

MEMORIAL UNIVERSITY OF NEWFOUNDLAND  
SENATE

The regular meeting of Senate was held on February 12, 2013 at 4:00 p.m. in the Lecture Theatre in the Physical Education Building, Room 2001.

56. PRESENT

The President, Dr. D. Wardlaw, Mr. G. Blackwood, Dr. M. Abrahams, Mr. B. Belbin, Ms. L. Busby, Ms. S. Cleyle, Dr. N. Golfman, Dr. L. Hensman, Dr. S. LeFort, Dr. S. MacKinnon, Dr. J. McFetridge-Durdle, Dr. G. Naterer, Dr. L. Phillips, Dr. J. Rourke, Ms. S. Singleton, Dr. E. Waterman, Dr. W. Zerbe, Dr. S. Abhyankar, Dr. F. Basset, Dr. P. Brett, Dr. S. Carr, Dr. J. Connor, Dr. S. Corbin-Dwyer, Dr. J. Doré, Dr. G. Farrell, Dr. A. Fiech, Dr. A. Fisher, Dr. K. Gallagher, Dr. G. George, Dr. S. Ghazala, Dr. R. Helleur, Dr. D. Kelly, Dr. S. Mulay, Dr. M. Mulligan, Dr. W. Okshevsky, Dr. J. Parsons, Mr. B. Riggs, Professor G. Riser, Dr. W. Schipper, Dr. C. Sharpe, Professor D. Walsh, Dr. M. Wernerheim, Dr. P. Wilson, Mr. J. Donnelly, Ms. M. Fitzsimmons, Mr. H. Sleem, Mr. W. Brownlee, Mr. D. Campbell, Ms. K. Carroll, Ms. L. George, Ms. L. Murphy, Ms. C. Simms, Mr. J. Van Wijk.

Attending by invitation:

Dr. Ken Snelgrove, Chair, Committee on Course Evaluations, and Ms. Sharon Pippy, Centre for Institutional Analysis and Planning, regarding item 65 below.

57. APOLOGIES FOR ABSENCE

Apologies were received from Dr. S. Knight, Dr. C. Loomis, Dr. M. Bluehardt, Dr. D. Hardy Cox, Dr. C. Couturier, Dr. D. Kimberley, Dr. S. Kocabiyik, Dr. J. Lokash, Dr. D. McKay, Dr. A. Rose.

58. MINUTES

It was moved by Dr. George, seconded by Ms. Simms, and carried that the Minutes of the regular meeting held on January 8, 2013 be taken as read and confirmed.

CONSENT AGENDA

It was moved by Mr. Riggs, seconded by Dr. Golfman, and carried that the consent agenda, comprising the items listed in 59 to 60 below, be approved as follows:

59. REPORT OF THE SENATE COMMITTEE ON UNDERGRADUATE STUDIES

59.1 Communication Studies Major Program

Page 106, 2012-2013 Calendar, under the heading 9.6 Communication Studies, subheading 9.6.1.3 Elective Courses, **List A**, insert a new course to read as follows:

“Communication Studies 4001: Seminar in Mass Communication”

Communication Studies Major Program (cont'd)

Page 143, 2012-2013 Calendar, under the heading 10.6 Communication Studies, insert a new course “CMST 4001 Seminar in Mass Communication and Visual Culture” to read as follows:

“**4001 Seminar in Mass Communication and Visual Culture** examines the ways visual culture shapes and is shaped by communication forms and processes.”

59.2 Faculty of Engineering and Applied Science

Page 243, 2012-2013 Calendar, under the heading 6 Promotion Regulations, amend subheading 6.3.2 Probationary Promotion to read as follows:

“**6.3.2 Probationary Promotion**

A student who is not eligible for Clear Promotion from an academic semester but who achieves a promotion average of at least 60% in that term will be granted Probationary Promotion.

1. A student’s Probationary Promotion status will be reflected on the University Transcript under the Promotion Average for the semester.
2. A student with Probationary Promotion from an academic term may continue to the subsequent work term under the condition that entry into the next academic term is not allowed until the student’s status is changed to Clear Promotion.
3. A student with Probationary Promotion at the end of the final academic term will not be recommended for graduation until the student’s status is changed to Clear Promotion.
4. To change Probationary Promotion to Clear Promotion for a semester the student must satisfy the Faculty that he or she is competent in the subject of any ENGI course(s) in which the student has failed to achieve 50%. This will normally entail re-examination(s) prescribed by the faculty as a condition of probation, after which the student will be declared to have passed or failed a test of competency in the subject(s) concerned. No numerical grade will be assigned in a re-examination. Upon passing a re-examination, the original grade submitted for the course will be changed to PAS, but the promotion average will not change and a note of the original grade will remain on the transcript.
5. Re-examination will be at a time determined by the Faculty, normally in the first week of the subsequent academic semester. A re-examination is cumulative in nature, covers the entire course and, as such, may be different in scope from the original final examination for that course.
6. In order to qualify for a re-examination in a failed ENGI course, a student must obtain a grade of at least 40% in that course and must have completed any laboratory and/or project work in that course. Re-examinations are not normally available for senior project courses or for other courses in which the final examination is worth less than 40% of the grade.

Faculty of Engineering and Applied Science (cont'd)

7. A student will be permitted to write a maximum of four re-examinations for the duration of his/her program.
8. To change Probationary Promotion to Clear Promotion for a semester the student must repeat successfully any non-ENGI course(s) which count towards the promotion average and in which the student has failed to achieve 50%.
9. A student may apply for a deferred re-examination on a similar basis to the deferral of a final examination.
10. A student with Probationary Promotion who does not complete a prescribed re-examination will be deemed to have failed that re-examination. Upon failing a prescribed re-examination the original course grade will be retained and a comment confirming failure of the re-examination will be added to the transcript.
11. A student with Probationary Promotion who fails in the re-examination(s) or who does not qualify for the re-examination(s) must repeat the corresponding failed course(s) successfully in order to change the Probationary Promotion to Clear Promotion.
12. A student with Probationary Promotion from any of Terms 3 to 7 who does not meet the requirements for Clear Promotion by the end of the registration period for the subsequent academic term must withdraw from the program. Permission to register for ENGI courses to be repeated may be subject to the approval of the Faculty. Such students may apply for readmission to the Bachelor of Engineering program when they have satisfied the requirements for Clear Promotion.”

59.3 School of Human Kinetics and Recreation

Page 326, 2012-2013 Calendar, under the heading 4.2 Application Forms and Deadlines, delete clause 4 and renumber remaining clauses appropriately. Under the same heading, in the newly number clause 4, delete the phrase “an autobiographical statement” from the second sentence. Finally, under the same heading, in the newly numbered clause 5, insert a new bullet, to be the first bullet, which reads as follows:

“submit a 250 word autobiographical statement highlighting your experiences of teaching and learning and demonstrating a commitment to leading a physically active lifestyle. Please see the School’s website at [www.mun.ca/hkr](http://www.mun.ca/hkr) for further tips, and”

Page 327, 2012-2013 Calendar, under the heading 4.3.2 Memorial University of Newfoundland Applicants, amend section to read as follows:

**“4.3.2 Memorial University of Newfoundland Applicants**

- To be eligible for consideration for admission to all programs, students who are attending or have previously attended this University must have a cumulative average of 60% or an average of 65% on their last 30 credit hours.

School of Human Kinetics and Recreation (cont'd)

- Overall academic performance is an important criterion in reaching decisions on applications for admission, and will be considered, in the selection process.
- In addition to overall academic achievement and evidence of ability to successfully maintain a full course load, admission decisions shall normally include a review of the applicant's average in the following 15 credit hours:
  - ▶ For Kinesiology and Physical Education applicants: 6 credit hours in English; 6 credit hours in Math, or Math 1000 and 3 credit hours in an elective; and HKR 2000 or an elective.
  - ▶ For Recreation applicants: 6 credit hours in English; 6 credit hours in Psychology; and HKR 2000 or an elective.
  - ▶ Please note that a maximum of one repeated course may be included among these 15 admission credit hours.
- Applicants to the non co-operative Bachelor of Recreation degree program must have at least two years of relevant work experience, or equivalent, that is deemed acceptable by the Admissions Committee of the School of Human Kinetics & Recreation.
- Students who are attending or have previously attended this University are not required to submit a copy of their transcript with their application(s).”

59.4 School of Nursing

Page 406, 2012-2013 Calendar, under the heading 10 Course Descriptions, delete the course description for “3023 Counselling” and replace with the following:

“**3023 Counselling** focuses on the counselling role of the nurse, building on the communication skills needed for a therapeutic relationship. Gerard Egan’s model of helping is integral to the course. In the lab component of the course and in the course assignments, students have the opportunity to practice counselling skills to enhance their ability to counsel clients in a variety of nursing contexts.

PR: acceptance into the Bachelor of Nursing (Post-RN) program, NURS 2230 or NURS 2700 or admission to the Bachelor of Technology Program or admission to the Bachelor of Nursing (Post-RN) Primary Health Care Nurse Practitioner Option

LH: 14 hours during the semester.”

59.5 Department of Earth Sciences

Page 457, 2012-2013 Calendar, under the heading 7.5.3 Minor in Earth Sciences, amend section to read as follows:

“**7.5.3 Minor in Earth Sciences**

A Minor in Earth Sciences will consist of the following:

1. Earth Sciences 1000 and 1002.
2. Eighteen credit hours chosen from Earth Sciences courses at the 2000 level or higher with at least 5 credit hours from courses at the 2000 level. Credit hours from Earth Sciences 2150, 2311, 2914, 2915, 2916, 2917, 2918, 4310 and 4950 cannot be used to fulfil this requirement.

Department of Earth Sciences (cont'd)

Due to the prerequisite structure, availability of courses at the 3000 level and higher depends on courses taken at the 2000 level (see Undergraduate Handbook for some options).”

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, delete “2702” from the CO (Co-requisite) section of the Calendar description in the course “3705 Field Course in Sedimentology, Reservoir Architecture and Sequence Stratigraphy.”

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, amend the course title and description of “3170 Exploration Geophysics I” to read as follows:

**“3170 Seismic and Potential Fields Methods in Geophysics (W)** examines fundamentals of seismic energy transmission in the Earth; basic methods in seismic exploration - data acquisition, processing and interpretation for refraction and reflection surveys; fundamentals of gravity and magnetic data acquisition, processing and interpretation; introduction to gravity and magnetic modelling.

LH: 3

PR: Physics 1051 (or 1021); Mathematics 1001; Mathematics 2000 or Statistics 2510 or Statistics 2550; EASC 2905 or permission of the Head of the Department for students following a Minor in Earth Sciences or a Major in Environmental Physics.”

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, amend the course title and description of “3172 Exploration Geophysics II” to read as follows:

**“3172 Electric and Electromagnetic Methods in Geophysics (F)** is an introduction to electrical and electromagnetic methods in geophysics applied in mineral exploration, petroleum well logging and environmental studies, and examples of application of various techniques; use of data processing and modelling techniques in interpretation; introduction to radiometric methods used in mineral and petroleum exploration. The laboratory component involves outdoor surveys using geophysical equipment, and computer-based presentation and analysis of collected data using modern geophysical software.

CO: EASC 2905 or permission of the Head of the Department

LH: 3

PR: Physics 1051 (or 1021); Mathematics 1001; Mathematics 2000 or Statistics 2510 or Statistics 2550; EASC 2905 or permission of the Head of the Department for students following a Minor in Earth Sciences or a Major in Environmental Physics.”

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, amend the course title and description of “3179 Geophysical Analysis” to read as follows:

**“3179 Mathematical Methods for Geophysics** covers subjects required for quantitative analysis of geophysical phenomena. Vector calculus with emphasis on integral theorems is covered in the context of Maxwell's equations; Derivations and solutions of ordinary and partial differential equations with emphasis on hyperbolic, parabolic and elliptic equations in the context of the wave, heat, and potential-field equations, respectively; tensor

Department of Earth Sciences (cont'd)

algebra and analysis in the context of theory of elasticity and electromagnetism; Fourier analysis as a tool for solution of differential equations and signal analysis. The course may also include such topics as the calculus of variations, curvilinear coordinates on differentiable manifolds, differentiation in the sense of distributions.

LH: 3

PR: Mathematics 2000, Physics 2055 and 2820”

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, amend the course title and description of “4105 High resolution Geophysics” to read as follows:

**“4105 Field Course in Applied Geophysics** is a field based course with an emphasis on environmental and mineral exploration applications. It consists of a data collection module normally offered during a special session immediately before the Fall semester, followed by a processing and interpretation module during the first part of the Fall semester. Field techniques used may include ground probing radar, refraction seismology, magnetic surveying, gravimetry, electrical and electro-magnetic methods. For computer based processing, students make use of modern mapping and geophysical software.

AR: attendance required

OR: field-based course

PR: EASC 3170, 3172 and 3179”

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, amend the course title of “4171 Exploration Geophysics III” to read as follows:

**“4171 Advanced Seismology”**

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, amend the course title of “4173 Exploration Geophysics IV” to read **“4173 Advanced Electrical, Electromagnetic and Potential Fields Methods,”** and amend the PR (Prerequisite) section to read as follows:

“PR: EASC 3170, 3172 and 4179”

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, amend the PR (Prerequisite) section of “4610 Hydrogeology” to read as follows:

“PR: Physics 1051 (or 1021); Mathematics 2000 or Statistics 2550 or Statistics 2510; EASC 2502 and a minimum of 6 credit hours in Earth Sciences at the 3000 level.”

Page 484, 2012-2013 Calendar, under the heading 8.5 Earth Sciences, amend the last sentence of the course description of “2702 Sedimentology and Stratigraphy” to read as follows:

“Laboratories involve local field trips, petrographic analysis, and the study of hand samples of sedimentary rocks.”

59.6 Marine Institute

Page 263, 2012-2013 Calendar, under the heading 5.2.1 Bachelor of Technology - Engineering and Applied Science Technology Option, amend

Marine Institute (cont'd)

Table 3 by deleting “Business 1000” and “MSTM 4080” from the Group A Electives column, and, to the Group B Electives column, add “MSTM 4015” and “MSTM 4016”.

Page 263, 2012-2013 Calendar, under the heading 5.2.2 Bachelor of Technology - Health Sciences Technology Option, amend Table 4 by deleting “Business 1000” and “MSTM 4080” from the Group A Electives column, and, to the Group B Electives column, add “MSTM 4015” and “MSTM 4016.”

Page 264, 2012-2013 Calendar, under the heading 8 Course Descriptions, insert two new courses, “4015” and “4016” with course titles and descriptions to read as follows:

**“4015 Technological Entrepreneurship** surveys technological entrepreneurship via examples of both successful and failed businesses in technological fields. By examining cases of entrepreneurship, this course will examine challenges and opportunities facing technological entrepreneurs.

**4016 Technological Problem Solving** will introduce students to TRIZ, a powerful set of tools and algorithms developed specifically for analyzing and solving technological problems. TRIZ was developed by people with a technical background for those with a technical background. While TRIZ was developed for inventing and solving technical problems, the tools and approaches can be used to understand and solve virtually any solvable problem.”

Page 264, 2012-2013 Calendar, under the heading 8 Course Descriptions, delete the course “4080 Environmental Management Systems.”

Page 265, 2012-2013 Calendar, under the heading 9 Maritime Studies/Technology Management (MSTM) courses Available to Student not Enrolled in a Degree Program Offered by the Fisheries and Marine Institute, delete “4080 Environmental Management Systems” from the course list.

59.7 Department of Archaeology

Page 138, 2012-2013 Calendar, under the heading 10.2 Archaeology, insert the following new course:

**“3594 Archaeology of Sport** addresses organized recreation as a fundamental variety of past social activity. The evolution of athletic physiology, bioarchaeological traces on past bodies, sporting facilities and equipment, animal sports, experimental and ethnoarchaeological approaches, and the varying social, ritual and economic contexts of past athletic performance will be examined, with case studies of notably large scale and long-running sporting phenomena such as chariot racing and the Mesoamerican ballgame.

PR: ARCH 1030

CR: the former ARCH 3681”

Page 104, 2012-2013 Calendar, under the heading 9.3.1.1 First Courses, insert “ARCH 3594” into Group 4 (Topical Courses).

59.8 Department of English

Page 145, 2012-2013 Calendar, under the heading 10.8 English, remove the hyphens from both the course title of “3912 Song-Writing,” and from within the course description: that is, “Song-Writing” becomes “Songwriting” and “Guest song-writers” becomes “Guest songwriters.”

Page 145, 2012-2013 Calendar, under the heading 10.8 English, delete the PR (Prerequisites) from the following list of courses:

“3910 Investigative Writing  
3911 Writing Satire  
3912 Songwriting  
3913 Write to Speak  
3914 Professional Writing Online  
3920 Reviewing”

Page 145, 2012-2013 Calendar, under the heading 10.8 English, amend the course title and description for “4821” to read as follows:

**“4821 Canadian Literature: Imagining Worlds** is a study of some of the main concepts in Canadian culture up to World War II as they affect the history and development of Canadian Literature.

PR: Completion of 3 credit hours chosen from courses at the 2000 or 3000 level in Canadian Literature, or permission of the instructor.”

Page 145, 2012-2013 Calendar, under the heading 10.8 English, amend the course title and description for “4822” to read as follows:

**“4822 Canadian Literature: Making it New** is a study of some of the main concepts in Canadian culture up to World War II as they affect the history and development of Canadian Literature.

PR: Completion of three credit hours chosen from courses at the 2000 or 3000 level in Canadian Literature, or permission of the instructor.”

Page 98, 2012-2013 Calendar, under the heading 6.6 Diploma in Creative Writing, amend subheading 6.6.3 Program of Study, to read as follows:

**“6.6.3 Program of Study**

Students are required to complete a minimum of 24 credit hours of course work, including at least 15 credit hours from the following:

• English 3900, English 3901, English 3902, English 3903, English 4910, English 4911, English 4912, and English 4913

The remaining courses may be taken from:

1. additional courses from the above list
2. one or more special topics courses in Creative Writing
3. one or more of English 3100, 3155, 3156, 3158, 3160, 3161, 3171, 3172, 3173, 4080, 4270, 4302, 4822
4. one or more courses from the Diploma in Professional Writing
5. English 3911 and/or English 3912”

59.9 Department of Gender Studies

Page 156, 2012-2013 Calendar, under the heading 10.12 Gender Studies, change the course title for GNDR 4005 from “Feminist Praxis” to “Feminist Practices.”



Department of Gender Studies (cont'd)

Page 120, 2012-2013 Calendar, under the heading 9.16.3 Elective Courses, add “Folklore 3350 and 3360” and delete History 3760 and 3770 from the “Elective Courses Table.”

59.10 Department of History

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4213 Topics in US-Canadian Relations,” to read as follows:

“**4213 Topics in US-Canadian Relations** explores selected themes in US-Canadian relations. Beyond considering the more ‘formal’ ties between Canada and the United States from a historical perspective, such as military and diplomatic interactions, this seminar examines social and cultural interrelationships.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4216 Topics in US Cultural History,” to read as follows:

“**4216 Topics in US Cultural History** explores selected themes in U.S. cultural history. Topics will vary from year to year, but may include historical approaches to such popular art forms as vaudeville, amusements parks, film, popular music, comics, television, gaming, and spectator sports.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4009 Death and the Afterlife in the Middle Ages,” to read as follows:

“**4009 Death and the Afterlife in the Middle Ages** examines medieval ideas of what happens at and after death, starting from the premise that such ideas have great influence upon how people live their daily lives. It will look at the theology of death, ideas of heaven, hell, and purgatory, as well as conceptions of death and the afterlife in the popular culture, architecture, literature, etc., of European Christendom.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4330 Aspects of Modern British History: Victorian England,” to read as follows:

“**4330 Aspects of Modern British History: Victorian England** Victorian England designates an industrial, urban, ostensibly democratic, country in the period when Britain was dominant in the world. 'Victoria' and 'England' are the starting points, however, for a critical examination of those characteristics in this seminar course.

PR: Minimum of two second year History courses, or the permission of the instructor. Students who have not previously studied history beyond first year should consult with the instructor before registering for this course.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4672 Seafaring Lives: Sea-going Auto/Biography Since 1700,” to read as follows:

“**4672 Seafaring Lives: Sea-going Auto/Biography Since 1700** Life stories studied as primary sources lead to a reassessment of historian's traditional assumptions and concerns in this course. Students will research and discuss the changing, and often ambivalent, relationship of people and the sea across

Department of History (cont'd)

three centuries of auto/biographical writing and story-telling.

PR: Students who have not previously studied history beyond first year should consult with the instructor before registering for this course.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4003: Religion and Society in the late Antique and Early Medieval Periods,” to read as follows:

**“4003 Religion and Society in the Late Antique and Early Medieval Periods** examines a range of written and physical evidence for the interaction of religion and society in the late antique and early medieval world. This course will cover the broad topic of religion and society through an in-depth analysis of the historiography and material culture of the late antique and early medieval period.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4010: Cultural Interaction in the Medieval Middle East,” to read as follows:

**“4010 Cultural Interaction in the Medieval Middle East** examines the origins of Muslim-Christian relations in the Middle East through an examination of the effect of the arrival of Islam on the communities of Iraq, Iran, and the Levant, as well as the Byzantine reaction to Islam.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 3801: History of Modern Revolutions,” to read as follows:

**“3801 History of Modern Revolutions** examines theoretical and thematic approaches to the study of revolution. We will study some of the major political revolutions of the twentieth century but also explore the causes and consequences of various social, cultural, and economic upheavals such as the student revolts of the 1960s and the sexual revolution. Finally, we will discuss how the way in which historians have studied revolutions has changed during the past half century.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 3807 World War I in Historical Perspective,” to read as follows:

**“3807 World War I in Historical Perspective** takes a global approach to the history of the First World War, emphasizing events on the battlefield and the effects of war on various societies.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4411 War and Society in Canada,” to read as follows:

**“4411 War and Society in Canada** examines various themes and topics in the military history of Canada, emphasizing the relationship between war and society.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4219 Slavery and Resistance in the Atlantic World,” to read as follows:

Department of History (cont'd)

**“4219 Slavery and Resistance in the Atlantic World** examines the evolution of slavery and other forms of coerced labour in the early modern period.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4212 The North American Frontier,” to read as follows:

**“4212 The North American Frontier** examines aspects of the history of the frontier in North America. The course will focus on major themes and debates in frontier history, including, but not limited to, the history of colonialism, settlement, and aboriginal-settler relations.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4222 North American Aboriginal Peoples in Historical Perspective,” to read as follows:

**“4222 North American Aboriginal Peoples in Historical Perspective** examines several aspects of the writing of Aboriginal history in North America. The course will focus on major themes and debates in the field of Aboriginal history, including but not limited to Aboriginal agency and cultural exchange.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4125 The History of Environmental Ideas in Canada and the United States,” to read as follows:

**“4125 The History of Environmental Ideas in Canada and the United States** surveys major philosophical, scientific, and popular ideas of nature in Canada and the United States during the nineteenth and twentieth centuries. Students will examine key historical manifestations of environmental thought such as romanticism, the wilderness idea, ecofeminism, deep ecology, and social ecology. Students will also be exposed to important voices from social groups who are often marginalized in environmental debates such as African-Americans, Aboriginal people, and the working class.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4253 Inequality In Canada since 1945,” to read as follows:

**“4253 Inequality In Canada since 1945** challenges the conventional wisdom that equality improved in post-war Canada, but declined from the 1970s onwards. It contrasts socio-economic experiences with those of gender, race, nation and sexual orientation. By so doing it raises complex questions about the historical dynamics of identity politics in the making of contemporary Canada.

PR: HIST 2210 or permission of the instructor”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, “HIST 4255: The Industrial Revolution in Canada,” to read as follows:

**“4255 The Industrial Revolution in Canada** examines the historiographical debates on industrialisation in 19th century British North America by critically evaluating representative works by leading historians of English Canada and Quebec. It also introduces the problems and advantages of the

Department of History (cont'd)

historical sources most commonly used to understand industrialisation.

PR: This is a fourth year seminar, students who have not completed HIST 2200 or HIST 2210 require the instructor's permission to register for the course."

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert new course, "HIST 4419 Marx and Marxism," to read as follows:

**"4419 Marx and Marxism** introduces Marxist thought as a product of revolutionary struggles. Emphasis will be on the nature of the historical circumstances and the concrete problems people faced. Each week we will be critically examining selected works produced by and through these struggles.

PR: This is a fourth year seminar, students who have not completed HIST 2310 or HIST 2350 require the instructor's permission to register for the course."

Page 127, 2012-2013 Calendar, under the heading 9.23.3 List A: Other Courses Approved For Inclusion in Medieval Studies Major and Minor Programs Subject to the Foregoing Regulations, amend the column titled "4000 level courses" by inserting History 4003, 4009, and 4010 as individual courses, and amend the current special topics range History 4000-4010 to read "4000-4410 (excluding 4003, 4009, and 4010)."

Page 161, 2012-2013 Calendar, under the heading 10.17 History, amend the title of special topics range "4210-4229" to read as follows:

**"4210-4229 (Excluding 4212, 4213, 4214, 4216, 4219, and 4222) Special Topics in North American History"**

Page 161, 2012-2013 Calendar, under the heading 10.17 History, amend the title of special topics range "4000-4010" to read as follows:

**"4000-4010 (Excluding 4003, 4009, and 4010) Special Topics in Ancient and Medieval History"**

Page 161, 2012-2013 Calendar, under the heading 10.17 History, amend the title of special topics range "4310-4330" to read as follows:

**"4310-4330 (Excluding 4330) Special Topics in European History"**

Page 161, 2012-2013 Calendar, under the heading 10.17 History, amend the title of special topics range "4670-4690" to read as follows:

**"4670-4690 (Excluding 4672) Special Topics in Maritime History"**

Page 161, 2012-2013 Calendar, under the heading 10.17 History, amend the title of special topics range "3800-3830" to read as follows:

**"3800-3830 (Excluding 3801, 3807, and 3822) Contemporary Problems in Historical Perspective"**

Page 161, 2012-2013 Calendar, under the heading 10.17 History, amend the title of special topics range "4410-4430" to read as follows:

Department of History (cont'd)

**“4410-4430 (Excluding 4411 and 4419) Historical Problems”**

Page 161, 2012-2013 Calendar, under the heading 10.17 History, amend the title of special topics range “4110-4130” to read as follows:

**“4110-4130 (Excluding 4125) Special Topics in North Atlantic History”**

Page 161, 2012-2013 Calendar, under the heading 10.17 History, amend the title of special topics range “4240-4260” to read as follows:

**“4240-4260 (Excluding 4253 and 4255) Special Topics in Canadian History”**

59.11 School of Nursing

Page 396, 2012-2013 Calendar, under the heading 4.3 Admission Requirements to School Programs, amend subheading 4.3.1 High School Applicants to read as follows:

**“4.3.1 High School Applicants**

Applicants from High School may apply for admission only to the Bachelor of Nursing (Collaborative) four year program.

1. High School applicants to the Bachelor of Nursing (Collaborative) program must have completed a high school diploma, or its equivalent, as certified by the Department of Education of Newfoundland and Labrador and meet the general admission/readmission requirements of Memorial University. High school courses must include the following or their equivalents.

- Biology 2201
- Biology 3201
- Chemistry 3202
- English 3201
- Math 3204 or Advanced Math 3205
- Social Science or Modern Language (2 credits at 3000)”

59.12 Faculty of Engineering and Applied Science

Page 232, 2012-2013 Calendar, under the heading 3 Description of Program, delete the second sentence of the third paragraph, starting with “Students in the Mechanical Engineering....”

Page 232, 2012-2013 Calendar, under the heading 3.1 Program of Study, amend clause 6 to read as follows:

“Upon entering Academic Term 6, students in the Mechanical Engineering major may choose one of four technical streams: “Thermo-Fluids”, “Mechanics and Materials”, “Mechatronics” and “Petroleum”.”

Page 233, 2012-2013 Calendar, under the heading 3.3.4 Mechanical Engineering, combine the last two sentences of the second paragraph and amend to read as follows:

“In Academic Term 6, students may select one of four technical streams, which provide focus to the wide range of electives in various specialty areas in academic terms 7 and 8.”

Faculty of Engineering and Applied Science (cont'd)

Page 239, 2012-2013 Calendar, under the heading 5.4 Mechanical Engineering Program Regulations, amend section 5.4.1 Mechanical Engineering Major - General Option, starting with the section title, by deleting every instance of the phrase “General Option” occurring up to and including the case within Table 4’s table header. Following that, in the same section, carry out several changes to the newly named table, “Table 4 Mechanical Engineering Major,” as listed below:

- “• Under “Spring Academic Term 4” delete ENGI 4102 and 4951 from the Required Courses block and insert ENGI 5961, and add the phrase “Complementary Studies Elective” to the Elective Courses block..
- Under “Winter Academic Term 5” delete ENGI 5927, 5951 and 5961 from the Required Courses block and insert ENGI 4421, 5952 and 6961.
- Under “Fall Academic Term 6” delete ENGI 6927 and 6961 from the Required Courses block and insert ENGI 6929, and add the phrase “3 credit hours from Technical Stream Courses” to the Elective Courses block.
- Under “Spring Academic Term 7” delete ENGI 4421 and 7928 from the Required Courses block and insert ENGI 7930 and 7953, and amend the Elective Courses block to read as follows: “6 credit hours from Technical Stream Courses.”
- Under “Winter Academic Term 8” amend the third paragraph of the Elective Courses block, starting with “9 credit hours from,” to read as follows: “9 credit hours from Technical Stream Courses.”

Page 239, 2012-2013 Calendar, under the newly amended heading 5.4.1 Mechanical Engineering Major, directly below Table 4, insert the following text and four tables:

“Technical Streams are available in the areas of Petroleum, Mechanics and Materials, Mechatronics, and Thermo-Fluids.

Students may experience scheduling difficulties if courses are selected from more than one technical stream.

The selection of a course as a technical stream course from outside these lists requires the approval of the discipline chair.

The Technical Streams are

**1. Petroleum**

<b>Term 6</b> ENGI 6602	Offshore Petroleum Geology and Technology
<b>Term 7</b> ENGI 8690 ENGI 8691	Reservoir Engineering Petroleum Production Engineering

<b>Term 8</b> ENGI 8607	Business Planning and Strategy in an Entrepreneurial Environment
ENGI 8676	Design of Natural Gas Handling Equipment
ENGI 8694	Downstream Processing
ENGI 8911	Corrosion and Corrosion Control
ENGI 8935	Pressure Vessel and Piping
ENGI 8964	Fluid Structure Interactions

## 2. Mechanics and Materials

<b>Term 6</b> ENGI 6928	Computer Aided Engineering Applications
<b>Term 7</b> ENGI 7911 ENGI 7929	Industrial Materials Mechanical Component Design II
<b>Term 8</b> ENGI 8607	Business Planning and Strategy in an Entrepreneurial Environment
ENGI 8911	Corrosion and Corrosion Control
ENGI 8933	Fatigue and Fracture Mechanics
ENGI 8935	Pressure Vessel and Piping
ENGI 8937	Machine Dynamics
ENGI 8964	Fluid Structure Interactions

## 3. Mechatronics

<b>Term 6</b> ENGI 6928	Computer Aided Engineering Applications
<b>Term 7</b> ENGI 7854 ENGI 7929 ENGI 7952	Industrial Machine Vision Mechanical Component Design II Robotics and Automation
<b>Term 8</b> ENGI 8607	Business Planning and Strategy in an Entrepreneurial Environment
ENGI 8937	Machine Dynamics
ENGI 8946	Modelling and Simulation of Dynamic Systems

## 4. Thermo-Fluids

<b>Term 6</b> ENGI 6928	Computer Aided Engineering Applications
<b>Term 7</b> ENGI 7901 ENGI 7903	Heat Transfer II Mechanical Equipment
<b>Term 8</b> ENGI 8607	Business Planning and Strategy in an Entrepreneurial Environment
ENGI 8903	Mechanical Systems
ENGI 8947	Computational Fluid Dynamics
ENGI 8965	Advanced Fluid Mechanics

Faculty of Engineering and Applied Science (cont'd)

Page 240, 2012-2013 Calendar, delete section 5.4.2 Mechanical Engineering Major - Offshore Oil and Gas Engineering Option in its entirety.

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, delete “4951 Mechatronics I” and replace with “5952 Mechatronics I” with an amended course description to read as follows:

**“5952 Mechatronics I** (same as the former ENGI 4951) examines the dynamic behavior of mechanical, electrical, fluid, and thermal systems based on a lumped-parameter approach. Topics covered include modelling and analysis of dynamic systems; computer-aided modelling of mechanical systems with non-linear elements; transient and frequency response; Laplace transforms, transfer functions, and generalized impedances; applications of operational amplifiers, signal conditioning, and filtering; instrumentation for strain and temperature measurement.

CR: the former ENGI 4951

LH: five 3-hour sessions per semester

PR: ENGI 1040, ENGI 3424”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, delete “7928 Computer Aided Engineering Applications” and replace with “6928 Computer Aided Engineering Applications” with an amended course description to read as follows:

**“6928 Computer Aided Engineering Applications** (same as the former ENGI 7928) introduces a variety of Computer Aided Engineering (CAE) applications based on advanced 3D CAD modelling. The fundamentals of 3D modelling are covered including parametric and feature-based design. CAE applications include assembly modelling, mechanism animation and finite element analysis. Further applications include Computer Aided Manufacturing (CAM); model based inspection (i.e. Coordinate Measurement Machines); reverse engineering; document/drawing production; data exchange; and data management. The course has a significant lab component, which provides exposure to solid modelling and CAE applications based on an industrial CAD/CAM/CAE package.

CR: the former ENGI 7928 or 7962

LH: at least ten 3-hour sessions per semester

PR: ENGI 1030

CO: ENGI 6929 or the former 5926 or 5927”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, delete “5927 Mechanical Component Design I” and replace with “6929 Mechanical Component Design I” with an amended course description to read as follows:

**“6929 Mechanical Component Design I** (same as the former ENGI 5927) examines adequacy assessment and synthesis of machine elements with a focus on failure prevention, safety factors, and strength; static failure of ductile and brittle materials, fatigue analysis of components. Topics include the design of power screws, bolted connections, welds, springs, and shafts.

CR: the former ENGI 5926 or 5927

LH: at least eight 3-hour sessions per semester

PR: ENGI 4312”



Faculty of Engineering and Applied Science (cont'd)

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, amend the PR (Prerequisite) section of “6951 Automatic Control Engineering” to read as follows:

“PR: ENGI 5952 or the former 5951”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, delete “6927 Mechanical Component Design II” and replace with “7929 Mechanical Component Design II” with an amended course description to read as follows:

**“7929 Mechanical Component Design II** (same as the former ENGI 6927) is a continuation of the ENGI 6929 course in analysis and synthesis of machinery, including advanced analysis of machine elements such as clutches, brakes, couplings, journal bearings and gears. Advanced machine design concepts are examined, such as reliability, optimization and techniques for stimulating innovative design. A synthesis project involving the machine elements studied is usually included.

CR: the former ENGI 6926 or 6927

LH: at least ten 3-hour sessions per semester

PR: ENGI 6929 or the former 5927”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, insert a new course, “7930 Instrumentation and Experimental Design,” with a course description to read as follows:

**“7930 Instrumentation and Experimental Design** involves instrumentation and measurement techniques, sensors for motion and process control, data acquisition and signal conditioning; the design, conduct, and analysis of engineering, scientific, and numerical experiments; design of experiments: factorial design and analysis; and response surface methodology (RSM).

LH: five 3-hour sessions per semester

PR: ENGI 4421”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, delete “5951 Mechatronics II” and replace with “7953 Mechatronics II” with an amended course description to read as follows:

**“7953 Mechatronics II** (same as the former ENGI 5951) emphasizes the integration of the core technologies on which contemporary, mechatronic designs are based. Topics covered include semiconductor devices, analog and digital electronics; microcontroller technology and interfacing; sensors for motion control; selection, sizing, and modelling of electric servomotors, servovalves and hydraulic actuators; position, velocity, and force control; digital and analog implementation of controller architectures; mechatronic design case studies.

CR: the former 5951

LH: five 3-hour sessions per semester

PR: ENGI 5952”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, insert a new course, “8947 Computational Fluid Dynamics,” with a course description to read as follows:

Faculty of Engineering and Applied Science (cont'd)

“**8947 Computational Fluid Dynamics** begins with a review of the equations governing viscous fluid flows and heat transfer. The course includes heat conduction, convection-diffusion, and fluid flow equations; gridding, dependent variable interpolation, discretized equations, solution of the discretized equations, transients and nonlinearities; testing and validation of CFD codes, standard test problems.

PR: ENGI 6961

CR: ENGI 9977”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, insert a new course, “8946 Modelling and Simulation of Dynamic Systems,” with a course description to read as follows:

“**8946 Modelling and Simulation of Dynamic Systems** has an emphasis on interdisciplinary system models, equation formulation and structure, and model complexity. The bond graph modelling language will be introduced to simulate systems containing mechanical, electrical, thermal, hydraulic, and magnetic components.

PR: ENGI 5952

CR: ENGI 9496”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, insert a new course, “8965 Advanced Fluid Dynamics,” with a course description to read as follows:

“**8965 Advanced Fluid Dynamics** includes fluid kinematics; equations of fluid dynamics: Navier-Stokes equations, Euler's equations, Stokes' equations, vorticity transport; low Reynolds flows; unsteady viscous flows; boundary layer flows; potential flows; introduction to turbulent flow; free shear flows.

PR: ENGI 6961

CR: ENGI 9901”

59.13 Department of Mathematics and Statistics

Page 487, 2012-2013 Calendar, under the heading 8.8 Mathematics and Statistics, insert new course, “2260 Ordinary Differential Equations I,” with a course description to read as follows:

“**2260 Ordinary Differential Equations I** examines direction fields, equations of first order and first degree, higher order linear equations, variation of parameters, methods of undetermined coefficients, Laplace transforms, systems of differential equations. Applications include vibratory motion, satellite and rocket motion, pursuit problems, population models and chemical kinetics.

CR: MATH 3260 or the former Engineering 3411

PR: MATH 2000”

Page 241, 2012-2013 Calendar, under the heading 5.5.1 Ocean and Naval Architectural Engineering, replace "Mathematics 3260" in the Spring Academic Term 4 row of **Table 6 Ocean and Naval Architectural Engineering Major** with “Mathematics 2260.”

Department of Mathematics and Statistics (cont'd)

Page 248, 2012-2013 Calendar, under the heading 9.5 Academic Term 5 Courses, amend the PR (Prerequisite) section of “Engineering 5022 Stochastic Processes in Ocean Engineering” to read as follows:

“PR: ENGI 4020, Mathematics 2260 (or 3260)”

Page 312, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, amend the CR (Credit Restriction) section of “MATH 3260” to read as follows:

“CR: MATH 2260 or the former Engineering 3411”

Page 313, 2012-2013 Calendar, under the heading 10.22 Physics, amend the CO (Co-requisite) and PR (Prerequisite) sections of “PHYS 3060” to read:

“CO: Mathematics 3260 (or 2260)  
PR: PHYS 1051 and Mathematics 3260 (or 2260)”

Page 313, 2012-2013 Calendar, under the heading 10.22 Physics, amend the CO (Co-requisite) and PR (Prerequisite) sections of “Physics 3220 Classical Mechanics I” to read as follows:

“CO: Mathematics 3260 (or 2260)  
PR: PHYS 2820 and Mathematics 3260 (or 2260)”

Page 313, 2012-2013 Calendar, 10.22 Physics, amend the PR (Prerequisite) section of “Physics 3820 Mathematical Physics II” to read as follows:

“PR: Mathematics 3260 (or 2260), and PHYS 3810 (or Mathematics 3202)”

Page 434, 2012-2013 Calendar, under the heading 4.1.1 Applied Mathematics and Chemistry Joint Honours (B.Sc. Only), amend clause 5 to read:

“5. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2260 (or 3260), 3000, 3001, 3132, 3161, 3202, 3210, 4160.”

Page 435, 2012-2013 Calendar, under the heading 4.1.2 Applied Mathematics and Physics Joint Honours, amend clause 4 to read as follows:

“4. Mathematics 1000, 1001, 2000, 2050, 2051, 2260 (or 3260), 3000, 3001, 3132, 3202, 3210.”

Page 435, 2012-2013 Calendar, under the heading 4.1.5 Biochemistry and Physics Joint Honours, amend clause 4 to read as follows:

“4. Mathematics 2000, 2050, 2260 (or 3260), either Mathematics 3202 or Physics 3810.”

Page 437, 2012-2013 Calendar, under the heading 4.1.13 Chemistry and Physics Joint Honours, amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, and 2260 (or 3260).”

Page 438, 2012-2013 Calendar, under the heading 4.1.15 Computer Science and Physics Joint Honours, amend clause 6(b) to read as follows:

Department of Mathematics and Statistics (cont'd)

“b. Mathematics 2000, 2050, 2260 (or 3260), and 2320”

Page 438, 2012-2013 Calendar, under the heading 4.1.16 Computer Science and Pure Mathematics Joint Honours (B.Sc. Only), amend clause 1 of the Mathematics and Statistics required courses to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2260 (or 3260), 2320, 3000, 3001, 3202, 3210, 3320, 3340, Statistics 2510;”

Page 439, 2012-2013 Calendar, under the heading 4.1.19 Earth Sciences and Physics Joint Honours, amend clause 4 to read as follows:

“4. Mathematics 2000, 2050, 2260 (or 3260), and 3202.”

Page 439, 2012-2013 Calendar, under the heading 4.1.20 Geophysics and Physical Oceanography Joint Honours, amend clause 4 to read as follows:

“4. Mathematics 2000, 2050, 2051, 2260 (or 3260), and 3202.”

Page 439, 2012-2013 Calendar, under the heading 4.1.21 Pure Mathematics and Statistics Joint Honours, amend clause 1 to read as follows:

“1. Mathematics 2000, 2050, 2051, 2130, 2260 (or 3260), 2320, 3000, 3001, 3202, 3210, 4000, Statistics 3410, 3411, 3520, 3521, 3530, 4401, 4410;”

Page 439, 2012-2013 Calendar, under the heading 4.2.1 Applied Mathematics and Computer Science Joint Major (B.Sc. Only), amend clause 2 to read as follows:

“2. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2260 (or 3260), 2320, 3000, 3100, 3132, 3161, 3202, 4160, 4190, plus one of Mathematics 3210, 4131, 4132, 4162.”

Page 439, 2012-2013 Calendar, under the heading 4.2.2 Applied Mathematics and Economics Joint Major (B.Sc. Only), amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2260 (or 3260), 3000, 3100, 3202, 4132, Statistics 2510.”

Page 440, 2012-2013 Calendar, under the heading 4.2.3 Applied Mathematics and Physics Joint Major (B.Sc. Only), amend clause 4 to read as follows:

“4. Mathematics 1000, 1001, 2000, 2050, 2051, 2260 (or 3260), 3000, 3001, 3132, 3202.”

Page 440, 2012-2013 Calendar, under the heading 4.2.6 Computer Science and Physics Joint Major, amend clause 4(b) to read as follows:

“b. Mathematics 2000, 2050, 2260 (or 3260), 2320, and Statistics 2510.”

Page 440, 2012-2013 Calendar, under the heading 4.2.7 Computer Science and Pure Mathematics Joint Major (B.Sc. Only), amend clause 3 to read as follows:

Department of Mathematics and Statistics (cont'd)

“3. Mathematics 2000, 2050, 2051, 2130, 2260 (or 3260), 2320, 3000, 3202, 3320, 3340, and Statistics 2510.”

Page 441, 2012-2013 Calendar, under the heading 4.2.10 Economics and Pure Mathematics Joint Major (B.Sc. Only), amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2130, 2260 (or 3260), 2320, 3000, 3100, 3202, 3320, Statistics 2510 and one 4000 level Mathematics course.”

Page 453, 2012-2013 Calendar, under the heading 7.3.6.1 Required Courses, amend clause 3 to read as follows:

“3. Mathematics 1000, 1001, 2000, 2050, 2051, 2260 (or 3260), 2320, and 3202.”

Page 453, 2012-2013 Calendar, under the heading 7.3.6.2 Suggested Program of Study, delete the following:

“Students who complete the major will also have completed the required courses for a minor in Mathematics.”

Page 453, 2012-2013 Calendar, under the heading 7.3.7.1 Required Courses, amend clause 3 to read as follows:

“3. Mathematics 1000, 1001, 2000, 2050, 2051, 2260 (or 3260), 2320, and 3202.”

Page 454, 2012-2013 Calendar, under the heading 7.3.7.3 Other Information, delete clause 1 and renumber remaining clauses accordingly.

Page 460, 2012-2013 Calendar, under the heading 7.8.4 Major in Applied Mathematics (B.Sc. Only), amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, 2260 (or 3260), 3000, 3001, 3100, 3132, 3161, 3202, 4160, 4190.”

Page 460, 2012-2013 Calendar, under the heading 7.8.5 Major in Pure Mathematics, amend clause 2 to read as follows:

“2. One of Mathematics 2260 (or 3260), 3202, 3210;”

Page 460, 2012-2013 Calendar, under the heading 7.8.7 Honours in Applied Mathematics (B.Sc. Only), amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2260 (or 3260), 3000, 3001, 3100, 3111, 3132, 3161, 3202, 3210, 4160, 4180, 4190, 419A/B;”

Page 460, 2012-2013 Calendar, under the heading 7.8.8 Honours in Pure Mathematics, amend clause 1 to read as follows:

Department of Mathematics and Statistics (cont'd)

- “1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2260 (or 3260), 2320, 3000, 3001, 3202, 3210, 3300, 3320, 3330, 4300, 4310, 4399, Statistics 2510;”

Page 462, 2012-2013 Calendar, under the heading 7.10.2 Major in Physics, amend clause 4 to read as follows:

- “4. Mathematics 2000, Mathematics 2050 and Mathematics 2260 (or 3260).”

Page 462, 2012-2013 Calendar, under the heading 7.10.2 Major in Physics, amend the second sentence of the un-numbered paragraph to read as follows:

“Mathematics 2260 is co-requisite to Physics 3220 and should be completed before the winter of the third year.”

Page 462, 2012-2013 Calendar, under the heading 7.10.3 Honours in Physics, amend clause 5 to read as follows:

- “5. Mathematics 2000, 2050 and 2260 (or 3260).”

Page 462, 2012-2013 Calendar, under the heading 7.10.3 Honours in Physics, amend the Year II, Semester II block of the “Recommended Course Schedule - Honours Physics Program” table by deleting Mathematics 3260 and replacing with Mathematics 2260.

Page 463, 2012-2013 Calendar, under the heading 7.10.4 Major in Environmental Physics, amend clause 4 to read as follows:

- “4. Mathematics 2000, Mathematics 2050, Mathematics 2260 (or 3260), Mathematics 3202”

Page 463, 2012-2013 Calendar, under the heading 7.10.5 Honours in Environmental Physics, amend clause 4 to read as follows:

- “4. Mathematics 2000, Mathematics 2050, Mathematics 2260 (or 3260), Mathematics 3202”

Page 463, 2012-2013 Calendar, under the heading 7.10.5 Honours in Environmental Physics, amend the Year II, Semester II block of the “Recommended Course Schedule - Honours Environmental Physics Program” table by deleting Mathematics 3260 and replacing with Mathematics 2260.

Page 479, 2012-2013 Calendar, under the heading 8.3 Chemistry, amend the PR (Prerequisite) section of “Chemistry 4304 Advanced Quantum Chemistry” to read as follows:

“PR: CHEM 2302 (or the former CHEM 3301) and Mathematics 2260 (or 3260). Due to the requirement of Mathematics 2260, students wishing to take this course should plan ahead.”

Page 488, 2012-2013 Calendar, under the heading 8.8.3 Mathematics Courses, amend the PR (Prerequisite) section of “Mathematics 3100 Introduction to Dynamical Systems” to read as follows:

Department of Mathematics and Statistics (cont'd)

“PR: MATH 2260 (or 3260)”

Page 488, 2012-2013 Calendar, under the heading 8.8.3 Mathematics Courses, amend the PR (Prerequisite) section of “Mathematics 3161 Ordinary Differential Equations II” to read as follows:

“PR: MATH 2260 (or 3260) and 3202”

Page 488, 2012-2013 Calendar, under the heading 8.8.3 Mathematics Courses, delete the entry for “Mathematics 3260 Ordinary Differential Equations I.”

Page 488, 2012-2013 Calendar, under the heading 8.8.3 Mathematics Courses, amend the PR (Prerequisite) section of “Mathematics 4160 Partial Differential Equations I to read as follows:

“PR: MATH 2260 (or 3260) and 3202”

Page 491, 2012-2013 Calendar, under the heading 8.9 Physics and Physical Oceanography, amend the CO (Co-requisite) and PR (Prerequisite) sections of “Physics 3220 Classical Mechanics I” to read as follows:

“CO: PHYS 2820 and Mathematics 2260 (or 3260)  
PR: PHYS 2820 and Mathematics 2260 (or 3260)”

Page 491, 2012-2013 Calendar, under the heading 8.9 Physics and Physical Oceanography, amend the PR (Prerequisite) section of “Physics 3230 Classical Mechanics II” to read as follows:

“PR: PHYS 3220 and 3810 (or Mathematics 3202) and Mathematics 2260 (or 3260)”

Page 491, 2012-2013 Calendar, under the heading 8.9 Physics and Physical Oceanography, amend the CO (Co-requisite) and PR (Prerequisite) sections of “Physics 3550 Electric Circuits” to read as follows:

“CO: Mathematics 2260 (or 3260)  
PR: Mathematics 2050, Mathematics 2260 (or 3260), PHYS 2055”

Page 491, 2012-2013 Calendar, under the heading 8.9 Physics and Physical Oceanography, amend the PR (Prerequisite) section of “Physics 3800 Computational Physics” to read as follows:

“PR: Computer Science 1510, PHYS 2820, Mathematics 2260 (or 3260), Mathematics 3202”

Page 491, 2012-2013 Calendar, under the heading 8.9 Physics and Physical Oceanography, amend the PR (Prerequisite) section of “Physics 3820 Mathematical Physics III” to read as follows:

“PR: Mathematics 2260 (or 3260) and PHYS 3810 (or Mathematics 3202)”

Page 439, 2012-2013 Calendar, under the heading 4.1.21 Pure Mathematics and Statistics Joint Honours, amend clause 4 to read as follows:

Department of Mathematics and Statistics (cont'd)

“4. one of: Mathematics 3331 or 3340;”

Page 460, 2012-2013 Calendar, under the heading 7.8.5 Major in Pure Mathematics, amend clause 3 to read as follows:

“3. One of Mathematics 3331, 3370;”

Page 460, 2012-2013 Calendar, under the heading 7.8.8 Honours in Pure Mathematics, amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2320, 3000, 3001, 3202, 3210, 3260, 3300, 3320, 3331, 4300, 4310, 4399, Statistics 2510;”

Page 488, 2012-2013 Calendar, under the heading 8.8.3 Mathematics Courses, insert a new course “2330 Euclidean Geometry” with the following course description:

“**2330 Euclidean Geometry** is classical Euclidean geometry of the triangle and circle. The inversion transformation, including the theorem of Feuerbach. Elliptic and hyperbolic geometries.

CR: MATH 3330

PR: MATH 2051 or 2320”

Page 311, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, add a CR (Credit Restriction) to “3330 Euclidean Geometry” to read as follows:

“CR: MATH 2330”

Page 438, 2012-2013 Calendar, under the heading 4.1.16 Computer Science and Pure Mathematics Joint Honours (B.Sc. Only), amend the Mathematics and Statistics section, clause 3, to read as follows:

“3. Excluding Mathematics 3330 and 4399, 15 additional credit hours in courses offered by the Department of Mathematics and Statistics numbered 3000 or higher including at least 9 credit hours from courses numbered 4000 or higher and at least 9 credit hours in Pure Mathematics courses;”

Page 439, 2012-2013 Calendar, under the heading 4.1.21 Pure Mathematics and Statistics Joint Honours, amend clause 5 to read as follows:

“5. Twenty-one further credit hours in Pure Mathematics and/or Statistics courses numbered 3000 or higher, excluding Mathematics 3330, of which at least 12 credit hours must be from courses numbered 4000 or higher excluding Statistics 4581.”

Page 440, 2012-2013 Calendar, under the heading 4.2.7 Computer Science and Pure Mathematics Joint Major (B.Sc. Only), amend clause 4 to read as follows:

“4. Nine additional credit hours in courses numbered 3000 or higher offered by the Department of Mathematics and Statistics, excluding Mathematics 3330.”



Department of Mathematics and Statistics (cont'd)

Page 460, 2012-2013 Calendar, under the heading 7.8.5 Major in Pure Mathematics, amend clause 4 to read as follows:

- “4. Twelve further credit hours in Pure Mathematics courses numbered 3000 or higher, excluding Mathematics 3260 and 3330, at least 6 credit hours of which must be in courses numbered 4000 or higher;”

Page 460, 2012-2013 Calendar, under the heading 7.8.7 Honours in Applied Mathematics (B.Sc. Only), amend clause 4 to read as follows:

- “4. Nine further credit hours in courses numbered 3000 or higher that are offered by the Department of Mathematics and Statistics, excluding Mathematics 3330, at least 3 of which must be in courses numbered 4000 or higher;”

Page 460, 2012-2013 Calendar, under the heading 7.8.8 Honours in Pure Mathematics, amend clause 5 to read as follows:

- “5. Twelve further credit hours in Pure Mathematics courses numbered 3000 or higher, excluding Mathematics 3330, at least 9 credit hours of which must be in courses numbered 4000 or higher;”

Page 488, 2012-2013 Calendar, under the heading 8.8.3 Mathematics Courses, delete the entry for “MATH 3330 Euclidean Geometry.”

Page 488, 2012-2013 Calendar, under the heading 8.8.3 Mathematics Courses, amend the PR (Prerequisite) section of “MATH 3331 Projective Geometry” to read as follows:

“PR: MATH 2051”

59.14 Department of Psychology

Page 466, 2012-2013 Calendar, under the heading 7.11.8.1 Admission Requirements, amend paragraph 5 to read as follows:

“The deadline date for application is December 15.”

Page 466, 2012-2013 Calendar, under the heading 7.11.7 Requirements for a Minor in Psychology, amend paragraph “a.” to read as follows:

“Psychology 1000, 1001, and 2920 (or 2910 or 2925)”

Page 465, 2012-2013 Calendar, under the heading 7.11.3 Requirements for a Major in Psychology, amend the first paragraph to read as follows:

“Students completing this program cannot receive credit for Psychology 2920. Students who intend to pursue graduate studies should take courses leading to the Honours degree.”

Page 465, 2012-2013 Calendar, under the heading 7.11.3 Requirements for a Major in Psychology, delete “Biology/Psychology 3750 and” from the beginning of the note in section 7.11.3.(2d).

Department of Psychology (cont'd)

Page 465, 2012-2013 Calendar, under the heading 7.11.5 Requirements for a Major in Behavioural Neuroscience (B.Sc. Only), amend section 7.11.5.(3c) to read as follows:

“c. Chemistry: 2100, 2210, 2301 (or 2300) or any 3000 or 4000 level course”

Page 465, 2012-2013 Calendar, under the heading 7.11.5 Requirements for a Major in Behavioural Neuroscience (B.Sc. Only), amend *Note 1.* to read as follows:

*“Credit may not be obtained for both Biology 3750 and Psychology 3750 or for both Biology 4701 and Psychology 4701.”*

Page 467, 2012-2013 Calendar, under the heading 7.11.8.4 Registration and Evaluation Performance, delete “PASS WITH DISTINCTION, PASS, FAIL” from section 7.11.8.4.(2a) and replace with “OUTSTANDING, EXCEEDS EXPECTATIONS, SATISFACTORY, OR FAIL.”

Page 467, 2012-2013 Calendar, under the heading 7.11.8.4 Registration and Evaluation Performance, delete “PASS WITH DISTINCTION, PASS, FAIL” from the sentence that begins, “Evaluation of the work term report will result...,” in section 7.11.8.4.(2) and replace with “OUTSTANDING, EXCEEDS EXPECTATIONS, SATISFACTORY, OR FAIL.”

Page 468, 2012-2013 Calendar, under the heading 7.11.9 Suggested Course Sequences, amend the “Suggested Courses” blocks of semesters 2, 3, and 4 of the tables “Suggested Course Sequence for B.Sc. in Behavioural Neuroscience (Co-operative)” and “Suggested Course Sequence for B.Sc. (Honours) in Behavioural Neuroscience (Co-operative)” to read as follows:

<b>Winter Semester 2</b>	Psychology 1001 Chemistry 1011 (1051) Mathematics 1000** Physics 1020 (1050)**** English 1101, 1102, 1103, or 1110
<b>Fall Semester 3</b>	Psychology 2910 Psychology 2520 (or 2570) Chemistry 2440*** Biology 1002 or Physics 1021 (1051)**** BHNR Requirement 1 *****
<b>Winter Semester 4</b>	Psychology 2911 Psychology 2570 (or 2520) Mathematics 1001 or Science requirement Biology 1002 or Physics 1021 (1051)**** BHNR Requirement 2

59.15 Department of Computer Science

Page 481, 2012-2013 Calendar, under the heading 8.4.2 Second Year Courses, insert new course, “Computer Science 2718 Development Tools, Work Flows and Concepts,” to read as follows:

**“2718 Development Tools, Work Flows and Concepts** covers tools, work flows and concepts used in software development in a concentrated introductory set of topics. The essential work flows (with their underlying concepts) used to edit, build, test, combine with existing software and find existing software are introduced. The tools covered include text editors, programming language translators, file management tools, debuggers, scripting tools, source control tools, and building, testing and deployment tools. The architecture and use of an Integrated Development Environment are discussed.

LH: 3

PR: COMP 1510 or COMP 1550 or COMP 1700 or COMP 1710 or COMP 2650.”

59.16 School of Nursing

Page 403, 2012-2013 Calendar, under the heading 5.3 Bachelor of Nursing (Collaborative) LPN Bridging Option, amend Table 5 in the following manner:

1. insert “NURS 2017” into the Required Courses block of Winter Academic Term 3;
2. delete the phrase “3 credit hours in Business” from the Required Courses block of Fall Academic Term 4;
3. insert the phrase “3 credit hours in Business” as the first item in the Required Courses block of Winter Academic Term 5;
4. and delete “NURS 3512” from the Required Courses block of Winter Academic Term 5 and replace with “NURS 3513.”

Page 399, 2012-2013 Calendar, under the heading 5.1 Bachelor of Nursing (Collaborative) Program, amend Table 1 by deleting “NURS 3512” from the Required Courses block of Fall Academic Term 5 and replacing with “NURS 3513.”

Page 399, 2012-2013 Calendar, under the heading 5.1 Bachelor of Nursing (Collaborative) Program, amend Table 2 by removing the phrase “3 credit hours in Business” from the Required Courses block of Fall Academic Term 5 and inserting it as the first item in the Required Courses block for Winter Academic Term 6; additionally, in the Required Courses block for Winter Academic Term 6, delete “NURS 3512” and replace with “NURS 3513.”

Page 399, 2012-2013 Calendar, under the heading 5.1 Bachelor of Nursing (Collaborative) Program, amend Table 3 by deleting “NURS 3512” from the Required Courses block of Winter Academic Term 6 and replacing with “NURS 3513.”

59.17 Faculty of Education

Page 204, 2012-2013 Calendar, under the heading Faculty of Education: Section Contents, insert a new entry, “2.7 Additional Information,” and renumber remaining entries accordingly.

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Page 204, 2012-2013 Calendar, under the heading Faculty of Education: Section Contents, subheading List of Tables, delete the phrase “Integrated Delivery” from the title of Table 1, and, from Table 2, delete the phrase “First Degree Consecutive Delivery” and replace with the phrase “Second Degree.”

Page 206, 2012-2013 Calendar, under the heading 2.6 Admission, delete the opening *Note* and insert a new paragraph 2, appropriately renumbering the remaining paragraphs, to read as follows:

- “2. At least three positions per year are available in Education programs for applicants of Aboriginal ancestry who have met the admission requirements. Applicants must submit a letter of request with the Faculty application and provide documentation of Aboriginal ancestry.”

Page 206, 2012-2013 Calendar, under the heading 2.6 Admission, amend the “Application Deadline Dates” table, under the newly numbered paragraph 3, by deleting the first row entirely, deleting the phrase “Integrated Delivery Program” in the Program column of the second row, and changing the Application Deadline dates for Fall (from June 15 to May 15) and Winter (from October 1 to September 15) in the final two rows.

Page 205, 2012-2013 Calendar, under the heading 2 Faculty of Education Degree Regulations, insert a new section “2.7 Additional Information,” renumbering the remaining sections accordingly, to read as follows:

**“2.7 Additional Information**

The Faculty of Education does not require criminal record checks or other screening procedures as a condition of admission to programs. Students should, however, be aware that such record checks or other screening procedures are required by school districts/schools that host education students. Such agencies will not accept students without a clear criminal record check or other screening procedure, thus preventing the student from completing a required component of the program. As a result, such students may not be eligible for promotion or graduation.

It is the students’ responsibility to have such procedures completed as required and at their own expense. The Faculty of Education expects students to provide evidence of a clear criminal record check before they are assigned to a school.

The screening procedures of any given agency may change from time to time and are beyond the control of the University.”

Page 207, 2012-2013 Calendar, under the newly numbered heading 2.8 Regulations for Readmission and Advancement, delete “Bachelor of Education (Primary/Elementary) as a First Degree Consecutive Delivery Program” from the first sentence of the opening paragraph.

Page 205, 2012-2013 Calendar, under the heading 2 Faculty of Education Degree Regulations, amend the newly numbered section heading 2.9 by deleting “First Degree Consecutive Delivery Program, Bachelor of Education as a” so the heading will read as follows:

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**“2.9 Regulations for Readmission and Advancement for the Bachelor of Education (Primary/Elementary) as a Second Degree, Bachelor of Education (Intermediate/Secondary), and Bachelor of Education (Intermediate/Secondary) Conjoint with the Diploma in Technology Education”**

Page 205, 2012-2013 Calendar, under the heading 2 Faculty of Education Degree Regulations, amend the newly numbered section heading 2.11 by deleting “Department of Education” so the heading will read as follows:

**“2.11 Registration in Education Courses for Teacher Certification Upgrading and the Post- Secondary Instructors Certificate (as issued by the Government of Newfoundland and Labrador)”**

Page 208, 2012-2013 Calendar, under the newly numbered heading 2.12 Bachelor of Education (Primary/Elementary), delete the opening *Important Notice* entirely.

Page 208, 2012-2013 Calendar, under the newly numbered heading 2.12.1 Bachelor of Education (Primary/Elementary) as a First Degree, amend entire section to read as follows:

**“2.12.1 Bachelor of Education (Primary/Elementary) as a First Degree**

The Bachelor of Education (Primary/Elementary) as a First Degree is a 150 credit hour program. With the appropriate academic planning, students can commence this integrated Education program in the Fall semester of their third year of studies.

Refer to the **Application Deadline Dates** table for application deadlines.”

Page 208, 2012-2013 Calendar, under the newly numbered heading 2.12.1.1 Admission, delete from paragraph 1 the first sentence and, from the last sentence, the phrase “for Integrated Delivery,” and, from paragraph 2, delete the second sentence, starting with “Students applying to the...”

Page 208, 2012-2013 Calendar, under the newly numbered heading 2.12.1.2 Regulations for the Degree of Bachelor of Education (Primary/Elementary) as a First Degree, delete the entire section and replace with the following:

- “1. Candidates for the degree of Bachelor of Education (Primary/Elementary) as a First Degree shall complete 150 credit hours. The 150 credit hours must include:
  - a. 75 credit hours in non-education courses including the courses required for admission, courses required to complete the focus area, and HKR 2001; and
  - b. 75 credit hours in Education courses as specified in the Bachelor of Education (Primary/Elementary) as a First Degree Program Plan.
2. Following admission, students will normally progress in attaining the 150 credit hours required for the Bachelor of Education (Primary/Elementary) as a First Degree, in the academic terms, sequence and course load specified in the Program Plan. In particular, students:

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- a. must have all non-education requirements completed prior to Professional Year;
- b. must enrol full-time during the Professional Year; and
- c. may enrol in the internship only after successful completion of the Professional Year.”

Page 209, 2012-2013 Calendar, delete the phrase “Integrated Delivery” from the title of, and the opening paragraph of, the newly numbered heading 2.12.1.3 Bachelor of Education (Primary/Elementary) as a First Degree Integrated Delivery Program Plan. In addition, delete the phrase “Integrated Delivery” from the title of Table 1 within this section.

Page 209, 2012-2013 Calendar, under the newly numbered heading 2.12.1.4 French Immersion Option, insert an *Important Notice* directly after the heading to read as follows:

**Important Notice**

Effective with 2015 admission, a French Immersion Option (St. John’s Campus) will be available for the Bachelor of Education (Primary/Elementary) as a Second Degree Program. Students should contact the Office of Undergraduate Student Services, Faculty of Education, for information on meeting the requirements for this option.

Page 209, 2012-2013 Calendar, under the newly numbered heading 2.12.1.4 French Immersion Option, amend the first and third paragraphs respectively to read as follows:

“The French Immersion Option is currently only available in the Bachelor of Education (Primary/Elementary) as a First Degree Program.

These students must meet all requirements for the Bachelor of Education (Primary/Elementary) as a First Degree Program except as modified in Clauses 1.-3. below:”

Page 205, 2012-2013 Calendar, under the heading 2 Faculty of Education Degree Regulations, delete the regulation 2.11.1.5 Bachelor of education (Primary/Elementary) as a First Degree Consecutive Delivery Program Plan in its entirety.

Page 210, 2012-2013 Calendar, under the newly numbered heading 2.12.1.5 Focus Area, subheading French (21 credit hours), amend section to read as follows:

**“French (21 credit hours):**

A maximum of 6 credit hours at the 1000 level

1. French 2100 or equivalent
2. French 2101 or equivalent
3. French 2300 or equivalent
4. French 2601 or French 2602 or equivalent
5. French 3100 or French 3101 or equivalent
6. At least four weeks at an approved francophone institution in a French-speaking area or have acquired equivalent work experience in a francophone environment.
7. Additional credit hours in French if needed, to bring the total to 21.

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It is recommended that students complete at least one of French 2900, 3650, 3651, 3652, 3653, 3654

Note: *Students may wish to select the French Immersion Option listed at the end of the Bachelor of Education (Primary/Elementary) as a First Degree Program Plan.*"

Page 211, 2012-2013 Calendar, under the newly numbered heading 2.12.2 Bachelor of Education (Primary/Elementary) as a Second Degree, add a final sentence to read as follows:

"This consecutive program is offered in a four semester (16 month), full-time format and commences in the Spring Semester of each year."

Page 211, 2012-2013 Calendar, under the newly numbered heading 2.12.2.2 Regulations for the Degree of Bachelor of Education (Primary/Elementary) as a Second Degree, amend section to read as follows:

**"2.12.2.2 Regulations for the Degree of Bachelor of Education (Primary/Elementary) as a Second Degree**

1. In addition to meeting these regulations, students must also meet **UNIVERSITY REGULATIONS - General Academic Regulations (Undergraduate) - Second Degree**.
2. To obtain the Bachelor of Education (Primary/Elementary) as a Second Degree, students will be required to complete 72 credit hours. The 72 credit hours are specified in **The Bachelor of Education (Primary/Elementary) Second Degree Program Plan**.
3. Students will normally attend full-time and complete the Bachelor of Education (Primary/Elementary) Second Degree program in the academic terms, sequence, and course load as set out in the Program Plan."

Page 211, 2012-2013 Calendar, insert a new heading, 2.12.2.3 Bachelor of Education (Primary/Elementary) as a Second Degree Program Plan, under which insert Table 2 from the previous 2.11.1.5 section on page 209 of the 2012-2013 Calendar, with a table header to read as follows:

"Table 2 Bachelor of Education (Primary/Elementary) as a Second Degree Program Plan"

Page 212, 2012-2013 Calendar, under the newly numbered heading 2.13.1 Admission, amend clause 2.b(i) by deleting "Effective with admission for Fall 2014," and capitalizing the word "In" following that phrase, and amend clause 2.b(ii) by deleting "Effective with admission for Fall 2014," capitalizing the word "In" following that phrase, and deleting the final bracket after the phrase "Francophone environment."

Page 213, 2012-2013 Calendar, under the newly numbered heading 2.14.1 Admission, amend clause 2.b. by deleting "Effective with admission for Spring 2014," and capitalizing the word "In" following that phrase."

Page 215, 2012-2013 Calendar, under the newly numbered heading 2.20 Bachelor of Education (Native and Northern), amend the first sentence by deleting the phrase "Native students in Labrador" and replacing it with "Aboriginal students in Labrador."

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Page 215, 2012-2013 Calendar, under the newly numbered heading 2.20.1 Regulations for Admission/Readmission and Advancement to the Bachelor of Education (Native and Northern), delete clause 1 entirely and renumber remaining clauses accordingly; following that, delete the word "Faculty" from the newly numbered clause 1 and replace with the word "Bachelor;" lastly, in the last clause, now numbered clause 6, delete the superfluous bracket after "(Native and Northern)."

Page 215, 2012-2013 Calendar, under the newly numbered heading 2.20.2 Regulations for Students on the Primary/Elementary Education Route, amend the *Note* following clause 5(a) by deleting the phrase "Office of Native Education" and replacing with "Office of Undergraduate Student Services."

Page 216, 2012-2013 Calendar, under the newly numbered heading 2.20.3 Regulations for Students on the Secondary Education Route, amend the *Note* following clause 5(a) by deleting the phrase "Office of Native Education" and replacing with "Office of Undergraduate Student Services."

Page 218, 2012-2013 Calendar, under the heading 3.3 Regulations for the Diploma in Native and Northern Education in Labrador, amend clause 2 by deleting the second sentence, starting with "Application forms may be..." entirely.

Page 219, 2012-2013 Calendar, under the heading 5 Course Descriptions, remove references to "IS, ISI" from the titles of the courses noted below so that the end result reads as follows:

"2900 Introduction to Statistics in Education (PE,ME)  
3210 An Introduction to Guidance Services (A,PE)  
3211 Introduction to Career Education (PE)  
3255 Child Abuse and the School-Age Child (PE)  
3290 Identifying Learner Diversity Within a Context of Culture (PE)  
3565 Gender and Schooling (PE)  
3570 History of North American Education (PE)  
3571 The History of Education in Newfoundland Since 1800 (PE)  
3585 Multiculturalism and Education (PE)  
4420 Legal and Moral Issues in education (PE)  
4425 Introduction to Educational Administration (PE)  
4610 The Nature and Management of Stress (PE)  
4901 Effective Teaching Strategies for Multi-grade/Multi-age Classrooms (PE)"

Page 219, 2012-2013 Calendar, under the heading 5 Course Descriptions, delete, from the course description of the course 406T, the word "work" from the phrase "work day teaching" and replace with the word "school."

Page 219, 2012-2013 Calendar, under the heading 5 Course Descriptions, amend the course title for "4180" to read as follows:

"4180 The Teaching and Learning of Social Studies in the Intermediate and Secondary School I (IS,ISI,ME,NS)"

Page 219, 2012-2013 Calendar, under the heading 5 Course Descriptions, delete the following courses:



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“4250 and 4251 Institute for Teaching French in Immersion Programmes Courses (PE)  
4252 and 4253 Institute in the Teaching of Social Studies in the French Immersion Courses (PE)  
4275 Environmental Education Across the Curriculum (IS, ISI)  
4943 Computing Technology in Mathematics Education in the Primary and Elementary Grades (PE)  
4944 Computing Technology in Mathematics Education in the Secondary School Grades”

59.18 School of Music

Page 378, 2012-2013 Calendar, under the heading 5.1 Transition to New Bachelor of Music Degree Program, amend Table 1, which is found under clause 3, by adding a new substitutions block directly above the Aural Skills block to read as follows:

UNDER PREVIOUS CALENDAR	SUBSTITUTION
<p><b>Music Theory</b></p> <p><b>For students in the Theory/Composition Major or Joint Major in Performance and Theory/Composition:</b> 3107</p> <p><b>For all other students:</b> 3107</p>	<p><b>Music Theory/Composition</b></p> <p><b>For students in the Theory/Composition Major or Joint Major in Performance and Theory/Composition:</b> 3 c.h. from courses beyond the 2000 level in Music Theory/Composition</p> <p><b>For all other students:</b> 3105</p>

Page 387, 2012-2013 Calendar, under the heading 11.3 Music Theory and Composition Courses, delete the course “3107 Materials and Techniques of Music V.”

Page 388, 2012-2013 Calendar, under the heading 11.4 Musicologies Courses, delete the courses “2002 Music Histories III” and “2003 Music Histories IV.”

59.19 Faculty of Engineering and Applied Science

Page 234, 2012-2013 Calendar, under the heading 3.4 Work Terms, amend the first paragraph to read as follows:

“Engineering work term registration, grading, and tuition fee charges and payments are governed by the **UNIVERSITY REGULATIONS** in this Calendar and those outlined below. Engineering work term placement and opt-outs, conduct, and evaluation are governed by the *Engineering Student Co-op Handbook* which is available at [www.mun.ca/coop/programs/engineering/enghandbook.pdf](http://www.mun.ca/coop/programs/engineering/enghandbook.pdf). Any changes to the *Engineering Student Co-op Handbook* require the approval of the Committee on Undergraduate Studies.”

Page 234, 2012-2013 Calendar, under the heading 3.4.1 General Information, amend entire section to read as follows:

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**“3.4.1 General Information**

- During work terms students are brought into direct contact with the engineering profession, exposed to the work place setting, expected to assume ever-increasing responsibility in employment situations as their education advances, and introduced to experiences beyond the scope of those which could be provided in the classroom.
- Students are responsible for finding suitable work placements. The Division of Co-operative Education provides resources to assist in this process. Students who obtain a work placement outside the job competition must have that work placement approved by the Division of Co-operative Education prior to accepting it.
- Students who cannot meet the demands of the work term may be required by the Faculty to withdraw from the work term until they can demonstrate an ability to continue in the program.
- Following the date of automatic registration for a work term, only students who are registered for that work term will be permitted to continue in, or subsequently join, the job placement process and be approved to begin a work placement.
- Students in the job competition who refuse all job offers without the prior consent of the Division of Co-operative Education may be subject to penalties that may include the assignment of a grade of FAL (fail) for that work term.
- Students are not permitted to drop work terms without prior approval of the Committee on Undergraduate Studies, on the recommendation of the Division of Co-operative Education. Students who drop a work term without permission, or who fail to honour an agreement to work with an employer, will be assigned a grade of FAL (fail) for that work term.
- Students who conduct themselves in such a manner as to cause their termination from the job, will normally be assigned a grade of FAL (fail) for that work term.
- Students who are registered for a work term and who do not opt out from that work term must complete that work term successfully as a requirement for graduation.
- Students who opt out from a work term are not permitted to work for a co-op employer during that work term.
- Students who opt out from a work term and who work for a co-op employer during that work term may be considered to have committed an academic offence and will be subject to the penalties listed under University Regulations, Academic Offences.
- Students in a work term who do not meet the deadlines stated by the Division of Co-operative Education for the submission of forms and documentation may be awarded a reduced grade for one or both components of that work term.
- The work term performance grade is assigned by the student's Coordinator based upon feedback from the employer and other information gathered from contact with the student.”

Page 234, 2012-2013 Calendar, under the heading 3.4.2 Evaluation of Work Terms, amend the first paragraph to read as follows:

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“Two components are considered in work term evaluation: work performance and a communications component, as described in the *Engineering Student Co-op-Handbook* which is available at [www.mun.ca/coop/programs/engineering/enghandbook.pdf](http://www.mun.ca/coop/programs/engineering/enghandbook.pdf).”

Page 243, 2012-2013 Calendar, under the heading 6.3 Promotion Status (Beyond Engineering One), amend the second paragraph to read as follows:

“A student’s promotion status will be determined beyond Engineering One and at the end of each academic semester in one of the following three categories:”

Page 243, 2012-2013 Calendar, under the heading 6.3.2 Probationary Promotion, insert a new clause, to be clause 7, to read as follows:

“7. A student who has failed the communications component of a work term and who, in the opinion of the Division of Co-operative Education, can benefit from a remedial program, may be permitted an extension of time, not to exceed the end of the registration period of the subsequent semester, to complete the requirements of the work term.”

Page 243, 2012-2013 Calendar, under the heading 6.3.3 Promotion Denied, delete clause 4 and replace with new clause 4 to read as follows:

“A work term may be repeated only once, and not more than two work terms may be repeated in the entire program.”

Page 243, 2012-2013 Calendar, under the heading 6.3.3 Promotion Denied, insert a new clause 6 to read as follows and re-number remaining clause accordingly:

“A student who is denied promotion from an academic term may not continue to the subsequent work term unless both the employer and the Division of Co-operative Education grant permission.”

Page 244, 2012-2013 Calendar, under the heading 6.4 Other Information, amend clause 2 to read as follows:

“2. To be recommended for graduation, a student must have clear promotion from Academic Term 8, must have successfully completed the four mandatory work terms, any elective work terms undertaken and must have an average of at least 60% in the 21 credit hours in complementary studies as described in **Description of Program, Complementary Studies.**”

Page 245, 2012-2013 Calendar, under the heading 9.1 Work Terms and Non-Credit Courses, for the course description of “001W Engineering Work Term 1” delete the second paragraph in its entirety and amend the first paragraph to read as follows:

“**001W Engineering Work Term 1** represents, for most students, their first experience in an engineering or related work environment. Students are expected to learn, develop and practise the basic standards of behaviour, discipline and performance normally found in a professional work environment. Students are expected to learn the basics of technical writing

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and to become familiar with the various communications tools used in a technical work environment. The communications component for Work Term 1 will include a daily diary and a written document.”

Page 245, 2012-2013 Calendar, under the heading 9.1 Work Terms and Non-Credit Courses, for the course description of “002W Engineering Work Term 2” delete the second and third paragraphs entirely and amend the first paragraph to read as follows:

**“002W Engineering Work Term 2** requires students to contribute positively to the engineering design and problem solving processes practised in the work environment. Students are expected to show greater independence and responsibility and function as a more effective team member than in Work Term 1. An ability to deal, under supervision, with complex work-related concepts and problems should also be demonstrated. Students can become better acquainted with their chosen discipline, and the attitudes, responsibilities, and ethics normally expected of engineers. The communications component for Work Term 2 consists of a formal, descriptive technical report on a topic chosen from the student’s work environment.”

Page 245, 2012-2013 Calendar, under the heading 9.1 Work Terms and Non-Credit Courses, for the course description of “003W Engineering Work Term 3” delete the second and third paragraphs entirely and amend the first paragraph to read as follows:

**“003W Engineering Work Term 3** requires greater participation in the student’s selected engineering discipline. Students become more experienced and proficient with the appropriate design procedures than in the preceding work terms. Students are expected to acquire improved speed and accuracy in their work and accept greater responsibility and be able to function with less direct supervision. Self-confidence and initiative as well as improved analytical skills are expected to develop at this stage in the student’s engineering education. The communications component for Work Term 3 consists of a formal technical report on a topic chosen from the student’s work environment.”

Page 245, 2012-2013 Calendar, under the heading 9.1 Work Terms and Non-Credit Courses, for the course description of “004W Engineering Work Term 4” delete the second paragraph in its entirety and amend the first paragraph to read as follows:

**“004W Engineering Work Term 4** requires students to engage in various facets of engineering, such as design, analysis, project management, specifications, plans, formal proposals, tender documents, etc. Participation in their selected engineering discipline is expected. Students should continue to gain an appreciation of the use and importance of acquired analytical skills in engineering analysis as well as the application of specifications and codes. Students should have a level of responsibility commensurate with their academic background and experience. The communications component for Work Term 4 consists of an oral presentation and written summary on a technical subject taken from the student’s work environment.”

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Page 245, 2012-2013 Calendar, under the heading 9.1 Work Terms and Non-Credit Courses, amend the text body of the course description of “005W Engineering Work Term 5” to read as follows:

“**005W Engineering Work Term 5** requires students to engage in various facets of engineering, such as design, analysis, project management, specifications, plans, formal proposals, tender documents, etc. Participation in their selected engineering discipline is expected. Students should continue to gain an appreciation of the use and importance of acquired analytical skills in engineering analysis as well as the application of specifications and codes. Students should have a level of responsibility commensurate with their academic background and experience. The communications component for Work Term 5 consists of a written report or oral presentation on a topic chosen from the student’s work environment.”

Page 245, 2012-2013 Calendar, under the heading 9.1 Work Terms and Non-Credit Courses, amend the text body of the course description of “006W Engineering Work Term 6” to read as follows:

“**006W Engineering Work Term 6** requires students to engage in various facets of engineering, such as design, analysis, project management, specifications, plans, formal proposals, tender documents, etc. Participation in their selected engineering discipline is expected. Students should continue to gain an appreciation of the use and importance of acquired analytical skills in engineering analysis as well as the application of specifications and codes. Students should have a level of responsibility commensurate with their academic background and experience. The communications component for Work Term 6 consists of a written report or oral presentation on a topic chosen from the student’s work environment.”

Page 245, 2012-2013 Calendar, under the heading 9.1 Work Terms and Non-Credit Courses, delete the phrase “based on attendance, participation and assignments” from the end of the course description for the course “200W Professional Development Seminars.”

Page 233, 2012-2013 Calendar, under the heading 3.2 Complementary Studies, clause 2, third bullet, amend to read as follows:

- “• ENGI 4102 must be completed before Term 6 in the Civil major: must be completed before Term 7 in all other majors”

Page 236, 2012-2013 Calendar, under the heading 5 Program Regulations, amend tables 1-7, found under subheadings 5.1 - 5.6, by deleting ENGI 4102 from the “Required Courses” column and inserting the phrase “Complementary Studies Elective” in the “Elective Courses column for the “Spring Academic Term 4” row of each table, as in the example below:

Spring Academic Term 4	ENGI 4102 [other courses]	Complementary Studies Elective [other courses]
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Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, amend the PR (Prerequisite) sections of the following list of courses, to read as follows:

**“6713 Hydraulics**

PR: ENGI 4102, ENGI 5713

**6749 Construction Planning Equipment and Methods**

PR: ENGI 4102, completion of Academic Term 5 of the Civil Engineering program

**7000 Ocean Systems Design**

PR: ENGI 3001, ENGI 3054, ENGI 4102

**7640 Process Engineering Project I**

PR: ENGI 4102, completion of academic term 6 of the process engineering program

**7803 Electrical Engineering Design Project I**

PR: ENGI 4102, completion of term 6 of the Electrical Engineering program

**7804 Computer Engineering Design Project I**

PR: ENGI 4102, completion of Term 6 of the Computer Engineering program

**7926 Mechanical Design Project**

PR: ENGI 4102, completion of Term 6 of Mechanical Engineering program”

Page 245, 2012-2013 Calendar, under the heading 9 Course Descriptions, amend the PR (Prerequisite) section of “5420 Probability and Random Processes” as follows:

“PR: Mathematics 1001 and ENGI 4823”

Page 235, 2012-2013 Calendar, under the heading 4.1 General Information, insert a new clause (clause # 4) to read as follows:

- “4. Up to three positions per year in the Faculty of Engineering and Applied Science may be designated for applicants of Aboriginal ancestry who have met the admission requirements of the program. Applicants must send a letter of request at the time of application and provide documentation of Aboriginal ancestry.”

Page 252, 2012-2013 Calendar, under the heading 9.8 Academic Term 8 Courses, insert new special topics course range, “8102-8149,” to read as follows:

**“8102-8149 Special Topics in Engineering** will have topics to be studied announced by the Faculty.”

Page 252, 2012-2013 Calendar, under the heading 9.8 Academic Term 8 Courses, amend special topics course range “8090-8099” to read as follows:

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**“8075-8099 Special Topics in Ocean and Naval Architectural Engineering** will have topics to be studied announced by the Faculty.”

Page 252, 2012-2013 Calendar, under the heading 9.8 Academic Term 8 Courses, amend special topics course range “8601-8610” to read as follows:

**“8601-8610 and 8625-8639 Special Topics in Process Engineering** will have topics to be studied announced by the Faculty.”

Page 252, 2012-2013 Calendar, under the heading 9.8 Academic Term 8 Courses, amend special topics course range “8780-8799” to read as follows:

**“8765-8799 Special Topics in Civil Engineering** will have topics to be studied announced by the Faculty.”

Page 252, 2012-2013 Calendar, under the heading 9.8 Academic Term 8 Courses, amend special topics course range “8801-8805” to read as follows:

**“8801-8805 (excluding 8804) and 8814-8820 Special Topics in Computer Engineering** will have topics to be studied announced by the Faculty.”

Page 252, 2012-2013 Calendar, under the heading 9.8 Academic Term 8 Courses, amend special topics course range “8806-8809” to read as follows:

**“8806-8809 and 8833-8840 Special Topics in Electrical Engineering** will have topics to be studied announced by the Faculty.”

Page 252, 2012-2013 Calendar, under the heading 9.8 Academic Term 8 Courses, amend special topics course range “8970-8979” to read as follows:

**“8970-8994 (excluding 8981 and 8991) Special Topics in Mechanical Engineering** will have topics to be studied announced by the Faculty.”

Page 252, 2012-2013 Calendar, under the heading 9.8 Academic Term 8 Courses, insert new course, “ENGI 8150 Engineering Entrepreneurship,” with a course description to read as follows:

**“ENGI 8150 Engineering Entrepreneurship** is an introduction to the concepts, issues, and themes related to business planning, strategy, and entrepreneurship, with an overview of the functional activities in a typical business venture. Business analysis and planning skills are developed. The course explores the business planning and strategic management issues of technology-driven enterprises in the early stages of development and focuses on the engineer as an entrepreneur.

CR: the former ENGI 8607

PR: completion of Academic Term 6”

Page 243, 2012-2013 Calendar, under the heading 6.3.3 Promotion Denied, amend clause 5 to read as follows:

“5. A student who is denied promotion from an academic term will be required to repeat all required courses in which the student obtained a numeric grade of less than 60% in that term. In addition, the

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Admissions Committee may design a remedial program to address the student's specific area(s) of weakness. A technical elective course in which the student obtained a numeric grade of less than 60% may be replaced by a course acceptable in the student's program."

59.20 Grenfell Campus

Page 283, 2012-2013 Calendar, under the heading 7.5.2.3 Transfers from Other Post-Secondary Institutions, insert a new paragraph at the end of section to read as follows:

- "3. Students who have graduated from, or are in their last semester of, a two-year diploma in Business Administration offered by College of the North Atlantic may apply for advanced standing into the B.B.A. program offered by Grenfell Campus (see sections 7.8.6 through 7.8.9 for details of the articulation agreements between these programs)."

Page 289, 2012-2013 Calendar, directly after section 7.8.5 Bachelor of Resource Management for Graduates of the Two-Year Forest Resources Technician Program, insert four new sections, "7.8.6 - 7.8.9" to read as follows:

**"7.8.6 Bachelor of Business Administration for Graduates of the Two-Year Business Administration (Accounting) Diploma Program**

Students who have graduated from the two-year Business Administration (Accounting) diploma program offered by the College of the North Atlantic and who are entering the Grenfell Campus Bachelor of Business Administration program will be given a total of 60 credit hours toward the 120 credit hour degree program.

Note: *This credit transfer does not apply to programs offered in the Faculty of Business Administration, St. John's Campus.*

Students will be required to complete an additional 60 credit hours for the Grenfell Campus B.B.A. program as follows:

**For Students Completing the Contemporary Business Studies Concentration:**

1. Economics 2020
2. English 1000 or equivalent
3. Mathematics 1000
4. Business 2400, 2700, 3310, 3401, 4050, 4330, 4500, 5301, 7000, 7010
5. Business 3350, 5302, 7050
6. 12 credit hours in non-Business elective courses

Note: *When choosing elective courses, students must select at least 6 credit hours from the **Breadth of Knowledge Requirement** Group A, as found in section 3 **Grenfell Campus Core Program Requirements**. Students must also select at least 6 credit hours from **Designated Writing Courses (W)**, as found in section 3.1.*



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**For Students Completing the Small Business and Entrepreneurship Concentration:**

1. Economics 2020
2. English 1000 or equivalent
3. Mathematics 1000
4. Business 2400, 2700, 3310, 3401, 4050, 4330, 4500, 5301, 7000, 7010
5. Business 5220, 5600, 7600
6. 12 credit hours in non-Business elective courses

Note: *When choosing elective courses, students must select at least 6 credit hours from the **Breadth of Knowledge Requirement Group A**, as found in section 3 **Grenfell Campus Core Program Requirements**. Students must also select at least 6 credit hours from **Designated Writing Courses (W)**, as found in section 3.1.*

**7.8.7 Bachelor of Business Administration for Graduates of the Two-Year Business Administration (Human Resource Management) Diploma Program**

Students who have graduated from the two-year Business Administration (Human Resource Management) diploma program offered by College of the North Atlantic and who are entering Grenfell Campus Bachelor of Business Administration program will be given a total of 60 credit hours toward the 120 credit hour degree program.

Note: *This credit transfer does not apply to programs offered in the Faculty of Business Administration. St. John's Campus.*

Students will be required to complete an additional 60 credit hours for the Grenfell Campus B.B.A. program as follows:

**For Students Completing the Contemporary Business Studies Concentration:**

1. Economics 2020
2. English 1000 or equivalent
3. Mathematics 1000
4. Business 2101, 2400, 2700, 3401, 4050, 4500, 5301, 7000, 7010
5. Business 3350, 5302 and 7050
6. 15 credit hours in non-Business elective courses

Note: *When choosing elective courses, students must select at least 6 credit hours from the **Breadth of Knowledge Requirement Group A**, as found in section 3 **Grenfell Campus Core Program Requirements**. Students must also select at least 6 credit hours from **Designated Writing Courses (W)**, as found in section 3.1.*

**For Students Completing the Small Business and Entrepreneurship Concentration:**

1. Economics 2020
2. English 1000 or equivalent
3. Mathematics 1000
4. Business 2101, 2400, 2700, 3401, 4050, 4500, 5301, 7000, 7010

Grenfell Campus (cont'd)

5. Business 5600, 7600, and one of Business 3210, 6500, 6600, 6610, 7610
6. 15 credit hours in non-Business elective courses

Note: *When choosing elective courses, students must select at least 6 credit hours from the **Breadth of Knowledge Requirement Group A**, as found in section 3 **Grenfell Campus Core Program Requirements**. Students must also select at least 6 credit hours from **Designated Writing Courses (W)**, as found in section 3.1.*

**7.8.8 Bachelor of Business Administration for Graduates of the Two-Year Business Administration (Marketing) Diploma Program**

Students who have graduated from the two-year Business Administration (Marketing) diploma program offered by the College of the North Atlantic and who are entering the Grenfell Campus Bachelor of Business Administration program will be given a total of 60 credit hours toward the 120 credit hour degree program.

Note: *This credit transfer does not apply to programs offered in the Faculty of Business Administration, St. John's Campus.*

Students will be required to complete an additional 60 credit hours for the Grenfell Campus B.B.A. program as follows:

**For Students Completing the Contemporary Business Studies Concentration:**

1. English 1000 or equivalent
2. Mathematics 1000
3. Business 2101, 2400, 2700, 3310, 3401, 4050, 4330, 4500, 5301, 7000, 7010
4. Business 3350, 5302 and 7050
5. 12 credit hours in non-Business elective courses

Note: *When choosing elective courses, students must select at least 6 credit hours from the **Breadth of Knowledge Requirement Group A**, as found in section 3 **Grenfell Campus Core Program Requirements**. Students must also select at least 6 credit hours from **Designated Writing Courses (W)**, as found in section 3.1.*

**For Students Completing the Small Business and Entrepreneurship Concentration:**

1. English 1000 or equivalent
2. Mathematics 1000
3. Business 2101, 2400, 2700, 3310, 3401, 4050, 4330, 4500, 5301, 7000, 7010
4. Business 5600, 7600, and one of Business 3210, 6500, 6600, 6610, 7610
5. 12 credit hours in non-Business elective courses

Note: *When choosing elective courses, students must select at least 6 credit hours from the **Breadth of Knowledge Requirement Group A**, as found in section 3 **Grenfell Campus Core Program Requirements**.*

Grenfell Campus (cont'd)

*Students must also select at least 6 credit hours from **Designated Writing Courses (W)**, as found in section 3.1.*

**7.8.9 Bachelor of Business Administration for Graduates of the Two-Year Business Administration (General) Diploma Program**

Students who have graduated from the two-year Business Administration (General) diploma program offered by the College of the North Atlantic and who are entering the Bachelor of Business Administration program will be required to complete a minimum of 60 credit hours for the Grenfell Campus B.B.A. program. Specific course requirements will be determined on an individual basis at the time of admission.”

Page 290, 2012-2013 Calendar, under the heading 8.3 Major in General Science, amend the Physics entry under regulation 2 to read as follows:

**“Physics**

Physics 1050, 1051, 2056, 2065 or 2820, 3060, 3220  
Two of Physics 2151, 2553, 3160, Earth Science 2150,  
Environmental Science 2430, 2450, 3470, 4479”

59.21 School of Social Work

Page 502, 2012-2013 Calendar, under the heading 3.1.1 Social Work Internships, amend entire section to read as follows:

**“3.1.1 Social Work Internships**

- In addition to their course work, students are required to complete two supervised 350 hour internships which normally occur in fall and winter semesters. Students are expected to be available to engage in the internship for 28 hours each week during the semester in which the internship is scheduled.
- Students will be placed at internship sites throughout the province as selected by the Field Education Coordinators.
- Although consideration will be given to all factors affecting the location and type of internship, the final decision regarding placement rests with the School. The School cannot guarantee availability of sites in all communities at all times.
- In extenuating circumstances, internships may be offered in whole or in part outside the normal start and end dates of a semester.
- Students are responsible for all costs associated with internships including travel and accommodation.”

Page 502, 2012-2013 Calendar, under the heading 4.1 General Information, amend clause 1 by deleting the phrase “for a limited number of placements” from the end of the sentence, and amend clause 4 to read as follows:

- “4. As part of the regular quota up to three seats per year are available in the Bachelor of Social Work as a First Degree program for applicants of First Nations/Aboriginal ancestry who have met the minimum numeric grade and course requirements for admission to the program. Applicants must send a letter of request at the time of application and provide documentation of First Nations/Aboriginal ancestry.”

School of Social Work (cont'd)

Page 502, 2012-2013 Calendar, under the heading 4.1 General Information, insert a new clause 5, to read as follows, and renumber remaining clause accordingly:

- “5. The School may, at its discretion, give preference to applicants who self-identify as a member of an equity group.”

Page 502, 2012-2013 Calendar, under the heading 4.3.1 First Degree Program, amend clause 4 to read as follows:

- “4. During the period between the date of application and the commencement of year 2, successful candidates will be required to meet the **Academic Requirements and Promotion Regulations** of the School of Social Work.”

Page 503, 2012-2013 Calendar, under the heading 4.3.3 Acceptance Procedures for Admission, insert a new clause, after clause 2, to read as follows:

- “3. The School of Social Work will not defer any admissions to the first or second degree programs.”

Page 504, 2012-2013 Calendar, under the heading 5.1 Bachelor of Social Work (as a First Degree), amend the paragraph of clause 3 to read as follows:

- “3. Students must complete the application for Social Work internship placement in January for fall semester internships and in April for winter semester internships.”

Page 504, 2012-2013 Calendar, under the heading 5.1 Bachelor of Social Work (as a First Degree), amend Table 1, under clause 3, in the following manner:

1. remove the phrase “Psychology 2010 or Psychology 2011 (whichever one has not been taken during Fall above)” from the Required Courses block of Year 2 Winter and reinsert it into the first item space in the same Year 2 Winter Required Courses block;”
2. insert “(12 credit hours)” after SCWK 3300 in the Required Courses block of Year 3 Fall
3. delete the phrase “One of Anthropology 3305 or” from the Required Courses block of Year 3 Winter;
4. and insert “(12 credit hours)” after SCWK 4302 in the Required Courses block of Year 4 Winter.”

Page 505, 2012-2013 Calendar, under the heading 5.2 Bachelor of Social Work (as a Second Degree), amend clause 3 to read as follows:

- “3. Students must complete the application for Social Work internship in January for fall semester internships and in April for winter semester internships.”

Page 505, 2012-2013 Calendar, under the heading 5.2 Bachelor of Social Work (as a Second Degree), amend Table 2, under clause 3, by inserting “(12 credit hours)” after SCWK 3300 in the Required Courses block of Year 1

School of Social Work (cont'd)

Semester 3 and after SCWK 4302 in the Required Courses block of Year 2 Semester 4.

Page 506, 2012-2013 Calendar, under the heading 6.2.4 Other Information, amend clause 2 to read as follows:

- “2. A student who has been denied promotion and has had to withdraw from the School but is eligible for consideration of readmission to the School
- must withdraw from the School for two academic terms before being considered for readmission;
  - must meet readmission deadlines as per Application Forms and Deadlines; and
  - will be permitted only one readmission to the School.”

Page 507, 2012-2013 Calendar, under the heading 9 Course Descriptions, delete the course “3310 Introduction to Forensic and Police Interviewing.”

59.22 Department of Mathematics and Statistics

Page 311, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, amend the course description for “2500 Statistics for Business and Arts Students” to read as follows:

“**2500 Statistics for Business and Arts Students** is descriptive statistics (including histograms, stem-and-leaf plots and box plots), elementary probability, random variables, the binomial distribution, the normal distribution, sampling distribution, estimation and hypothesis testing including both one and two sample tests, paired comparisons, correlation and regression, related applications.

CR: STAT 2550, the former STAT 2510, Psychology 2910, Psychology 2925 and the former Psychology 2900.

LH: 1.5

PR: MATH 1000 or 6 credit hours in first year courses in Mathematics or registration in at least semester 3 of a Bachelor of Nursing program or permission of the Head of Department.”

Page 311, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, amend the course title and description for “2550 Statistics for Life Science Students” to read as follows:

“**2550 Statistics for Science Students** is an introduction to basic statistics methods with an emphasis on applications to the sciences. Material includes descriptive statistics, elementary probability, binomial distribution, Poisson distribution, normal distribution, sampling distribution, estimation and hypothesis testing (both one and two sample cases), chi-square test, one way analysis of variance, correlation and simple linear regression.

CR: STAT 2500, the former 2510, Engineering 4421, Psychology 2910, 2925 and the former Psychology 2900.

LH: 1.5

OR: Statistical computer package will be used in the laboratory, but no prior computing experience is assumed

PR: MATH 1000 or the former MATH 1081”

Department of Mathematics and Statistics (cont'd)

Page 437, 2012-2013 Calendar, under the heading 4.1.11 Biology and Statistics Joint Honours (B.Sc. Only), amend clauses 1, 2, and 4 to read as follows:

- “1. Mathematics 1000 and 1001, Biology 1001 and 1002, English 1080 and 1110, Chemistry 1010 and 1011 (or 1050 and 1051), Physics 1020 and 1021, or equivalent;
2. Mathematics 2000, 2050, 2051, Statistics 2500, 2501 or 2560, 3520, 3521, 4530, and 4581;
4. Chemistry 2440 (or 2400 and 2401), Biochemistry 2101 and 3106;”

Page 437, 2012-2013 Calendar, under the heading 4.1.11 Biology and Statistics Joint Honours (B.Sc. Only), insert a new clause to read as follows:

- “7. A computing course. Computer Science 1510 is recommended.”

Page 438, 2012-2013 Calendar, under the heading 4.1.17 Computer Sciences and Statistics Joint Honours (B.Sc. Only), amend the first paragraph, and clauses 1 and 2, to read as follows:

“See **Regulations for the Honours Degree of Bachelor of Science**. The following courses are required:

1. Mathematics 1000, 1001, 2000, 2050, 2051, 2320, 3340, Statistics 1510 or 2500 or 2550, 2501 or 2560, 3410, 3411, 3520, 3521, 3530, 3540, 4590;
2. Eighteen further credit hours in Statistics courses including at least 12 credit hours in courses numbered 4000 or higher, but not including Statistics 4599 and 4581;”

Page 439, 2012-2013 Calendar, under the heading 4.1.21 Pure Mathematics and Statistics Joint Honours, amend first paragraph, and clauses 1 and 5, to read as follows:

“See **Regulations for the Honours Degree of Bachelor of Science**. The following courses are required:

1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2320, 3000, 3001, 3202, 3210, 3260, 4000, Statistics 1510 or 2500 or 2550, 2501 or 2560, 3410, 3411, 3520, 3521, 4402, 4410, 4530;
5. Eighteen further credit hours in Pure Mathematics and/or Statistics courses numbered 3000 or higher of which at least 12 credit hours must be from courses numbered 4000 or higher excluding Statistics 4581.”

Page 440, 2012-2013 Calendar, under the heading 4.2.8 Computer Science and Statistics Joint Major (B.Sc. Only), amend the first paragraph, and clauses 1, 2 and 3, to read as follows:

Department of Mathematics and Statistics (cont'd)

“The following courses are required:

1. Computer Science 1710, 2710, 2711, 2742, 2760, 3715, 3716, 3719, 3724, 3725, 3754, 4734, 4770.
2. Statistics 1510 or 2500 or 2550, and 2501 or 2560.
3. Mathematics 1000, 1001, 2000, 2050, 2051, 2320, 3340, Statistics 3410, 3411, 3520, 3521, 3540, 4590.”

Page 460, 2012-2013 Calendar, under the heading 7.8.6 Major in Statistics, amend clauses 1 and 4 to read as follows:

- “1. Mathematics 1000, 1001, 2000, 2050, 2051, Statistics 2560, 3410, 3411, 3520, 3521, 4530;
4. A computing course. Computer Science 1510 is recommended.”

Page 460, 2012-2013 Calendar, under the heading 7.8.9 Honours in Statistics, amend clauses 1, 4 and 5 to read as follows:

- “1. Mathematics 1000, 1001, 2000, 2050, 2051, 3000, 3001, 3132, 3202, 3210, Statistics 2560, 3410, 3411, 3520, 3521, 4410, 4590, 4599;
4. A computing course. Computer Science 1510 is recommended;
5. Mathematics 4000 is recommended.”

Page 461, 2012-2013 Calendar, under the heading 7.8.11 Minor in Statistics, amend clause 1 to read as follows:

- “1. Mathematics 1000, 1001; Statistics 1510 or 2500 or 2550, Statistics 2501 or 2560.”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “2500 Statistics for Business and Arts Students” to read as follows:

“**2500 Statistics for Business and Arts Students (F) & (W)** covers descriptive statistics (including histograms, stem-and-leaf plots and box plots), elementary probability, random variables, the binomial distribution, the normal distribution, sampling distribution, estimation and hypothesis testing including both one and two sample tests, paired comparisons, correlation and regression, related applications.

CR: STAT 2550, the former 2510, Psychology 2910, 2925 and the former 2900.

LH: one 90 minute lab per week. Statistical computer package will be used in the laboratory, but no prior computing experience is assumed.

PR: Mathematics 1000 or 6 credit hours in first year courses in Mathematics or registration in at least semester three of a Bachelor of Nursing program or permission of the Head of Department.”

Department of Mathematics and Statistics (cont'd)

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “2501 Further Statistics for Business and Arts Students” to read as follows:

“**2501 Further Statistics for Business and Arts Students (F)** covers power calculation and sample size determination, analysis of variance, multiple regression, non parametric statistics, time series analysis, introduction to sampling techniques.

CR: STAT 2560, the former 2511, Psychology 2911, 2950, and the former 2901

LH: one 90 minute lab per week. Statistical computer package will be used in the laboratory.

PR: STAT 2500 or the former 2510”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, delete “2510 Statistics for Physical Students.”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course title and description for “2550 Statistics for Life Science Students” to read as follows:

“**2550 Statistics for Science Students** is an introduction to basic statistics methods with an emphasis on applications to the sciences. Material includes descriptive statistics, elementary probability, binomial distribution, Poisson distribution, normal distribution, sampling distribution, estimation and hypothesis testing (both one and two sample cases), chi-square test, one way analysis of variance, correlation and simple linear regression.

CR: STAT 2500, the former 2510, Engineering 4421, Psychology 2910, 2925 and the former Psychology 2900

LH: one 90 minute lab per week. Statistical computer package will be used in the laboratory, but no prior computing experience is assumed.

PR: Mathematics 1000 or the former 1081”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course title and description for “3410 Mathematical Statistics I” to read as follows:

“**3410 Probability and Statistics** covers basic probability concepts, combinatorial analysis, conditional probability, independence, random variables, distribution function, mathematical expectation, Chebyshev’s inequality, distribution of two random variables, binomial and related distributions, Poisson, gamma, beta, normal, multivariate normal, student t and F distributions, transformations of random variables, convergence in probability, convergence in distribution, delta-method, moment-generating function technique, central limit theorem.

OR: one and a half hour tutorial period weekly

PR: Mathematics 1001”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course title and description for “3411 Mathematical Statistics II” to read as follows:

“**3411 Statistical Inference I** examines sampling distributions, order statistics, confidence interval, hypotheses testing, chi-square tests, maximum



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likelihood estimation, chi-square tests, maximum likelihood estimation, Rao-Cramér inequality and efficiency, maximum likelihood tests, sufficiency, completeness and uniqueness, exponential class of distributions, likelihood ratio test and Neyman-Pearson lemma.

OR: one and a half hour tutorial period weekly  
PR: STAT 3410”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “3520 Experimental Design I” to read as follows:

“**3520 Experimental Design I** is an introduction to basic concepts in experimental design, including principles of experimentation; single factor designs such as completely randomized designs; randomized block designs; Latin square designs; Graeco Latin square designs; multiple comparison tests; analysis of covariance; balanced incomplete block designs; factorial designs; fixed, random and mixed effects models.

CR: Psychology 3900 and 3950

PR: Mathematics 2050 and either STAT 3411 or both Mathematics 1001 and one of STAT 2501 or 2560 or the former 2511”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “3521 Regression” to read as follows:

“**3521 Regression** covers inferences in linear regression analysis including estimation, confidence and prediction intervals, hypotheses testing and simultaneous inference; matrix approach to regression analysis, multiple linear regression, multicollinearity, model building and selection, polynomial regression, qualitative prediction variables.

PR: Mathematics 2050 and either STAT 3411 or both Mathematics 1001 and one of STAT 2501 or 2560 or the former 2511”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, delete the course “3530 Survey Sampling.”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “3540 Time Series I” to read as follows:

“**3540 Time Series I** is an introduction to basic concepts of time series analysis such as stationarity and nonstationarity, components of time series, transformation of nonstationary series using regression, decomposition methods and differencing, autocovariance and autocorrelation functions, moving average (MA), autoregressive (AR), and ARMA representation of stationary time series including stationarity and invertibility conditions; partial autocorrelation function; properties of MA(q), AR(p) and ARMA(p, q) models, model identification, parameter estimation, model diagnostics and selection, forecasting, integrated ARMA process. Applications to real time series.

PR: either STAT 3411 or both Mathematics 1001 and one of STAT 2501 or 2560 or the former 2511”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “3570 Reliability and Quality Control” to read as follows:

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**“3570 Reliability and Quality Control** covers an introduction to reliability, parallel and series systems, standard parametric models, estimation of reliability, quality management systems, introduction to statistical process control, simple quality control tools, process control charts for variables and attributes, process capability, cumulative sum chart, exponentially weighted moving average chart, acceptance sampling plans, measurement system analysis, continuous improvement and six sigma methodology.

PR: either STAT 3411 or both Mathematics 1001 and one of STAT 2501 or 2560 or the former 2511”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, insert a new course, “3585 Computational Statistics,” to read as follows:

**“3585 Computational Statistics** is an introduction to modern computational statistics, using a programming language which implements S. Emphasis will be placed on the development of programs for numerical and graphical exploratory data analysis and for implementing specialized statistical procedures.

PR: Mathematics 2000, STAT 2560”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, delete the course “4401 Probability Theory.”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “4402 Stochastic Processes” to read as follows:

**“4402 Stochastic Processes** covers the Poisson process, renewal theory, Markov chains, and some continuous state models including Brownian motion. Applications are considered in queuing, reliability, and inventory theory. Emphasis is on model building and probabilistic reasoning.”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course title and description for “4410 Mathematical Statistics II” to read as follows:

**“4410 Statistical Inference II** covers multivariate normal distributions, quadratic forms of normal random variables, analysis of variance, multiple comparisons, distributions of quadratic forms, independence of quadratic forms, regression, distributions of order statistics, nonparametric statistics.

PR: Mathematics 2051, STAT 3411”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “4520 Experimental Design II” to read as follows:

**“4520 Experimental Design II** is an introduction to factorial experiments including mixed effects models, unbalanced data in factorial designs, two level and three level factorial experiments, blocking and confounding in factorial designs, fractional factorial experiments, unreplicated factorial experiments, response surface designs, robust parameter designs, nested and split plot designs.

PR: STAT 3520”

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Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course title and description for “4530 Survey Sampling II” to read as follows:

“**4530 Survey Sampling** covers basic concepts, simple random sampling, unequal probability sampling and the Horvitz-Thompson principle, sufficiency, design and modelling in sampling, ratio and regression estimators, stratified and cluster sampling, methods for elusive and/or hard-to-detect populations.

PR: Mathematics 2000 and STAT 3530”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “4540 Time Series II” to read as follows:

“**4540 Time Series II** examines the analysis of time series in the time domain and is an introduction to frequency domain analysis. Topics covered include integrated ARMA processes, seasonal time series models, intervention analysis and outlier detection, transfer function models, time series regression and GARCH models, vector time series models, state space models and the Kalman Filter. Spectral decomposition of a time series is introduced. Emphasis is on applications and examples with a statistical software package.

PR: STAT 3411 and 3540”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “4560 Continuous Multivariate Analysis” to read as follows:

“**4560 Continuous Multivariate Analysis** examines the multivariate normal distribution and its marginal and conditional distributions, distributions of non-singular and singular linear combinations, outline of the Wishart distribution and its application, in particular, to Hotelling’s T-squared statistic for the mean vector, connection between likelihood ratio and Hotelling’s T-squared statistics, a selection of techniques chosen from among MANOVA, multivariate regression, principal components, factor analysis, discrimination and classification, clustering.

PR: Mathematics 2051, STAT 3410 and one of STAT 3411, 3520, or 3521”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course title and description for “4561 Discrete Multivariate Analysis” to read as follows:

“**4561 Categorical Data Analysis** is an analysis of cross-classified categorical data with or without explanatory variables, chi-square test, measures of association, multidimensional contingency tables, hypotheses of partial and conditional independence, log-linear models for Poisson, multinomial and product-multinomial sampling schemes, concept of ordinal categorical models, logit models, likelihood estimation, selection of suitable log-linear and logit models.

PR: STAT 3520 or 3521”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, delete the course “4580 History of Statistics.”

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Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, remove the reference to the course “4581 Quantitative Methods in Biology” as an inactive course and replace with the following entry:

**“4581 Quantitative Methods in Biology** (same as Biology 4605 and the former Statistics 4605) is quantitative reasoning using verbal, graphical and statistical models of scaled quantities (units and dimensions). Exploratory and confirmatory analysis of field and laboratory data. Hypothesis testing, including randomization tests. Topics include the general linear model (t-tests, ancova etc), correlation, autocorrelation, geographic statistics, estimates of population size and multivariate methods.

CR: Biology 4605 and the former Statistics 4605

LH: 3

PR: Statistics 2550”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, delete the course “4585 Computational Statistics.”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the course description for “4590 Statistical Analysis of Data I” to read as follows:

**“4590 Statistical Analysis of Data I** examines the statistical analysis of real life univariate data using computational and statistical methods including descriptive statistics, chi-square tests, non-parametric tests, analysis of variance, linear, logistic and log-linear regressions. Other statistical techniques such as integrated autoregressive moving average modelling and forecasting or quality control methods may be introduced depending on the nature of the data.

LH: one 90 minute lab per week

PR: one of STAT 3411, 3520, or 3521”

Page 108, 2012-2013 Calendar, under the heading 9.9.2 Major in Economics (B.A. or B.Sc.), amend clauses 6(c) and 9(b) to read, respectively, as follows:

- “c. Students may, with the approval of the Head of the Department or delegate, substitute Statistics 2550 for Statistics 2500.
- b. Statistics 2550, or its equivalent, and an additional 3 credit hours of Statistics”

Page 110, 2012-2013 Calendar, under the heading 9.9.7 Honours in Economics (Co-operative), (B.A. or B.Sc.), amend the course program table entitled “Major in Economics (Co-operative Option) B.Sc. - Academic Course Program Table” by deleting “Statistics 2510” from the Term 1 (Fall) block and replacing with “Statistics 2550.”

Page 110, 2012-2013 Calendar, under the heading 9.9.7 Honours in Economics (Co-operative), (B.A. or B.Sc.), amend the course program table entitled “Honours in Economics (Cooperative Option) B.Sc. - Academic Course Program Table” by deleting “Statistics 2510” from the Term 1 (Fall) block and replacing with “Statistics 2550.”

Department of Mathematics and Statistics (cont'd)

Page 246, 2012-2013 Calendar, under the heading 9.4 Academic Term 4 Courses, amend the CR (Credit restriction) for the course “4421 Probability and Statistics” to read as follows:

“CR: the former ENGI 3423, the former STAT 2510, STAT 2550”

Page 311, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, amend the CR (Credit restriction) for the course “2500” to read as follows:

“CR: STAT 2550, the former STAT 2510, Psychology 2910, Psychology 2925 and the former Psychology 2900.”

Page 311, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, amend the CR (Credit restriction) for the course “2550” to read as follows:

“CR: STAT 2500, the former STAT 2510, Engineering 4421, Psychology 2910, Psychology 2925 and the former Psychology 2900.”

Page 313, 2012-2013 Calendar, under the heading 10.24 Psychology, amend the CR (Credit restriction) for the course “2925 Research Methods and Data Analysis in Psychology I” to read as follows:

“CR: Psychology 2910, Statistics 2500, Statistics 2550, the former Psychology 2900, and the former Statistics 2510”

Page 436, 2012-2013 Calendar, under the heading 4.1.8 Biology and Earth Sciences Joint Honours, amend clause 2 to read as follows:

“2. Chemistry 2440, Biochemistry 2101, Biochemistry 3106, one of Statistics 2550, or 2560.”

Page 438, 2012-2013 Calendar, under the heading 4.1.15 Computer Science and Physics Joint Honours, amend the sentence following clause 6 to read as follows:

“Statistics 2550 is recommended.”

Page 438, 2012-2013 Calendar, under the heading 4.1.16 Computer Science and Pure Mathematics Joint Honours (B.Sc. Only), amend clause 1 of the Mathematics and Statistics section to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2320, 3000, 3001, 3202, 3210, 3260, 3320, 3340, Statistics 2550;”

Page 438, 2012-2013 Calendar, under the heading 4.1.18 Earth Sciences and Geography Joint Honours (B.Sc. Only), amend clause 3 to read as follows:

“3. Mathematics 2000 or Statistics 2550 or Geography 3222, Biology 1001 and 1002, or Biology 2120 or Physics 2055.”

Department of Mathematics and Statistics (cont'd)

Page 439, 2012-2013 Calendar, under the heading 4.2.1 Applied Mathematics and Computer Science Joint Major (B.Sc. Only), amend the sentence following clause 2 to read as follows:

“In addition, Statistics 2550 is highly recommended.”

Page 439, 2012-2013 Calendar, under the heading 4.2.2 Applied Mathematics and Economics Joint Major (B.Sc. Only), amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 3000, 3100, 3202, 3260, 4132, Statistics 2550.”

Page 440, 2012-2013 Calendar, under the heading 4.2.4 Computer Science and Economics Joint Major (B.Sc. Only), amend clause 3 to read as follows:

“3. **Additional Requirements:** Mathematics 1000, 1001, 2000, 2050, 2320, and Statistics 2550.”

Page 440, 2012-2013 Calendar, under the heading 4.2.6 Computer Science and Physics Joint Major, amend clause 4(b) to read as follows:

“b. Mathematics 2000, 2050, 2320, 3260, and Statistics 2550”

Page 440, 2012-2013 Calendar, under the heading 4.2.7 Computer Science and Pure Mathematics Joint Major (B.Sc. Only), amend clause 3 to read as follows:

“3. Mathematics 2000, 2050, 2051, 2130, 2320, 3000, 3202, 3260, 3320, 3340, and Statistics 2550.”

Page 441, 2012-2013 Calendar, under the heading 4.2.10 Economics and Pure Mathematics Joint Major (B.Sc. Only), amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2130, 2320, 3000, 3100, 3202, 3260, 3320, Statistics 2550 and one 4000 level Mathematics course.”

Page 441, 2012-2013 Calendar, under the heading 4.2.11 Economics and Statistics Joint Major (B.Sc. Only), amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, Statistics 2550, 2560, 3410, 3411, 3520, 3540, 4590.”

Page 441, 2012-2013 Calendar, under the heading 4.2.12 Economics (Co-operative) and Statistics Joint Major (B.Sc. Only), amend the Academic Course Program table by deleting “Statistics 2510” from the Term 1 (Fall) block and replacing with “Statistics 2550.”

Page 454, 2012-2013 Calendar, under the heading 7.4.1 Major in Computer Science, amend clause 2 to read as follows:

“2. Additional courses required of the Majors are: Mathematics 2000, 2050, 2320, and Statistics 1510 or 2550.”

Department of Mathematics and Statistics (cont'd)

Page 454, 2012-2013 Calendar, under the heading 7.4.2 Honours in Computer Science, amend clause 3 to read as follows:

“3. Additional courses required are: Mathematics 2000, 2050, 2320, and Statistics 1510 or 2550.”

Page 455, 2012-2013 Calendar, under the heading 7.4.3 Honours in Computer Science (Software Engineering) (B.Sc. Only), amend clause 3 to read as follows:

“3. Additional courses required are: Mathematics 2000, 2050, 2320, and Statistics 1510 or 2550.”

Page 457, 2012-2013 Calendar, under the heading 7.5.4.1 Common Block of Required Courses, amend clause 3 to read as follows:

“3. Mathematics 2000 or Statistics 2550.”

Page 460, 2012-2013 Calendar, under the heading 7.8.6 Major in Statistics, amend clause 2 to read as follows:

“2. One of Statistics 1510, 2500 or 2550;”

Page 460, 2012-2013 Calendar, under the heading 7.8.8 Honours in Pure Mathematics, amend clause 1 to read as follows:

“1. Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2320, 3000, 3001, 3202, 3210, 3260, 3300, 3320, 3330, 4300, 4310, 4399, Statistics 2550;”

Page 460, 2012-2013 Calendar, under the heading 7.8.9 Honours in Statistics, amend clause 2 to read as follows:

“2. One of Statistics 1510, 2500 or 2550;”

Page 475, 2012-2013 Calendar, under the heading 8.2 Biology Courses, amend the PR (Prerequisite) for the course “4800 Advanced Palaeontology” to read as follows:

“PR: Earth Sciences/BIOL 3811, and one of Statistics 2550, the former Statistics 2510 or Mathematics 2000”

Page 483, 2012-2013 Calendar, under the heading 8.4.4 Fourth Year Courses, amend the PR (Prerequisite) for the course “4766 Introduction to Autonomous Robotics” to read as follows:

“PR: COMP 2711, Mathematics 2000, Mathematics 2050, and Statistics 1510 or 2550 or the former Statistics 2510”

Page 485, 2012-2013 Calendar, under the heading 8.5.3 Third Year, amend the PR (Prerequisite) for the courses “3170 Exploration Geophysics I” and “3172 Exploration Geophysics II” to read as follows:

Department of Mathematics and Statistics (cont'd)

“PR: EASC 2905, Physics 1051 (or 1021 or 1054); Mathematics 1001; Mathematics 2000 or Statistics 2550 or the former Statistics 2510”

Page 487, 2012-2013 Calendar, under the heading 8.5.4 Fourth Year, amend the PR (Prerequisite) for the course “4605 Environmental Geoscience Field School” to read as follows:

“PR: EASC 2502, EASC 3600, Mathematics 1001, and one of Mathematics 2000, Statistics 2550 or the former Statistics 2510”

Page 487, 2012-2013 Calendar, under the heading 8.5.4 Fourth Year, amend the PR (Prerequisite) for the course “4800 Advanced Palaeontology” to read as follows:

“PR: EASC 3811, and Statistics 2550 or the former Statistics 2510 or Mathematics 2000”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the CR (Credit restriction) for the course “1510” to read as follows:

“CR: cannot receive credit for STAT 1510 if completed with, or subsequent to, STAT 2500, 2550 or the former 2510”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the CR (Credit restriction) for the course “2500” to read as follows:

“CR: STAT 2550, the former 2510, Psychology 2910, 2925 and the former 2900.”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the PR (Prerequisite) for the course “2501” to read as follows:

“PR: STAT 2500 or the former 2510”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the CR (Credit restriction) for the course “2550” to read as follows:

“CR: STAT 2500, the former 2510, Engineering 4421, Psychology 2910, 2925 and the former Psychology 2900”

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, amend the PR (Prerequisite) for the course “2560 Further Statistics for Science Students” to read as follows:

“PR: STAT 1510 or 2500 or 2550 or the former 2510, Mathematics 1000 or the former 1081”

Page 494, 2012-2013 Calendar, under the heading 8.10.2 Major Courses, amend the CR (Credit restriction) for the course “2910 Research Methods in Psychology I” to read as follows:

“CR: Statistics 2500, 2550, the former 2510, the former PSYC 2900, 2925”



Department of Mathematics and Statistics (cont'd)

Page 490, 2012-2013 Calendar, under the heading 8.8.4 Statistics Courses, delete the following two courses:

“3590 Statistics in Applied Research  
4591 Statistical Analysis of Data II”

59.23 Department of Biology

Page 475, 2012-2013 Calendar, under the heading 8.2 Biology, delete “4014 Biology and Ecology of Boreal and Arctic Seaweeds” and replace with the following:

“**3014 Biology and Ecology of Boreal and Arctic Seaweeds** is a field course examination of seaweed biology and ecology with special study of living specimens in estuarine, fiordic and exposed coastal sites, demonstrating their physiological and ecological adaptations to cold-water habitats. This course is offered at the Bonne Bay Marine Station during the Summer Semester with two weeks of instruction followed by a week to complete course requirements.

CR: the former BIOL 4014

PR: BIOL 2600 or equivalent”

59.24 Department of Ocean Sciences

Page 491, 2012-2013 Calendar, create new section with the heading 8.8 Ocean Sciences, and renumber the remaining sections accordingly. Under the newly created heading 8.8 Ocean Sciences, insert a new course, “OCSC 1000 Exploration of the World Ocean,” with a description to read as follows:

“**1000 Exploration of the World Ocean** is an introductory course covering the major ocean sciences (biology, chemistry, geology, physics) at a level sufficient for science majors but accessible to non-science majors. It explores phenomena occurring from the shoreline to the abyss and from equatorial to polar regions. It also examines principles of marine ecology as well as how the marine environment affects humans and vice versa. The course is offered in a blended format that combines face-to-face lectures and online interactive activities in the form of virtual oceanographic expeditions.

LC: 1.5 hours per week

OR: 1.5 hours per week (online interactive activities)”

Page 461, 2012-2013 Calendar, under the heading 7.9 Ocean Sciences, delete the last sentence of the third paragraph.

59.25 Department of Chemistry

Page 479, 2012-2013 Calendar, under the heading 8.3 Chemistry, amend the course description of “1010 Introductory Chemistry I” to read as follows:

“**1010 Introductory Chemistry I** examines descriptive chemistry; measurements; atoms; molecules; the mole; mole calculations and reaction stoichiometry; the balancing of redox reactions; gases; thermochemistry; atomic structure; periodic properties; the physical properties of matter.

AR: attendance is required in the laboratory component of this course. Failure

Department of Chemistry (cont'd)

to attend may result in a failing grade or deregistration from the course.

LH: 3

OR: 1 hour tutorial per week

PR: It is recommended that students have at least 70% in high school Academic Mathematics 3204, or a pass in any university level mathematics course.

UL: only 6 science credit hours will be awarded for a major or honours in Chemistry from the following course groups: CHEM 1010/1011/1031, or CHEM 1010/1050/1051 or CHEM 1810/1200/1001 (Grenfell Campus)”

Page 479, 2012-2013 Calendar, under the heading 8.3 Chemistry, amend the course description of “1011 Introductory Chemistry II” to read as follows:

**“1011 Introductory Chemistry II** examines chemical bonding including VSEPR shapes and polarity; introduction to valence bond theory and hybridization; liquids, solids and intermolecular forces; chemical kinetics; chemical equilibrium; acids and bases; solubility equilibrium; electrochemistry.

AR: attendance is required in the laboratory component of this course. Failure to attend may result in a failing grade or deregistration from the course.

LH: 1.5

OR: 1.5 hour tutorial per week

PR: CHEM 1010

UL: only 6 science credit hours will be awarded for a major or honours in Chemistry from the following course groups: CHEM 1010/1011/1031, or CHEM 1010/1050/1051 or CHEM 1810/1200/1001 (Grenfell Campus)”

Page 479, 2012-2013 Calendar, under the heading 8.3 Chemistry, amend the course description of “1031 Introductory Chemistry III” to read as follows:

**“1031 Introductory Chemistry III (F) & (I)** prepares students who have completed CHEM 1010 and 1011 for CHEM 2100, 2210, 2301, 2302, and 2400. It augments the topics covered in CHEM 1010 and 1011 with the greater depth and problem solving emphasis of CHEM 1050 and 1051.

AR: attendance is required in the laboratory component of this course. Failure to attend may result in a failing grade or deregistration from the course.

CO: Mathematics 1001

LC: 4

LH: 3

PR: CHEM 1011 and Mathematics 1001 which may be taken concurrently with CHEM 1031.

UL: only 6 science credit hours will be awarded for a major or honours in Chemistry from the following course groups: CHEM 1010/1011/1031, or CHEM 1010/1050/1051 or CHEM 1810/1200/1001 (Grenfell Campus)”

Page 479, 2012-2013 Calendar, under the heading 8.3 Chemistry, amend the course description of “1050 General Chemistry I” to read as follows:

**“1050 General Chemistry I** builds on basic chemistry concepts from high school. Topics include gases; thermochemistry; atomic structure; periodic properties; chemical bonding including valence bond theory; hybridization and molecular orbital theory; properties of liquids, solids and solutions.

AR: attendance is required in the laboratory component of this course. Failure

Department of Chemistry (cont'd)

to attend may result in a failing grade or deregistration from the course.

CO: Mathematics 1000

LC: 4

LH: 3

PR: CHEM 1010 with a grade of at least 60% or high school CHEM 3202 with a grade of at least 75%, and Mathematics 1000 which may be taken concurrently with CHEM 1050.

UL: only 6 science credit hours will be awarded for a major or honours in Chemistry from the following course groups: CHEM 1010/1011/1031 or CHEM 1010/1050/1051 or CHEM 1810/1200/1001 (Grenfell Campus)”

Page 479, 2012-2013 Calendar, under the heading 8.3 Chemistry, amend the course description of “1051 General Chemistry II” to read as follows:

**“1051 General Chemistry II** builds on CHEM 1050 topics and on basic chemistry concepts from high school. Topics include kinetics, chemical equilibrium, equilibria involving acids and bases including polyprotic acids, buffers, acid-base indicators, titration curves, solubility and complex ion equilibrium, thermodynamics, electrochemistry and descriptive chemistry.

AR: attendance is required in the laboratory component of this course. Failure to attend may result in a failing grade or deregistration from the course.

CO: Mathematics 1001

LC: 4

LH: 3

PR: CHEM 1050 and Mathematics 1001 which may be taken concurrently with CHEM 1051.

UL: only 6 science credit hours will be awarded for a major or honours in Chemistry from the following course groups: CHEM 1010/1011/1031 or CHEM 1010/1050/1051 or CHEM 1810/1200/1001 (Grenfell Campus)”

Page 437, 2012-2013 Calendar, under the heading 4.1.13 Chemistry and Physics Joint Major, amend section by deleting entirely and replacing with the following:

**“4.1.13 Chemistry and Physics Joint Honours**

The following courses are prescribed:

1. Mathematics 1000, 1001, 2000, 2050, 3202, and 3260 (or 2260).
2. Physics 1050 (or 1020) and 1051, 2055, 2750, or 2056, 2820, 3220, 3500, 3750, 3820, 3900, 4820, 3 additional credit hours in a Physics course numbered 3000 or higher and 6 additional credit hours in Physics courses numbered 4000 and higher.
3. Chemistry 1050 and 1051 (or Chemistry 1010, 1011 and 1031; or Chemistry 1200 and 1001), 2100, 2210, 2301 (or 2300), 2302, 2400, 2401, 3210 or 3211, 3303, 3410, 3500, and 6 additional credit hours in chemistry courses numbered 4000 or higher.
4. Either Chemistry 490A/B or Physics 490A/B.
5. 2 elective courses to bring the degree to 120 credit hours.
6. English 1080 and English 1110 (or equivalent)”

Department of Chemistry (cont'd)

Page 479, 2012-2013 Calendar, under the heading 8.3 Chemistry, delete the course “4303 Equilibrium Statistical Mechanics” and insert a new course, “4305 Advanced Statistical Thermodynamics,” with course title and description to read as follows:

**“4305 Advanced Statistical Thermodynamics** examines intermolecular forces, the properties of liquids, the solvation of molecules and ions, and the structure and dynamics of macromolecules within the framework of statistical thermodynamics.

CR: The former CHEM 4303

PR: CHEM 3303 or the former CHEM 3301”

Page 479, 2012-2013 Calendar, under the heading 8.3 Chemistry, insert a new course, “4500 Advanced Nuclear Magnetic Resonance Spectroscopy,” with a course title and description to read as follows:

**“4500 Advanced Nuclear Magnetic Resonance Spectroscopy** examines advances in modern and traditional NMR techniques, the principles and applications of solution and solid-state NMR spectroscopy and micro imaging.

AR: Attendance is required in the laboratory component of this course. Failure to attend may result in a failing grade or deregistration from the course.

PR: CHEM 3500

LH: 3”

59.26 Department of Biochemistry

Page 473, 2012-2013 Calendar, under the heading 8.1 Biochemistry, amend the LH (Laboratory hours per week) section of the course “2100 Introduction to Molecular Biology and Genetics” to read as follows:

“LH: up to four hours on alternate weeks which will normally consist of one three hour laboratory period plus one additional hour on the following day”

Page 473, 2012-2013 Calendar, under the heading 8.1 Biochemistry, delete the courses “2010, 2011, 3054, 4400.”

Page 473, 2012-2013 Calendar, under the heading 8.1 Biochemistry, amend the CR (Credit restriction) section of the course “3052 Food Microbiology” to read as follows:

“CR: Biology 3052, and the former BIOC 3054, BIOC 3401”

Page 446, 2012-2013 Calendar, under the heading 7.1.2.1 Honours Degree in Biochemistry, delete the phrase “Biochemistry 2010, 2011” from the beginning of the second last sentence of the final paragraph of the section, the paragraph that starts “Those courses in which....”

Page 447, 2012-2013 Calendar, under the heading 7.1.3.2 Honours Degree in Nutrition, delete “4400” from the course list in clause 3(b).

Department of Biochemistry (cont'd)

Page 475, 2012-2013 Calendar, under the heading 8.2 Biology, delete the existing CR (Credit restriction) for the course “3052 Food Microbiology” and replace with the following:

“CR: Biochemistry 3052 and the former BIOC 3054, BIOC 3401”

Page 475, 2012-2013 Calendar, under the heading 8.2 Biology, delete the existing CR (Credit restriction) for the course “2250 Principles of Genetics” and replace with the following:

“CR: BIOC 2100 and the former BIOL 2250”

59.27 Regulation 5.5.3 Comprehensive Examination and Dissertation

Page 445, 2012-2013 Calendar, under the heading 5.5.3 Comprehensive Examination and Dissertation, amend clause 2 by deleting, from the end of second sentence, the phrase “approved by the Committee on Undergraduate Studies” and replacing it with the phrase “approved by the head of the academic unit of the student’s program.”

59.28 Communication Studies Major Program

Page 143, 2012-2013 Calendar, under the heading 10.6 Communication Studies, insert, after the course description for “2001 Introduction to Communication Theory,” a new course range to read, “3010-20 Special Topics in Communication Studies,” and after the course description for “4000 Advanced Communication Theory,” insert a new course range to read, “4010-20 Special Topics in Communication Studies.”

Page 106, 2012-2013 Calendar, under the heading 9.6.1.3 Elective Courses, amend **List A** by adding the word “other” after the word “Any” in the final sentence of the list, so it reads “Any other Special Topics courses...” and by inserting two new course ranges to the list after “Sociology 4107,” to read as follows:

“CMST 3010-20: Special Topics in Communication Studies  
CMST 4010-20: Special Topics in Communication Studies”

Page 106, 2012-2013 Calendar, under the heading 9.6.1.3 Elective Courses, amend **List B** by adding the word “other” after the word “Any” in the final sentence of the list, so it reads “Any other Special Topics courses...” and by inserting two new course ranges to the list after “Sociology 4107,” to read as follows:

“CMST 3010-20: Special Topics in Communication Studies  
CMST 4010-20: Special Topics in Communication Studies”

59.29 Department of History

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert a new course, “2140 The Atlantic Slave Trade,” with a course title and description to read as follows:

Department of History (cont'd)

“**2140 The Atlantic Slave Trade** is a comparative survey of the Transatlantic Slave Trade 1503-1851, from West African origins through the oceanic Middle Passage to the formation of slave societies in the Americas. This course examines processes of enslavement, commodification, shipboard resistance, sale and adaptation, and the international movement to abolish the slave trade.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert a new course, “2800 Indigenous Peoples and Colonialism,” with a course title and description to read as follows:

“**2800 Indigenous Peoples and Colonialism** is a comparative survey of Indigenous experiences with colonialism in a global context from the sixteenth century onwards.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert a new course, “3590 The Early Modern Caribbean,” with a course title and description to read as follows:

“**3590 The Early Modern Caribbean** examines the history of the Caribbean region in the period 1492-1848, addressing topics such as comparative labour systems, slave resistance, colonial societies, plantation landscapes, and environmental change.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, insert a new course, “4200 Topics in United States Film and History,” with a course title and description to read as follows:

“**4200 Topics in United States Film and History** explores selected themes in the relationship between the American cinema and American national culture. Topics will vary from year to year, but may include the study of a particular period in US film and history; an examination of how filmic representations of race, class, gender, and/or sexuality have changed over time in connection to broader historical shifts; or, the historical analysis of a particular genre as a way to understand shifting cultural and social values within the United States.

PR: Any 2000, 3000, or 4000 level course in U.S. History or Film Studies.”

59.30 Department of Linguistics

Page 125, 2012-2013 Calendar, under the heading 9.21.1 General Degree, amend clause 1 by adding, in numerical order, the course “2300” and deleting the course “2710.”

Page 126, 2012-2013 Calendar, under the heading 9.21.3 Minor Programs, amend clause 1(c) by adding, the course “2300” and deleting the course “2710.”

Page 165, 2012-2013 Calendar, under the heading 10.21 Linguistics, amend the course description of “1100 Language and Communication” to read as follows:

“**1100 Language and Communication** is a general introduction to linguistic concepts which are important for understanding the nature of language, its

Department of Linguistics (cont'd)

change and its function for communication. Topics may include: languages as structured systems; the systematicity of language change; the classification of languages into families and their geographical distribution; language, the brain, and language disorders; the acquisition of language; and human versus animal communication.

CR: LING 2100”

Page 165, 2012-2013 Calendar, under the heading 10.21 Linguistics, amend the course description of “2100 Language and Communication” to read as follows:

**“2100 Language and Communication** is a general introduction to linguistic concepts which are important for understanding the nature of language, its change and its function for communication. Topics may include: languages as structured systems; the systematicity of language change; the classification of languages into families and their geographical distribution; language, the brain, and language disorders; the acquisition of language; and human versus animal communication.

CR: LING 1100”

Page 165, 2012-2013 Calendar, under the heading 10.21 Linguistics, amend the course description of “2210 Language Newfoundland and Labrador: An Introduction to Linguistic Variation” to read as follows:

**“2210 Language in Newfoundland and Labrador: An Introduction to Linguistic Variation** is an introduction to linguistic variation and language change in the English dialects and languages of Newfoundland and Labrador. Topics covered include the concept of variation within language, both regional and social; the chief causes of such variation, and some of its societal and educational consequences; a survey of the regional and social dialects of Newfoundland English, and their major features; an overview of languages in the province other than English, and their current situation. As a Research and Writing course, practical workshops and assignments focus on producing strong, academic writing and critical analysis/thinking skills necessary for undergraduate level research.

*Note: This course qualifies as a Research/Writing course. Prior to registration a list of courses which may be used as a research/writing course will be posted on the website of the Faculty of Arts at [www.mun.ca/arts](http://www.mun.ca/arts).”*

Page 165, 2012-2013 Calendar, under the heading 10.21 Linguistics, add the following PR (Prerequisite) to the course “2701 Introduction to Irish Gaelic II:”

“PR: LING 2700”

Page 165, 2012-2013 Calendar, under the heading 10.21 Linguistics, amend the course description, with no changes to the CR or PR sections, of “4055-4059 Linguistic Structure of Uncommonly Taught Language” to read as follows:

**“4055-4059 Linguistic Structure of an Uncommonly Taught Language** provides instruction about the grammar, pronunciation, and literary and/or oral tradition of a language which is not regularly taught.”

Department of Linguistics (cont'd)

Page 165, 2012-2013 Calendar, under the heading 10.21 Linguistics, amend the course description of “4151 Advanced Topics in Phonological Acquisition” to read as follows:

**“4151 Advanced Topics in Phonological Acquisition** will address current empirical and theoretical issues pertaining to the first language acquisition of phonology. From an empirical perspective, we will look at developmental patterns as well as variation or lack thereof among and between learners, within and across languages. From a theoretical perspective, we will address how theoretical frameworks can, and at times cannot, account for the variation observed. We will address how the language input provided by different languages can influence the learner’s analysis of the phonology of this language during the course of acquisition. This influence will be both addressed in terms of grammatical learning and from the perspective of production patterns observed in the data.  
PR: LING 3155”

59.31 Department of Religious Studies

Page 135, 2012-2013 Calendar, under the heading 9.29.1.1 Major in Religious Studies, amend clause 1.(c). by adding the course “3880” to the end of the course list.

59.32 Regulation 4.3.3 Course Requirements

Page 95, 2012-2013 Calendar, under the heading 4.3.3 Course Requirements, amend the last paragraph of clause 2(b) by deleting “Committee of Undergraduate Studies” from the end of the second sentence and replacing it with the phrase “Head of the department concerned.”

59.33 Deletion of Courses - Faculty of Arts

Page 103, 2012-2013 Calendar, under the heading 9.1.2 Course List, delete the entire Social Work section from the list.

Page 121, 2012-2013 Calendar, under the heading 9.18.1.2 German Language and Literature Major Program, delete, entirely, the Major Stream “3. Business and Commerce Stream.”

Page 127, 2012-2013 Calendar, under the heading 9.24.1 Minor Program, amend clause 1(a) by deleting “Economics 2070” and “Geography 2290,” and amend clause 1(b) by deleting “Anthropology 4280,” “Folklore 4400,” “French 4400 (same as Folklore 4400),” and “Linguistics 4220.”

Page 138, 2012-2013 Calendar, under the heading 10.2 Archaeology, delete the course “4170 Settlement and Subsistence Studies in Archaeology.”

Page 150, 2012-2013 Calendar, under the heading 10.10 Folklore, delete the following list of courses , which are entered as inactive in the Calendar:

“1050, 2000, 3800, 3940, 4300, 4320, 4350, 4360, 4370.”



Deletion of Courses - Faculty of Arts (cont'd)

Page 156, 2012-2013 Calendar, under the heading 10.13 Geography, delete the following list of courses , which are entered as inactive in the Calendar:

“3000, 3010.”

Page 159, 2012-2013 Calendar, under the heading 10.14 German, delete the following list of courses:

“1002, 1003, 2012, 2910, 3902.”

Page 161, 2012-2013 Calendar, under the heading 10.17 History, delete the course “1070” from the course list.

Page 165, 2012-2013 Calendar, under the heading 10.19 Law and Society, delete the course “3013” from the course list.

Page 168, 2012-2013 Calendar, under the heading 10.23 Philosophy, delete “3900, 3950, and 4160,” and amend the following list of seminar courses in the manner instructed below:

“4200 and 4210... becomes simply 4200...  
4350 and 4360... becomes simply 4350...  
4400 and 4410... becomes simply 4400...  
4450 and 4460... becomes simply 4450...  
4500 and 4510... becomes simply 4500...  
4520 and 4530... becomes simply 4520...  
4600 and 4610... becomes simply 4600...”

Page 174, 2012-2013 Calendar, under the heading 10.26 Religious Studies, delete the following list of courses, which are entered as inactive in the Calendar:

“2302, 3850.”

59.34 Office of the Registrar

Page 62, 2012-2013 Calendar, under the heading 3.3 Categories of Applicants, Admission Criteria and Other Information, insert a new section, entitled “3.3.7 Applicants for Visiting Student Status,” renumbering the remaining sections accordingly, to read as follows:

**“3.3.7 Applicants for Visiting Student Status**

An applicant who wishes to enrol as a student at Memorial University for a limited period of time and who does not wish to be admitted to a program for the purpose of completing a degree at Memorial may apply for admission under the Visiting Student category. This category includes, but is not limited to, students who are in good standing at their current or most recently attended post-secondary institution and who either:

- wish to complete one or more courses for the purpose of transferring the resulting credit to their home institutions; or
- wish to come to Memorial University of Newfoundland to complete an unpaid research internship under the supervision of a Memorial University of Newfoundland faculty member; or

Office of the Registrar (cont'd)

- have been offered provisional acceptance to a Memorial University graduate-level program subject to the completion of specific pre-requisite courses.

**3.3.7.1 Application and Admission Criteria**

- Applicants will be required to submit a **completed Undergraduate Application for Admission/Readmission** together with the appropriate fee. For further information refer to Fees and Charges.
- Applicants for admission as visiting students will be required to supply one of either (1) a final official transcript from the most recent institution attended, (2) a Letter of Permission (LOP) from their current or former institution, (3) or a letter of recommendation from the School of Graduate Studies confirming the courses that are pre-requisites for admission to a graduate-level program.
- Visiting students enrolling at Memorial under an approved exchange agreement or as visiting interns will also be required to submit a letter of recommendation from the head of the academic unit that will host the student confirming that the nature and duration of the student's visit and the courses for which the student will register.
- Visiting students are normally eligible to register at Memorial under this category for a maximum of two semesters and registration eligibility is subject to course availability and completion of course pre-requisites. For courses at a level beyond first year in particular, consultation with the academic unit offering course(s) of interest for the purpose of verifying registration eligibility, prior to submission of an application, is strongly encouraged.
- In order to obtain access to University resources and, where applicable a study permit, visiting research interns will be required to register for each semester of their visit for one of either (1) UGRD 5900 if they are visitors at the undergraduate student level or (2) GRAD 9900 if they are visitors at the graduate student level. Registration for one of these courses will be conducted by using a Course Change Form.
- Visiting research interns will be exempt from tuition fees. However, all visiting research students will be required, as a condition of registration, to participate in the University's mandatory health insurance plan and enrol in the University's recreation program.

**3.3.7.2 Other Information**

- English Language Proficiency Requirements and the regulations outlined under **General Admission/Readmission Information** above will apply to all applicants.
- All visiting students are subject to all other applicable Memorial University regulations as published in the University Calendar.”

60. REPORT OF THE ACADEMIC COUNCIL OF THE SCHOOL OF GRADUATE STUDIES

60.1 Computational Science

Page 603, 2012-2013 Calendar, under the heading 23.10.4 Program of Study, amend clause 4 to read as follows:

Computational Science (cont'd)

- “4. All students are required ... recommended to complete CMSC 6950. Additional courses are required ... Computational Science, when advertised.
- a. The thesis option ... of the Program Chair. CMSC 6950 is also recommended. The additional ... in science or engineering.
  - b. The project option ... with approval of the Program Chair. CMSC 6950 is also recommended. An acceptable ... of full time work.”

Page 604, 2012-2013 Calendar, under the heading 23.10.6 Courses, subheading Computational Science (CMSC), amend 6940 Computer Based Research Tools and Applications to read as follows:

“6950 Computer Based Research Tools and Applications (credit may be obtained for only one of CMSC 6950 and the former CMSC 6940)”

60.2 Mathematics and Statistics

Page 610, 2012-2013 Calendar, under the heading 23.19.1 Specific Requirements for the M.Sc. in Mathematics, amend the section to read as follows:

“Every candidate for the M.Sc. in Mathematics is required to complete one of two options.

1. Option 1: MATH 6310, 6351 and 696A/B, a minimum of 9 further credit hours in courses chosen from the departmental course offerings, excluding MATH 6299, and a thesis as per **General Regulations, Theses and Reports**.
2. Option 2: MATH 6310, 6351, 696A/B, 6299 and a minimum of 12 further credit hours in courses chosen from the departmental course offerings.”

Page 610, 2012-2013 Calendar, under the heading 23.19.3 Courses, subheading Mathematics, add the following new course:

“6111 Calculus in Manifolds”

Page 649, 2012-2013 Calendar, under the heading 29.24.4 Courses, subheading Mathematics, add the following new course:

“6111 Calculus in Manifolds”

60.3 Medicine

Page 617, 2012-2013 Calendar, under the heading 25.1.3.7 Immunology and Infectious Diseases, amend clause 2 to read as follows:

- “2. Program Requirements

Medicine (cont'd)

Students in the program are required to take a minimum of two courses. MED 6127 is required and the students will choose a second course from: MED 6128, MED 6119, MED 6580 or any other graduate course approved by the student's supervisory committee. Some students may be required to take additional courses depending upon their thesis topic. All students are required to attend, for credit, and participate in the Immunology and Infectious Diseases Seminar Series (MED 6400-6403)."

Page 650, 2012-2013 Calendar, under the heading 29.25.2.1 Program Areas, amend clause 6 to read as follows:

"6. Immunology and Infectious Diseases

- a. The Immunology and Infectious Diseases group has an interdisciplinary character and consists of faculty from biomedical science. The graduate programs are designed to provide individualized training oriented towards basic research and a solid scientific background in the discipline of immunology and infectious diseases.
- b. Students are required to successfully complete two courses if they have not been previously completed: MED 6127 is required and the students will choose one course from MED 6114, MED 6128, MED 6119, MED 6580 or any other graduate course approved by the student's supervisory committee. Some students may be required to take additional courses depending upon their thesis topic. Students are required to attend, for credit, and participate in the Immunology and Infectious Diseases Seminar Program (MED 6410-6413)."

60.4 Engineering and Applied Science

Page 576, 2012-2013 Calendar, under the heading 12.12 Courses, subheading Core Courses:, add the following new course:

"9977 Computational Fluid Dynamics"

Page 576, 2012-2013 Calendar, under the heading 12.12 Courses, subheading Other Courses:, amend the course "9975/99 Special Topics in Mechanical Engineering" to read as follows:

"9975/99 Special Topics in Mechanical Engineering (excluding 9977)"

60.5 Sociology

Page 557, 2012-1013 Calendar, under the heading 7.21.2 Courses, insert a new block of special topics courses to read as follows:

"6041-6049 Special Topics in Advanced Sociology"

Sociology (cont'd)

Page 656, 2012-2013 Calendar, under the heading 29.30.2 Courses, insert a new block of special topics courses to read as follows:

“6041-6049 Special Topics in Advanced Sociology”

60.6 Master of Employment Relations (MER) Program

Page 572, 2012-2013 Calendar, under the heading 11.5 Program of Study, amend clause 1 by deleting “18 credit hours” and replacing with “21 credit hours.”

Page 573, 2012-2013 Calendar, under the heading 11.7 Courses, amend the first clause to read as follows:

“The schedule of courses for the M.E.R. program is normally as follows:”

Page 573, 2012-2013 Calendar, under the heading 11.7 Courses, amend “Table I - Master of Employment Relations Schedule of Courses,” left-hand column, to read as follows:

<b>Term I (Fall)</b>	<b>Term II (Winter)</b>
Four core courses from <b>Table II</b>	<i>[no changes in this column]</i>
Employment Relations 6010 Research Seminar in Employment Relations I: Quantitative Methods	
<b>Term III (Spring)</b>	
Employment Relations 6040 Research Seminar in Employment Relations III: Applied Research Project	
One elective from <b>Table III</b>	

60.7 Biochemistry

Page 627, 2012-2013 Calendar, under the heading 29.3.1 Program of Study, delete the subject headers separating paragraphs 6 and 7; delete the words “in Biochemistry” from the first sentence of paragraph 7, and replace them with the word “degree;” delete paragraph 8 entirely, including the Subject header “Food Science....”

60.8 Biology

Page 600, 2012-2013 Calendar, under the heading 23.7 Biology, after the personnel block, amend the first paragraph to read as follows:

“The Degree of Master of Science is offered in Biology to full-time and part-time students. Students interested in animal behaviour should also consult the section in the Calendar describing the **Master of Science in Cognitive and**

Biology (cont'd)

**Behavioural Ecology** program. In addition, a **Master of Science Degree is offered in Aquaculture** and in **Marine Biology**. See appropriate sections of this Calendar.”

Page 600, 2012-2013 Calendar, delete section 23.7.2 Marine Biology in its entirety, and renumber remaining headings accordingly.

Page 600, 2012-2013 Calendar, under the newly numbered heading 23.7.2 Courses, delete the following courses from the course-list:

“6100, 6110, 6120, 6350, 6355, 6400, 6410, 6420, 6592, 6593, 6700, 6900, 6910, 7110, 7140, 7210, 7250, 7270, 7510, 7520, 7531, 7540, 7541, 7550, 7551, 7560, 7561, 7570, 7600, 7910”

Page 600, 2012-2013 Calendar, under the newly numbered heading 23.7.2 Courses, amend the course descriptions of “6351, 7000, 7220, 7300, 7530, 7931, and 7920-7960” to read as follows:

“6351 Behavioural Ecology and Sociobiology (*Cross-listed as Psychology 6351*) Credit restriction: credit cannot be obtained if already received for Biology 4701

7000 Graduate Core Seminar (*Cross-listed as Ocean Science 7000*)

7220 Quantitative Methods in Biology (*Credit restriction: credit cannot be obtained if already received for Biology 4605*)

7300 Ornithology (*Credit restriction: credit cannot be obtained if already received for Biology 4620*)

7530 The Molecular Biology of Development

7931 Research Methods in Genetic Biotechnology (*Note: Biology 7931 may be delivered in an accelerated format outside of the regular semester timeframe*)

7920-7960 Special Topics in Biology (*excluding Biology 7931*)”

Page 628, 2012-2013 Calendar, under the heading 24.9 Biology, after the personnel block, amend the first paragraph to read as follows:

“The Degree of Doctor of Philosophy is offered in Biology to full-time and part-time students. Students interested in animal behaviour should also consult the section in the Calendar describing the Doctoral programs **Cognitive and Behavioural Ecology**. Students interested in **Marine Biology** should consult the section of the Calendar specific to the Doctoral program in that area of study.”

Page 629, 2012-2013 Calendar, delete section 29.4.2 Program of Study - Marine Biology in its entirety, and renumber remaining headings accordingly.

Page 629, 2012-2013 Calendar, under the newly numbered heading 29.4.2 Courses, delete the following courses from the course-list:

Biology (cont'd)

“6100, 6110, 6120, 6350, 6355, 6400, 6410, 6420, 6592, 6593, 6700, 6900, 6910, 7110, 7140, 7210, 7250, 7270, 7510, 7520, 7531, 7540, 7541, 7550, 7551, 7560, 7561, 7570, 7600, 7910”

Page 629, 2012-2013 Calendar, under the newly numbered heading 29.4.2 Courses, amend the course descriptions of “6351, 7000, 7220, 7300, 7530, 7931, and 7920-7960” to read as follows:

“6351 Behavioural Ecology and Sociobiology (*Cross-listed as Psychology 6351*) Credit restriction: credit cannot be obtained if already received for Biology 4701

7000 Graduate Core Seminar (*Cross-listed as Ocean Science 7000*)

7220 Quantitative Methods in Biology (*Credit restriction: credit cannot be obtained if already received for Biology 4605*)

7300 Ornithology (*Credit restriction: credit cannot be obtained if already received for Biology 4620*)

7530 The Molecular Biology of Development

7931 Research Methods in Genetic Biotechnology (*Note: Biology 7931 may be delivered in an accelerated format outside of the regular semester timeframe*)

7920-7960 Special Topics in Biology (*excluding Biology 7931*)”

60.9 Ocean Sciences

Page 610, 2012-2013 Calendar, insert new section, 23.19 Marine Biology, to read as follows, and renumber remaining sections accordingly:

**“23.19 Marine Biology**

**Professor Emeritus and Head of the governing Department**

G.L. Fletcher

The degree of Master of Science (M.Sc.) is offered in Marine Biology by full-time and part-time study through the Department of Ocean Sciences. Areas of concentration include: Ocean Ecology, Functional Biology of Marine Organisms, Fisheries and Aquaculture, and Oceans and Environment.

**23.19.1 Admission and Program of Study**

1. Admission into the Master’s degree program in Marine Biology is normally restricted to candidates holding at least a B.Sc. degree with second class Honours. When circumstances warrant, this requirement may be waived by the School of Graduate Studies on the recommendation of the Head of the Department.
2. Each candidate will be assigned a Supervisory Committee consisting of the Supervisor and at least one other member. Within one month of the first registration in the M.Sc. degree program, a candidate will meet with his/her Supervisory Committee. Within six months, the

Ocean Sciences (cont'd)

- student and the Supervisory Committee will agree on a written thesis proposal outlining the objectives, methods, timetable and funding for the project, and provide the proposal (signed by the student and the supervisory committee) to the Head for inclusion in the student's file.
3. Candidates are required to complete a minimum of 12 credit hours of graduate program courses as follows:
    - Ocean Sciences 7000
    - One of Ocean Sciences 7531 or 7561
    - 6 additional credit hours selected from other Ocean Sciences graduate courses or relevant courses in other Departments as approved by the Supervisory Committee
  4. All course requirements should be completed within four semesters from the date of first registration in the M.Sc. degree program.
  5. A candidate is required to give an oral presentation to the Department on the results of his/her research. This presentation should be given during the second year of the program.
  6. The M.Sc. degree program will conclude with a thesis examination as prescribed in the School of Graduate Studies General Regulation **Theses and Reports**.

**23.19.2 Courses**

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

OCSC 7000 Graduate Core Seminar (*Cross-listed as Biology 7000*)  
OCSC 7531 Biological Oceanography (*Same as the former Biology 7531*)  
OCSC 7540 Plankton Dynamics (*Same as the former Biology 7540*)  
OCSC 7551 Fisheries Resource Management (*Same as the former Biology 7551*)  
OCSC 7561 Physiology of Marine Vertebrates (*Same as the former Biology 7561*)”

Page 648, 2012-2013 Calendar, insert new section, 29.24 Marine Biology, to read as follows, and renumber remaining sections accordingly:

**“29.24 Marine Biology**

**Professor Emeritus and Head of the governing Department**

G.L. Fletcher

The Degree or Doctor of Philosophy (Ph.D) is offered in Marine Biology by full-time and part-time study through the Department of Ocean Sciences. Areas of concentration include: Ocean Ecology, Functional Biology of Marine Organisms, Fisheries and Aquaculture, and Oceans and Environment.

**29.24.1 Admission and Program of Study**

1. Admission into a Ph.D. program in Marine Biology is normally restricted to candidates holding a Master's Degree or its equivalent. In exceptional circumstances, a candidate with a B.Sc. (Honours) Degree who has spent not less than 12 months in an M.Sc. Degree program may be recommended for transfer into a Ph.D. program, provided that the candidate can demonstrate, to the satisfaction of the



Ocean Sciences (cont'd)

- Department of Ocean Sciences, his/her ability to pursue research at the doctoral level.
2. Each candidate will be assigned a Supervisory Committee consisting of the Supervisor and at least one other member. Within one month of the first registration in the Ph.D. degree program, a candidate will meet with his/her Supervisory Committee. Within six months, the student and the Supervisory Committee will agree on a written thesis proposal outlining the objectives, methods, timetable and funding for the project, and provide the proposal (signed by the student and the supervisory committee) to the Head for inclusion in the student's file.
  3. Candidates are normally required to complete a minimum of 9 credit hours of graduate program courses as follows:
    - Ocean Sciences 7000 (*Cross-listed as Biology 7000*)
    - One of Ocean Sciences 7531 or 7561
    - 3 additional credit hours selected from other Ocean Sciences graduate courses or relevant courses in other Departments as approved by the Supervisory Committee
  4. All course requirements should be completed within five semesters from the date of first registration in the Ph.D program.
  5. Upon completion of required course work the candidate shall undertake a mandatory comprehensive examination, following the General Regulation **Comprehensive Examinations, Ph.D. and Psy.D, Comprehensive Examination**. The comprehensive examination will be both written and oral. Students should consult the Departmental guidelines for further information and a detailed description of the content of the Comprehensive Examination.
  6. The Ph.D. program will conclude with the examination and oral defense of the completed thesis in accordance with School of Graduate Studies General Regulation **Theses and Reports**.

**29.24.2 Courses**

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

OCSC 7000 Graduate Core Seminar (*Cross-listed as Biology 7000*)  
OCSC 7531 Biological Oceanography (*Same as the former Biology 7531*)  
OCSC 7540 Plankton Dynamics (*Same as the former Biology 7540*)  
OCSC 7551 Fisheries Resource Management (*Same as the former Biology 7551*)  
OCSC 7561 Physiology of Marine Vertebrates (*Same as the former Biology 7561*)”

60.10 Pharmacy

Page 619, 2012-2013 Calendar, under the heading 26.5 Courses, amend the special topics course block, “6100-6104,” to read as follows:

“6100-6108 Special Topics in Pharmacy”

Page 652, 2012-2013 Calendar, under the heading 29.26.3 Courses, amend the special topics course block, “6100-6104,” to read as follows:

“6100-6108 Special Topics in Pharmacy”

60.11 Education

Page 565, 2012-2013 Calendar, under the heading 10.8.2 Curriculum, Teaching and Learning Studies, subheading 2. Program Requirements, amend paragraph “g.” to read as follows:

“students on the comprehensive-course route must complete one of the following courses: E6390 Research and Development Seminar in Curriculum, Teaching and Learning Studies or E6394 Biographical Explorations of Teaching and Learning or E6913 Putting Action Research Methodologies into Practice (prereq. E6469). Normally students would be permitted to register for one of these courses only after all other course requirements have been met, or during the student’s last semester of studies.”

Page 570, 2012-2013 Calendar, under the heading 10.9 Courses, delete the course “6913,” and replace with the following:

“6913 Putting Action Research Methodologies into Practice (Prerequisite: 6469 Theoretical and Methodological Foundations of Action Research)”

60.12 Ethnomusicology

Page 547, 2012-2013 Calendar, under the heading 7.11.2 Program of Study, under the subheading 1. Course Work M.A., delete “Folklore 6010” from 7.11.2.1.a.i, and change the number of credit hours in 7.11.2.1.a.iv from “Nine” to “Twelve.”

Page 547, 2012-2013 Calendar, under the heading 7.11.2 Program of Study, under the subheading 2. Thesis M.A., delete “Folklore 6010” from 7.11.2.2.a.i, and change the number of credit hours in 7.11.2.2.a.iv from “Six” to “Nine.”

Page 547, 2012-2013 Calendar, under the heading 7.11.3 Courses, insert the following two new courses under Theories and Methods, “6807 and 7803,” with a course descriptions as follows:

“Music 6807 Video Documentary Production (credit may be received for only one of Music 6807 and Music 7803)

Music 7803 Radio Documentary Production (credit may be received for only one of Music 6807 and Music 7803)”

Page 547, 2012-2013 Calendar, under the heading 7.11.3 Courses, insert the new course, “7802,” under Social Identities, with a course description as follows:

“Music 7802 Music and Intercultural Processes”

Page 547, 2012-2013 Calendar, under the heading 7.11.3 Courses, under Public and Applied Ethnomusicology and Folklore, change the course title of “6700” to read as follows:

“Music 6700 Career Skills for Musicians”

Ethnomusicology (cont'd)

Page 547, 2012-2013 Calendar, under the heading 7.11.3 Courses, under Special Topics, amend the course titles of special topics blocks “6800-09 and 7800-09” to read as follows:

“Music 6800-09 Special Topics in Music (excluding Music 6807)

Music 7800-09 Special Topics in Music (excluding Music 7802 and 7803)”

Page 638, 2012-2013 Calendar, under the heading 29.13.2 Program of Study, delete “Folklore 6010” from 29.13.2.1.a; change the number of credit hours in 29.13.2.1.c from “Nine” to “Twelve;” and add a new clause, 29.13.2.1.e, to read as follows:

“e. Further courses beyond the minimum number may be required, depending on the background and needs of the student.”

Page 639, 2012-2013 Calendar, under the heading 29.13.3 Courses, insert the following two new courses under Theories and Methods, “6807 and 7803,” with a course descriptions as follows:

“Music 6807 Video Documentary Production (credit may be received for only one of Music 6807 and Music 7803)

Music 7803 Radio Documentary Production (credit may be received for only one of Music 6807 and Music 7803)”

Page 639, 2012-2013 Calendar, under the heading 29.13.3 Courses, insert the new course, “7802,” under Social Identities, with a course description as follows:

“Music 7802 Music and Intercultural Processes”

Page 639, 2012-2013 Calendar, under the heading 29.13.3 Courses, under Special Topics, amend the course titles of special topics blocks “6800-09 and 7800-09” to read as follows:

“Music 6800-09 Special Topics in Music (excluding Music 6807)

Music 7800-09 Special Topics in Music (excluding Music 7802 and 7803)”

Page 639, 2012-2013 Calendar, under the heading 29.13.3 Courses, delete the following list of courses from Area and Genre Studies:

“7010, 7011, 7012, 7013, 7017, and 7018”

Page 639, 2012-2013 Calendar, under the heading 29.13.3 Courses, delete the course “6700” from Public and Applied Ethnomusicology and Folklore.

60.13 Master of Technology Management Program (MTM)

Page 623, 2012-2013 Calendar, under the heading 28.2 Program, amend the “(I)” to “(i)” in the third paragraph and delete everything after the comma in

Master of Technology Management Program (MTM) (cont'd)

the second sentence of paragraph three, starting with “but any who register....”

Page 623, 2012-2013 Calendar, under the heading 28.2.1 Admission Requirements, amend paragraph 1, which begins, “The deadlines for submission of application...” to read as follows:

- “1. The deadlines for submission of applications are as follows:
- Fall (September) semester: May 15
  - Winter (January) semester: September 15”

60.14 Master of Maritime Management Program (MMM)

Page 584, 2012-2013 Calendar, under the heading 17.2 Program, amend the “(I)” to “(i)” in the second paragraph and delete everything after the comma in the second sentence of paragraph two, starting with “but any who register....”

Page 584, 2012-2013 Calendar, under the heading 17.2.1 Admission Requirements, amend paragraph 2 to read as follows:

- “2. The deadlines for submission of applications for candidates wishing to enter studies are as follows:
- Fall (September) semester: May 15
  - Winter (January) semester: September 15
  - Spring (May) semester: January 15”

Page 584, 2012-2013 Calendar, under the heading 17.2.2 Program of Study, insert new course, “MSTM 6051,” at 17.2.2.1.a.ii, **Category B**, to read as follows:

“MSTM 6051 International Maritime Compliance & Business Continuity Planning”

Page 584, 2012-2013 Calendar, under the heading 17.2.2 Program of Study, insert new course, “MSTM 6051,” at 17.2.2.1.b.ii, **Category B**, to read as follows:

“MSTM 6051 International Maritime Compliance & Business Continuity Planning”

60.15 Cognitive and Behavioural Ecology (CABE)

Page 631, 2012-2013 Calendar, under the heading 29.6.2 Regulations, amend paragraph 2 to read as follows:

- “2. The comprehensive examination shall normally be taken within the first 5 semesters of the program. An Examination Committee will be struck in accordance with **General Regulations**. At least one member of either the Department of Biology or of the Department of Psychology (other than the Supervisor) must be on the Examination Committee, along with one other representative from among the faculty members currently associated with Cognitive and Behavioural

Cognitive and Behavioural Ecology (CABE) (cont'd)

Ecology and an additional representative from either within or outside of Cognitive and Behavioural Ecology. The candidate's Supervisor will be on the Examination Committee and will be the only examiner from the candidate's Thesis Supervisory Committee. The Examination Committee is chaired by the Chair of the Cognitive and Behavioural Ecology Committee. The examination will include a comprehensive, integrative review and critical evaluation of novel ideas with regard to a topic in Animal Behaviour or Behavioural Ecology. The review topic is assigned by the Examination Committee, which also determines the submission date for the paper, and the date of the examination. Normally, the student will write the paper in 10 weeks, and the oral examination will occur within two to three weeks of the paper's submission. This paper will form the basis of a public seminar. The Examination Committee will question the candidate about the paper, the topic and its broader relationship with Cognitive and Behavioural Ecology."

60.16 Computational Science Program

Page 604, 2012-2013 Calendar, under the heading 23.10.5 Co-operative Education Option, amend entire section to read as follows:

**"23.10.5 Co-operative Education Option**

1. A co-operative education option will be available to students who are accepted into the M.Sc. program. Students in this option may follow the thesis or non-thesis version of the program. It is expected to take up to 24 months to complete.
2. Students will normally declare their intention to complete the co-operative education option at the start of the second semester of their academic program.
3. Students will complete two work terms consecutively, normally following the successful completion of two academic semesters.
4. The dates for starting and finishing each work term are shown in the **University Diary**.
5. A competition for work term employment is organized by the Division of Co-operative Education (DCE) in cooperation with a designated faculty member from Computational Science. Students may also obtain their own work term jobs outside the competition. Such jobs must be confirmed by letter from the employer and approved by the Chair of Computational Science and by the DCE on or before the first day of the work term. Work term jobs may be outside St. John's and possibly outside Newfoundland and Labrador. Students who do not wish to accept a work term job arranged by DCE shall be responsible for finding an acceptable alternative. By entering the competition, students give permission for the DCE to supply their Memorial University of Newfoundland transcripts and resumes to potential employers.
6. Each work term placement will be supervised by the student's program supervisor, the on-site supervisor assigned by the employer and the DCE Coordinator. The overall evaluation of the work term is the responsibility of the program Supervisor, on-site Supervisor and DCE Coordinator. The work term shall consist of two components:

Computational Science Program (cont'd)

- On-the-job Student Performance as evaluated by the on-site supervisor and DCE Coordinator, in consultation with the program supervisor.
  - A Work Report graded by the DCE Coordinator and the program supervisor in consultation with the on-site supervisor.
7. Evaluation of the work term will result in the assignment of one of the following final grades:
1. *Pass with Distinction*: Indicates OUTSTANDING PERFORMANCE in both the work report and work performance.
  2. *Pass*: Indicates that PERFORMANCE MEETS EXPECTATIONS in both the work report and work performance.
  3. *Fail*: Indicates FAILING PERFORMANCE in the work report and/or the work performance.
- If a student fails to achieve a final grade of *Pass* or *Pass with Distinction*, and provided the student has not failed to achieve a grade of 'B' or better in any program course, the student may request to repeat the work term component. The request will be considered by the Chair of Computational Science in consultation with the program supervisor and the DCE Coordinator. Only one repetition of a work term will be permitted in the student's program.
8. Following the completion of the two work terms, each student must complete any remaining course requirements and project report or thesis. Assuming that prior written authorization of the employer and the supervisory committee was obtained and submitted to the School of Graduate Studies, students may include material from the work terms in their reports or theses. For students following the non-thesis version of the program, the two work-term reports may be combined into a single, integrated report for this purpose. All other students must write a thesis on a research project which may be based on research completed during the work terms.
9. Students who are accepted into the co-op option are not guaranteed placements. In the event that a student fails to obtain two semesters of placements, but successfully completes all other requirements of the Degree, he or she will still be eligible for graduation, but without the designation of a co-op degree."

60.17 Medicine

Page 595, 2012-2013 Calendar, under the heading 22.2.2 Nutrition and Dietetics, amend section 22.2.2.1.a by deleting the first listed core course, "Public Health Leadership and Management (MED 6725)," and replace with "Policy and Decision Making (MED 6288)."

Page 595, 2012-2013 Calendar, under the heading 22.2.2 Nutrition and Dietetics, amend the table, "Table II - Master of Public Health Recommended Course Sequence for Full-Time Students in the Nutrition and Dietetics Specialization," by deleting "6725 Public Health Leadership and Management" under the first Fall block of courses and inserting, into the same block, the course "6288 Policy and Decision Making." In the same table, amend the first Spring block, Courses column, to read, "671A Dietetics

Medicine (cont'd)

Research Project,” and amend the second fall block, Courses column, to read, “671B Dietetics Research Project.”

Page 614, 2012-2013 Calendar, under the heading 25 Regulations Governing the Degree of Master of Science in Medicine, amend entire section, starting with the personnel block, to read as follows:

**“Professor and Dean**

J. Rourke

**Professor and Associate Dean**

R. Tabrizchi

**Associate Professor and Assistant Dean**

J. Doré

The Faculty of Medicine offers the degree of Master of Science in Medicine in eight program areas: Applied Health Services Research, Cancer and Development, Cardiovascular and Renal Sciences, Clinical Epidemiology, Community Health, Human Genetics, Immunology and Infectious Diseases, and Neurosciences. The Faculty of Medicine also offers the degree of Master of Public Health. Each program area has a Co-ordinator/Principal who is responsible for communicating the interests of the programs to the Faculty of Medicine Graduate Studies Committee and participates in the admission of graduate students into the program in Medicine.

The Degree of Master of Science in Medicine (in all of the programs excluding the Applied Health Services Research Program) is offered in the Faculty of Medicine to full-time and part-time students. The Applied Health Services Research program is offered by full-time study only. The graduate diploma programs in Community Health and Clinical Epidemiology are offered to full-time and part-time students.

The following regulations will apply in conjunction with the General Regulations of the School of Graduate Studies.”

60.18 General Regulation 3.12

Page 530, 2012-2013 Calendar, under the heading 3.12.3 General Information, insert an additional clause, clause 6, to read as follows:

“6. Where an allegation of academic misconduct relates to research and the Tri-Agency Framework: Responsible Conduct of Research, as amended from time to time, (the Framework) applies, these procedures shall be applied in a manner consistent with the minimal requirements of the Framework.”

Page 531, 2012-2013 Calendar, under the heading 3.12.6.2 Explanation of Procedures, delete paragraph 4, which reads as follows:

“The investigator for the case shall attend the meetings of the panel to answer questions and provide information pertinent to the case, but shall be absent from the formal discussion and voting.”

61. Senate Elections, 2013-2014

A memorandum dated January 19, 2013, was received for information from the Committee on Elections and Committees reporting the entitlement of each constituency to seats on Senate for the 2013-2014 academic year in accordance with the Procedures for Selection of Senate Members.

62. REPORTS OF SENATE COMMITTEES

Written reports were received for the information of Senators from the following Senate Committees:

- Senate Committee on Academic Appeals
- Planning and Budget Committee
- University Committee on Admissions
- Committee on Honorary Degrees and Ceremonial
- Executive Committee of Senate
- Senate Advisory Committee on the Bookstore
- Senate Committee on Elections and Committees
- Grenfell Campus Committee on Special Admissions
- Senate Committee on Course Evaluation
- Senate Committee on the University Calendar
- Senate Committee on Undergraduate Studies
- Senate Committee on Educational Technology
- Senate Committee on Copyright

**REGULAR AGENDA**

63. REPORT OF THE SENATE COMMITTEE ON UNDERGRADUATE STUDIES

63.1 Office of the Registrar

It was moved by Dr. Golfman, seconded by Dr. Mulay, and carried that on page 63, 2012-2013 Calendar, amend the heading 3.3.4 Applicants For Concurrent Studies to read “3.3.4 Applicants for Concurrent Studies”.

Page 63, 2012-2013 Calendar, under the heading 3.3.4.1 Admission Criteria, amend the section to read as follows:

- “• Applicants in or about to enter their first year of high school with a superior academic record (i.e. normally an overall average of 85% or above in completed English, math and science courses at the 2000 or 3000 level) may apply to enrol in university courses. The applicant for concurrent studies must be enrolled in a high school and completing a slate of courses that meets the course requirements for admission to the University as specified in **Applicants Who Have Followed the High School Curriculum of Newfoundland and Labrador**.
- Applicants will be required to submit a letter requesting enrolment in a specific course and provide a list of final year registrations; an official high school transcript; and a letter from the high school principal or guidance counsellor clearly supporting admission for concurrent studies.



Office of the Registrar (cont'd)

- Applicants must submit a completed application for admission/readmission together with the appropriate fee. For further information refer to **Fees and Charges**.
- Normally, enrolment for concurrent studies students will be limited to three credit hours in a given semester. Fees and deadlines are the same as for regularly admitted students. University credit will be awarded after successful completion of the course(s) and successful completion of the requirements for admission to the University.
- Normally, eligibility to enrol is limited to the Fall and Winter semesters.
- Concurrent studies students will be automatically considered for general admission to the University for the Fall semester of the following academic year. The requirements for admission to the University, as specified in **Applicants Who Have Followed the High School Curriculum of Newfoundland and Labrador**, will apply. Additional faculty application and admission requirements may apply.”

63.2 Grenfell Campus

It was moved by Mr. Riggs, seconded by Dr. Wilson, and carried that on page 275, 2012-2013 Calendar, under the heading 3.1 Designated Writing Courses (W), amend the Mathematics entry to read as follows:

“Mathematics: 2130, 4950”

Page 276, 2012-2013 Calendar, under the heading 4.1 General Regulations, amend the second sentence of regulation 3 to read as follows:

“A Minor is not required for Interdisciplinary programs or for Bachelor of Science in Computational Mathematics or Psychology.”

Page 276, 2012-2013 Calendar, under the heading 4.2 Major, insert a new bullet, in clause 4, after “Division of Arts: English, Historical Studies, Humanities” to read as follows:

“Division of Science: Computational Mathematics”

Page 289, 2012-2013 Calendar, under the heading 8 Division of Science, amend the first sentence to read as follows:

“Bachelor of Science (General and Honours) degree are available in Environmental Science, General Science, Computational Mathematics, and Psychology.”

Page 289, 2012-2013 Calendar, under the heading 8 Division of Science, insert a new section, renumbering remaining sections accordingly, to read as follows:

**“8.1 Major in Computational Mathematics**

Program Chair: TBA

Grenfell Campus (cont'd)

This mathematics major covers the essential undergraduate topics in mathematics, develops rigorous logical thinking, and equips students with computational techniques to model and solve real-world problems.

The major in computational mathematics requires:

- Mathematics 1000, 1001, 2000, 2050, 2051, 2130, 2320, 3000, 3132, 3240, 4242, 4950
- Three credit hours in a computer programming course
- Three credit hours in a statistics course
- Three credit hours in a physics course
- Philosophy 2210
- Twelve further credit hours in mathematics at the 3000-level or higher, at least three credit hours of which must be at the 4000”

Page 311, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, amend the course description of “1000 Calculus I” to read as follows:

“**1000 Calculus I** is an introduction to differential calculus, including algebraic, trigonometric, exponential, logarithmic, inverse trigonometric and hyperbolic functions. Applications include kinematics, related rates problems, curve sketching and optimization.

CR: the former 1081

LC: 4

PR: MATH 1090 or a combination of placement test and high school Mathematics scores acceptable to the Department

UL: at most 9 credit hours in Mathematics will be given for courses completed from the following list subject to normal credit restrictions:

MATH 1000, 1031, 1050, 1051, the former 1080, the former 1081, 1090, the former 1150 and 1151”

Page 311, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, amend the course description of “1001 Calculus II” to read as follows:

“**1001 Calculus II** is an introduction to integral calculus, including Riemann sums, techniques of integration and improper integrals. Applications include exponential growth and decay, area between curves and volumes of solids of revolution.

CR: the former Engineering 1411 or the former Engineering 2413

PR: MATH 1000 or the former 1081”

Page 311, 2012-2013 Calendar, under the heading 10.20 Mathematics and Statistics, sequentially insert the courses “3132, 3240, 4132, 4160, 4242, 4340, and 4950” with the following course titles and descriptions:

“**3132 Numerical Analysis I** includes a discussion of round-off error, the solution of linear systems, iterative methods for nonlinear equations, interpolation and polynomial approximation, least squares approximation,

Grenfell Campus (cont'd)

fast Fourier transform, numerical differentiation and integration.

CR: Computer Science 3731

PR: MATH 2000, MATH 2050, and a computing course (Computer Science 1510 is recommended).

**3240 Applied Graph Theory** examines algorithms and complexity, definitions and basic properties of graphs, Eulerian and Hamiltonian chains, shortest path problems, graph colouring, planarity, trees, network flows, with emphasis on applications including scheduling problems, tournaments, and facilities design.

CR: the former Computer Science 2741

PR: MATH 2320

**4132 Introduction to Optimization** is an introduction to optimization, analytic methods for functions of one variable and for functions of several variables, classical maxima and minima, necessary and sufficient conditions, constrained optimization, equality and inequality constraints, Kuhn-Tucker conditions, introduction to the calculus of variations, linear programming, simplex algorithm.

PR: MATH 3260 and 3202

**4160 Partial Differential Equations I** covers two point boundary value problems, Fourier series, Sturm-Liouville theory, canonical forms, classification and solution of linear second order partial differential equations in two independent variables, separation of variable, integral transform methods.

PR: MATH 3202 and MATH 3260

**4242 Algorithms and Complexity** is a study of the correctness and complexity of algorithms, with particular focus on algorithms important in mathematics. Topics may include sorting and binary search, string searching, integer multiplication and exponentiation, matrix multiplication, geometric problems such as closest pair of points and convex hull, probabilistic and approximative algorithms. This course discusses polynomial reductions and NP-completeness.

PR: MATH 3132 and 3240

**4340 Combinatorial Analysis** continues most of the topics started in 3340 with further work on distributions, recurrence relations and generating functions. Generating functions are used to solve recurrence relations in two variables. Also included is a study of Polya's theorem with applications.

PR: MATH 2000 and 3340

**4950 Senior Project** is a course in which, under the guidance of a faculty member, students conduct a scientific study based upon original research or a critical review of extant data in an appropriate area. Normally the project will have a computational component. Students are required to submit a report and give a presentation. This project fulfils the Core requirement for a fourth-year individual project in the area of specialization. This is a Designated Writing Course.

PR: Permission of Program Chair”

63.3 Office of the Registrar

It was moved by Mr. Riggs, seconded by Mr. Campbell, and carried that on page 60, 2012-2013 Calendar, under the heading 3.1 Admission/Readmission Information, amend clause 3 by deleting the phrase “for the past two consecutive semesters” and replacing with “for the past three consecutive semesters.”

Page 76, 2012-2013 Calendar, under the heading 5.10.1.3 Other, amend the first bullet by deleting the phrase “registered for two or more consecutive semesters” and replacing with “registered for three or more consecutive semesters.”

63.4 Deletion of Programs - Faculty of Arts

It was moved by Mr. Riggs, seconded by Dr. Phillips, and carried that on page 93, 2012-2013 Calendar, under the heading 4.1.2.2 Interdepartmental Major Programs, amend clause 1 by deleting “Canadian Studies” and “Drama and Music.”

Page 83, 2012-2013 Calendar, under the Faculty of Arts section, delete, entirely, the following sections:

“9.4	Canadian Studies
9.12	European Studies
9.18.2.3	Russian Studies Minor
6.7	Diploma in English as a Second Language
6.9	Diploma in Heritage Resources
10.4	Canadian Studies
10.9	European Studies”

63.5 Appeals Procedures

It was moved by Mr. Riggs and seconded by Ms. Simms to approve these changes. Following discussion, it was suggested that a friendly amendment of changing the word “only or” in clause 3.e. to read “and/or” be made. When put to a vote, it was agreed that the following changes, along with the friendly amendment, be approved:

Page 20, section VII. D., Committee of Academic Appeals, of the Sixth Edition - August 2012 Handbook of Senate By-Laws and Procedures, replace the current entry with the following:

“Committee on Academic Appeals

1. Membership:

- a. an appropriate number of academic staff members including at least three Senators. Insofar as possible, the Committee shall have balanced representation from the faculties/schools/campuses of the University;
- b. an appropriate number of students, at least one appointed by the Memorial University Students’ Union, at least one by the Marine Institute Students’ Union, at least one by the Grenfell Campus Student Union and at least one graduate student, appointed by the Graduate Students’ Union;

Appeals Procedures (cont'd)

- c. the Secretary of Senate or delegate, who shall serve as secretary to the committee.

2. The Chair of the Committee shall be a Senator.

3. Terms of Reference:

- a. to consider appeals and make decisions on behalf of the Senate;
- b. an appeal shall be considered by an Appeals Panel that shall consist of five members of the Committee on Academic Appeals, including one student member, the Secretary of the Committee and three academic staff members, one of whom must be a Senator. They shall be invited to be members of the panel by the Chair of the Committee on Academic Appeals, following consultation with the Secretary of Senate;
- c. none of the members of a panel shall have been involved in any prior decision making with respect to the matter under appeal or have any conflict of interest, bias or reasonable apprehension of bias;
- d. an Appeals Panel shall choose its own chair, who shall be responsible for arranging and chairing all sessions of the panel;
- e. the appellant may choose to make an appeal either through written submission and/or through an oral presentation; no inference will be drawn from the choice;
- f. a decision of the Appeals Panel shall be by majority;
- g. an Appeals Panel shall deliver written reasons for its decision;
- h. a copy of the report of the Appeals Panel will be retained in the Senate records.”

63.6 General Academic Regulation 5.11 Academic Misconduct

It was moved by Mr. Riggs, seconded by Dr. Golfman, and carried that on page 77, 2012-2013 Calendar, under the heading 5.11.2 General Information, insert a new clause, clause 6., to read as follows:

- “6. Where an allegation of academic misconduct relates to research and the Tri-Agency Framework: Responsible Conduct of Research, as amended from time to time, the Framework applies. These procedures shall be applied in a manner consistent with the minimal requirements of the Framework.”

63.7 Faculty of Medicine

It was moved by Mr. Riggs, seconded by Dr. Rourke, and carried that on page 366, 2012-2013 Calendar, under the heading 4 Affiliated Teaching Sites, amend full section to read as follows:

- “1. Within St. John’s: (hospitals under the Eastern Regional Health Authority)
2. Outside St. John’s: (hospital/community settings)
3. New Brunswick and other jurisdictions: (hospital/community settings)”

Faculty of Medicine (cont'd)

Page 366, 2012-2013 Calendar, under the heading 5 Description of Medical Training Program, amend the second and fourth paragraphs to read as, respectively, follows:

“The program consists of four phases; Phase one covers normal health and development, Phase two covers acute reversible or modifiable health issues, Phase three covers chronic disease, and Phase four involves integration into practice. The first three Phases employ a variety of teaching and learning experiences, including self-directed learning, to learn about all aspects of health (physical, mental, social, and psychological), disruptions in health that can lead to frank disease, and all aspects of science, community health, ethics, and clinical skills related to identifying and describing disease and its diagnosis. During Phase 4, students take courses that will allow them to experience major disciplines in hospital and community settings throughout affiliated teaching sites in Newfoundland and Labrador and community and hospital settings in New Brunswick and other jurisdictions. They participate as members of the health care team, gaining the knowledge and experience necessary to assume the responsibilities associated with patient care.

Students in good academic standing are qualified to write Part I of the licensing examinations set by the Medical Council of Canada (MCC) at the appropriate time.”

Page 369, 2012-2013 Calendar, under the heading 9.2 Licensure in Newfoundland and Labrador and Other Approvals, amend the first paragraph to read as follows:

“All students are required to be on the Educational Register of the College of Physicians and Surgeons of Newfoundland and Labrador (CPSNL).”

Page 369, 2012-2013 Calendar, under the heading 9.3 Evaluation, leave clause 1, but delete everything else (clauses 2 - 4).

Page 369, 2012-2013 Calendar, directly after 9.3 Evaluation insert a new section, renumbering remaining sections accordingly, to read as follows:

**“9.4 Assessment**

1. Each student is expected to complete the work of the class as described in the current regulations of the Faculty of Medicine for each Phase of the program and to pass the prescribed academic and professional assessments. In this context, the professional assessments will cover not only the skills expected of a student, but personal conduct and relationships with peers, patients, hospital personnel, faculty members and staff.
2. Course grades are recorded as pass or fail on a student’s University transcript. Within each Phase, there will be multiple prescribed assessments. For all Phases, assessment of an individual student’s performance is the responsibility of the appropriate Phase Lead. Grades for all Phases may be reported using an internal scale.
  - a. The appropriate Phase Lead or designate is responsible for ensuring that each student is informed of the results of each assessment. The appropriate Phase Lead will notify the student, in writing, of any concerns that have arisen about

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- performance. The Associate Dean, Undergraduate Medical Education will also be informed.
- b. It is the responsibility of the student to consult immediately with the appropriate Phase Lead regarding any assessment in which concerns about performance have been expressed. Within one week of receiving notification of the result of an assessment, a student may submit a written request to the appropriate Phase Lead for reconsideration of the assessment result or for a reread of an exam or paper.
  - c. The student is responsible for notifying the appropriate Phase Lead immediately of any new or pre-existing circumstances that could affect his or her individual performance in the work of the class.
  - d. Exemptions From Final Examinations and Procedures for Applying to Write Deferred Examinations- see UNIVERSITY REGULATIONS- General Academic Regulations (Undergraduate) Exemptions From Final Examinations and Procedures for Applying to Write Deferred Examinations
3. A student's progress is monitored in each Phase of the program by the appropriate Phase Management Team."

Page 370, 2012-2013 Calendar, under the newly numbered heading 9.5 Promotion, amend section to read as follows:

**"9.5 Promotion**

1. The Student Promotions Committee is a standing committee of Faculty Council. The Student Promotions Committee reviews all assessments of all students in each Phase. On the basis of this review, this Committee decides which students should be promoted to the next Phase and which students are eligible to graduate. In reaching its decisions the Student Promotions Committee takes into account professional, as well as academic factors, and any special circumstances, duly authenticated, which warrant consideration.
2. Within each Phase, students may be required to be reassessed or to remediate with re-assessment in order to demonstrate competence and understanding of the required learning objectives. The amount and quality of remediation and reassessment required of a student is at the discretion of the appropriate Phase Management Team. Students with a Fail grade in any course cannot be promoted to the next Phase.
3. Even in the absence of any Fail grades, a student for whom substantial concerns about performance have been expressed may either be required to repeat the Phase or required to withdraw conditionally or unconditionally.
4. A student who is deemed by the Student Promotions Committee to be unsuitable for promotion or graduation is either required to repeat the Phase or required to withdraw either conditionally or unconditionally.
  - a. If a student is required to repeat a Phase with academic prejudice, his or her performance in the repeated Phase must be at a level at which no remediation or reassessment is required. If this standard is not met, the Student Promotions Committee requires the student to withdraw unconditionally. The option to repeat a Phase with academic prejudice can only be offered to a student once during his/her M.D. program.

Faculty of Medicine (cont'd)

- b. A student may repeat a Phase without academic prejudice if it has been demonstrated that the student's performance has been adversely affected by other factors acceptable to the Student Promotions Committee and duly authenticated.
  - c. If the Student Promotions Committee requires a student to withdraw conditionally, the Chair of the Student Promotions Committee informs the Dean and the appropriate Phase lead about the nature of the conditions to be met and the time period specified for meeting the conditions. The Dean then recommends to the Registrar that the student be required to withdraw from the program. Any student who has been required to withdraw conditionally may be readmitted once the conditions have been met. If the conditions are not met within the specified time limit, the student is required to withdraw unconditionally.
  - d. If the Student Promotions Committee requires a student to withdraw unconditionally, the Chair of the Student Promotions Committee will report the decision and the basis upon which it was reached to the Dean and the appropriate Phase lead. The Dean then recommends to the Registrar that the student be required to withdraw from the program. Any student who is required to withdraw unconditionally and who wishes to re-enter the Faculty must apply by the appropriate deadline date to the Admissions Committee in competition with all other applicants.
5. A student has the right to make a formal appeal against a decision of the Student Promotions Committee. However, this appeal cannot be made on the basis of the grades awarded in individual courses, as the student will normally have had the opportunity of contesting grades and assessment results immediately after notification. A formal appeal by a student against the decision of this Committee must be made on grounds other than the grades awarded, e.g. default of procedure. This appeal should be made in writing, clearly stating the basis for the appeal and should be directed in the first instance to the Dean. The Dean in consultation with the Office of the Registrar determines whether or not the grounds stated are sufficient to warrant a formal hearing of the appeal.
  6. In addition to the above clauses, the Faculty of Medicine reserves the right to require a student to withdraw from the program at any time when acceptable cause is demonstrated. In such cases, the Dean, on behalf of the Faculty, recommends such withdrawal to the Registrar who will then take appropriate action. Any such action is subject to the right of appeal by the student. An appeal should be made in writing clearly stating the basis for the appeal and should be directed in the first instance to the Registrar of the University. The Registrar, in consultation with the Dean, will determine whether or not the grounds stated are sufficient to warrant a formal hearing of the appeal.
  7. Any student who enters the first Phase of the medical program but withdraws within the first seven weeks may be permitted re-entry only by re-application to the Admissions Committee in competition with all other applicants by the appropriate deadline date. Withdrawal at all other times is in accordance with **UNIVERSITY REGULATIONS - General Academic Regulations (Undergraduate)**.



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8. a. Upon completion of a Phase or after the completion of 8710 and 8720 in Phase four, a student in good academic standing may elect to withdraw temporarily from studies (e.g. to pursue graduate studies).
- b. Any student may be permitted to withdraw in accordance with **UNIVERSITY REGULATIONS - General Academic Regulations (Undergraduate) Withdrawing From The University**. In all cases, the intent to withdraw voluntarily should be discussed the appropriate Phase Lead. The student must make a written request for voluntary withdrawal to the Dean who will then consult the appropriate Phase Lead. In the event that a student wishes to return to medical school, the Dean should ensure that sufficient revision and preparatory work are undertaken before the student is permitted to resume medical studies.
- c. Students permitted to withdraw are advised of the date upon which they are required to resume medical studies. In the absence of good cause, any such student who does not resume studies on the specified date will be deemed to have left the program.”

Page 370, 2012-2013 Calendar, under the newly numbered heading 9.6 Curricular Requirements (M.D.), delete the word “Clerkship” from the second paragraph.

Page 370, 2012-2013 Calendar, under the heading 10 Course Descriptions, amend full description to read as follows:

**“10 Course Descriptions**

The courses in all Phases form a continuum. Clerkship provides clinical experience in the affiliated teaching hospitals and community sites of Memorial University of Newfoundland. Each Phase provides blended and clinical learning experiences in the medical school, teaching hospitals and community sites. In Phase 4, the students become members of the patient care team and have graded and supervised responsibility. In any given course, multiple teaching and learning methods such as lectures, small group discussion, labs and self-directed learning will be used.”

Page 370, 2012-2013 Calendar, amend the heading 10.1 Courses in the First and Second Year of Medical Studies to read as “10.1 Courses in all Phases of Medical Studies,” and under that heading delete the following courses:

“5600 Basic Science of Medicine I  
5610 Clinical Skills I  
5640 Community Health I  
5650 Integrated Study of Disease I  
5660 Family Medicine Pre Clerkship Elective”

Page 370, 2012-2013 Calendar, under the heading 10 Course Descriptions, delete the subheading, title and description, 10.2 Courses in the Clerkship, renumbering remaining section accordingly, and then, under the newly titled subheading 10.1 Courses in all Phases of Medical Studies, add a UL (Usage Limitation), which reads as “UL: not applicable to the M.D. program for students admitted Fall 2013 or later,” to the following list of courses:

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“6600 Basic Science of Medicine II  
6610 Clinical Skills II  
6640 Community Health II  
6650 Integrated Study of Disease II  
7000 Clerkship Preparation Course  
7200 Internal Medicine  
7210 Surgery  
7220 Psychiatry  
7230 Pediatrics  
7240 Rural Family Practice  
7250 Obstetrics/Gynecology  
7260, 7261 & 7263 Electives  
7270-7273 Selectives  
7280 Integrated Basic, Community Health and Clinical Sciences”

Page 370, 2012-2013 Calendar, under the newly titled subheading 10.1 Courses in all Phases of Medical Studies, amend the course description of “6660 Family Medicine Pre-Clerkship Elective” to read as follows:

“**6660 Family Medicine Pre-Clerkship Elective** is offered to medical students interested in enhancing their patient interviewing and clinical examination skills. Each student will be paired with an experienced family physician in the community (rural and urban opportunities) for two to four weeks during the summer months at the end of the first and/or second year. Students gain practical experience of working at the primary care level in a variety of settings that could include office-based practice, home visits, emergency departments, labour and delivery and both long-term care facilities and in-hospital ward experiences. (This varies depending on the family physician’s practice profiles.) Students applying for this course must be currently registered as a first or second year medical student in a Canadian medical school.

AR: attendance is required

CH: 0

UL: not applicable to the M.D. program for students admitted Fall 2013 or later.”

Page 370, 2012-2013 Calendar, under the newly titled heading 10.1 Courses in All Phases of Medical Studies, add an interlinear subheading, directly after the course “7280 Integrated Basic, Community Health and Clinical Sciences,” to read as “**Phase 1 - HEALTH AND ITS PROMOTION,**” below which insert the following list of new courses:

“**5710 The Healthy Person** introduces students to the structure and function of healthy people in all age groups in an integrated way. Students will learn in the context of a person as part of a family in a community. Students will begin to examine their future roles as professionals in our health care system.  
CH: 19

**5720 Clinical Skills I** introduces students to the main elements of the medical interview and techniques of interviewing. Students will develop skills in examining healthy individuals within all age ranges. Communication

Faculty of Medicine (cont'd)

and collaboration skills will be developed in the context of patient-centered care and working with other health care providers.

AR: attendance is required

**5730 Special Projects I** introduces students to concepts that encompass the non-medical expert CanMEDS roles of scholar, communicator, collaborator, advocate, manager and professional in the context of the healthy person, family and the physician within health care systems.

**5740 Community Engagement I** places students in community sites for two weeks to experience a variety of aspects of the health care system with various health agencies, a family physician, and other health care providers.

AR: attendance is required”

Page 370, 2012-2013 Calendar, under the newly titled heading 10.1 Courses in All Phases of Medical Studies, add an interlinear subheading, directly after the newly inserted course “5740 Community Engagement I,” to read as “**Phase 2 - DISEASE PREVENTION AND DISRUPTIONS OF HEALTH**,” below which insert the following list of new courses:

“**6710 The Patient: Acute or Episodic Health Problems** has students build on their knowledge of the normal structure and function of the body and analyze disruptions in health by exploring the pathophysiology of illnesses, their risk factors and risk prevention strategies.

CH: 21

**6720 Clinical Skills II** has students develop clinical reasoning skills used in patient-centered care using focused interviewing, examination, and communication skills.

AR: attendance is required

**6730 Special Projects II** has students apply concepts that encompass the non-medical expert CanMEDS roles of scholar, communicator, collaborator, advocate, manager and professional in the context of the patient’s change in health status management and prevention.

**6740 Community Engagement II** places students in physicians’ practices for two weeks to further experience interactions among patients, their family physician and the health care system when presenting with a change in health status.

AR: attendance is required”

Page 370, 2012-2013 Calendar, under the newly titled heading 10.1 Courses in All Phases of Medical Studies, add an interlinear subheading, directly after the newly inserted course “6740 Community Engagement II,” to read as “**Phase 3 - DIAGNOSIS AND INVESTIGATION OF ILLNESS AND DISEASE**,” below which insert the following list of new courses:

“**7710 The Patient: Chronic Conditions** has students apply knowledge of reversible or modifiable health problems to chronic conditions for diagnosis and management of the patient.

CH: 36

Faculty of Medicine (cont'd)

**7720 Clinical Skills III** has students advance their assessment skills of patients who have chronic health issues. They will develop verbal and written communication skills required for patient-centered care.

AR: attendance is required

**7730 Special Projects III** continues to develop student competencies in the non-Medical Expert CanMEDS roles introduced in previous special project courses.

**7740 Phase 4 Preparation** introduces students to skills required to succeed in their clinical experiences to achieve a level of competency for Phase 4.

AR: attendance is required”

Page 370, 2012-2013 Calendar, under the newly titled heading 10.1 Courses in All Phases of Medical Studies, add an interlinear subheading, directly after the newly inserted course “7740 Phase 4 Preparation,” to read as “**Phase 4 - INTEGRATION INTO CLINICAL PRACTICE,**” below which insert the following initial paragraph and list of new courses:

“Phase 4 begins with students taking the core courses 8710 and 8720. These courses will be followed by 12 weeks of elective experiences and 12 weeks of advanced practice.

**8710 Core Experiences** immerses students in the clinical environment through experiences in core disciplines including internal medicine, surgery, obstetrics and gynecology, rural family practice, paediatrics and psychiatry.

AR: attendance is required

CH: 56

**8720 Advanced Procedural Competencies** provides students with opportunities to advance their procedural and clinical skills to promote patient safety and work effectively in team settings.

AR: attendance is required

CH: 2

**8730 Electives** are offered in two - four week blocks in approved areas of study for a maximum of twelve weeks.

AR: attendance is required

CH: 12

**8740 Advanced Practice Integration** enables students to be assigned to a physician, physician group or discipline for experiences that focus on following patients as they interact with the health care system.

AR: attendance is required

CH: 12

**8750 Practice Continuum** Students will focus on the transition to postgraduate training as a part of the continuum of medical education.

AR: attendance is required

CH: 1”

64. REPORT OF THE ACADEMIC COUNCIL OF THE SCHOOL OF GRADUATE STUDIES

64.1 Doctor of Philosophy - Department of Philosophy

It was moved by Dr. Golfman, seconded by Dr. Phillips, and carried that the following new Ph.D. program in Philosophy be approved. Dr. Golfman noted that the package includes a memorandum from the Provost and Vice-President (Academic) regarding resources for this program.

On page 625, 2012-2013 Calendar, under the heading 29 Regulations Governing the Degree of Doctor of Philosophy, insert a new PhD program, "Philosophy," directly above 29.28 Psychology, and renumber remaining program headings accordingly, with regulations to read as follows:

**"29.28 Philosophy**

The degree of Doctor of Philosophy (PhD) is offered in Philosophy by full-time study only. Graduate courses are taught as small seminars and directed reading courses. Program candidates must spend a minimum of two years in residence at this institution.

**29.28.1 Program of Study**

1. The PhD in Philosophy is offered in accordance with the **General Regulations** of the School of Graduate Studies. Doctoral candidates will specialize in one or more of three departmental research clusters:
  - Metaphysics and its History
  - Kant and Continental Philosophy
  - Ethics, Social and Political Philosophy
2. To be considered for admission to the program an applicant must have completed a Master of Arts Degree in Philosophy or hold an equivalent qualification.
3. All candidates are required to complete 15 credit hours in graduate courses selected from the **Courses** listed below and including the following:
  - Philosophy 6000
  - Four additional courses (12 credit hours) only one of which (3 credit hours) may be a directed reading courseCourses will be selected by the candidate in consultation with the candidate's Supervisory Committee.
4. Proficiency in a second language is required since it is necessary for the purpose of the proposed doctoral research. The selection of a second language is based upon the student's research requirements, and the selection is to be made in consultation with the student's faculty advisor or supervisor. Confirmation that the choice is acceptable must be obtained from the department. Demonstration of proficiency will be determined in accordance with the governing general regulation of the School of Graduate Studies (**General Regulations, Evaluation, Evaluation of Graduate Students**). If a student is working in recent Anglo American philosophy, then the student can opt, with the permission of the Graduate Studies Committee, to complete an examination in philosophical logic. The language requirement must normally be fulfilled before a student takes the PhD comprehensive examination.
5. The PhD Comprehensive Examination shall be administered and evaluated in accordance with General Regulations, Comprehensive Examinations. The examination shall consist of three written parts:

Doctor of Philosophy - Department of Philosophy (cont'd)

a four-hour examination in the student's area of concentration and two three-hour examinations in two of the department's research clusters (Metaphysics and its History, Kant and Continental Philosophy, and Ethics and Social and Political Philosophy).

6. No more than seven semesters after having been admitted to the program the candidate must submit a thesis proposal that is considered satisfactory by the supervisory committee.
7. Students must submit and successfully defend a thesis in accordance with the School of Graduate Studies general regulations governing Theses and Reports

**29.28.2 Courses**

A selection of the following graduate courses will be offered to meet the requirements of candidates, as far as the resources of the Department will allow:

6000 Graduate Seminar

**History of Philosophy Seminars:**

6011 Ancient and Medieval Philosophy

6012 Modern Philosophy

6013 Contemporary Philosophy

**Area Seminars:**

6014 Metaphysics

6015 Theory of Knowledge

6016 Ethical and Political Theory

**Tutorials:**

6040-6099 Special Topics

6101 Selected Texts

6102 Current Issues”

Page 515, 2012-2013 Calendar, under the table of contents heading 29 Regulations Governing the Degree of Doctor of Philosophy, sequentially insert a new program entry with appropriate pagination to read as follows:

“29.28 Philosophy

29.28.1 Program of Study

29.28.2 Courses”

65. Online Course Evaluation Questionnaire (CEQ) - Evaluation of the Pilot Project

The President invited Dr. Ken Snelgrove and Ms. Sharon Pippy to introduce, summarize and answer questions regarding the evaluation of the Online Course Evaluation (CEQ) pilot project.

The pilot project was initiated in January, 2012, to investigate the feasibility of administering the CEQ as an online form within the Student Self Service system. The first tests of the project were implemented in the Winter 2012 semester and involved the School of Music and Faculty of Education on the St. John's Campus and all divisions of the Grenfell Campus. Following that,

Online Course Evaluation Questionnaire (CEQ) - Evaluation of the Pilot Project (cont'd)

it was determined that further testing was required and the pilot was extended to the Fall 2012 semester, and its scope was broadened to include any courses in which the instructor wished to use the online form in that semester, on an opt-in basis.

The Committee on Course Evaluations and subsequent members of the pilot project proposed Senate grant permission to effect three main objectives regarding the continuation of this project: 1. to initiate the full implementation of the online Course Evaluation Questionnaire form within the current Winter 2013 semester, 2. to move forward with the newly modified 13 item questionnaire, and 3. to continue with increased efforts to promote greater participation rates.

Though initial findings revealed lower participation rates than those of the previous paper-based version of the CEQ, it was accepted that further promotion could alleviate this disparity; additionally, despite the lower rates of participation, the mean average of the statistically evaluated portion of the questionnaire remained the same. Moreover, it was noted that while some faculty were at first apprehensive about the low response rate, the “spectacular” quality of the written responses soon alleviated those concerns.

After further discussion over issues such as data collection and interpretation, logistical and technical feasibility, the trend of rising rates of online activity within university communities, and the proposed methods of increasing participation rates, the following groups announced their enthusiastic support of this initiative: Distance Education, Learning and Teaching Support, the Faculty of Engineering, the School of Nursing, the Memorial University of Newfoundland Students’ Union, and the School of Human Kinetics and Recreation. The motion to accept and meet all three objectives was moved by Dr. Linda Hensman and seconded by Dr. Ellen Waterman, and the President posed the question. The decision was one of majority and the motion passed.

66. Items for Information

66.1 The Executive Committee of Senate denied the following appeal:

ECS 2012-2013: #7 - Appeal against the decision of the Senate Committee on Undergraduate Studies to uphold the decision of the Special Subcommittee on Readmission Appeals to deny acceptance of the student’s application for readmission to the university.

67. REMARKS FROM THE CHAIR - QUESTIONS/COMMENTS FROM SENATORS

Dr. Kachanoski reported on his activities since the last meeting of Senate, noting in particular the launch of the Public Engagement Framework; the Capstone document being sent for consultation; the conclusion of the search for Vice-President (Research), resulting in the appointment of Dr. Richard Marceau, effective June 1, 2013, (at which point the President paused to give special thanks to Dr. Loomis for his tremendous service as Vice-President (Research) and as President *pro tempore*); the \$1 million contribution from Drs. Jean and Angus Bruneau to the School of Music Bruneau Centre in Choral Music; the address to Rotary on February 7<sup>th</sup>; the Student Leadership

Remarks from the Chair - Questions/Comments from Senators (cont'd)

Conference; the Law Foundation luncheon; the establishment of a committee to investigate the feasibility of a law school at Memorial University; the formation of a committee to review the competitive Athletics program; the continued pre-budget consultations with Government; and a meeting regarding autonomy versus accountability, scheduled for March 4<sup>th</sup>.

68. ADJOURNMENT

The meeting adjourned at 5:25 p.m.

\_\_\_\_\_  
CHAIRMAN

\_\_\_\_\_  
SECRETARY