

## SENATE MINUTES

April 10, 2001

The regular meeting of Senate was held on Tuesday, April 10, 2001, at 4:00 p.m. in Room E5004.

### 68. PRESENT

The President, Dr. E. Simpson, Dr. C. Loomis, Dean W. Blake, Dean I. Bowmer, Dr. B. Burnaby, Mr. G. Collins, Mr. R. Ellis, Professor A. Fowler, Dr. L. Hensman, Dr. C. Higgs, Dean G. Kealey, Dean R. Lucas, Dean T. Murphy, Dr. C. Orchard, Dr. R. Seshadri, Dr. T. Gordon, Dr. L. Walker, Ms. D. Whalen (for Professor H. Weir), Dr. R. Adamec, Dr. J. Ashton, Professor P. Ayres, Dr. G. Bassler, Dr. J. Bear, Dr. M. Brosnan, Mr. C. Couturier, Dr. J. deBruyn, Mr. C. Dennis, Mrs. C. Dutton, Dr. J. Finney-Crawley, Dr. V. Gadag, Dr. D. Goldstein, Dr. R. Gosine, Dr. G. Herzberg, Dr. M. Kara, Professor K. Knowles, Professor V. Kuester, Dr. M. Laryea, Dr. V. Maxwell, Dr. D. McKay, Dr. J. McLean, Dr. M. Mulligan, Dr. M. Murray, Dr. H. Pike, Ms. D. Rehner, Dr. D. Rideout, Dr. G. Sabin, Dr. S. Saha, Dr. W. Schipper, Dr. C. Sharpe, Dr. P. Sinclair, Dr. D. Treslan, Dr. J. Usher, Professor D. Walsh, Dr. B. Watson, Dr. M. Wernerheim, Mr. D. Newton, Ms. B. Kitchen, Ms. A. Muselius, Mr. C. Collins, Mr. K. Dunne, Mr. A. Kennedy, Ms. J. Mahoney, Mr. D. Maveneke, Ms. J. Morgan, Mr. D. Nowak, Ms. R. Smith, Mr. L. Walsh.

The President welcomed Dr. C. Loomis who has been appointed as Acting Vice-President (Research and International Relations), Dr. L. Hensman who has been appointed as Acting Director of Pharmacy and Ms. Brenda Kitchen, who has recently been elected Vice-President Academic of the Graduate Students' Union.

The President also noted the election of the following members of the MUNSU Executive:

Mr. Kirk Wiseman – President

Mr. Jamie Clements – Vice-President Academic

Mr. Aaron Kennedy – Vice-President Executive

## 69. APOLOGIES FOR ABSENCE

Apologies were received from Mr. L. O'Reilly, Ms. K. Lippold, Dr. M. Paul, Dr. V. Richardson.

## 70. MINUTES

The Minutes of the regular meeting held on March 13, 2001 were taken as read and confirmed. The Secretary agreed to check Dr. Maxwell's question regarding whether or not the words "Ph.D. in Anthropology" had been omitted from the introduction to the new programme on page 69 of the Minutes.

## 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:

### 71. Report of the Ad Hoc Committee on the Application of Student #7663263 for Re-Admission to the University

Because Mr. G. Collins had indicated that his previous involvement with Student #7663263 could place him in a perceived conflict of interest position, he withdrew from the meeting during the discussion of this case and Mrs. M. O'Dea, Deputy Registrar, was in attendance as Acting Secretary for this item of business.

At a meeting held on May 9, 2000, Senate agreed to appoint an ad hoc Committee to consider an appeal from Student Student #7663263 for re-admission to the University and to the Faculty of Education. At that meeting terms of reference for the ad hoc committee were approved, subject to necessary review and consultation with legal counsel. At a subsequent meeting held on June 13, 2000, Senate approved revised terms of reference which mandated the ad hoc Committee to make a recommendation with regard to the student's application for re-admission to the University as a student, without providing any recommendation as to the application for acceptance into the Faculty of Education.

The Report of the ad hoc Committee has now been received and circulated to Senators. Dr. Robert Adamec, Chair of the Committee,

was in attendance to present the Report and to answer questions from Senators. Dr. Leslie Phillips, Dr. Lessey Sooklal, Dr. Howard Strong and Mr. Liam Walsh, members of the ad hoc Committee were also in attendance, and at the request of Dr. Adamec, were granted permission to speak if necessary.

Following Dr. Adamec's overview of the Report, both Mr. Newton and Dr. Treslan stated their opposition to the recommendation of the ad hoc Committee that Student #7663263 be re-admitted to the University, expressing concerns regarding the continuity of care and the likelihood of recurrence of past behaviour.

Following lengthy discussion, it was moved by Dr. Adamec, seconded by Dr. Maxwell and carried that the Senate accept the recommendations of the ad hoc Committee and permit Student #7663263 to enroll as an undergraduate student at Memorial University. Permission to enroll as a student is contingent upon the acceptance in writing by Student #7663263 of both the conditions for re-admission and their implementation as provided in the report of the ad hoc Committee and as may be modified by Senate.

It was moved by Mr. Newton and seconded by Ms. Muselius that the words "Memorial University" be deleted from Recommendation #5. in order to ensure that Student #7663263 receives counselling services in any place he may reside. The motion was DEFEATED

The recommendations of the ad hoc Committee including amendments suggested by Senate and amendments suggested by the Executive Committee of Senate in a memorandum to Dr. Adamec dated March 30, 2001, and the implementation of those conditions are as outlined below:

"1. Student #7663263 agrees to attend regularly upon a psychiatrist, at whatever frequency the psychiatrist recommends, but in any event no less frequently than once a month, and agrees to provide written evidence of these visits at least once a month.

2. Student #7663263 agrees to take medication as prescribed, and to undertake mandatory regular and random blood testing.

3. Student #7663263 agrees to attend the Counselling Service of Memorial University at least twice per month for an evaluation and

to follow their recommendation for support and therapy. The counselor will be selected by the President after consulting with Student #7663263 in writing.

4. Student #7663263 agrees not to make any contact of any kind with Regina Bruce, Loretta Thompson, Laverne Gallant or Glenn Collins or members of their families.

5. Student #7663263 agrees to authorize his attending physician to inform the President of Memorial University or his delegate of any deterioration of his mental health during his tenure as a student.

6. During his tenure as a student, and upon request by the President or his delegate, Student #7663263 agrees to disclose details of his clinical and counseling records of illness and matters specifically relating to the conditions of his re-admission and to his compliance with or breach of those conditions.

7. Student #7663263 agrees that when the need arises as a student to make contact with the administration of Memorial University, contact will only be made by telephone or in writing through Maire O'Dea or her delegate. Maire O'Dea will determine in her sole discretion if an in-person contact is necessary. Such in-person contacts will be at a time and place specified by Maire O'Dea or her delegate.

8. Student #7663263 agrees to keep the peace and be of good and acceptable behaviour.

9. Student #7663263 assures that all disclosures by himself to the Senate ad hoc Committee considering his re-admission to Memorial University are accurate and truthful. Should evidence come to light that such is not the case, this will be considered a breach of these conditions of admission.

10. Student #7663263 agrees that any breach of these conditions will be cause for expulsion from Memorial University.

11. Student #7663263 agrees to the procedures for implementation of these conditions for admission."

Procedures for implementation of the eleven conditions for re-admission referred to above and as outlined in the Report of the ad hoc Committee:

"The Committee recommends the following procedures to oversee implementation of the conditions for re-admission. These recommendations are meant to provide a mechanism for fair assessment of putative breaches of the conditions for re-admission.

1. Any individual in the University community in a supervisory capacity to Student #7663263 will be made aware of the fact that Student #7663263 is admitted with conditional status. No further details will be provided.
2. Such individuals will be instructed to report any unusual circumstances surrounding Student #7663263's conduct as a student to the President of Memorial University or his delegate.
3. The President or his delegate will investigate the circumstances of such reports and decide if implementation of informal or formal resolution under the Code of Disciplinary Procedures for Students of Memorial University is warranted. These procedures will be used to determine if violation of the conditions of re-admission has occurred.
4. Nothing in these procedures precludes the University from taking action in response to any complaint regarding Student #7663263 under the Code of Disciplinary Procedures for Students; under University regulations; or that the University is otherwise entitled to take at law.
5. Regina Bruce, Loretta Thompson, Laverne Gallant and Glenn Collins, as well as Campus Enforcement and Patrol, will be advised of the re-admission of Student #7663263 and sent copies of the conditions of his re-admission and implementation procedures. These individuals will also be informed that Campus Enforcement and Patrol has a copy of the conditions of re-admission and implementation procedures.
6. Student #7663263 may be suspended during any investigations into his behaviour by the President. This action may be taken under the authority of University regulations including, but not limited to

Article 7 of the Code of Disciplinary Procedures for Students (Emergency Powers of the President) which reads: The President of the University shall have the right to suspend a student without prior notification, but only in the case where the behaviour of the student is considered by the President to constitute a danger to persons or property or to be hindering a member of the University from enjoying their rights or pursuing their duties within the University."

## 72. MUNSU – Motion Concerning Acceptable Cause for Deferred Examinations

An e-mail message dated March 29, 2001 was received from MUNSU submitting the following motion to Senate requesting that the attendance by students at the Peoples Summit and the demonstrations occurring between April 20 and 24, 2001 in conjunction with the Free Trade Area of the Americas meeting being held in Quebec City be considered acceptable cause for deferred examinations.

"BE IT RESOLVED THAT Senate encourages departments and professors to be flexible, in so far as it is feasible, in making alternative formal arrangements for examination for students attending the summit on these dates, on condition that these students express in writing to the department chair and professor their wish to attend the summit by April 16, 2001."

Following considerable discussion, it was moved by Mr. Walsh, seconded by Mr. Maveneka and carried by a majority vote, that the above motion be approved.

It was noted that in accordance with Regulation S. Regulations for Examinations and Evaluations, students who are requesting deferred examinations are required to provide duly authenticated documentation. In this instance such documentation could be hotel receipts, airline tickets, letter from MUNSU, etc.

## 73. Report of the Senate Committee on Undergraduate Studies

### 73.1 Proposal for Offshore Oil and Gas Option in Engineering Programmes

New Charts:

Table 1. Civil Engineering – Offshore Oil and Gas Option

Term 3	Term 4	Term 5	Term 6	Term 7	Term 8
3610					

Earth Science  
4422

Intro. To Num. Methods  
CS 6705

Strut. Analysis  
7748

Project Planning  
8600

OUGE Project  
3703

Surveying  
4102

Engr. Econ.  
5723

Geotech. I  
6723

Geotech. II  
7706

Finite Elements  
8748

Construction

Planning  
3423

Prob. & Stats.

4312

Mech. Of Solids I  
5312

Mech. Of Solids II  
6740

Contract Law  
7704

Steel Design  
CE Elective  
3844

Basic Elec. Comp. & Sys.  
4322

Thermal Science  
5713

Fluids  
6101

Assess. Of Tech.  
7601

Geo. App. In

Offshore Engr.  
OOGE Elective  
3731

CE Materials  
4717

Env. Sci/Engr.  
5706

Concrete  
6601



Intro. Offshore

Pet. Engr.

OOGE Elective    OOGE Elective

4708

CE Systems

5434

App. Analysis

OOGE Elective

NOTE: Bold and OOGE slots are courses from the Offshore Oil and Gas Engineering Option

Table 2. Computer Engineering – Offshore Oil and Gas Engineering Option

Term 3	Term 4	Term 5	Term 6	Term 7	Term 8
3821					

Circuit Analysis

4823

Systems &

Signals 1

5825

Control Systems I

6871

Communication

Principles

7893

Software Engr.

8600

OUGE Project  
3422

Discrete Math  
4102

Engr. Econ.  
5824

Systems &

Signals II  
6806

Project Design

Lab.  
7863

Operating Sys. &

File Org.  
8879

Digital

Communi-

cations  
3423

Prob. & Stats.  
4423

Num. Methods for

EE  
5865

Digital Systems  
6895

Software Design  
78XX

Computer Engr.

Elective  
CS\*  
3891

Adv. Prog.  
4892

Data Structures  
5891

Design and Anal.

of Algorithms  
6876

Voice & Data

Communication  
7680

Supervisory

Control & Data

Acquisition  
8690

Process Control

& Instr.  
3861

Digital Logic  
4862

Microprocessors  
5863

Computer Arch.  
6101

Assess. Of Tech.  
7601

Geo. App. In

Offshore Engr.  
OOGE Elective  
4854

Electronic

Devices & Circ.  
5854

Analog

Electronics  
6601

Intro. Offshore

Pet. Engr.

NOTES: Bold and OOGE slots are courses from the Offshore Oil and Gas Engineering Option

\* The selection of the complementary studies course in term 8 conforms to the regulations for the selection of the complementary studies course in term 5.

Table 3. Electrical Engineering – Offshore Oil and Gas Engineering Option

Term 3	Term 4	Term 5	Term 6	Term 7	Term 8
3821					

Circuit Analysis  
4823

Systems &

Signals I  
5825

Control Systems I  
6871

Communication

Principles  
7858

Industrial Control

& Instr.  
8600

OUGE Project  
3422

Discrete Math  
4102

Engr. Econ.  
5824

Systems &

Signals II  
6806

Project Design

Lab.  
4322

Thermal Sciences  
8826

Filters

3423

Prob. & Stats.

4423

Num. Methods for

EE

5842

Electromech.

Devices

6843

Rotating

Machines

7844

Power System

Analysis

CS\*

3891

Adv. Prog.

4892

Data Structures

5432

Adv. Calculus

6813

Electromagnetic

Fields

7680

Supervisory

Control & Data

Acquisition  
8680

Process Control

& Instr.  
3861

Digital Logic  
4862

Microprocessors  
5812

Basic

Electromagnetics  
6101

Assess. Of Tech.  
7601

Geo. App. In

Offshore Engr.  
OOGE Elective  
4854

Electronic

Devices & Circ.  
5854

Analog

Electronics  
6601

Intro. Offshore

Pet. Engr.

NOTES: Bold and OUGE slots are courses from the Offshore Oil and Gas Engineering Option

\* The selection of the complementary studies course in term 8 conforms to the regulations for the selection of the complementary studies course in term 5.

Table 4. Mechanical Engineering – Offshore Oil and Gas Engineering Option

Term 3	Term 4	Term 5	Term 6	Term 7	Term 8
3933					

Mech. & Mach.  
4933

Elec./Mech. Sys.  
CS 3423

Prob. & Stats.  
7936

Mech. Proj. I  
8600

OUGE Project  
3205

Chem. and Phys.

Of Materials II  
4102

Engr. Econ.  
5913

Fluids II  
6925

Aut Control Engr.



7901

Heat Transfer II  
8903

Mechanical

Systems  
3941

Prod. Tech.  
4312

Mech. Of Solids I  
5312

Mech. Of Solids II  
6901

Heat Transfer  
7903

Mechanical

Equipment  
OOGE Elective  
3844

Basic Elec. Comp.

& Sys.  
4422

Intro. To Num.

Methods  
5435

Adv. Calculus  
6101

Assess. Of Tech.

7601

Geo. App. In

Offshore Engr.  
OOGE Elective  
3901

Thermo. I  
4901

Thermo. II  
5926

Mech. Comp.

Design I  
6926

Mech. Comp.

Design II  
OOGE Elective    OOGE Elective  
4913

Fluid Mech I  
5932

Mech. Vibrations  
6601

Intro. Offshore

Pet. Engr.

NOTE: Bold and OOGE slots are courses from the Offshore Oil and Gas Engineering Option

Table 5. Ocean and Naval Architectural Engineering – Offshore Oil and Gas Engineering Option

Term 3	Term 4	Term 5	Term 6	Term 7	Term 8
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3054

Ocean Engr.

Hydrostatics

4061

Mar. Prod. and

Engr. Man.

CS 6002

Ship Hull Strength

7002

Ship Struct. Anal.

& Design

8600

OOGE Project

3205

Chem. and Phys.

Of Materials II

4102

Engr. Econ.

5011

Res. and Prop.

6925

Aut. Control Engr.

7033

Marine

Hydrodynamics

Phys. 4300

Adv. Phys.

Oceanography  
3423

Prob. & Stats.  
4312

Mech. Of Solids I  
5312

Mech. Of Solids II  
6005

Float. Ocean

Struct. Design  
7034

Dyn. and Hydro.

Of Ocean Veh.  
8058

Submersibles

Design  
3844

Basic Elec. Comp.

& Sys.  
4422

Intro. To Num.

Methods  
5435

Adv. Calculus  
6101

Assess. Of Tech.  
7052

Ocean Systems

Design  
OOGE Elective  
3901

Thermo. I  
4901

Thermo. II  
5926

Mech. Comp.

Design I  
6045

Mar. Eng.

Systems  
7601

Geo. App. In

Offshore Engr.  
OOGE Elective  
4913

Fluid Mech. I  
5932

Mech. Vibrations  
6601

Intro. Offshore

Pet. Engr.

NOTE: Bold and OUGE slots are courses from the Offshore Oil and Gas Engineering Option

#### Common Courses

6601 Introduction to Offshore Petroleum Engineering

7601 Geosciences Applied in Offshore Engineering

8600 Offshore Oil and Gas Engineering Project

#### Electives

7602 Subsea Engineering

7603 Ocean Ice Engineering

7680 Supervisory Control and Data Acquisition

8680 Process Control and Instrumentation

8670 Reliability Engineering

8671 Safety and Risk Engineering

8672 Environmental Aspects of Offshore Oil Development

8673 Subsea Geotechnical Engineering

8674 Design for the Ocean and Ice Environments

8675 Offshore Structures and Materials

8690 Reservoir Engineering

8691 Petroleum Production Engineering

8692 Drilling Engineering for Petroleum Exploration and Production

8693 Petroleum Facilities Engineering

## 8694 Downstream Processing

### New Courses

6601. Introduction to Offshore Petroleum Engineering. Introduction to the offshore oil and gas engineering industry; the harsh environment; types of platforms and structures; the field surveying process; and exploration phase of offshore oil development. An introduction to petroleum fluids, equipment and processes. Composition and physical properties of liquid and gaseous petroleum fluids. Production drilling and completion methods and equipment. Producing mechanisms. Separation and compression processes and equipment. Instrumentation and control systems. Transportation systems. Refinery processes.

Instructional hours per week: 3 lecture hours.

7601. Geosciences Applied in Offshore Engineering. An introductory course related to the effect of marine sedimentary environments on engineering applications. The course introduces basic concepts in geology and geophysics of the offshore environment. Sediments are studied with special reference to seismic and acoustic methods to remotely determine their mechanical properties. Specific geological hazards (earthquakes, tsunami, turbidity currents, shallow gas, gas hydrates) are assessed in terms of the sediment location and mechanical strength. Examples are drawn from case histories on the Newfoundland Shelf and Slope.

Instructional hours per week: 3 lecture hours.

7602. Subsea Engineering. Introduction to subsea oil and gas industry technology and engineering. Topics include design/analysis of risers and umbilicals, flowlines (steel and flexible), tree and wellhead systems, manifold systems, tie-in and connection systems, fabrication and installation of subsea systems, inspection and maintenance, including applications of underwater vehicles.

Instructional hours per week: 3 lecture hours.

7603. Ocean Ice Engineering. The physical characteristics of the environment are introduced in terms of ice types, coverage and dynamics, morphology, mechanical properties, and variations. Design and technology features of icebreaking and ice-going ships, navigation strategies and operations, strength, ice resistance, propulsion and model testing techniques for performance evaluation are covered. Offshore structures are considered in terms of design loads, strength, ice detection, management, and avoidance.

Instructional hours per week: 3 lecture hours.

7680. Supervisory Control and Data Acquisition. Data acquisition and intelligent field devices; distributed systems and field bus technology; programmable logic controllers and programming standards; operator control interface; supervisory control and data acquisition; enterprise organization. Relevant laboratory exercises.

Instructional hours per week: 3 lecture hours; 2 laboratory hours.

8600. Offshore Oil and Gas Engineering Project. A multidisciplinary design project that illustrates the application of previous engineering science and design related courses. Projects will be done by teams of students with individuals concentrating their participation in their own engineering discipline. The project topic will be from the offshore oil and gas engineering industry. Lectures will be scheduled as required.

Instructional hours per week: 1 lecture hour; 6 laboratory hours.

8670. Reliability Engineering. Introduction to reliability engineering; Physics of failure and failure mechanisms; Reliability measures and assessment; Reliability of components and parts; Complex System Reliability and Availability Analysis; Field Reliability Assessment; Case Studies and Project.

Instructional hours per week: 3 lecture hours; 2 laboratory hours.

8671. Safety and Risk Engineering. Overview of safety and risk issues in the offshore oil and gas industry; Regulatory requirements; Hazards and structured analysis tools; Risk



Terminology and Quantified risk analysis (QRA) techniques; and Safety assessment studies; Project and case studies.

Instructional hours per week: 3 lecture hours; 2 laboratory hours.

8672. Environmental Aspects of Offshore Oil Development. Overview of offshore oil drilling operations; International and Canadian regulatory requirements for discharges; waste management; On and offshore treatment technologies; Physical fate of contaminants in marine environment; chemical selection; Oil spill response; Acute and Chronic effects of pollutants on marine habitats; environmental protection plans; environmental effects monitoring; baseline characterization; Ecological risk assessment; Methodology for assessing impacts; Life cycle value assessment methodology.

Instructional hours per week: 3 lecture hours; 2 laboratory hours.

8673. Subsea Geotechnical Engineering. Overview of in-situ soil testing methods, geophysical and acoustic surveys for subsea investigations. Elements of soil behavior under cyclic loads, including liquefaction and cyclic mobility. Pipeline design in ice-scoured seabeds. API and other code requirements. Review of existing foundation systems including recent case studies. New foundation systems including drag anchors and suction caissons.

Instructional hours per week: 3 lecture hours; 2 laboratory hours.

8674. Design for the Ocean and Ice Environments. Outline of the ocean environment, with special focus on the offshore regions of Canada; wind, current, wave and ice conditions; probabilistic analysis of environmental forces; analysis of extreme events; mechanics of interactions for the various environmental forces; determination of design loads using mechanics and probabilistic methodology; load combinations; effects of extreme temperatures; superstructure icing; fog impacts.

Instructional hours per week: 3 lecture hours.

8675. Offshore Structures and Materials. Factors that influence the choice of offshore structures; structures used in oil and gas exploration, exploitation, transportation and inspection; influence

of ocean environment on material and factors that govern their selection; conventional and new materials used in offshore structures.

Instructional hours per week: 3 lecture hours.

8680. Process Control and Instrumentation. Measurement of pressure, level, flow and temperature; safety valves and safety relief devices; calibration; process analyzer and sample handling systems; instrumentation in hazardous locations; control system safety and reliability; feedback systems; control systems simulation; control examples. Relevant laboratory exercises.

Instructional hours per week: 3 lecture hours; 2 laboratory hours.

8690. Reservoir Engineering. Fluid pressure regimes, oil recovery factors, calculation of hydrocarbon volumes, reservoir rock characteristics, reservoir fluid properties, porosity and permeability, material balance, well test analysis.

Instructional hours per week: 3 lecture hours.

8691. Petroleum Production Engineering. Procedures and equipment necessary for preparing a well to produce hydrocarbons and maximizing flow rate during the life of the well. Well completion configurations, tubulars, packers and subsurface flow control devices, completion and workover fluids, perforating oil and gas wells, formation damage, surfactants for well treatment, hydraulic fracturing, acidizing, scale deposition, removal, prevention, workover and completion rigs, and artificial lift.

Instructional hours per week: 3 lecture hours.

8692. Drilling Engineering for Petroleum Exploration and Production. The course covers both offshore and onshore drilling operations and includes: rotary drilling rig operations, well construction sequence, drill string, drill bits, wellbore hydraulics, casing and wellheads, cementing, well control, directional and horizontal drilling, well planning and fishing operations, and extended reach, horizontal and multi-lateral well drilling techniques.

Instructional hours per week: 3 lecture hours.

8693. Petroleum Facilities Engineering. Design of oil and gas field separation and treatment facilities: principles of facilities engineering, pressure vessel design, piping systems, oil, gas and water separation, heaters and treating systems, valves, pumps, hydrates, heat exchange units and indirect fired heaters, gas treatment, facilities optimization, and de-bottle necking.

Instructional hours per week: 3 lecture hours.

8694. Downstream Processing. The course content includes: oil and natural gas processing; oil and gas storage facilities and their design; oil and gas separation processes; petroleum refining processes; and an overview of petrochemical industries.

Instructional hours per week: 3 lecture hours.

### 73.2 School of Nursing

Page 346, following the heading Course List, amend the prerequisites for Nursing 2520 as follows:

"Prerequisites: N2001/N2501 and N2011/N2511."

### 73.3 Faculty of Arts

A memorandum dated March 20, 2001 was received from the Senate Committee on Undergraduate Studies forwarding a proposal from the Faculty of Arts for a new course – Arts 1200. Learning Across Disciplines. This course is to be offered as part of "The Scholarship of Learning" project, a pilot programme in retention supported by a \$550,000 grant from the McConnell Foundation. "The Scholarship of Learning" is a learning community which involves pairing two required courses and linking them to a third learning seminar course. Arts 1200 is the learning seminar course consisting of an active examination of the process of learning and teaching in which students, their instructors and the learning seminar leader are engaged. Perceived benefits anticipated for students are not only improved performance in the two first-year courses taken in common, but also in other courses because of a better approach to learning in general. Benefits to instructors, who

will participate in an active reflection on their teaching, will be new approaches to teaching and a new appreciation of the learning process in which their students are involved.

The Senate Committee on Undergraduate Studies strongly endorsed the proposal recognizing that, in addition to allowing students to gain greater self-knowledge and skill in directing their own learning process across a range of situations and disciplines, the availability of this course (complemented by the existing course UCC 2020) will provide both students and faculty in the linked courses an opportunity for shared inquiry and increased interaction.

While this course was initially developed as a cross-listed course in Arts and Science, the Faculty of Science did not approve this proposal for a cross-listed course. However, it has indicated its willingness to participate in the development and offering of the new course.

#### New Course

1200. Learning Across Disciplines. A learning seminar in which students and faculty use discussion, reciprocal feedback and co-investigation techniques to enhance the teaching and learning process in co-requisite courses.

Prerequisites/Co-requisites: two selected regular courses.

#### 73.4 New Diploma Programme in Geographic Information Science

Page 141, following the heading Diploma Programmes Offered in the Faculty of Arts, and immediately following the entry for the Diploma in English as a Second Language, insert the following:

"Diploma in Geographic Information Sciences

Programme Coordinator: Dr. E. L. Simms, Department of Geography

The Diploma Programme is offered by the Department of Geography to students registered in a Bachelor of Arts (Honours or General) or in a Bachelor of Science (Honours or General) programme at Memorial University. The diploma programme is also offered to students who have completed a Bachelor of Arts or

Bachelor of Science at Memorial University or another recognized university. The Diploma in Geographic Information Sciences is of interest to students from a broad range of backgrounds. It is a valuable complement to social and natural sciences programmes such as anthropology, biology, computer sciences, earth sciences, history, economics, engineering, health and medicine, physical oceanography, environmental sciences and environmental studies. The fields of remote sensing, GIS and cartography provide the most effective methods of gathering, managing, analyzing and representing geographical information. Remote sensing data (aerial photographs and satellite images) provide a synoptic view of the cultural and physical landscapes. Examples of the application of remote sensing include the monitoring of spatial changes, environmental quality evaluation, natural resources exploration, assessment and monitoring, and archaeological site assessment. Geographical information systems enables the compilation, organization and processing of spatial (maps) and non-spatial (text, statistics, graphs) data. Socio-economic, political and environmental management decision-making is supported by the results of GIS analyses and modelling. Cartography involves the compilation, organization and visual representation of spatial information. A variety of geographical information can effectively be communicated through cartography.

### Admission Requirements

Admission to the Diploma in Geographical Information Sciences is limited and competitive. Students are advised to notify the programme coordinator of their intention to apply for admission into this programme. Students who wish to enter this programme must apply through the Registrar's Office, by April 1 for Fall Semester registration and by October 15 for Winter Semester registration.

To be considered for admission to the Diploma in Geographical Information Sciences, students will normally have completed 24 credit hours, including the courses listed in a) and b), with an overall average of at least 65%.

a) Geography 1010 and 1011, or Geography 1000 and 1001;

b) Mathematics 1000, or Mathematics 1090 and 1000, or Mathematics 1050 and 1051

Students who fulfill the eligibility requirements compete for a limited number of available spaces. Selection is based on academic performance.

### Programme of Study

Students are required to complete a minimum of 30 credit hours of courses as listed below.

Note: the course Geography 2220 (Statistics 2500 or 2510), Mathematics 2050 and Computer Science 1700 are prerequisites to some of the third and fourth year courses required for the diploma.

### Course List

Geography 2195 Introduction to Maps: Cartography, Remote Sensing and Geographic Information Systems.

Geography 2200 Introduction to Thematic Cartography.

Geography 3200 Graphic Design in Cartography.

Geography 3250 Introduction to Remote Sensing.

Geography 3260 Introduction to Geographic Information Systems.

Geography 4200 Applied Design in Cartography.

Geography 4250 Environmental Image Analysis.

Geography 4261 Advanced Techniques in Geographic Information Systems.

Geography 4290 Geographic Mapping Techniques Practicum.

Geography 4919 Integrative Practicum in Geographic Information Sciences (Special Topics Course)

### New Course

4919. Integrative Practicum in Geographic Information Sciences. Applied or research project integrating aspects of cartography, geographical information systems and remote sensing. Students will have access to the remote sensing and GIS laboratory and MUNCL to complete their project. This is the capstone course for the students registered in the Geographic Information Sciences diploma programme. It will involve the knowledge and experiences acquired over the years in the programme.

Six hours per week or a total of 72 hours of individual research or laboratory work.

Prerequisites/Corequisites: Geography 4200, 4250, 4261, and to be enrolled in the Diploma in Geographic Information Sciences.

Page 168, following the heading Course Descriptions, delete the entry for Geography 4290 in its entirety and replace with the following:

"4290. Geographic Mapping Techniques Practicum. Practical experience with the geographic information sciences fields of cartography, remote sensing or geographical information systems. Students will serve as interns in governmental, institutional or private agencies, or in non-profit organizations.

Six hours per week or a total of 72 hours of research or laboratory work.

Prerequisites/Corequisites: Geography 4200, 4250, 4261, and to be enrolled in the Diploma in Geographic Information Sciences."

Dr. Mulligan indicated his support for this programme and requested that it be specifically referenced in the Science section of the Calendar.

Dr. Ashton advised Senate that Sir Wilfred Grenfell College, recognizing the importance of Geographic Information Sciences in the environmental field, will seek to move forward in this area for the same reasons.

### 73.5 Calendar Changes Resulting from Recognition of Caribbean Advanced Proficiency Examination (CAPE)

Insert the following after the heading Admission/Re-Admission to the University (Undergraduate), Section 5, Transfer Credit, subheading 5.7:

"Caribbean Advanced Proficiency Exams:

Memorial University may recognize for transfer credit certain courses completed through the Caribbean Advanced Proficiency Examinations. These examinations will generally be accepted for credit to a maximum of 12 credit hours for each 2 unit course and 6 credit hours for each 1 unit course. Credit will be considered on an individual basis and will be subject to Department Evaluation."

### 73.6 Department of English Language and Literature

Page 154, following the heading Course List, insert the following:

"3840 – 3870 Special Topics"

### 73.7 Faculty of Business

Page 414, following the heading Business Electives, amend the prerequisites for Business 7110 to read as follows:

"Prerequisites: Business 6100, Business 6110, Business 6120, and Business 6130."

### 73.8 Sir Wilfred Grenfell College

Page 103, following the heading History, delete the prerequisite for History 1101 in its entirety.

Page 84, following the heading Specialization in Historical Studies, subheading Degree Regulations, insert the following courses into clause 2.B) as follows:

History 2120. The History of Canadian–American Relations, 1783 to the Present.



History 2500. The Twentieth Century, 1.

(See page 175)

History 3490. History of Ireland since the Great Famine.

Insert the following courses into clause 3) as follows:

"History 4410–4430. Historical Problems. Specialized studies in historical problems.

History 4560–4570. Special Topics in Social and Intellectual History. Specialized studies in social and intellectual history.

Page 103, following the heading History, insert the following courses:

2500. The Twentieth Century, 1. A study of the world-wide impact of the main events and developments in the age of global interdependence.

NOTE: Credit may not be obtained for both History 2500 and the former History 3700.

3490. History of Ireland since the Great Famine. A survey of Irish History from the mid-nineteenth century to the present.

NOTE: Credit may not be obtained for both History 3490 and the former History 3470.

4410–4430. Historical Problems. Specialized studies in historical problems.

4560–4570. Special Topics in Social and Intellectual History. Specialized studies in social and intellectual history.

73.9 School of Physical Education, Recreation and Athletics

A memorandum dated February 8, 2001 was received from the School of Physical Education, Recreation and Athletics requesting that the name of the School be changed to "School of Human Kinetics and Recreation".

It was moved by Professor Walsh, seconded by Dr. Higgs and carried that this proposal be forwarded to the Board of Regents for approval.

#### 74. Report of the Committee on Committees

On behalf of the Committee on Committees, Dr. Saha presented the Report of the Committee on Committees and moved that appointments to standing and ad hoc committees recommended by the Committee be approved. The motion was seconded by Dr. Brosnan.

Dr. Gosine questioned the re-appointed two current members of the University Planning and Budget Committee whose terms of office expire on August 30, 2001.

Dr. Saha responded that the University Planning and Budget Committee is a new Committee and the members for whom the Committee on Committees is recommending re-appointment have only been on the Committee for one year. The Committee has a lot of work in progress which needs to be completed and the Committee on Committees decided it would be helpful if the Committee members were asked to continue.

Dr. Gosine then questioned whether the Committee on Committee set aside the terms of reference for the Committee, noting that clause 2(b) states that "... The list of recommended committee members shall be accompanied by a statement of the number of candidates who volunteered or were nominated, including the number who are not being recommended by the Committee on Committees for appointment to a Senate committee."

Further, clause 3(c) states "... Normally, no academic staff member will serve on more than one standing committee at a time" while at least two members of the University Planning and Budget Committee are serving on other standing committees.

It was moved by Dr. Adamec, seconded by Dr. Gosine and carried that the motion to approve the slate of appointments be tabled until the May meeting of Senate.

It was agreed that membership on Committees where terms of office expire on April 30, 2001, be extended for one month to May 31, 2001.

#### 75. Report of the Committee on Honorary Degrees and Ceremonial

Senate then moved to an in-camera session for this item of business.

A memorandum dated April 4, 2001, was received from the Committee on Honorary Degrees and Ceremonial advising that at a meeting held on March 22, 2001, it was noted that the terms of office of the incumbents holding the office of Public Orator, Professor Shane O'Dea, and Deputy Public Orator, Dr. Annette Staveley, expire on April 30, 2001. While reviewing the Procedures for the appointment of Public Orator and Deputy Public Orator, the Committee noted that these procedures may require some revisions in order to make them current. Since it will take some time for the Committee to conduct such a review and make recommendations to Senate, it is recommended that the terms of office for both incumbents be extended to October 31, 2001. The Committee noted that obviously this is not a reflection of the performance of either incumbent, indeed quite the contrary. This extension is recommended with a view to preserving the unique and admirable character that these officers and their colleagues have brought to Memorial's Convocation ceremonies and thankfully, both individuals have agreed to the extension which Senate is asked to approve at its April 11, 2001 meeting.

It was moved by Mr. Collins, seconded by Dr. Sharpe and carried, that the terms of office of Professor O'Dea and Dr. Annette Staveley be extended to October 31, 2001.

#### 76. Deferred Items

It was agreed to defer consideration of the Report of the Academic Council of Graduate studies, which consisted of one item, i.e. Changes to the Computational Science Programme, until the May meeting.

It was also agreed that the special meeting which had been scheduled to follow this meeting, be deferred until the May meeting.

#### 77. ADJOURNMENT

The meeting adjourned at 6:00 p.m.