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration.

3. Candidates are required to choose among the elective courses so that they do:

a) at least one of B8204, B9321;

b) at least one of B9306, B9325, B9326, B9327, or another approved international course;

c) at least one of B9308, B9322, B9328.

4. The Faculty s Committee on Graduate Studies reserves the right to restrict candidates from taking particular MBA courses if it is deemed that those courses do not add sufficient value beyond courses that the candidate has completed at the undergraduate level. Regulations 3 a) and 3 b) above may be waived where the candidate is restricted from taking a particular course due to the completion of an undergraduate course. However, a candidate restricted from taking any one course listed under regulation 3 c) must complete a second course from that list.

5. Students are required to observe certain approved co- or prerequisites in scheduling their courses. These are as indicated:

COURSE PREREQUISITES

B8108	B8103 (or corequisite)
B8204	B8104
B8206	B8108, B8109, B8103
B8207	B8108, B8103
B8208	B8108, B8109, B8104, B8106, B8107, B8206 (or corequisite), B8207(or corequisite)
B9103	B8103, B8104, B8106
B9308	B8109, B8106, B8206
B9310	B8203
B9311	B8204
B9312	B8206
B9313	B8108 and B8206
B9314	B8109, B8202 and B8206
B9315	B8109 and B8206
B9316	B8205
B9318	B8106
B9320	B8206
B9322	B8106 and B8208 are strongly recommended
B9323	B9320
B9324	Nine courses, including B8104; B8204 is strongly recommended.

Note: All other 9000-level courses require prior completion of nine (9) courses.

6. Students shall successfully complete the requirements of B8103-Statistical Applications in Management as part of the first 11 courses of their programmes.
7. Changes to a student's prescribed programme, including the specified course load, must have the prior approval of the Dean of Graduate Studies on the recommendation of the Faculty of Business Administration.

F) EVALUATION

1. The Faculty Council of the Faculty of Business Administration constitutes the examining body for all examinations in Business courses. In addition, the standing of every student will be assessed by the Committee on Graduate Studies in accordance with the requirements outlined in clauses 2 through 5 below.
2. Credit towards the MBA degree will be granted only for those courses which have been approved as constituting part of the student's programme of study and in which the candidate has obtained a mark of 65% or higher.
3. To remain in the programme, a candidate who obtains a final grade of C in any course must repeat that course, normally when next offered, and is permitted to repeat that course only once.
4. A candidate is required to withdraw from the MBA programme if:

a) a final grade of C is obtained in more than two courses;
b) two final grades of C are obtained in the same course;
c) a final grade of less than C is obtained in any one course.

5. When it has been determined, on the basis of consultation with the candidate, the advisor and the instructors, that a candidate's work has fallen below a satisfactory level, it may be recommended to the Dean of Graduate Studies that the candidate be required to withdraw from the programme.

COURSES

The schedule of courses of the curriculum and elective courses are as follows:

TABLE I - Schedule of Courses

(SEE MEMORIAL UNIVERSITY CALENDAR FOR CHART)

TABLE III - MBA ELECTIVES

Schedule of MBA Electives

8001-005 Special Topics
9001-015 Special Topics
8203 Management Science
8204 Human Resource Management
9102 Management Decision Analysis
9103 Research in Management
9202 Management Problem Solving
9301-03 Research Project (Variable Credit)
9306 International Business
9307 Management of Not-for-Profit Organizations
9308 New Venture Creation
9309 Marketing Management
9310 Management Science Applications
9311 Seminar in Human Resource Management
9312 Financial Management
9313 Natural Resource Management
9314 Business and Taxation Law
9315 Advanced Accounting
9316 Management of Information and Control Systems
9317 Current Topics in Management
9318 Marketing Communications Management
9319 Production/Operations Management
9320 Investments and Portfolio Management
9321 Labor Relations
9322 Strategic Management of Technology and Innovation
9323 Financial Forward, Futures, and Options Markets
9324 Women and Men in Organizations
9325 Accessing International Markets
9326 International Finance
9327 International Problems in Human Resource Management
9328 Management of Change

Two graduate electives from programmes in other Faculties and Schools in the School of Graduate Studies."

Delete the current course title for "B8104.

Organizational Behaviour and Development" and replace with "B8104. Organizations: Behaviour and Structure."

Delete the current course title for "B8205. Computer Applications in Management" and replace with "B8205. Information Systems"

Delete the current course number and title for "B9101. Management Strategy and Policy" and replace with "B8208. Strategic Management".

Delete the current course title for "B9308. Small Business Management" and replace with "B9308. New Venture Creation".

Delete the current course title for "B9316. Management Information and Control Systems" and replace with "9316. Information Systems Management"

Delete the current course number and title for "B9319. Production/Operations Management" and replace with "B8207. Operations Management".

New Courses:

Business 8107. Managing in the Canadian Environment
Business 9325. Accessing International Market
Business 9328. Change Management
Business 8209. Management Skills
Business 8108. Economics for Business
Business 8109. Accounting for Management
Business 9326. International Finance
Business 9327. Human Issues in International Business

35.56 Department of English

Page 384, 1995-96 Calendar, following the heading Regulations Governing the Degree of Master of Arts and Specific Programme Regulations, subheading B) Programme of Study and Research, delete current Clause B.1., and replace with the following:

"The programme of study for the Master of Arts degree shall consist of the successful completion of a programme of courses and, in accordance with departmental regulations, either of a thesis embodying systematic research or of a Comprehensive Examination."

Amend the first sentence of Clause B.4., to read as follows:

"Candidates submitting a Thesis on an approved topic shall conduct systematic research under the direction of...."

Page 386, following the heading English Language and Literature, subheading Master of Arts, amend as follows:

Delete the word "six" from the last sentence of Clause 1, as follows:

"...may deem necessary. These shall be in addition to the required graduate courses."

Delete current Clause 2, and replace with the following:

"Candidates who have not completed English 4900 (Bibliography I) or an equivalent course or courses will be required to complete English 5900 (Bibliography and Research Methods). The course will not count as one of the required courses in any graduate programme. The course will be graded as Pass/Fail. As in other graduate courses a grade of 65B or above is considered a Pass."

Amend Clause 3 to read as follows:

"Candidates completing the M.A. with thesis will complete a minimum of six graduate courses, one of which will normally be English 7003, and a thesis.

A thesis proposal...consultation with the candidate."

Insert new Clause 4 as follows:

"4. Candidates completing the M.A. without thesis will complete a minimum of nine graduate courses, one of which will normally be English 7003, and pass a three-hour comprehensive examination based on a reading list compiled by the Department. The examination will be offered twice each year in September and March. Candidates wishing to take the examination must notify the Graduate Co-ordinator not less than six weeks in advance of the examination date. The examination will be administered, set, and graded by an ad hoc Comprehensive Examination committee, chaired by the Graduate Co-ordinator and comprised of three department members involved in graduate teaching and appointed annually by the Dean on the recommendation of the Head."

Page 427, following the heading English Language and Literature, subheading Doctor of Philosophy, delete current Clause 2, and replace with the following:

"Candidates who have not completed English 4900 (Bibliography I) or an equivalent course or courses will be required to complete English 5900 (Bibliography and Research Methods). The course will not count as one of the required courses in any graduate programme. The course will be graded as Pass/Fail. As in other graduate courses a grade of 65B or above is considered a Pass."

35.57 Faculty of Engineering and Applied Science

Amendments to calendar changes approved by Senate at a meeting held on September 12, 1995, as follows:

Delete Clause B.2 and replace with the following:

"2. A programme shall normally consist of:

a. a thesis related to the area of study

b. a minimum of five courses, at least four of which must be graduate courses. One may be an undergraduate course approved for the student's programme by the Dean of Graduate Studies on the Recommendation of the Faculty of Engineering and Applied Science

c. such other courses as may be required in an individual's programme.

A programme shall normally include at least three courses chosen from the Faculty Core and Discipline Core courses listed in B.3 and B.4, respectively. One of these three courses must be a Faculty Core course, one must be an appropriate Discipline Core course, and the third course must be chosen from all the courses listed in B.3 and B.4."

35.58 Department of Biochemistry

Amendments to calendar changes approved by Senate at a meeting held on January 17, 1996, as follows:

Following the heading Regulations Governing the Degree of Master of Science and Specific Programme Regulations, subheading Food Science, delete the following:

"ADDITIONAL REGULATION FOR THE FOOD SCIENCE PROGRAMME

7. All candidates for the M.Sc. degree in Food Science will complete...within two months of first registration."

Following the heading Food Science (Additional), delete Clause 8 and renumber existing clause 9 as 8.

35.59 Proposed Revision to General Regulation D.10 - DISTANCE EDUCATION COURSES

Page 377, 1995-96 Calendar, following the heading D) Courses and Programmes, subheading 10. Distance Education Courses, delete current regulation D.10. a-f, and replace with the following:

"10. Distance Education Courses

Graduate courses may be offered using distance education methods. All faculties and schools intending to offer a course for the first time or subsequently intending to change the mode of delivery significantly must submit to the Academic Council of the School of Graduate Studies for its approval specific proposals detailing the syllabus, the intended methods of delivery, and the resources required by the students."

35.60 Department of Mathematics and Statistics

Page 405, 1995-96 Calendar, following the heading Mathematics and Statistics, delete the Master of Philosophy Programme in Mathematics and Statistics in its entirety.

Page 431, following the heading Mathematics and Statistics, subheading Specific Regulations for the Ph. D. in Mathematics, insert a new clause 2 as indicated below and renumber the present clauses 2 and 3 in sequence:

"2. The candidate shall satisfactorily complete at least two one-semester graduate courses. The supervisory committee may require the student to take additional courses."

35.61 Report of the Committee on Committees

It was agreed to approve a recommendation from the Committee on Committees that Dr. Barbara Neis continue as the substitute appointment on the Senate Committee on Research in place of Dr. Laurel Duquette, who has resigned from Memorial University.

35.62 Dean's List – Faculty of Engineering and Applied Science

A memorandum dated January 4, 1996, was received from the Faculty of Engineering and Applied Science proposing the following revised criteria for admission to the Dean's List:

1. that students in academic terms 3 – 8 be eligible for the Dean's List:

2. the student must have attained an overall average of 80% or greater in the two preceding engineering academic terms;

3. the student must have attained at least a pass in the preceding work term.

The Dean's List would be composed every semester.

Dean's List – Faculty of Engineering and Applied Science

It was moved by Dean Seshadri, seconded by Dr. Sabin and carried that the revised criteria for admission to the Dean's List for the Faculty of Engineering be approved.

36. ITEMS FOR INFORMATION

36.1 School of Music – Bylaws

A memorandum dated 13 January, 1996 was received

from the Academic Council of the School of School of Music, outlining amendments to the By-Laws of the School.

36.2 Marine Institute Representation

A memorandum dated January 12, 1996, was received from the Board of Regents advising that at a meeting held on January 11, 1996, the Board approved a recommendation from Senate that one of the seven seats on Senate currently assigned to undergraduate students on the St. John's campus be made available to the students of the Marine Institute for a period of two years.

The Board also approved the amendment to the criteria for eligibility of undergraduate students for selection to Senate.

36.3 Professor Emeritus

A memorandum dated January 12, 1996, was received from the Board of Regents advising that at a meeting held on January 11, 1996, the Board approved the recommendation that Dr. Gordon Fraser Bennett (now deceased) be appointed Professor Emeritus in recognition of his outstanding service with the Faculty of Science.

OTHER BUSINESS

37. Report of the Committee on Senate Elections

A memorandum dated January 31, 1996 was received from the Committee on Senate Elections reporting the entitlement of each constituency to seats on Senate for the 1996-97 academic year, in accordance with the procedures for election of Senate members.

38. Student Representation on Senate

A memorandum dated 2 February, 1996 was received

from the Student Union of the Marine Institute advising that Mr. Tony Scott has been appointed as the Marine Institute's student representative on Senate.

A communication dated 6 February, 1996 was also received from the Graduate Students' Union advising that Mr. Ken Carter has been appointed as graduate student representative on Senate.

39. Report of the Committee on Committees

The Secretary advised that Dr. G. Kealey, Chair of the Committee on Committees, was unable to attend tonight's meeting and that he would be reporting at the March meeting Senate regarding the progress made with respect to forming an ad-hoc Committee to investigate the reasons for the high failure rate in first year Mathematics courses at this University.

40. Admissions Deadlines

Dr. Gunther noted that he had observed that there was a great variance among the different faculties and schools respecting the deadline dates for receipt of applications for admission.

The Secretary agreed to investigate this matter.

41. ADJOURNMENT

The meeting adjourned at 9:55 p.m.