

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

SENATE

The regular meeting of Senate was held on Tuesday, January 10, 1995, at 8:00 p.m. in Room E5004.

27. PRESENT

The President, Dr. J. Tuinman, Dr. K. Keough, Mr. A. Fowler (for Dr. K. Bindon), Dean W. Blake, Mr. G. Collins, Professor M. Lamb, Dean A. Law, Dean W. Ludlow, Acting Dean C. Sharpe, Dean T. Murphy, Dr. W. Redden, Dean R. Seshadri, Dean G. Skanes, Dr. M. Volk, Dr. S. Algoo-Baksh, Dr. G. Bassler, Dr. J. Bradley, Dr. J. Brown, Dr. J. Buffinga, Dr. W. Davidson, Professor S. Findlay, Dr. J. Gale, Dr. G. Gardner, Dr. M. Haddara, Dr. G. Handcock, Dr. C. Harley, Professor K. Hestekin, Dr. O. Janzen, Dr. G. Kealey, Dr. R. Lucas, Professor E. McKim, Dr. P. Nosko, Dr. T. Patel, Dr. R. Payne, Dr. R. Pickavance, Dr. N. Rich, Dr. R. Rompkey, Dr. G. Sabin, Dr. D. Treslan, Dr. C. Turner, Professor Y. Walton, Dr. M. Wernerheim, Dr. M. Withey, Mr. S. Barter, Mr. D. Hynes, Mr. D. Gallant, Mr. R. King, Mr. B. McCartney, Ms. J. Power.

Mr. L. O'Reilly, Dr. H. Miller, Dr. J. Quaicoe, and Dr. E. Moore were also in attendance.

28. APOLOGIES FOR ABSENCE

Dean T. Piper, Dr. G. Gunther, Dr. J. Kennedy, Dr. H. Williams, Mr. D. Baker, Ms. P. Grimes, Ms. W. Stimson.

29. MINUTES

The minutes of the regular meeting and the special meeting of Senate held December 13, 1994, were taken as read and confirmed.

30. STUDENT APPEAL TO SENATE

MUN NO. 9238551

Following the normal appeals process, this student's appeal that he be permitted to retroactively drop, without academic prejudice, Psychology 1000 and Mathematics 1080 (Fall Semester 1992) and Chemistry 1800 and Mathematics 1080 (Fall Semester, 1993), was denied by the Executive Committee of Senate at a meeting held on December 22, 1994. The student subsequently requested that his appeal be heard by Senate.

Following consideration, it was moved by Dr. Gale that this student's appeal be upheld. The motion failed because of the lack of a seconder.

It was then moved by Dr. Pickavance, seconded by Dr. Patel and carried that the student's appeal be DENIED.

31. REPORT OF THE EXECUTIVE COMMITTEE OF SENATE

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

\*Report of the Senate Committee on Undergraduate Studies

It was moved by Dr. Treslan, seconded by Dean Murphy, and carried, that the following undergraduate calendar changes be approved or received for information as appropriate:

31.1 \*Faculty of Education

Page 225, 1994-95 Calendar, under the heading Admission, clause 3, add "Theatre Arts" at the end of the list of Academic Disciplines.

Page 225, under the heading Regulations for the Degree of Bachelor of Education (Secondary), amend clause 3.a)ii. to read as follows:

"3.a)ii. Two of the following: Education 4120, 4121, 4142, 4143, 4150, 4161, 4168, 4170, 4171, 4180, 4181, 4190, 4203, 4270, 4271. These methodology courses must be chosen to match the Academic Disciplines under which the student was admitted. Students whose academic discipline is Linguistics are required to do Education 4142. Those whose discipline is Geography are required to do either Education 4180 or 4271. Those whose discipline is Folklore are required to do either Education 4142 or Canadian Studies, Economics, Geography, History, Newfoundland Studies, and Political Science) are required to do Education 4180. Students whose first and second academic disciplines are in Social Studies are required to do Education 4180 and 4181. Students whose academic disciplines are English and Linguistics are required to do Education 4142 and 4143. Those whose discipline is Biochemistry are required to do either Education 4171 or Education 4270."

Page 236, add the following new course after Education 4120 but before Education 4140:

"4121. Teaching Theatre Arts in Secondary School. The course will examine the place of Theatre Arts in secondary schools; the relationship between Theatre Arts and Drama in Education; and the most appropriate methods for the effective teaching of Theatre Arts."

Page 225, under the heading Admission, Notes, add the following as a new note number 2 and renumber the current notes #2) to read #3), #3) to read #4), and #4) to read #5):

"The Faculty of Education will make every effort to accommodate students. However, they are advised that admission to the programme on the basis of academic disciplines is dependent on sufficient numbers of students to warrant the offering of applicable methodology courses in those disciplines in any given year."

Page 221, under the heading Registration in Education Courses (Non-Education Students), delete "Education 3250" from the list.

Page 234, delete Education 3250.

Page 222, under the heading Regulations for the Degree of Bachelor of Education (Primary), amend clause 2.f), Religious Studies, to read:

"Religious Studies  
- One of 2013, 2130, or 2140  
- 2050 and 2051  
- Two courses at the 3000-level  
- At least one additional course to be chosen from 2011, 2012, 2013, 2130, 2140, 2610, or an additional 3000-level course"

Page 224, under the heading Regulations for the Degree of Bachelor of Education (Elementary), amend clause 2.f)., Religious Studies, to read:

"Religious Studies  
- One of 2013, 2130 or 2140  
- 2050 and 2051  
- Two courses at the 3000-level  
- At least one additional course to be chosen from 2011, 2012, 2013, 2130, 2140, 2610, or an additional 3000-level course"

Page 239, insert the following new course between Education 4275 and Education 4331:

"4320. Teaching Strategies in Native Schools - Secondary Level (H). (See course description in Native and Northern Education Section.)"

Page 243, under the heading Courses in Native and Northern

Education, insert the following new course between Education 4231 and Education 404X:

"4320. Teaching Strategies in Native - Secondary Level (H). A methods course designed to familiarize the teacher with the techniques most appropriate to stimulate learning on the part of the secondary school student."

Page 227, under the heading Programme for Students on the Primary/Elementary Education Route, amend clause 2.d) to read:

"d) Linguistics 2020 and 2021; or 2030 and 2031; or 2025 and 2026"

Page 227, under the heading Programme for Students on the Secondary Education Route, amend clause 2.c) to read:

"c) Linguistics 2020 and 2021; or 2030 and 2031; or 2025 and 2026"

#### Criminal Record Disclosure

A proposal was received from the Faculty of Education that a note be added to the Teacher Certification section of the calendar which would require individuals who have been convicted of a crime against a person to disclose this information to the Associate Dean of Education before submitting an Application to the Faculty of Education.

In answer to questions from Senators regarding guidelines which the Associate Dean would follow in dealing with such disclosures, Dr. Treslan advised that a committee has been formed to prepare the protocol which is to be followed.

Following considerable discussion, it was moved by Dr. Kealey, seconded by Dr. Murphy and carried that this item be tabled until such time as the protocol is ready for viewing by Senate. Senators also requested that the Faculty of Education seek an opinion from legal counsel regarding the implications of such a regulation for people who have received pardons under the Criminal Code, and if possible that the Faculty provide a definition of the phrase "a crime against a person".

#### 31.2 \*Faculty of Engineering and Applied Science

Change the name of the "Naval Architectural Engineering" Programme to read "Naval Architecture and Ocean Engineering".

#### Course Numbers and Credit Restrictions

Faculty Council approved the lifting of the credit restriction in the case of Engineering 5011 and 6011 for students who completed Engineering 6011 in the Spring Semester 1989.

Faculty Council approved the removal of the credit restriction for the courses Engineering 7704 and 7706 retroactive to the

Spring Semester 1989.

New Special Topics Courses

Engineering 8790-8799. Special Topics in Civil Engineering.

Engineering 8801-8809. Special Topics in Electrical Engineering.

Engineering 8970-8979. Special Topics in Mechanical Engineering.

Computing and Communications Option

Dr. Seshadri addressed Senators regarding the proposed Computing and Communications option and advised that consultation has taken place both within and outside the University for a period of approximately three years.

It was moved by Dr. Rich and seconded by Dr. Davidson that this item be tabled pending reports to the Senate Committee on Undergraduate Studies that agreement has been reached between the Department of Computer Science and the Faculty of Engineering and Applied Science regarding this proposal. When put to a vote the motion was defeated.

It was moved by Dr. Treslan and seconded by Dr. Seshadri and carried that the proposed Computing and Communications option and the following related calendar changes be approved.

Delete the following Engineering courses:

Engineering 7845, Power Electronics.  
Engineering 7863, Software Engineering.  
Engineering 7874, Communications Electronics.  
Engineering 7875, Voice & Data Communications.  
Engineering 8832, Control Systems II.  
Engineering 8844, Power System Analysis II..  
Engineering 4411, Complex Variables.  
Engineering 5823, Signals and Systems.  
Engineering 6801, Project Design Lab in Computers.  
Engineering 6831, Thermal and Fluid Mechanics.  
Engineering 6851, Analog Electronics II.  
Engineering 7878, Noise in Communications.  
Engineering 8851, Transducers and Instrumentation.

ReNUMBER Engineering 4891 as Engineering 4892 and amend course description as follows:

"4892. Data Structures. Sets, functions and relations; elementary graph theory; basic data structures and applications; abstract data types."

ReNUMBER Engineering 4841 as Engineering 5842 and amend course description as follows:

"5842. Electromechanical Devices. Introduction to

fundamental principles of energy conversion; review of three-phase systems; magnetic fields and circuits; transformer models, performance and applications; basic concepts of rotating machines; translational and rotational transducers; characteristics, performance and control of dc machines; principles of ac generators and motors. Relevant laboratory exercises."

Renumber Engineering 5841 as Engineering 6843.

Renumber Engineering 5853 as Engineering 5854 and amend title and course description as follows:

"5854. Analog Electronics. Fundamental feedback equations and their applications; feedback topologies in electronics; operational amplifiers: ideal models and circuits, and detailed analysis of specifications; bias currents, offset voltages, CMRR, noise, slew rate and bandwidth; interface circuits, comparators, sample-and-hold, A/D and D/A converters; phase-locked loops; computer-aided design and analysis of electronic circuits. Relevant laboratory exercises."

Renumber Engineering 6802 as Engineering 7801.

Renumber Engineering 6805 as Engineering 7802.

Renumber Engineering 7822 as Engineering 8826.

Renumber Engineering 7876 as Engineering 6871.

Renumber Engineering 8825 as Engineering 7825.

Revised calendar descriptions

4854. Electronic Devices and Circuits. Principles of operation of the diode, junction field-effect transistor, metal-oxide semiconductor field-effect transistor and bipolar junction transistor; terminal characteristics, graphical analysis; biasing of devices; device and circuit models of dc, small-signal and high-frequency analysis; single-stage amplifiers; differential and multi-stage amplifiers; digital electronics; applications of electronic devices; computer-aided analysis and design of electronic circuits. Relevant laboratory exercises.

8874. Telecommunications System Design. Fundamental system design and evaluation; link calculations, system noise; noise characterization; linear and nonlinear distortions, transmission emission, receiver interferences, propagation characterization and counter-measure techniques, performance evaluation; multiplexing and multiple access; various applications such as line-of-sight microwave links, satellite communication systems, land mobile communication systems and optical communication systems.

New courses

4823. Systems and Signals I. Introduction to systems and signals; mechanical and electrical analogues; principles of linear superposition and time invariance; definition, properties, and use of the delta function; applications of complex functions and variables; impulse and step responses; input-output relations of continuous-time systems in terms of convolution and transfer functions; frequency response plots; the Fourier transform and applications; applications of Laplace transform to filtering, communications, and controls. Relevant laboratory exercises.

5824. Systems and Signals II. Fundamentals of sampling; the sampling theorem; discrete-time signals and systems; sequences and transformations; linearity, time-invariance and other properties; response to a discrete impulse; discrete convolution; difference equation models of discrete linear time-invariant systems; Fourier analysis of discrete-time systems; response of linear time-invariant systems to complex discrete-time exponential; the discrete-time Fourier transform; the z-transform; transfer functions of discrete-time systems; the discrete Fourier transform; introduction to state-space modelling and analysis of linear systems; applications of discrete-time systems to digital filters, spectral estimation, digital signal processing, communications and control systems. Computer-aided processing of discrete-time signals using MATLAB.

5863. Computer Architecture. Memory management; microprogramming; parallel processing system principles; modern computer architectures; sample devices.

5891. Design and Analysis of Algorithms. Basic combinatorial analysis; recursive algorithms; complexity analysis; sorting and searching; problem solving strategies; complexity classes; computability and undecidability.

6814. Electromagnetics for Communications I. Vector calculus; Green, Stokes and Gauss' theorems; Maxwell's differential and integral equations; steady-state and time-varying aspects of Maxwell's equations; uniform plane wave propagation in various media; applications of electromagnetics in communications.

6855. Industrial Controls and Instrumentation. Control and instrumentation system components; control devices and transducers; instrumentation and signal processing circuits; analog/digital interface circuitry and data acquisition systems; noise, grounding and shielding; analog and digital controllers; programmable logic controllers and microcontrollers; design of closed-loop control systems; applications in process and robot control. Relevant laboratory exercises and projects.

6863. Operating Systems and File Organization. History, evolution, and philosophy of operating systems; process scheduling, synchronization and management; memory and device

management; file systems and database systems; security and protection; communications and networking; distributed and real-time systems.

6891. Formal Programming Methods. Elementary propositional and predicate logic; formalization of the usual proof techniques; concepts of programme state, programme state as state transformation; parallel and distributed algorithms; programming paradigms; distributed and parallel constructs; introduction to artificial intelligence.

7813. Electromagnetics for Communications II. Review of electromagnetic wave propagation in transmission lines; Smith's chart and impedance matching; wave propagation in twisted pair wires, coaxial cables, striplines, rectangular waveguides, circular waveguides and optical waveguides; radiation and antennas.

7855. Communications Electronics. Introduction to communications systems components; review of linear amplifiers; linear amplifier design and characteristics using s-parameters; power amplifiers; mixers; oscillators; modulator/demodulator circuits and subsystems; integration of subsystems into analog and digital communication systems. Relevant laboratory exercises and computer-aided analysis and design.

7879. Digital Communications. Baseband digital transmission; intersymbol interference (ISI), partial response signalling, maximum likelihood receiver, matched filter, correlation receiver and error probability performance; source coding; the concept of information; entropy, Huffman code; linear predictive coding; channel coding; block codes, convolutional codes; modulation and coding trade-offs; bandwidth and power efficiency, spread spectrum techniques.

The following courses should be deleted from the 1996-97 Calendar: Engineering 6801, 6802, 6803, 6805, 6831, 6851, 7822, 7876, 7878.

The following courses should be deleted from the 1997-98 Calendar: Engineering 8825, 8851

Page 312, 1994-95 Calendar, under the heading Electrical Engineering, amend paragraph to read:

"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."

Page 309, delete Chart of the Electrical Engineering Curriculum and replace with the following three charts:

(See University Calendar for charts)

31.3 Department of History

Revised course description

1000. Introduction to History. An introduction to the study and writing of history based on a thematic approach to world history in the modern era before 1914.

31.4 Admission to the University, Section B. General Admission Requirements, 1. English Proficiency Requirements, Clause B.1.ii.

Page 52, 1994-95 Calendar, under the heading B. General Admission Requirements, 1. English Proficiency Requirements, amend clause B.1.ii. to read:

"All applicants who are admitted to the University under Clause B.1.i.a., or B.1.i.c. or B.1.i.d. will be required to write a placement test in English prior to their initial registration at the University to determine the appropriate course in English for which they should register."

31.5 \*Faculty of Business Administration

Page 341, 1994-95 Calendar, under the heading CORE PROGRAMME COURSE DESCRIPTIONS:

Delete the following courses: 2100, 3100, 3200, 3400, 4100, 4400, and 5400.

Renumber Business 2001 as Business 1000 and amend course description as follows:

"1000. Introduction to Business. An overview of business in the Canadian environment is presented in the course with emphasis on the stakeholders involved and the issues confronting managers. The course examines the functional areas of the enterprise (finance, marketing, production, and human resources management) in addition to providing an overview of the business system. An analysis of actual business situations provides a framework of study."

Amend course description of Business 3320 to read as follows:

"This course provides an introduction to the field of industrial and labour relations in Canada, with primary emphasis on the labour-management relationship. Students will be introduced to the basic elements of an industrial relations system, including the participants, their roles and relationships, the social, economic, legal and political environment in which the participants interact, and the process and outcomes of collective bargaining. Students may be exposed to various role playing exercises that are applicable to a career in industrial and labour relations."

Add the following to the credit restriction note for Business 4320:

", and Psychology 3501 may not be substituted for Business 4320."

Amend course description for Business 4110 to read as follows:

"4500. Financial Management I. This course is ...short-term financing.

Prerequisites: Business 1101, Statistics 2500, and Economics 2010.

Note: This course was formerly Business 4110. Credit may not be obtained for both Business 4500 and Business 4110".

Amend course description for Business 7000 to read as follows:

"6000. Business Policy. This is the terminal...is used extensively.

Prerequisite: Term 6 standing.

Note: This course was formerly Business 7000. Credit may not be obtained for both Business 6000 and Business 7000."

Add the following new courses in numerical order:

1101. Principles of Accounting. This course will emphasize the concepts and issues of introductory financial accounting as they relate to the Canadian conceptual framework, and will also address the strengths and weaknesses of financial reporting at an introductory level. The student will be introduced to the accounting process and analysis of the balance sheet, income statement, and the statement of changes in financial position.

Note: Credit may not be obtained for Business 1101 and either of Business 2100 and Business 3100.

1201. Principles of Marketing. This course provides an overview of the marketing function, emphasizing customer satisfaction as the focal point of an organization's activities. The course examines customer characteristics and behaviours as a crucial element in the design of effective marketing strategies and programs. The course also deals in detail with the elements of the marketing mix: products and services; pricing; distribution channels; and promotion.

Prerequisite: Business 1000.

Note: Credit may not be obtained for both Business 1201 and

the former Business 3200.

1600. Introduction to Entrepreneurship. This introductory course is designed to give students a broad understanding of the field of entrepreneurship and the role that entrepreneurship plays in society. Topics will include the nature and theories of entrepreneurship, the characteristics and behaviours of entrepreneurs, and the entrepreneurial process in small and large firms. Students will get to think and act in a creative manner, obtain exposure to local entrepreneurs, assess their potential for entrepreneurial careers and develop attitudes and skills that will be useful in any organization. The course is also useful for those who will be dealing with smaller firms in the context of larger organizations and for those who will be working for entrepreneurs.

2101. Managerial Accounting. The course will provide an overview of the use of financial data for managerial decision making. The student will be introduced to basic budgeting and analysis techniques for both service-oriented and manufacturing businesses.

Prerequisite: Business 1101.

Note: Credit may not be obtained for both Business 2101 and Business 4100.

2201. Marketing Applications. This course applies the principles learned in Business 1201 in a variety of contexts and organizations. Students gain an appreciation for the application of marketing principles in specialist application areas such as: marketing for services, not-for-profit and public sector organizations, and in an international context. In addition, an overview and appraisal of the marketing function and of marketing performance is addressed through the marketing planning process.

Prerequisite: Business 1201.

Note: Credit may not be obtained for both Business 2201 and the former Business 3200.

3401. Operations Management. The objective of this course is to present and discuss the fundamental concepts necessary to understand the nature and management of the operations function in organizations. The course will focus on forecasting for operations, inventory management; capacity, aggregate and requirements planning; operations scheduling; quality management and continuous improvement; just-in-time systems; product and service design. Case studies will be used.

Prerequisites: Statistics 2500 and 2501.

Note: Credit may not be obtained for both Business 3401 and the former Business 5400.

3700. Information Systems. This course provides an introduction to information systems to support operations and management. Topics include: an overview of information systems technology; data management; systems development approaches; and managing the information systems function.

Prerequisites: Computer Science 2801 (or equivalent computer literacy course) and Term 3 standing.

Note: Credit may not be obtained for both Business 3700 and the former Business 6300.

4401. Management Science. In this course the student is introduced to the analysis, structuring, and model formulation of quantitative business problems, and to the methods for solving these models. Topics include the management science paradigm, payoff matrices, sensitivity analysis of solutions, decision trees, imperfect information, utility theory, Markov chains, formulation of simple linear optimization models, and other topics at the discretion of the instructor; where applicable, available software will be used.

Prerequisite: Statistics 2500.

Note: Credit may not be obtained for both Business 4401 and the former Business 3400.

Page 341, under the heading BUSINESS ELECTIVES:

Delete 6300, 7220, 7301, and 7311 in their entirety.

Renumber Business 5100 to Business 5530 and add the following note:

"Note: This course was formerly Business 5100. Credit may not be obtained for both Business 5530 and Business 5100."

Renumber, change title and amend course description for Business 5140 to read as follows:

"5500. Financial Management II. Extension of Business 4500. Capital investment decision-making using discounted cash flow methodology; Investments under certainty; financial structure and leverage; analysis of money and capital markets; further examination of long-term external financing.

Prerequisite: Business 4500

Note: This course was formerly Business 7140 and Business 5140. Credit may be obtained for only one of Business 5500, the former Business 7140, and the former Business 5140".

Amend course description of Business 5160 to read as follows::

"5160. Cost Accounting. This course deals with the use of accounting data for decision making. Topics covered include: cost estimation, pricing, joint costs, advanced variance analysis, total quality management, just-in-time, decentralization, transfer pricing, performance evaluations, activity based accounting, and backflush costing.

Prerequisite: Business 2101.

Note: This course was formerly Business 7100. Credit may not be obtained for both Business 7100 and Business 5160."

Amend course description of Business 5200 to read as follows:

"5200. Consumer Behaviour. This course deals with concepts

related to factors which influence the purchase and consumption behaviour of individuals including culture, social class, reference groups, perception, learning, motivation, personality and lifestyle. The unique aspects of groups and organizational buyers will also be examined.  
Prerequisite: Business 2201."

Amend 6000-6019 to read as follows: "(excluding 6009)" to "(excluding 6001, 6008, 6009, and 6014)".

Amend course description for Business 6100 to read as follows:

"6100. Intermediate Accounting I. This course continues the study of financial accounting by focusing on specific topics such as current assets, long-term investments, capital assets, intangibles, current liabilities, and long-term liabilities. Emerging issues in accounting will also be covered.  
Prerequisite: Business 3101."

Amend course description for Business 6110 to read as follows:

"6110. Intermediate Accounting II. This course is designed to integrate the principles, concepts and skills acquired in previous accounting courses and to enhance the student's analytical and decision-making capabilities. The course will focus on specific topics related to deferred taxes, pension liabilities, shareholders' equity, and financial statement presentation. The skills acquired in earlier courses will be integrated for purposes of interpreting and analyzing financial information.  
Prerequisite: Business 6100."

Following course description for Business 6120 amend prerequisite as follows:

"Business 1101 and Business 4000".

Amend course description for Business 6130 to read as follows:

"6130. Auditing. The purpose of the course is to introduce the student to the practice of auditing and to stress the auditor's decision-making process when determining the nature and amount of evidence the auditor should accumulate. Specific topics to be covered include the auditor's legal liability, materiality, internal control, transaction cycles, and audit of information processed through electronic data processing systems.  
Prerequisites: Business 6100 and Computer Science 2801."

Renumber and amend course description for Business 6140 as follows:

"6510. Investments. A study of ...and institutional investments.  
Prerequisite: Business 4500  
Note: This course was formerly Business 6410. Credit may not be obtained for both Business 6510 and Business 6140".

Following course description for Business 6200 amend prerequisite as follows:

"Business 2201 and Statistics 2501 or equivalent."

Amend course description for Business 6210 to read as follows:

"6210. Advertising Management. The objectives of the course are to provide a theoretical background on the nature, role and principles of advertising; and to develop analytical and decision-making skills in planning, executing, evaluating and controlling advertising campaigns. Areas to be examined include: social, ethical, legal, and economic considerations; market and customer analysis; advertising objectives; advertising budgets; creative strategy; media strategy; sales promotion and advertising; campaign management and retail advertising.

Prerequisite: Business 2201."

Amend course description for Business 6220 to read as follows::

"6220. Sales Management. This is a course on field sales management. Emphasis will be placed on personal selling and ethics, account and territory management, planning and budgeting, sales forecasting and sales force organization, recruiting, selecting, training, motivating and compensating salespeople, and evaluating and controlling the sales force and individual salespeople.

Prerequisite: Business 2201."

Following course description for Business 6310 amend title to "Advanced Personnel and Human Resource Management." and change prerequisite to "Business 4320."

Amend course title and description for Business 6320 to read as follows:

"6320. Advanced Labour Relations. This course provides advanced level treatment of the field of industrial and labour relations in Canada, with primary emphasis on the labour-management relationship. Emphasis is placed on understanding recent problems/issues in industrial and labour relations and the range of options available for resolving these same problems. Topics examined may include: industrial relations theory; labour law reform; union growth and structure; management strategy; the role of third parties; workplace innovations; alternative dispute resolution mechanisms; union impact; public sector labour relations; comparative industrial relations; etc. Students may be exposed to various role playing exercises that are applicable to a career in industrial and labour relations.

Prerequisite: Business 3320."

Following the course description for Business 6400 add the following:

"Prerequisite: Business 4401 or Business 5401 or Business 5402."

Amend course description for Business 7010 to read as follows:

The course will examine ...Topics include: the social-economic business system, business ideologies, social responsibilities of business, business ethics, stakehold and issues management, and selected current issues in business.

Prerequisite: Term 7 standing."

Renumber Business 7020 as Business 7330 and add the following Note:

"Note: This course was formerly Business 7020. Credit may not be obtained for both Business 7330 and Business 7020."

Amend course title and description of Business 7110 to read as follows :

"7110. Accounting Theory. This course deals with the theoretical issues of specific topics such as the accounting standard setting process, the Canadian conceptual framework, assets, liabilities, revenues, expenses, not-for-profit

organizations, related party transactions, and financial

statement presentation and disclosure. Considerable emphasis

will be given to emerging issues.

Prerequisites: Business 6110, Business 6120, and Business 6130."

Amend course title and description of Business 7120 to read as follows::

"7120. Advanced Financial Accounting. The course will cover specific topics such as long-term investments, consolidated financial statements, joint ventures, segmented financial information, foreign exchange transactions, and fund accounting.

Prerequisite: Business 6110."

Renumber and amend course description for Business 7130 to read as follows:

"7500. Advanced Finance. This course examines advanced developments in finance. Several topics will be selected, researched and discussed. These topics shall vary as financial practices change.

Prerequisites: Business 5500 and Business 6510.

Note: This course was formerly Business 7130. Credit may not be obtained for both Business 7500 and Business 7130."

Renumber and amend course description of Business 7170 to read

as follows:

"7510. Options and Futures. This course is ...efficiency considerations.

Prerequisites: Business 6510

Note: This course was formerly Business 7170. Credit may not be obtained for both Business 7510 and Business 7170."

Following course description for Business 7210 amend prerequisite to read as follows:

"Prerequisite: Business 2201"

Amend course description for Business 7230 to read as follows:

"7230. Marketing Management. This course is designed to integrate the principles, concepts and skills acquired in previous marketing courses and to enhance the student's analytical and decision-making capabilities with regard to developing marketing strategies. The course will focus on: market analysis, marketing planning, the strategic decisions to be made within the framework of the marketing mix (product, price, promotion, and distribution); and the control systems related to the marketing programme. The use of market research and knowledge from other functional areas of the organization (accounting, finance, economics, etc.) will be considered throughout the course.

Prerequisites: Business 2201, Business 5200, and Business 6200."

Amend course description for Business 7320 to read as follows:

"7320. Collective Agreement Administration and Arbitration. This course provides advanced coverage of the substantive and procedural rights of employers, unions and employees under collective agreements, and the means by which disputes over these rights are resolved through the grievance arbitration process. Topics examined include: the legal framework and place of grievance arbitration in the industrial relations system; the nature and scope of the arbitrator's role; preparation for and conduct of arbitration hearings; arbitral jurisprudence; alternative dispute resolution processes; and the development of a sound labour relations climate. Students will undertake extensive reviews of labour arbitration cases and will examine the impact of jurisprudence on the philosophy and practice of management in the private and public sectors. Students may be exposed to various role playing exercises that are applicable to a career in industrial and labour relations.

Prerequisite: Business 6320."

Amend course description for Business 7321 to read as follows:

"7322. Dispute Settlement in Labour Relations. This course provides advanced level study of conflict in industrial relations, its determinants, the various institutional procedures used to deal with it, and the effectiveness of



these same procedures. Topics examined include: theories of industrial conflict; the legal framework; union and employer strategies; interest dispute resolution; the right to strike and alternatives to same; the role and effectiveness of alternative forms of voluntary and compulsory third party assistance; etc. Students may be exposed to various role playing exercises that are applicable to a career in industrial and labour relations.  
Prerequisite: Business 6320."

Amend course description for Business 7322 to read as follows:

"7322. Labour Law. This course provides an overview of laws regulating the employment relationship in Canada, including the common law, general employment and collective bargaining laws, and the Charter of Rights and Freedoms. Emphasis is placed on the law of collective bargaining in the private sector, including the acquisition and termination of bargaining rights, unfair labour practices, the duty to bargain, industrial conflict and the administration of the collective agreement.

Prerequisite: Business 6320."

Following course description for Business 7400 amend prerequisite to read as follows:

"Prerequisite: Business 4401"

Following the heading Business Electives, add the following new courses:

3101. Accounting Applications. The course continues the study of accounting on a more in-depth and detailed basis. Building on the theory and concepts of Business 1101 and Business 2101, Business 3101 will emphasize the procedures and techniques required for the preparation and presentation of accounting information and general purposes financial statements.

Prerequisites: Business 1101 and Business 2101.

Note: Credit may not be obtained for both Business 3101 and either of Business 2100 or Business 3100.

5401. Linear Optimization and Extensions I: Applications. The ideas of formulation begun in Business 4401 are extended to more complex linear optimization models, and models which are extensions of this. Emphasis will be on formulation and computer-based sensitivity analysis, applications to other fields of business, cases in linear optimization and related fields.

Prerequisite: Business 4401.

Note: Credit may not be obtained for both Business 5401 and the former Business 4400.

5402. Linear Optimization and Extensions II: Algorithms. Topics include the simplex and revised simplex algorithms, sensitivity analysis and duality, goal optimization, advanced formulation of 0/1 models, branch and bound algorithm, network models: assignment, transportation, transshipment, shortest path, critical path, minimal spanning tree, and maximal flow. Prerequisite: Business 4401.

Note: Credit may not be obtained for both Business 5402 and the former Business 4400.

5700. Information Systems Analysis and Design. This course provides students with the skills to identify business problems which may be solved using information technology, determine requirements for information systems (IS) solutions, and develop detailed designs which form the basis for implementing systems. Topics may include: role of the user in systems development, systems development life cycle, requirements analysis and conceptual modelling, structured analysis and design, and trends in systems development methodologies. The importance of CASE tools in modern systems development will be emphasized through hands-on exercises.

Prerequisite: Business 3700.

5701. Information Systems Development. This course focuses on issues related to the implementation of information systems. Particular attention will be paid to the

requirements of transaction processing and management reporting systems. Topics may include: transition from design to implementation, software construction, testing, documentation, training, conversion, and evaluation.  
Prerequisites: Business 3700 and Computer Science 2710.

6230. Services Marketing. This course is intended to examine the marketing of services and the role of services in supporting the marketing of tangible products. The distinction between the marketing of tangibles and intangibles will be stressed. The course will identify and examine the distinct issues which are encountered in the marketing of services and will explore appropriate strategies for implementing services marketing programs, primarily in services organizations, including health care, transportation, telecommunications, education, etc. Specifically, the course will examine in detail the role of people in delivering services, the importance of service quality as a strategic differentiating tool, and the importance of collaboration between marketing and human resources management in the delivery of services.

Prerequisite: Business 2201.

Note: Credit may not be obtained for both Business 6230 and the former Business 6014.

6550. International Finance. This course examines the additional risks and profitable opportunities that arise for the firm when it extends its operations into international markets. Specific topics will include the determination of exchange rates, the international monetary system, balance of payments, the foreign exchange market, international money and capital markets, the parity conditions, accounting exposure, economic exposure, transactions exposure, political risk, and global financing. Knowledge of these topic areas will give further understanding with respect to operating within the constraints of the international marketplace.

Prerequisite: Business 4500.

Note: This course has been offered as the special topics course Business 6008. Consequently, credit may not be obtained for both Business 6008 and Business 6500.

6700. Data Management. This course is based on the premise that data is a valuable resource which needs to be managed effectively to provide accurate, complete, timely, relevant, and accessible information to support decision making. Topics may include: enterprise data modelling, logical database design, database management systems, query languages, transaction management and concurrent access, and security.

Prerequisite: Business 3700.

6701. Information Technology Management. This course examines issues of managing information systems and technology. Topics may include: success and failure in IS implementation, IS planning, economics of IS, telecommunications and network management, and legal and ethical issues.

Prerequisite: Business 3700.

7240. International Marketing. This course provides an understanding of the effects that the international dimension has upon the strategies and management of the marketing efforts of the firm. In particular, the student is introduced to the analysis techniques of the various environments that constitute a country analysis. Entry strategies are discussed with an emphasis upon the export process. Finally, the standardization/adaptation question is discussed in the context of each element of the marketing mix.

Prerequisite: Business 2201.

Note: Credit may not be obtained for both Business 7240 and the former Business 6001.

7250. Business-to-Business Marketing. This course presents a comprehensive view of business markets, including industrial, institutional, and government markets. There is a balanced focus on strategy development and implementation. Particular attention is given to organizational buying behaviour, relationship management, global competitiveness, and the marketing of new/high technology products and services.

Prerequisite: Business 2201.

Note: Credit may not be obtained for both Business 7250 and the former Business 7220.

7700. Strategic Information Systems. This course examines the growing importance of information systems in helping organizations to achieve and sustain a competitive advantage. Topics covered may include: frameworks for identifying strategic applications, the role of information systems in redesigning business processes, interorganizational systems, identifying and managing risks associated with SIS, supporting globalization, and strategic implications of emerging technologies.

Prerequisite: Business 6701.

7701. Current Topics in Information Systems. This course examines new developments and trends in information systems. The scope of the course includes: implications of emerging hardware and software technologies, emerging systems applications, and the state-of-the-art in IS management practice. Specific topics will change each year. Readings assigned from professional and academic journals will form the basis of class discussion.

Prerequisites: Business 5700, Business 6700, and Business 6701.

Page 334, following the heading REGULATIONS FOR BUSINESS MINOR delete clause 1, 2 and 3 and replace with the following:

"1) Students who are completing degrees in the Faculties of Arts and/or Science may complete a minor in BusinessAdministration.

2) Students who wish to undertake the Business minor programme should declare their minor in the space provided on the Change

of Academic Programme Form, which must then be signed by the Dean of the Faculty of Business Administration, or delegate.  
3) A minor in Business Administration shall consist of the following eight courses: Business 1000, 1101, 1201, 2301, 4000, 4500, and two courses chosen from Business 1600, 2101, 2201, 3101, 3320, 3700, and 4320."

Page 335, following the heading THE CURRICULUM, delete clause 3 items a) through h), inclusive, and replace with the following:

- "a) One course in Computer Science
- b) Two courses in Statistics
- c) One course in Economics
- d) Sixteen core courses in Business Administration
- e) Ten elective courses in Business Administration, including non-Business courses prescribed for an option
- f) Seven courses in the Faculties of Arts and/or Science or in another Faculty approved by the Committee on Undergraduate Studies, Faculty of Business Administration.
- g) Three work terms of four months duration each."

Page 336, following the heading REGULATIONS FOR THE HONOURS DEGREE OF BACHELOR OF COMMERCE, clauses 3.a) and c), change "25 Business courses" to "26 Business courses".

Following the heading ACADEMIC COURSE PROGRAMME delete entire entry and replace with the following:

"The curriculum for academic terms is as follows:  
Note: Also refer to Table I.

Term 1

Business 1101 Principles of Accounting  
Business 1201 Principles of Marketing  
Statistics 2500 Statistics for Business and Arts Students I

Three courses from List A below.

Term 2

Business 2101 Managerial Accounting  
Business 2201 Marketing Applications  
Business 2301 Organizational Behaviour  
Statistics 2501 Statistics for Business and Arts Students II

The remaining courses from List A below not completed in Term I.

LIST A

Business 1600 Introduction to Entrepreneurship  
Business 2000 Business Communications  
Computer Science 2801 Introduction to Computing for Business

Two Arts and/or Science Electives.

Term 3

Business 3320 Introduction to Labour Relations  
Business 3401 Operations Management

Business 3700 Information Systems

Two electives from List B below.

Term 4

Business 4000 Business Law I  
Business 4320 Introduction to Personnel and Human Resource  
Management  
Business 4401 Management Science  
Business 4500 Financial Management I  
Economics 3150 Money and Banking

Term 5

Business 5301 Organizational Theory

Four courses chosen from List B below, not completed in Term  
3.

Term 6

Business 6000 Business Policy

Four courses chosen from List B below, not completed in Terms  
3 and 5.

Term 7

The remaining five courses from List B below, not completed in  
Terms 3, 5, and 6.

LIST B

Ten Business electives, including non-Business courses  
prescribed for a concentration.

Five Arts and/or Science electives."

Page 340, following the heading REGULATIONS FOR THE DIPLOMA IN  
BUSINESS ADMINISTRATION delete clause 1 in its entirety and  
replace with the following:

"1. To be considered for admission to the Diploma Programme in  
Business Administration, applicants must normally have  
satisfied the following requirements:

a) Successful completion of five academic courses as follows:

- i. Two courses in English;
- ii. EITHER Mathematics 1080 and 1081 OR Mathematics 1000 and  
one other Arts or Science elective;
- iii. Business 1000.

Only students with an overall average of at least 65% in the  
required five courses will be considered for admission to the  
programme.

b) At least two years of full-time work experience, or  
equivalent, that is deemed acceptable by the Admissions

Committee of the Faculty of Business Administration.

c) At least two years during which the applicant has not been in full-time attendance at a secondary or post-secondary institution.

In the case where students have been required to withdraw from the Bachelor of Commerce (Co-operative) Programme, the Admissions Committee of the Faculty may consider this circumstance as grounds to deny admission."

Page 340, following the heading REGULATIONS FOR THE DIPLOMA IN BUSINESS ADMINISTRATION, clause 2, delete items a) and b) and replace with:

"2. To be eligible for the Diploma in Business Administration, a student must:

a) have been admitted to the Diploma Programme;  
b) successfully complete the following fifteen courses in addition to the five courses required for admission (a total of twenty courses):

- Economics 2010 and 2020;
- Statistics 2500 and 2501, or equivalent;
- Computer Science 2801, or equivalent;
- Business 1101, 1201, 1600, 2301, 4000, and 4500;
- Four of the following, one of which must either Business 3320 or 4320: Business 2000, 2101, 2201, 3320, 3401, 3700, 4401, and 4320."

Change "14 Diploma courses" to "15 Diploma courses" in clause 2.c)."

Page 340, following the heading REGULATIONS FOR THE GENERAL DEGREE OF BACHELOR OF COMMERCE, delete the courses listed between paragraphs one and three of clause 1 of the CURRICULUM and replace with the following:

- "- The remaining four courses from the following list which were not completed for the Diploma in Business Administration: Business 2000, 2101, 2201, 3320, 3401, 3700, 4401, and 4320;
- Business 5301, Business 6000, and Economics 3150;
- Ten Business electives, including non-Business courses prescribed for an option;
- Three electives chosen from the Faculties of Arts and/or Science."

Page 340, following the heading REGULATIONS FOR THE GENERAL DEGREE OF BACHELOR OF COMMERCE, delete the entry headed PROGRAMME ELECTIVES.

Page 337-338, delete the entry for THE BUSINESS CO-OPERATIVE OPTIONS PROGRAMME in its entirety.

Page 341, insert the following new entry before the entry for COURSE LIST:

## "BUSINESS ADMINISTRATION CONCENTRATIONS

A student may choose to follow a general degree programme, or to concentrate in one of the areas outlined below. A concentration provides the student with the opportunity of broadening knowledge and understanding of one of the following areas. Particular attention should be paid to necessary prerequisites when scheduling courses.

### ACCOUNTING

Students electing an Accounting concentration should complete the following courses:

Business 3101 Accounting Applications  
Business 5160 Cost Accounting  
Business 6100 Intermediate Accounting I  
Business 6110 Intermediate Accounting II

and any five of the following. Those students intending to pursue the C.A., C.M.A., or C.G.A. designations should consult the appropriate body to determine those courses which would be most beneficial to them.

Business 5000 Business Law II  
Business 5140 Capital Budgeting  
Business 6120 Taxation I  
Business 6130 Auditing  
Business 7110 Accounting Theory  
Business 7120 Advanced Financial Accounting  
Business 7150 Taxation II  
Business 7160 Advanced Topics in Managerial Accounting

### MARKETING

Students electing a Marketing concentration should complete the following courses:

Business 5200 Consumer Behaviour  
Business 6200 Marketing Research  
Business 7230 Marketing Management

and any five of the following:

Business 6210 Advertising Management  
Business 6220 Sales Management  
Business 6230 Services Marketing  
Business 7210 Retailing Management  
Business 7240 International Marketing  
Business 7250 Business-to-Business Marketing

### HUMAN RESOURCES AND LABOUR RELATIONS

Students electing the Human Resources and Labour Relations concentration should complete the following courses:

Business 6320 Advanced Labour Relations  
Business 6310 Advanced Personnel and Human Resource Management  
Business 7330 Organizational Development



Business 7310 Seminar in Human Resource Management  
Business 7322 Labour Law  
Economics 4360 Labour Economics

and any two of the following:

Business 6301 New Directions in Organizational Behaviour  
Business 7320 Collective Agreement Administration and  
Arbitration  
Business 7321 Dispute Settlement in Labour Relations

#### FINANCE

Students electing a Finance concentration should complete the following courses:

Business 5500 Financial Management II  
Business 6120 Taxation I  
Business 6510 Investments  
Business 6550 International Finance  
Business 7500 Advanced Finance  
Business 7510 Options and Futures

and any three of the following courses:

Mathematics 2090 Mathematics of Finance  
Economics 3030 International Economics  
Economics 4025 Public Expenditures  
Economics 4026 Taxation  
Business 5330 Public Finance  
Business 6100 Intermediate Accounting I  
Business 6110 Intermediate Accounting II  
Business 7150 Taxation II

#### SMALL BUSINESS/ENTREPRENEURSHIP

Students electing a Small Business Entrepreneurship concentration should complete the following courses:

Business 5030 New Venture Creation  
Business 6030 Managing Growth in the Small Firm  
Business 6200 Marketing Research  
Business 7031 Small Enterprise and Regional Development  
Business 7032 Current Topics in Entrepreneurship  
Philosophy 2230 Moral Philosophy

or

One of Philosophy 2800-2810 Contemporary Issues

and any two of the following:

Business 6120 Taxation I  
Business 7210 Retailing Management  
Business 7240 International Marketing

#### INFORMATION SYSTEMS

Students electing an Information Systems concentration should complete the following courses:

Business 5700  
Business 5701  
Business 6700

Business 6701  
Business 7700  
Business 7701

and any three of the following:

Business 5401  
Business 7400  
Computer Science 2710  
Computer Science 2711  
Computer Science 2740  
Computer Science 2752  
Computer Science 3710

#### MANAGEMENT SCIENCE

Students electing a Management Science concentration should complete the following five courses:

Business 5401  
Business 5402  
Business 6400  
Business 7400  
Computer Science 2710

Page 345, replace Table 1, with the following:

"TABLE I  
BACHELOR OF COMMERCE (CO-OPERATIVE) CURRICULUM

(For Table see University Calendar)

#### 31.6 Department of Psychology

Page 215, 1994-95 Calendar, following the course description 4910, amend the prerequisites to read as follows:

"Prerequisites: Eight courses in Psychology, including three courses listed in clause (b) of the Requirements for a Major in Psychology."

Following the course descriptions for 4050 and 4051, amend the prerequisite to read as follows:

"Prerequisite: Psychology 3050 or 3051."

Page 216, following the course descriptions for 4650 and 4651, amend the prerequisite to read as follows:

"Prerequisite: Psychology 3640 or 3650."

Page 213, replace Psychology 2240 with the following new title and description:

"2240. Survey of Learning. A survey of learning phenomena and learning theories. Topics to be studied will include; the evolutionary context of learning, habituation and

sensitization, Pavlovian conditioning, instrumental learning, generalization and discrimination in learning, and neural mechanisms of learning.

Prerequisites: Psychology 1000 and 1001.

Note: Credit may not be obtained for both Psychology 2240 and either of the following: Psychology 2250, the former Psychology 2400, the former Psychology 3150."

Page 212, amend clause (e) by replacing the phrase Either Chemistry 1000 and 1001 or Physics 1050 and 1052 or equivalents with the following:

"EITHER Chemistry 1000 and 1001: OR Physics 1200 or 1050 and 1201 or 1052."

### 31.7 Business Minor for Science Students

Page 179, 1994-95 Calendar, following the heading Regulations for the General Degree of Bachelor of Science, clause 7, add the following to the first sentence:

"and the Faculty of Business Administration."

Page 180, following the heading SCHEDULE A, amend Note (ii) to read as follows:

"Except in cases where the specified eight Business courses are being used to satisfy the minor requirements, a maximum of five courses in total from subject areas other than in Arts or Science may be used."

Report of the Academic Council of the School of Graduate Studies

### 31.8 Department of Earth Sciences

Page 424, 1994-95 Calendar, following the heading DOCTOR OF PHILOSOPHY, delete item 3 and replace with the following:

"Within two weeks of first registration in the Ph.D. programme candidates will normally take the Ph.D. Entry Evaluation. This requirement may be waived by the Dean of Graduate Studies, on the recommendation of the Head, for students who either hold a M.Sc. degree from Memorial University or have a background that is already deemed satisfactory by the supervisory committee."

Page 411, following the heading Earth Sciences, Master of Science, amend clause 3 to read as follows:

"A candidate for the M.Sc. degree must complete a minimum of two regulation courses, selected from the overview and general courses, below. Depending on background and/or area of specialization, a candidate also may be required to complete additional courses in Earth Sciences or related subjects."

Pages 411 and 424, following the heading Earth Sciences,

Courses, amend the preamble to read as follows:

"The following "overview courses" will be offered annually to meet the requirements of candidates, as far as the resources of the Department will allow; the following "general courses" will be offered, not on a regular basis, but whenever there is sufficient demand to justify the commitment of teaching resources:"

Pages 411 and 424, following the heading Earth Sciences, Courses, delete the following courses:

"6000 APPALACHIAN OROGENY AND TECTONICS (W)  
6060 QUANTITATIVE TECHNIQUES IN MINERALOGY AND  
METAMORPHIC PETROLOGY I (F)  
6800 MICROPALAEONTOLOGY  
7800 EVOLUTION, EXTINCTION AND ENVIRONMENT (F)"

Page 411 and 424, following the heading Earth Sciences, Courses, amend the following:

Delete "II" from the end of the course title for 6070.

Amend title of 6420 to read as follows:

"Deformation Mechanisms"

Delete "6810 PALEOECOLOGY (W)" and add "7810 PALEOECOLOGY (W) (same as former ES6810)\*\*\*".

Delete current note and replace with the following:

"\*\*\*Credit may not be obtained for both 7810 and the former course 6810."

New Course:

6820 Palynology and Paleobotany

### 31.9 Definition of Graduate Course

Page 363, 1994-95 Calendar, under the section Definition and Explanation of Terms used in this Calendar, Graduate Course:

Delete whole section under Graduate Course which reads: " A graduate course is a unit(s) of work in a particular ...Supplementary examinations are not permitted." and replace with the following:

"Graduate Course

1. A graduate course comprises a unit/units of work in a particular subject normally extending through one semester, the completion of which carries credit toward

the fulfilment of the requirements for a postbaccalaureate degree diploma or certificate.

2. Accelerated courses are not normally permissible in graduate programmes.
3. Courses required as part of a graduate student's programme are known as programme courses. Tuition for such courses is covered by the semester fee.
4. Courses which are not required as part of a graduate student's programme are known as non-programme courses. Students registering for such courses will be required to pay the appropriate per-course fee."

#### 31.10 General Regulation G. - Evaluation

Page 367, 1994-95 Calendar under the heading \*General Regulation G. - Evaluation

Insert new G.1.d. as follows:

"G.1.d. Supplementary examinations are not permitted."

Delete G.2. which currently reads: "Failure to attain a final ...termination of the student's programme." and replace with the following:

"2. Evaluation of Master's Students

a. Failure to attain a final passing grade of A or B in a programme course shall lead to termination of the student's programme, unless the regulations for a particular degree allow the student to repeat the course. Failure to obtain the required grade in the repeated course shall lead to termination of the student's programme.

b. Failure in a non-programme course will not normally result in termination of a student's programme."

Following G.3. revise 3.a) to read as follows:

"To continue in the doctoral programme, ... A or B in all programme courses. Failure to meet this requirement... to the contrary."

Insert new 3.b) as follows:

"Failure in a non-programme course will not normally result in termination of a student's programme."

Reletter current 3.b) and 3.c) as 3.c) and 3.d) respectively.

#### 31.11 \*Department of Physics

Page 414, 1994-95 Calendar, following the heading Physics,

Master of Science, delete clause 2 and replace with the following:

"2. A programme of study for the M.Sc. degree in Physics or Physical Oceanography shall include a minimum of five regulation courses normally selected from the graduate course offerings of the Department. Depending on background and area of specialization, additional graduate and/or undergraduate courses may be required."

Delete clause 3 and re-number clause 4 as 3.

Page 433, following the heading Physics, Doctor of Philosophy, delete clause 1 and replace with the following:

"1. A programme of study for the Ph.D. degree in Atomic and Molecular Physics, Condensed Matter Physics, or Physical Oceanography shall include a minimum of three regulation courses, normally selected from the graduate course offerings of the Department. Depending on the background and area of specialization, additional graduate courses may be required."

Delete clause 2 and re-number clause 3 as 2.

Page 414 and 433, following the heading Physics, Courses, delete Courses Section and replace with the following:

"COURSES

6000 Condensed matter physics I  
6001 Condensed matter physics II  
6002 Superconductivity  
6003 Path integral techniques in condensed matter physics  
6010-19 Special topics in condensed matter physics  
6040 Biophysics  
6060-69 Special topics in interdisciplinary areas  
6200 Nonlinear Dynamics  
6308 Ocean dynamics I  
6309 Ocean dynamics II  
6310 Physical oceanography  
6313 Physical fluid dynamics  
6315 Polar oceanography  
6316 Ocean measurements and data analysis  
6317 Ocean acoustics  
6318 Numerical modeling  
6319 Climated dynamics  
6320 Turbulence  
6321 Coastal oceanography  
6322 Stratified fluids  
6323 Stability theory  
6360-69 Special topics in physical oceanography  
6400 Statistical mechanics  
6402 Theory of phase transitions  
6403 Stochastic processes, time-dependent and nonequilibrium statistical mechanics  
6502 Electrodynamics  
6720 Theory of molecules

6721 Molecular spectroscopy  
 6722 Light scattering spectroscopy  
 6730 Molecular theory of liquids and compressed gases  
 6740 Physics of atomic collisions  
 6760-69 Special topics in atomic and molecular physics  
 6800 Group theory  
 6810-19 Special topics in theoretical and mathematical physics  
 6850 Quantum mechanics I  
 6851 Quantum mechanics II  
 6910-19 Special topics in experimental and applied physics

Table of Course Restrictions

Credit may be obtained for only one course from each of the pairs of courses listed in this table.

Present Course	Former Course
6000	6050
6001	6051
6002	6822
6003	6820
6200	6821
6308	6312
6309	6311
6313	6301
6316	6302
6317	6823
6318	6304
6321	6303
6321	6304
6323	6303
6402	6401
6403	6401
6403	6824
6502	6500
6502	6501
6722	6790

31.12 Faculty of Education

Under the heading Regulations Governing the Degree of Master of Education (approved by Senate April 12, 1994) and following the sub-heading B. Programme of Study insert the following paragraph immediately following "Or: twenty-four course units plus an internship report, a project report or a paper folio."

"Each course unit requires 12 class contact hours. A 2 unit course requires 24 class contact hours and a 3 unit course 36 contact hours."

31.13 General Regulations

Page 368-369, 1994-95 Calendar, delete Regulation J.4 and replace with the following:

"J.4. Evaluation of Ph.D. Theses

Candidates for the degree of Doctor of Philosophy must submit a written dissertation deemed acceptable by the University, and demonstrate their ability to defend their work in a public oral examination. For this reason, the final decision on whether a candidate will be recommended for the award of the degree is made only at the conclusion of the oral examination.

a. Responsibilities of the Thesis Examining Board

The work of each candidate will be assessed by a Thesis Examining Board. Its first responsibility is to determine whether the thesis successfully demonstrates the candidate's competence to undertake independent research work. The Board must be satisfied that the work contributes significantly to knowledge in the field of study; that the contribution is of high scholarly merit; that the candidate is aware of the pertinent published literature; that it is written in a satisfactory style; and that it is free from typographical and other mechanical errors. The second responsibility of the Board is to conduct a final oral examination of the candidate and to then recommend to the Dean of Graduate Studies whether the candidate should be awarded the degree.

b. Composition of the Thesis Examining Board

The members of the Thesis Examining Board will be appointed by the Dean on the recommendation of the Head of the academic unit who will have consulted with the supervisory committee. The Board shall consist of four members. Normally these will be the candidate's supervisor (who serves on the Board in a non-voting capacity), two examiners from within the University, and one from outside the University. However, when circumstances warrant, a second external may be substituted for one of the internal examiners with permission of the Dean. Members of the supervisory committee other than the supervisor are ineligible for appointment to the Board.

c. The Examination Process

1. The voting members of the Board shall submit written reports on the thesis containing an assessment of the quality of the written work and a recommendation as to whether the candidate should be permitted to proceed to an oral examination and defence of the work. An examiner may recommend:

i) that the candidate be allowed to proceed to the oral defence of the thesis<sup>1</sup>, or;

ii) that the candidate not be allowed to proceed to the oral defence at this time<sup>2</sup>, or:

iii) that the candidate should be failed.

Notes:

1. Any suggested minor corrections or revisions should be outlined in the examiner's report. It is understood that it



will be the responsibility of the Supervisory Committee to discuss the suggested changes with the candidate, to determine which should be incorporated in the thesis before its final submission.

2. This recommendation reflects the examiner's opinion that further research, re-analysis of data, or thorough rewriting of the material is required. The thesis may, however, be re-submitted for examination.

2. No candidate will be permitted to re-submit a thesis more than once. If the Dean decides that the thesis must be revised before it can be orally defended (as specified in c.1.(ii)) the resubmitted thesis will be examined by a Board which may differ in whole or in part from the original. In the case of a re-submitted thesis an examiner may recommend only:

i) that the candidate be allowed to proceed to the oral defence of the thesis, or:

ii) that the candidate should be failed.

3. After receiving the reports from all three voting members of the Board the Dean will consider the recommendation and determine whether an oral defence of the thesis will be scheduled.

4. The Final Oral Examination and Defence of Thesis will take place at a time and place to be determined by the Dean of Graduate Studies and will be chaired by the Dean or his/her delegate. The presence of all members of the Examining Board is normally required.

5. Following the defence, the Board will meet in camera to render a final assessment of the thesis and of the candidate's ability to defend his/her work. The Board may recommend that the candidate has:

- i. Passed. 1
- ii. Failed, but should be permitted a re-examination. 2
- iii. Failed and should not be permitted any re-examination.

Notes:

1. This recommendation may have attached to it the requirement that the candidate complete certain specified revisions to the satisfaction of the Supervisory Committee, the Head of the academic unit and the Dean.

2. The members of the Thesis Examination Board may attach to this recommendation a list of any requirements which they feel are appropriate.

6. If the members of the Board are unanimous in their recommendation, the Chair of the Examination may accept this recommendation and inform the candidate of the decisions. In

any other case, however, the delivering of any final decision shall be deferred pending further consultation within the School of Graduate Studies.

7. No candidate shall be permitted more than two oral examinations.

31.14 \*Distance Education Course 6104

New Course

6104 Foundations of Program Evaluation

31.15\* Report of the Council of the School of Continuing Studies - Changes to Certificate Programme in Newfoundland Studies

A memorandum dated November 22, 1994 was received from the Academic Council of the School of Continuing Education recommending programme requirement changes for the Certificate Programme in Newfoundland Studies.

Dr. Wernerheim asked the reason for the removal of Economics 3080, Natural Resource and Environmental Economics, from the supplementary list and questioned whether consultation had been undertaken with the Department of Economics.

Following consideration, it was moved by Dr. Sharpe, seconded by Dr. Bassler and carried that the proposed changes be approved with the exception that Economics 3080 remain on the supplementary list until further information is received as to whether or not the Department of Economics was consulted in this matter.

31.16 \*Report of the Committee on Senate Elections

Following formal approval by the Board of Regents on May 13, 1994 of the Constitution of the Academic Council of the Fisheries and Marine Institute, the Senate Elections Committee, in a memorandum dated December 21, 1994, submitted proposals for the representation of the Marine Institute on Senate and related changes to the Procedures for Election of Senate Members.

Ex-officio membership

Section 56.(b)(x) of the Memorial University Act R.S.N. 1970, C.231 (as amended) reads as follows:

(x) such other persons holding office within the University or in any of the colleges or institutions affiliated with the University chosen in such number and manner as may be approved by the Board.

It was moved by Mr. Collins, seconded by Acting Dean. Sharpe and carried that, in accordance with the provisions of this clause, the Executive Director of the Fisheries and Marine Institute be named as a member of Senate by the Board of

Regents effective immediately.

If the Board of Regents approves the appointment of the Executive Director to Senate, clause 56(c) provides for the election of two more members of the academic staff and faculty.

It was moved by Mr. Collins, seconded by Dean Skanes, and carried, that these two seats be assigned to the Fisheries and Marine Institute and that an election be conducted as soon as all necessary approvals are obtained to elect two members of the academic staff from the Marine Institute until August 31, 1995.

It was moved by Mr. Collins, seconded by Acting Dean Sharpe, and carried, that the following revised Procedures for Selection of Senate members be approved as recommended by the Committee on Senate Elections.

"SENATE MEMBERS, PROCEDURES FOR SELECTION OF

Selection of 'ex officio' members

The 'ex officio' members, referred to in Section 56.(b).(x) in the Memorial University Act R.S.N. 1970, C. 231 (as amended), shall be subject to annual review by the Senate at a Spring meeting.

B.Election of Academic Staff Members

1.(a) Eligibility to be an elector

- (i) All full-time members of the academic staff of the constituencies defined in 2. below who are either tenured or beyond their first year in the University (or both) shall be eligible to be electors.
- (ii) All full-time members of the academic staff at the Marine Institute as defined in items (a) and (b) of the Constitution of the Academic Council and section 1.1 of the By-Laws of the Marine Institute who are either permanent or temporary and beyond their first year in the Institute shall be eligible to be electors.

(b) Eligibility to be elected

(i) All full-time members of the academic staff of the constituencies defined in 2. below who are tenured (exclusive of any person who is an ex officio member) shall be eligible for election.

(ii) All full-time members of the academic staff of the Marine Institute as defined in items (a) and (b) of the Constitution of the Academic Council of the Marine Institute and section 1.1 of the By-Laws of the Marine Institute who are permanent (exclusive of any person who is an ex officio member) shall be eligible for election.

- (c) All full-time members of the academic staff of the constituencies defined in 2. below who have, during the three academic terms preceding the normal election period, taught at least 50% of their workload in a constituency other than that to which they were appointed may choose to exercise their electoral rights in that other constituency. The Chairman of the Committee on Senate Elections must be notified of such a choice in January of each year.
- (d) All full-time members of the academic staff who hold appointments in more than one academic unit (whether joint appointment or cross appointment) may choose to exercise their electoral rights in one of the constituencies to which they have been appointed. The Chairman of the Committee on Senate Elections must be notified of such a choice in January of each year. In the event that such notification is not received by the end of the month specified above, such members of the academic staff will be deemed to be members of the constituency in which they performed the major portion of their university duties in the immediately preceding three academic terms.

## 2. Constituencies

- (a) All full-time members of the academic staff in the Humanities in the Faculty of Arts and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.
- (b) All full-time members of the academic staff in the Social Sciences in the Faculty of Arts and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.
- (c) All full-time members of the academic staff in the Faculty of Science and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.
- (d) All full-time members of the academic staff in the Faculty of Education and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.
- (e) All full-time members of the academic staff in the Faculty of Engineering and Applied Science and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.
- (f) All full-time members of the academic staff in the Faculty of Medicine and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.

(g) All full-time members of the academic staff in the School of Physical Education and Athletics and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.

(h) All full-time members of the academic staff in the School of Social Work and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.

(i) All full-time members of the academic staff in the School of Nursing and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.

(j) All full-time members of the academic staff in the Faculty of Business Administration and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.

(k) All full-time members of the academic staff at the Sir Wilfred Grenfell College at Corner Brook.

(l) All full-time members of the academic staff in the School of Music and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.

(m) All full-time members of the academic staff in the School of Pharmacy and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.

(n) All full-time members of the academic staff in the Marine Institute and those who elect membership in this constituency in accordance with the provisions of Paragraph B.1(c) or B.1(d) above.

### 3. Representatives

The constituency representatives of the Senate shall be made up as follows:

(a) The number of seats shall be divided into the total number of full-time electors in all constituencies as defined in clauses B.1(a) above. The figure obtained shall then be divided into the number of electors in each constituency to determine the number of representatives to which each constituency is entitled.

(b) Each constituency whose numbers do not warrant election of a single senator (using the formula above) shall, nevertheless, be entitled to elect one representative. The number of seats to which the remaining constituencies are entitled shall then be recalculated, omitting from the recalculation the number of electors of the constituencies entitled to a representative under this

clause and the number of seats so taken.

#### 4. Rules for Election

- (a) Candidates for Senate elections must be nominated by two qualified electors with the consent of the nominee. At least six weeks prior to each annual Senate election the names of such nominees must be forwarded to the Registrar who will arrange for special ballot papers to be prepared and mailed to each elector at least one week before the date of the election.
- (b) Ballot papers shall be returned to the University Registrar in specially prepared envelopes. Votes cast in the election will be counted by the Registrar in the presence of the Committee on Senate Elections whose members will serve as scrutineers.
- (c) Each voter will indicate his/her unweighted preference(s) for up to the number of candidates to which his/her constituency is entitled. The candidates with the most votes shall be declared elected.
- (d) In the event of a tie in any election, the Committee on Senate Elections shall determine, by lot, which of the candidates shall serve and/or which shall serve the shorter term.

The Registrar shall report the results of the elections to the President of the University as Chairman of the Senate.

#### 5. Term of Office

Members elected to replace those whose term of office has expired shall normally serve for a three-year term. Where a vacancy occurs from any cause other than expiration of term of office, that vacancy shall be filled by election and the person filling such vacancy shall serve for the balance of the period for which the member he/she replaces was elected.

Where terms of office shorter than three years arise in any constituency, the term of office of each winning candidate shall be determined by the number of votes the candidate receives, i.e. the candidate receiving the lowest number of votes shall serve the shortest term.

In the event of a tie in any election, the Committee on Senate Elections shall determine, by lot, which of the candidates shall serve and/or which shall serve the shorter term.

#### C. Selection of Student Members

- 1. The Graduate Students' Union shall select three representatives, each representing a different

academic area. The selection procedures shall be determined by the Graduate Students' Union.  
N.B. See "Senate Graduate Student Members".

2. Nine senators shall be selected by the undergraduate students, each representing a different academic area. The nine undergraduate student senators shall consist of seven student senators from the St. John's campus and two student senators from the Sir Wilfred Grenfell College at Corner Brook. The procedures controlling such selection shall be determined by the respective Council of the Students' Union.  
N.B. See "Senate Undergraduate Student Members."
3. To be eligible for selection to the Senate, an undergraduate student shall have obtained a minimum of twenty semester credits and be in clear standing except in the case of the Sir Wilfred Grenfell College at Corner Brook where a minimum of ten semester credits must be obtained.
4. Marine Institute - to be decided."

It was moved by Mr. Collins, seconded by Acting Dean Sharpe and carried that the Dean of Student Affairs and Services be requested to meet with representatives of the different Councils of the Students' Union at the Marine Institute Campus, at the St. John's Campus and at the Sir Wilfred Grenfell College Campus as well as with representatives of the Graduate Students' Union to determine appropriate recommendation for the consideration of the Senate and the Board of Regents with respect to student representation on Senate.

31.17 Report of the Senate Committee on Committees

It was moved by Dr. Kealey, seconded by Dr. Davidson, and carried that a the following recommendations from the Senate Committee on Scholarships and Financial Aid be approved:

1. Rename the Committee "Senate Committee on Undergraduate Scholarships and Financial Aid."
2. Change the standing membership list:
  - i. add Director, General Student Services in place of Supervisor of Student Affairs;
  - ii. drop GSU representative.

31.18 Report of the Committee on Honorary Degrees and Ceremonial

It was moved by Dean Skanes, seconded by Acting Dean Sharpe, and carried to approve a recommendation from the Committee on Honorary Degrees and Ceremonial, that the name of the Ph.D. thesis supervisor be included in the Convocation programme for students graduating with that degree.

31.19 Report of the Ad Hoc Committee to Prepare a Handbook of Senate By-Laws

The Report of the Ad Hoc Committee to Prepare a Handbook of Senate By-Laws was received together with the final draft of the Handbook of Senate By-Laws.

It was moved by Dr. Volk, seconded by Mr. Collins and carried that the Handbook of Senate by-Laws, as drafted, be accepted.

ITEMS FOR INFORMATION

31.20 Student Appeals

The Secretary of the Executive Committee reported that two student appeals were denied (MUN NOS. 8324006; 9453887).

32. ADJOURNMENT

The meeting adjourned at 9:15p.m.