

**SENATE MEETING  
PUBLIC SESSION  
MINUTES**

August 24, 2009  
3:30 – 5:30 PM  
Conference Centre 6-205/211

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**Present:**

S. Beeler, G. Ashoughian, C. Bock, D. Casperson, C. Chasteauneuf, M. Dale, A. Dayanandan, J. DeGrace (Secretary of Senate), H. Donker, R. Ellis, G. Fondahl, W. Haque, K. Hutchings, J. Hyndman, G. Iwama (Chair), E. Jensen, T. Knudsen, P. MacMillan (representative of I. Hartley), P. Madak, W. McGill, S. McKenzie, C. Myers (Recording), M. Reid, R. Robinson, I. Uche-Ezeala, K. Vandersteen, S. Wagner, A. Yakemchuk, S. Zahir

**Regrets:**

E. Annis, T. Binnema, S. Déry, U. Eka, R. Hoffman, I. Hartley, A. Jacob, J. Jeffery, R. Lazenby, T. Levis, D. Macknak, D. Nyce, C. O'Callaghan, S. Rennebohm, J. Young

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**NOTE:** Since this meeting did not have a quorum, it was decided to proceed with the meeting and seek ratification of all approval items at a later date. All motions were subsequently ratified by an electronic meeting of Senate with voting ending on August 31, 2009.

The meeting commenced at 3:30 p.m.

Mr. John DeGrace, Secretary of Senate, introduced himself to Senators, as he was attending his first meeting of Senate since returning to UNBC. He also warmly welcomed the new President and Chair of Senate, Dr. George Iwama. Dr. Iwama subsequently introduced a new member of Senate, Ms. Gohar Ashoughian, University Librarian.

**1.0 S-200908.01**

**Approval of the Agenda**

Hutchings / Zahir

That the Agenda for the August 24, 2009 Public Session of Senate be approved as presented.  
CARRIED.

**2.0 S-200908.02**

**Approval of Senate Minutes**

Yakemchuk / Donker

That the Minutes of the May 13, 2009 Public Session of Senate be approved as presented.  
CARRIED.

### 3.0 Business Arising from Previous Minutes of Senate (no material)

There was no business arising.

### 4.0 President's Report

Iwama

Dr. Iwama reported that his first seven weeks at UNBC have been positive. He has been looking at previous planning exercises and wants to build on this work, having conversations with Senators and others in the fall in this regard. He added that, in the fall, he would be travelling to the regions to meet with students, alumni, and UNBC employees in the regions. He planned to bring the results of his discussions back to Senate.

#### **S-200908.03**

#### **Approval of Revisions to the UNBC Harassment and Discrimination Policy**

Iwama / Wagner

That the changes to the UNBC Harassment and Discrimination Policy be approved as proposed.  
Effective date: Changed from "Immediately upon approval by Senate and the Board of Governors" to "Immediately upon approval by Senate, the Board of Governors, and the Faculty Association."

Dr. Dale indicated that the procedures in this policy were subject to approval by the Faculty Association, so if it was approved by Senate it would become the subject of a memorandum of understanding with the Faculty Association and would then be forwarded to the Board of Governors for approval. Thus, it would not become effective until it was approved by the Faculty Association and the Board of Governors. It was therefore agreed that the "Effective date" should be changed to read "Immediately upon approval by Senate, the Board of Governors, and the Faculty Association."

A Senator questioned whether Senate had the authority to approve this motion. Discussion ensued about this point, and it was noted that the policy had been approved by Senate previously. The Secretary of Senate indicated that, if Senate chose not to approve the policy, the new policy, if approved by the Board and Faculty Association, would nonetheless supersede the previous policy.

Several questions were raised to which the Harassment and Discrimination Advisor, Dr. Cindy Hardy, responded. She was asked whether she felt the proposed changes were positive, and she replied that, in her opinion, they were.

It was questioned whether the reference to the Senate Committee on Academic Appeals in section 9.1 of the policy was correct. It was suggested that the Senate Committee on Student Discipline Appeals would be a more appropriate body to hear appeals.

#### **Motion:**

Hyndman / Reid

That the reference to the Senate Committee on Academic Appeals in section 9.1 of the policy be changed to the Senate Committee on Student Discipline Appeals.

CARRIED.

After discussion concluded, the seconder, Senator Wagner, subsequently withdrew her second to the motion. The Chair asked whether anyone else was willing to second the motion, and Dean McGill did so. The main motion was CARRIED.

### 5.0 Report of the Provost

Dale

### 6.0 Question Period

No questions were posed.

## 7.0 Committee Reports

### 7.1 Senate Committee on Academic Policy and Planning

Dale

It was proposed that motions S-200908.04 to S-200908.06 be dealt with as an omnibus motion, and Senate proceeded in this manner.

#### **S-200908.04**

##### **Approval of Student Exchange Agreement — Gakushuin Women's College, Japan and the University of Northern British Columbia**

MacMillan / Hutchings

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the student exchange agreement between Gakushuin Women's College, Japan and the University of Northern British Columbia be approved as proposed.

Effective date: Changed from September 2009 to January 2010

CARRIED.

#### **Friendly amendment:**

Casperson / Hyndman

That the effective dates for motions S-200908.04 to S-200908.06 be changed from September 2009 to January 2010.

CARRIED.

#### **S-200908.05**

##### **Approval of Partnership Agreement — Daemen College (U.S.A.), Prescott College (U.S.A.), Universidad de Guanajuato (Mexico), Universidad Lasalle (Mexico), St. Francis Xavier University (Canada), & University of Northern British Columbia**

MacMillan / Hutchings

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the partnership agreement between Daemen College (U.S.A.), Prescott College (U.S.A.), Universidad de Guanajuato (Mexico), Universidad Lasalle (Mexico), St. Francis Xavier University (Canada), & University of Northern British Columbia (Canada) for the purposes of exchange and student support be approved as proposed.

Effective date: Changed from September 2009 to January 2010

CARRIED.

#### **S-200908.06**

##### **Approval of Student Exchange Agreement — Wenzhou University, China and the University of Northern British Columbia**

MacMillan / Hutchings

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the student exchange agreement between Wenzhou University, China and the University of Northern British Columbia be approved as proposed.

Effective date: Changed from September 2009 to January 2010

CARRIED.

An Executive Summary of the proposed changes to the Bachelor of Health Sciences Program was included for information.

Motions S-200908.07 to S-200908.10 were dealt with as an omnibus motion.

#### **S-200908.07**

##### **Change to Program Requirements — Addition of Honours Program, Bachelor of Health Sciences**

Dale / Wagner

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the expansion of the Bachelor of Health Sciences (BHSc) program, by adding an Honours option, be approved as proposed.

Effective date: September 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## **Page 140, 2009/2010 calendar**

**Under:**

### **Elective Requirement for all BHSC Majors**

Electives at any level sufficient to ensure completion of a minimum 120 credit hours.

### **Bachelor of Health Sciences Honours (BHSc, Honours)**

Admission to the honours program takes place after the end of the second year (i.e., upon completion of 60 credit hours) and requires a minimum CGPA of 3.33 over the previous 30 credit hours, or permission of the Program Chair. Consultation with Student Advising is highly recommended before applying. Attaining the minimum requirement does not guarantee admission to the honours program, which is at the discretion of the Program Chair. To remain in the honours program, students must maintain a minimum SGPA of 3.33. All honours students complete a thesis project (HHSC 490-6 Honours Thesis) under the direct supervision of a faculty member.

To be awarded the BHSc Honours degree, students are required to complete 126 credit hours. This consists of 57 credit hours of common requirements for all BHSc students, with the remainder coming from the following Majors, and electives, as follows:

**Biomedical Studies:** 48 credit hours of courses from the Biomedical Studies major; 12 elective credit hours of which at least 3 credit hours must be at the Health Sciences upper level; and the following 9 Honours credit hours:

HHSC 490-6 Honours Thesis  
HHSC 497-3 Senior Seminar

**Community and Population Health - Aboriginal and Rural Health:** 33 credit hours from the common course requirements for both Community and Population Health Majors, as well as a minimum of 12 credit hours (6 specified, 6 chosen) in Aboriginal and Rural Health-related courses; 15 credit hours are obtained from elective credit hours; and the following 9 Honours credit hours:

HHSC 490-6 Honours Thesis  
HHSC 497-3 Senior Seminar

**Community and Population Health - Environmental Health:** Students take 33 credit hours from the common course requirements for both Community and Population Health Majors, as well as a minimum of 12 credit hours (6 specified, 6 chosen) in Environmental Health-related courses; 15 credit hours are obtained from elective credit hours; and the following 9 Honours credit hours:

HHSC 490-6 Honours Thesis  
HHSC 497-3 Senior Seminar

The minimum requirement for completion of a BHSc Honours is 126 credit hours.

All Honours Thesis research must comply with the Research Ethics Board and is carried out under the discretion of the program.

**S-200908.08**

**New Course Approval — HHSC 490-6**

Dale / Wagner

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course HHSC 490-6 Honours Thesis be approved as proposed.

Proposed semester of first offering: Changed from September 2009 to September 2010

CARRIED.

**Friendly amendment:**

Wagner / Reid

That the effective date for motions S-200908.08 and S-200908.09 be changed from September 2009 to September 2010.

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

In this course students pursue an independent research project. Credit for this course is based on designing and implementing a research methodology, analyzing data and presenting findings in a thesis format. This course is a total of 6 credit hours and is normally completed over the September and January semesters.

Prerequisites: HHSC 451-3 and acceptance into BHSc Honours program.

**S-200908.09**

**New Course Approval — HHSC 497-3**

Dale / Wagner

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course HHSC 497-3 Senior Seminar be approved as proposed.

Proposed semester of first offering: Changed from September 2009 to September 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course provides an integrative seminar on research design and methodologies for advanced students. Enrolment is restricted to fourth-year Bachelor of Health Sciences Honours students who have completed 90 credit hours.

Prerequisites: HHSC 451-3 and acceptance into BHSc Honours program.

**S-200908.10**

**Change to Program Requirements — Bachelor of Health Sciences General Requirements (Switching Majors)**

Dale / Wagner

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change to the BHSc general requirements be approved as proposed.

Effective date: September 2009

CARRIED.

**Friendly amendment:**

Wagner / Reid

That the effective date for motion S-200908.10 be changed from September 2009 to October 2009.

It was pointed out that it would be problematic to make this change mid-semester, so the friendly amendment to the motion was subsequently WITHDRAWN.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

**Page 138, 2009/2010 calendar  
2<sup>nd</sup> column**

**General Requirements**

To be awarded the BHSc degree, students are required to complete 120 credit hours of University-level courses. This consists of 57 credit hours of common requirements for all BHSc students, with the remainder coming from the following Majors, and electives, as follows:  
Biomedical Studies: 48 credit hours of courses from the Biomedical Studies major and 15 elective credit hours.

Community and Population Health\_- Aboriginal and Rural Health: 33 credit hours from the common course requirements for both Community and Population Health Majors, as well as a minimum of 12 credit hours (6 specified, 6 with some choice) in Aboriginal and Rural Health-related courses, ~~thus adding to a focus of knowledge and understanding of this specific subject material.~~ The remaining 18 credit hours ~~will be~~ are obtained from elective credit hours.

Community and Population Health\_- Environmental Health: 33 credit hours ~~from~~ from the common course requirements for both Community and Population Health Majors, as well as a minimum of 12 credit hours (6 specified, 6 with some choice) in Environmental Health-related courses, ~~thus adding to a focus of knowledge and understanding of this specific subject material.~~ The remaining 18 credit hours ~~will be~~ are obtained from elective credit hours.

**To change BHSc majors, students must apply through Student Advising.**

An Executive Summary of the proposed changes to the Nursing Program was included for information.

Motions S-200908.11 to S-200908.13 were dealt with as an omnibus motion.

**S-200908.11**

**Course Credit Hours Change — NURS 498-3**

Dale / Donker

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change to the credit hours for NURS 498-3 Special Topics in Nursing be approved as proposed.

Effective date: September 2009

CARRIED.

The representative from the Nursing Program who was in attendance at the meeting indicated that this motion was time-sensitive and needed to be instituted prior to the start of the September 2009 semester.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

**NURS 498-(1-6) 3 Special Topics in Nursing** ~~This~~ A course explores ~~on~~ a special topic in nursing. The topic varies, depending on student interest and faculty availability. No more than six credit hours in Special Topics courses may be applied towards a BScN degree.

*Prerequisites:* upper division standing, ~~and~~ permission of the instructor, and permission of the Program Chair

#### **S-200908.12**

#### **Course Credit Hours Change — NURS 499-3**

Dale / Donker

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change to the credit hours for NURS 499-3 Independent Study in Nursing be approved as proposed.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

**NURS 499-(1-6) 3 Independent Study in Nursing** ~~A~~ This course explores ~~on~~ a selected topic in nursing based on readings and learning experiences directed by an instructor. The course format and requirements ~~will be~~ are based on a formal contract with the instructor. No more than six credit hours in Independent Study courses may be applied towards a BScN degree.

*Prerequisites:* upper division standing, ~~and~~ permission of the instructor, and permission of the Program Chair

#### **S-200908.13**

#### **Calendar Description Change — Nursing Program (Academic Performance)**

Dale / Donker

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change to the Academic Performance requirements for Nursing be approved as proposed.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## **Academic Performance**

~~The student is subject to all policies and regulations of the institution(s) where they are registered for courses. In matters related to academic appeals and academic dishonesty, students are subject to the policies and rules of the institution where they are registered for courses. Issues related to progression through the program, such as probation, are governed by UNBC guidelines on academic standing and continuance.~~

~~Students may repeat a nursing course once. Students who do not obtain the minimum passing grade, as defined under 'Qualification for Degree', in a required nursing course twice are required to withdraw from the program. A student who is required to withdraw from a required clinical course due to unsatisfactory performance will automatically be assigned a grade of F.~~

Students must adhere to all policies and regulations of the institution(s) where they are registered for courses. This requirement includes, but is not limited to, matters related to academic appeals and academic dishonesty. Progression through the program is governed by guidelines on academic standing and continuance. Probation guidelines are governed by UNBC.

Students must obtain the minimum passing grade for all required Nursing (NURS or equivalent) courses as defined under "Qualification for Degree." Students who do not meet these criteria may repeat the course once. If, on the second attempt, the student does not meet the minimum passing grade, he/she will be required to withdraw from the program and will not be allowed to reapply to the program at any time in the future.

Students who do not demonstrate satisfactory performance in a clinical or theory course will be placed on a Learning Contract/Action Plan. For clinical courses, issues related to the implementation of the Learning Contract/Action Plan must be resolved by the final grade submission or a grade of "F" will automatically be assigned. Students who are removed from a clinical setting due to "unsafe or unprofessional" performance/conduct will receive a final grade of "F" in that clinical course. For theory courses, issues related to the implementation of a Learning Contract/Action Plan must be resolved by the final grade submission or the student will not receive the minimum passing grade for the course.

Motions S-200908.14 and S-200908.15 were dealt with as an omnibus motion.

#### **S-200908.14**

#### **Change to Program Requirements — Biology Major (Addition of BIOL 318-3)**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the addition of BIOL 318-3 (Fungi and Lichens) as a required option in the Upper Division Requirement for the Biology Major be approved as proposed.

Effective date: January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## **Upper Division Requirement**

### **300 Level**

BIOL 311-3                    Cell and Molecular Biology  
BIOL 323-3   Evolutionary Biology  
BIOL 325-3   Ecological Analyses  
MATH 240-3 Basic Statistics

One of:

- BIOL 304-3 Plant, Society and the Environment
- BIOL 321-3 Animal Physiology

Two of:

- BIOL 301-3 Systematic Botany
- BIOL 318-3 Fungi and Lichens
- BIOL 307-3 Ichthyology and Herpetology
- BIOL 308-3 Ornithology and Mammalogy

**S-200908.15**

**Change to Program Requirements — Biology Major (Subject Requirements)**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the subject requirements for the Biology major be approved as proposed.

Effective date: Changed from May 2009 to September 2009

CARRIED.

**Friendly amendment:**

Dale / McGill

That the effective date for this motion be changed to September 2009.

CARRIED, contingent upon ratification.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~striketrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## Subject Requirements

Fifteen additional credit hours chosen from the following, of which at least six credit hours must be at the 400 level:

Any 300 or 400 level BIOL courses

- ENSC 406-3 Environmental Modelling
- ~~FSTY 309-3 Fire Ecology and Management~~
- FSTY 307-3 Disturbance Ecology and Forest Health

**S-200908.16**

**New Course Approval — COMM 353-3**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course COMM 353-3 Business Data Communications and Networking be approved as proposed.

Proposed semester of first offering: September 2010

CARRIED.

It was noted that the course, COMM 250-3, listed under the "Prerequisites" section should be "CPSC 250-3."

<b>Action:</b> C. Myers to correct the "Prerequisites" on the motion form.
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Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~striketrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course provides an understanding of basic data communications and networking concepts with emphasis on business computing. Topics covered include data transmission and encoding, Internet and Internet2, Network Layer model, network protocols, data privacy and security, and data communication hardware. Students learn about protocols and topologies of Local Area Networks (LANs), Wireless LANs, Wide Area Networks (WANs), Metropolitan Area Networks (MANs), and Backbone Networks (BNs). Students also engage in researching emerging technologies and present a case-study.

**Prerequisites:** CPSC 250-3 or permission of Chair

**Preclusions:** CPSC 344-3, CPSC 440-3

**S-200908.17**

**New Program Approval — Minor in Computing**

Dale / Zahir

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new Minor in Computing be approved as proposed.

Proposed start date: September 2009

It was suggested that this minor violated Academic Regulation 23, as the program requirements did not contain 12 upper-division credit hours. The Chair of the Computer Science Program responded that there were other minors at UNBC that violated this regulation, but also proposed some revisions to the program requirements.

**Motion:**

Casperson / Zahir

That the calendar description and curriculum requirements for the minor in Computer Science be amended as follows:

- 1) The General Calendar Description be changed from "The Minor in Computing requires the following 26 credit hours of courses" to read "The Minor in Computing requires the following 29 credit hours of courses."
- 2) The statement "one additional upper-division Computer Science course" be added at the bottom of the list of courses under the heading "Requirements."

CARRIED.

<b>Action:</b> C. Myers to revise this motion form to incorporate the proposed revisions.
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The main motion was subsequently CARRIED. Dr. Iwama encouraged that other minors be reviewed and, where necessary, brought into compliance with the academic regulations.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

**General Calendar Description:**

The Minor in Computing requires the following 26 credit hours of courses:

**Curriculum:**

Requirements:

CPSC 100-4 Programming 1  
CPSC 101-4 Computer Programming II  
CPSC 200-3 Algorithm Analysis and Development  
CPSC 281-3 Data Structures 1

CPSC 141-3 Discrete Mathematics

CPSC 300-3 Software Engineering

CPSC 324-3 Introduction to Database Systems

CPSC 344-3 Data Communications and Networking

Motions S-200908.18 and S-200908.19 were dealt with as an omnibus motion.

**S-200908.18**

**New Course Approval — CPSC 324-3**

Dale / Zahir

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 324-3 Introduction to Database Systems be approved as proposed.

Proposed semester of first offering: Changed from September 2009 to January 2010

CARRIED.

**Friendly amendment:**

Dale / Zahir

That the effective dates for motions 200908.18 and S-200908.19 be changed from September 2009 to January 2010.

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course focuses on the relational database model. Topics include storage structure and access methods, data definition and data manipulation language, relational algebra and calculus, and SQL. An introduction to database design using entity-relationship model, functional dependencies, and theory of normalization is provided. A relational DBMS is used for understanding SQL and application development in SQL-like languages and general purpose host languages with application program interfaces.

**Prerequisites:** CPSC 281-3

**Preclusions:** CPSC 422-3

**S-200908.19**

**New Course Approval — CPSC 344-3**

Dale / Zahir

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 344-3 Data Communications and Networking be approved as proposed.

Proposed semester of first offering: Changed from September 2009 to January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course provides an understanding of basic concepts underlying data communications and networking. Topics covered include data transmission and encoding, Internet and Internet2, Network Layer model, multiplexing, circuit switching, packet switching, network protocols, and data communication hardware. Students also learn about protocols and topologies of Local Area Networks (LANs), Wireless LANs, Wide Area Networks (WANs), Metropolitan Area Networks (MANs), and Backbone Networks (BNs). The basic concepts

of network design and implementation, network management, and network security are also introduced.

**Preclusions: CPSC 440-3, COMM 353-3**

An Executive Summary of changes to the School of Environmental Planning curriculum was included for information.

Motions S-200908.20 to S-200908.24 were dealt with as an omnibus motion.

**S-200908.20**

**Change to Program Requirements and Calendar Description — Environmental Planning (BPI)**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the calendar entry for Environmental Planning (BPI) program requirements be approved as proposed.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

School of Environmental Planning (BPI)

John Curry, Associate Professor

David Connell, Assistant Professor, and Acting Program Chair

~~Eric Rapaport, Assistant Professor, and Acting Program Chair~~

Orland Wilkerson, Assistant Professor

Raymond Chipeniuk, Adjunct Professor

Theresa Healy, Adjunct Professor

Richard Krehbiel, Adjunct Professor

James Randall, Adjunct Professor

Finlay Sinclair, Adjunct Professor

Website: <http://www.unbc.ca/planning>

The Bachelor of Planning degree provides a broad education in environmental planning. The focus is on understanding the relationship between people and the environment and on reducing the environmental impact of human activities.

The study of planning examines public processes that improve the quality of decisions affecting the environment. Responsible planning integrates various private and public interests and identifies viable, workable options. Planners play a vital role in ~~decisions about~~ decision-making processes concerning the future of human settlements, resource management, environmental protection, human health and well-being, economic development, and many other areas. Ultimately, the work of planners becomes part of, or a catalyst to, public policy.

~~The~~ To achieve its purposes, Environmental Planning offers a comprehensive program of courses, such as environmental assessment, ecological design, economic development, First Nations planning, land use planning, and sustainable communities. Each course provides a creative and challenging learning environment for students to tackle today's most contentious issues such as sustainability, climate change, biodiversity, environmental stewardship, and urban sprawl. Environmental Planning offers unique perspectives on a rapidly evolving field of study and solutions for an increasingly complex world.

Environmental Planning is dedicated to upholding professional standards of practice and is accredited by the Canadian Institute of Planners (CIP) and the Planning Institute of British Columbia (PIBC). Accreditation is a system for promoting national standards of education in planning and for recognizing educational institutions for a level of performance, integrity, and quality.

Accreditation benefits students in Environmental Planning in three ways:

- Current students can apply for Student Membership in PIBC;
- Graduates are eligible for Full Membership in PIBC and CIP after only two years of professional planning experience; and
- Employers in the planning field look for students graduating from an accredited planning program, thus significantly improving graduates' job prospects.

Three majors are available to students completing the Bachelor of Planning:

- Northern and Rural Community Planning
- First Nations Planning
- Natural Resources Planning
- ~~(Energy Specialization available in Fort St. John)~~

Planning students complete a set of program requirements totaling 69 credit hours in addition to completing the specialized course requirements for each major.

### **Program Requirements**

#### **Program requirements for all majors in planning**

Lower Division General Environmental Planning Requirement

#### 100 Level

ECON 100-3 Microeconomics  
ENPL 104-3 Introduction to Planning  
~~POLS100-3 Contemporary Political Issues~~

One of the following:

ENGL 170-3 Writing and Communication Skills  
or POLS 290-3 Research and Writing for Political Science  
or NRES 100-3 Communications in Natural Resources and Environmental Studies

#### 200 Level

ENPL 204-3 Principles and Practices of Planning  
ENPL 205-3 Environment and Society  
ENPL 206-3 Planning Analysis and Techniques  
ENPL 207-3 Introduction to Computer Aided Design  
ENPL 208-3 First Nations Community and Environmental Planning  
GEOG 210-3 Geomorphology  
POLS 200-3 Canadian Government and Politics

One of the following:

GEOG 204-3 Introductory Geographical Information Systems for the Social Sciences  
or GEOG 300-3 Geographic Information Systems

One of the following:

ECON 205-3 Statistics for the Social and Management Sciences

or MATH 240-3 Basic Statistics

or MATH 371-3 Probability and Statistics for Scientists and Engineers

Upper Division General Planning Requirement

300 Level

ENPL 301-3 Sustainable Communities

ENPL 303-3 Spatial Planning with GIS

ENPL 304-3 Mediation, Negotiation and Public Participation

ENPL 305-3 Environmental Impact Assessments

ENPL 313-3 Rural Community Economic Development

ENPL 318-3 Professional Planning Practice

ENPL 319-3 Social Research Methods

400 Level

ENPL 401 - 3 Environmental Law

ENPL 410 - 3 Land Use Planning

ENPL 411 - 3 Planning Theory, Process and Implementation

ENPL 415 - 3 Ecological Design

In addition, students may undertake ENPL 420-1 Research Methodology, ENPL 430-3 Undergraduate Thesis, ENPL 431-3 Professional Report, ENPL 440 (2-6) Internship as part of their electives.

**S-200908.21**

**Change to Program Requirements — Bachelor of Environmental Planning (Major in First Nations Planning)**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Major in First Nations Planning, Bachelor of Environmental Planning be approved as proposed.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

Major in First Nations Planning

First Nation communities have ~~significant, and growing,~~ significant and growing demands for qualified planners. As many First Nations move to define land claims in Canada, potentially giving First Nations significant responsibilities for land and community planning, and as others work to build upon existing treaties, the availability of skilled planners becomes essential. However, planning by, and with, First Nations requires specific skills and abilities in the planners, whether or not they themselves are First Nation.

For most First Nation communities few distinctions are made between ecological/environmental planning and planning for social and cultural needs. Cultural and social needs are developed from within, and are grounded in, the ecosystem. First Nations planning must necessarily integrate ~~all~~; First Nations wish to remain grounded in tradition; and seek to move into the future through sound community economic development and skilled land management. ~~Most, finally,~~ face significant community development needs, including

infrastructure development, housing, and health planning. Students will need not just a sound grasp of planning principles, but will need to also an understanding of the protocols, history, social structure, and ecology of Canadian First Nations. Further, cross cultural translation skills, community participation techniques, and a ~~sound~~ solid grounding in ethics ~~will be~~ are required.

Students ~~enroled~~ enrolled in the First Nations Planning Major must successfully complete 121 credit hours. Major and elective course requirements must also be met. ~~Students must ensure that they complete course prerequisites before registering in any course.~~

General requirement: \_\_\_\_\_ 72 credit hours  
Major requirement: \_\_\_\_\_ 40 credit hours  
Elective requirement: \_\_\_\_\_ 9 credit hours

~~The minimum requirement for a Bachelor of Planning with a Major in First Nations Planning is 121 credit hours.~~

~~Program requirement for all majors in planning: \_\_\_\_\_ 69 credit hours  
Major requirement: \_\_\_\_\_ 19 credit hours  
Major elective requirement: \_\_\_\_\_ 18 credit hours  
General elective requirement: \_\_\_\_\_ 15 credit hours~~

The minimum requirement for a Bachelor of Planning with a Major in First Nations Planning is 121 credit hours.

### Lower Division

[Lower-Division Requirements for Major in First Nations Planning](#)

~~BIOL 110-3 Introductory Ecology~~

~~FNST 100-3 The Aboriginal Peoples of Canada~~

~~GEOG 100-3 Environments and People~~

~~FNST 203-3 Introduction to Traditional Environmental Knowledge~~

~~FNST 250-3 Canadian Law and Aboriginal Peoples~~

~~FNST 131-3 First Nations Language Level 1~~

### Upper Division

[Upper-Division Requirements for Major in First Nations Planning](#)

~~ENVS 306-3 Human Ecology~~

~~ENPL 313-3 Rural Community Economic Development~~

~~NREM 303-3 First Nations' Approaches to Resource Management~~

~~FNST 304 -3 First Nations Environmental Philosophy and Knowledge~~

~~ENPL 409-4 Advanced First Nations Community and Environmental Planning~~

~~FNST 451-3 Traditional Use Studies~~

Choice of three of the following:

~~FNST 161-3 A First Nations Culture: Level 1~~

~~FNST 215-3 Issues in External Relations for Contemporary Indigenous Peoples~~

~~FNST 216-3 Issues in Internal Organization for Contemporary Indigenous Peoples~~

~~FNST 302-3 First Nations Health and Healing~~

~~FNST 303-3 First Nations Religion and Philosophy~~

~~FNST 304-3 First Nations Environmental Philosophy and Knowledge~~

~~FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power~~

~~GEOG 403-3 Aboriginal Geography~~

~~INTS 340-3 The Circumpolar North in Global Perspective~~  
~~INTS 410-3 Environmental and Development in the Circumpolar North~~  
~~NREM 210-4 Integrated Resource Management~~  
~~POLS 316-3 Community Government and Politics~~  
~~POLS 415-3 Comparative Northern Development~~  
~~POLS 434-3 Resource Communities in Transition~~  
~~ORTM 305-3 Protected Area Planning and Management~~

~~\* indicates course has pre-requisite.~~

Three of:

ANTH 101-3 Peoples and Cultures  
FNST 203-3 Introduction to Traditional Environmental Knowledge  
FNST 161-3 First Nations Culture Level 1  
FNST 200-3 Methods and Perspectives in First Nations Studies  
FNST 215-3 Issues in External Relations for Contemporary Indigenous Peoples  
FNST 216-3 Issues in Internal Organization for Contemporary Indigenous Peoples  
GEOG 100-3 Environments and People  
HHSC 102-3 Introduction to Health Sciences II: Rural and Aboriginal Issues  
NREM 210-4 Integrated Resource Management  
MATH 115-3 [Precalculus](#)  
POLS 250-3 Law and Municipal Government

Three of:

BIOL 350-3 Ethnobotany  
ENVS 325-3 Global Environmental Change: Science and Policy  
FNST 305-3 Seminar in First Nations Studies  
FNST 303-3 First Nations Religion and Philosophy  
FNST 407-3 First Nations Perspectives on Race, Class, Gender and Power  
GEOG 403-3 Aboriginal Geography  
ORTM 306-3 Indigenous Tourism and Recreation  
NREM 303-3 First Nations' Approaches to Resource Management  
SOCW 455-3 First Nations Governance and Social Policy  
SOCW 457-3 Individual and Community Wellness

Of the above lower and upper division course requirements, students must select a minimum of three FNST courses (nine credit hours).

Students must ensure that all prerequisites are fulfilled prior to registering in any courses.

General electives courses are 15 credit hours. Students are encouraged to use the general electives to take a minor offered in First Nation Studies, or other courses associated to aboriginal and First Nations issues.

**S-200908.22**

**Change to Program Requirements — Bachelor of Environmental Planning (Major in Natural Resources Planning)**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Major in Natural Resources Planning, Bachelor of Environmental Planning be approved as proposed.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## Major in Natural Resources Planning

The major in Natural Resources Planning is designed to provide students with an understanding of the complexities of including the natural and cultural environment in planning decision-making. The major is intended to address both project-level and large-scale environmental planning issues that occur in developments that impact the natural environment.

The objective of this major is to familiarize students with planning and decision-making in a variety of sectors that include provincial land use planning, environmental assessment, watershed planning and integrated resource and environmental management. These areas of planning are characterised by complex and intricate problems that revolve around how to use our natural resources and who should decide. The multidimensional aspects of environmental management include natural and cultural complexity, different desired futures, value differences, assessment and monitoring tools, and integration methods. This major emphasizes an understanding of planning in both the substantive realm (natural and social sciences), and the procedural realm (the process of including people in the decision-making process).

Students ~~enrolled~~enrolled in the Natural Resources Planning Major must successfully complete ~~424~~ 120 credit hours. Major and elective course requirements must also be met. Students must ensure that they complete course prerequisites before registering in any course. Students interested in working with biological and environmental aspects of natural resource planning should take BIOL 101 and BIOL 102 as elective courses and BIOL 201 as the ecology elective as they are prerequisite courses for many of the other biological and environmental courses. Furthermore, those students interested in the environmental sciences should also consider taking first- and second-year Chemistry courses as part of the general electives. Students interested in integrated natural resource planning are encouraged to take BIOL 102 and a mix of courses in areas of Political Science, First Nations (FNST or ENPL), Environment Sciences (ENSC), Geography and Outdoor Recreation and Tourism Management, and International Studies and Economics.

General requirement: \_\_\_\_\_ 72 credit hours

Major requirement: \_\_\_\_\_ 40 credit hours

Elective requirement: \_\_\_\_\_ 9 credit hours

~~The minimum requirement for a Bachelor of Planning with a Major in Natural Resource Planning is 121 credit hours.~~

Program requirement for all majors in planning: \_\_\_\_\_ 69 credit hours

Major requirement:	17 credit hours
Major elective requirement:	18 - 22 credit hours
General elective requirement:	Elective credit hours as necessary to ensure the completion of 120 credit hours.

The minimum requirement for a Bachelor of Planning with a Major in Natural Resource Planning is 120 credit hours.

#### Lower Division

~~BIOL 101-4 Introductory Biology I~~  
~~BIOL 102-4 Introductory Biology II~~  
~~BIOL 201-3 Ecology~~  
~~GEOG 210-3 Geomorphology~~

#### Lower-Division Requirements for Major in Natural Resource Planning

NREM 210 - 4 Integrated Resource Management  
GEOG 205 - 3 Cartography and Geomatics

#### One of:

BIOL 110 -3 Introductory Ecology  
or BIOL 201-3 Ecology

#### Upper Division

~~ECON 305-3 Environmental Economics~~  
~~—or ECON 331-3 Forest Economics~~  
~~—or ENPL 313-3 Rural Community Economic Development~~  
~~ENVS 306-3 Human Ecology~~  
~~—or ORTM 300-3 Recreation and Tourism Impacts\*~~  
~~ENPL 402-3 Terrain Assessment~~

#### Upper-Division Requirements for Major in Natural Resource Planning

NREM 400-4 Natural Resources Planning  
NREM 410-3 Watershed Management

#### Three of:

BIOL 101-4 Introductory Biology I  
BIOL 102-4 Introductory Biology II  
FNST 100-3 Aboriginal Peoples of Canada  
FNST 203-3 Introduction to Traditional Environmental Knowledge  
FSTY 205-3 Introduction to Soil Science  
ENSC 202-3 Introduction to Aquatic Systems  
ENSC 201-3 Weather and Climate  
GEOG 100-3 Environments and People  
INTS 205-3 Introduction to International Studies  
MATH 115-3 Precalculus  
NREM 101-3 Introduction to Natural Resources Management and Conservation  
NREM 203-3 Resource Inventories and Measurements  
NREM 204-3 Introduction to Wildlife & Fisheries  
ORTM 200-3 Sustainable Outdoor Recreation and Tourism  
POLS 250-3 Law and Municipal Government

Three of:

BIOL 302-3 Limnology

BIOL 411-3 Conservation Biology

ECON 305-3 Environmental Economics

ECON 330-4 Resource Economics

ECON 331-3 Forestry Economics

ECON 411-3 Cost Benefit Analysis

ENPL 409-4 Advanced First Nations Community and Environmental Planning

ENSC 308-3 Contaminated Environments

ENSC 302-3 Energy Development

ENSC 312-3 Boundary-layer Meteorology

ENSC 404-3 Waste Management

ENSC 412-3 Air Pollution

ENVS 325-3 Global Environmental Change: Science and Policy

ENVS 326-3 Natural Resources, Environmental Issues and Public Engagement

FNST 451-3 Traditional Use Studies

GEOG 401-3 Resource Geography

INTS 307-3 Global Resources

INTS 470-3 International Environmental Policy

POLS 334-3 Society, Policy and Administration of Natural Resources

NREM 413-3 Agroforestry

ORTM 300-3 Recreation and Tourism Impacts

ORTM 305-3 Protected Area Plan and Management

ORTM 407-3 Recreation, Tourism, Communities

Students must ensure that all prerequisites are fulfilled prior to registering in any courses.

Students are encouraged to use the general electives to take a minor offered in areas of Natural Resource, International Studies and First Nation Studies, or other fields associated with natural resources and environmental management

#### **S-200908.23**

#### **Change to Program Requirements — Bachelor of Environmental Planning (Major in Northern and Rural Community Planning)**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Major in Northern and Rural Community Planning, Bachelor of Environmental Planning be approved as proposed.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## **Major in Northern and Rural Community Planning**

The focus of this major is to promote an understanding of the complexity and diversity of environmental problems, to develop an appreciation of community change processes, and to provide planners with knowledge which will improve the quality of the built environment and reduce the impact of human activities on the natural world. The unique planning requirements of smaller communities and rural regions demand a grounding in both physical and social

science methods and an understanding of the relationship between northern communities and surrounding rural resource regions. Environmental planning necessitates strategic thought and action combined with knowledge grounded in professional practice. The northern rural and community planning major combines concepts such as bioregionalism, sustainability, and landscape design within the context of physical land use planning, social planning and community economic development.

Northern and Rural Community Planning is the application of environmental planning principles and practices to the often unique social, economic, and ecological issues confronting northern and circumpolar communities in Canada and elsewhere in the northern hemisphere. Successfully addressing these issues requires an appreciation of how and why communities change, an understanding of relationships between northern communities and surrounding rural resource regions, an understanding of the place and function of northern communities and rural regions in the ~~global~~ global environment, and a grounding in both physical and social science methods of research and analysis.

Students ~~enrolled~~ enrolled in the Northern and Rural Community Planning Major must successfully complete 120 credit hours, ~~including a minimum of 57 credit hours of upper division courses~~. Students must ensure that ~~they complete course~~ all prerequisites are fulfilled prior to ~~before~~ registering in any courses.

General requirement: \_\_\_\_\_ 72 credit hours  
Major requirement: \_\_\_\_\_ 39 credit hours  
Elective requirement: \_\_\_\_\_ 9 credit hours

Program requirement for all majors in planning: 69 credit hours  
Major requirement: 15 credit hours  
Major elective requirement: 18 credit hours  
General elective requirement: 18 credit hours

The minimum requirement for a Bachelor of Planning with a Major in Northern and Rural Community Planning is 120 credit hours.

## ~~Lower Division~~

### Major Requirements

[Lower-division requirements for Major in Northern and Rural Community Planning](#)

**BIOL 110-3 Introductory Ecology**  
**POLS 250-3 Law and Municipal Government**

#### One of:

**GEOG 100-3 Environments and People**  
**or GEOG 206-3 Social Geography**

~~Upper Division~~  
[Upper-Division for Major in Northern and Rural Community Planning](#)

~~ENPL 313-3 Rural Community Economic Development~~

#### One of:

**ENVS 325 - 3 Global Environmental Change: Science and Policy**

or NREM 306-3 Society, Policy and Administration  
or POLS 316-3 Municipal Government and Politics  
or POLS 320-3 Canadian Politics and Policy

One of:

GEOG 424-3 Social Geography of Northern Communities  
or POLS 434-3 Resource Communities in Transition  
or POLS 415-3 Comparative Northern Development

~~GEOG 402-3 Geography of the Circumpolar North~~

~~GEOG 424-3 Social Geography of Northern Communities~~

~~POLS 434-3 Resource Communities in Transition~~

~~or Geog 305-3 Political Geography~~

~~Choice of five of the following:~~

~~ENVS 306-3 Human Ecology~~

~~ENVS 309-3 Women and Environmental Studies~~

~~GEOG 306-3 Geography of International Development~~

~~HHSC 102-3 Introduction to Health Sciences II: Rural and Aboriginal Issues~~

~~INTS 340-3 The Circumpolar North in Global Perspective~~

~~INTS 410-3 Environment and Development in the Circumpolar North~~

~~POLS 251-3 Local Services and Public Policy~~

~~POLS 335-3 Community Politics~~

- ~~• indicates course has pre-requisite.~~

Three of:

ANTH 101-3 Peoples and Cultures

ENVS 306-3 Human Ecology (regional campus only)

FNST 100-3 The Aboriginal Peoples of Canada

FNST 250-3 Law and Aboriginal Peoples

FNST 216-3 Issues in Internal Organization for Contemporary Indigenous People

GEOG 100-3 Environments and People

GEOG 101-3 Human Geography

GEOG 206-3 Social Geography

GEOG 200-3 Geography of BC

GEOG 202-3 Economic Geography

INTS 205-3 Introduction to International Studies

MATH 115-3 Precalculus

POLS 100-3 Contemporary Political Issues

POLS 220-3\* Canadian Law and Aboriginal Peoples

POLS 251-3 Local Services and Public Policy

POLS 260-3 Politics of Public Finance

SOCW 201-3 Introduction to Social Welfare

Three of:

ANTH 316-3 The Social Theory and Structure of Contemporary Canadian Society  
ANTH 413-3 Topics in Environmental Anthropology  
ENVS 325-3 Global Environmental Change: Science and Policy  
ENSC 404-3 Waste Management  
ENSC 302-3 Energy Development  
ECON 411-3 Cost Benefit Analysis  
GEOG 322-3 Economic Geography of Northern BC  
GEOG 305-3 Political Geography  
GEOG 403-3 Aboriginal Geography  
GEOG 424-3 Social Geography of Northern BC  
POLS 302-3 Canadian Public Administration  
POLS 316-3 Municipal Government and Politics  
POLS 320-3 Canadian Politics and Policy  
POLS 332-3 Community Development  
POLS 335-3 Community Politics  
POLS 415-3 Comparative Northern Development  
POLS 434-3 Resource Communities in Transition  
NREM 306-3 Society, Policy and Administration  
SOCW 320-3 Critical Social Policy

Students must ensure that all prerequisites are fulfilled prior to taking the course.

General electives courses are comprised of a total of 18 credit hours. Students are encouraged to use the general electives to take a minor offered in Geography and Political Science, First Nation Studies, or other fields associated with community development.

#### **S-200908.24**

#### **Change to Program Requirements — Minor in Planning**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Minor in Planning be approved as proposed.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## Minor in Planning

The minor in Planning is designed to provide students with an opportunity to acquire a basic knowledge of planning theory and methods. The minor consists of 12 required credits (four designated courses) and six credits from a set of elective courses. A maximum of two courses (six credit hours) used to fulfill program requirements for a major or another minor may also be used to fulfill requirements for a minor in Planning.

The Minor in Planning requires the completion of 18 credit hours of ENPL Planning Courses, of which 12 credit hours must be at the upper division level. ~~Of the 12 upper division credit hours, a minimum of 6 credit hours must be at the 400 level.~~

Required

ENPL 104-3 Introduction to Planning  
ENPL 204-3 Principles and Practices of Planning  
ENPL 301-3 Sustainable Communities: Structure and Sociology  
ENPL 411-3 Planning Theory, Process and Implementation

Two of:

ENPL 305-3 Environmental Impact Assessment  
ENPL 318-3 Rural Community Economic Development  
ENPL 319-3 Social Research Methods  
ENPL 410-3 Land Use Planning  
ENPL 415-3 Ecological Design  
~~ENPL 419-3 Social Research Methods~~  
~~ENVS 414-3 Environmental and Professional Ethics~~

**S-200908.25**

**Change to Program Requirements — Environmental Studies Major**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the course changes for the BA Major in Environmental Studies be approved as proposed.

Effective date: Immediately

Since GEOG 424-3 was being added as a required course, it was questioned whether the prerequisite to GEOG 424-3 (GEOG 206-3) should be also added as a required course, and if so, whether the degree requirements (72 credit hours) would still be correct. As a representative from the Environmental Studies Program was not in attendance at the meeting to answer this question, it was suggested that the motion be postponed until this could be clarified.

**Motion to postpone Senate motion S-200908.25:**

Casperson / Hyndman

That Senate motion S-200908.25 be postponed until the Environmental Studies Program clarifies whether GEOG 206-3, as a prerequisite for the additional required course GEOG 424-3, should also be added as a required course.

CARRIED.

<b>Action:</b> C. Myers to advise the Environmental Studies Program of Senate's request.
--

An Executive Summary of proposed changes to the Mathematics Program curriculum was included for information.

**S-200908.26**

**Change to Program Requirements — Joint Major in Economics/Mathematics**

Dale / Hyndman

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the changes to the Joint Major in Economics/Mathematics be approved as proposed.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## BSc (Joint Major in Economics/Mathematics)

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Economics and Mathematics is 121 credit hours.

MATH 342-3 (Biostatistics) may not be used for credit towards any Mathematics major, minor or joint major.

MATH 150-3 (Finite Mathematics for Business and Economics) may not be used for credit towards any Mathematics major or joint major.

## Program Requirements

### Literacy Requirement

One of:

ENGL 170-3 Writing and Communication Skills

ENGL 270-3 Expository Writing

### Economic Requirements

ECON 100-3 Microeconomics

ECON 101-3 Macroeconomics

ECON 202-3 History of Economic Thought

ECON 203-3 Canadian Economic History

ECON 205-3 Statistics for Social and Management Science

ECON 310-3 Intermediate Microeconomic Theory

ECON 311-3 Intermediate Macroeconomic Theory

ECON 312-3 Introduction to Econometrics

ECON 320-3 Introduction to Mathematical Economics

One of the following three courses:

ECON 451-3 Advanced Microeconomic Theory

ECON 452-3 Advanced Macroeconomic Theory

ECON 453-3 Advanced Econometrics

Twelve additional credit hours of 300 or 400 level Economics.

### Mathematics Requirements

MATH 100-3 Calculus I

or MATH 105-3 Enriched Calculus

MATH 101-3 Calculus II

MATH 200-3 Calculus III

MATH 201-3 Introduction to Complex Analysis

MATH 220-3 Linear Algebra

~~MATH 221-3 Operations Research~~

MATH 224-3 Foundations of Modern Mathematics

MATH 230-3 Linear Differential Equations and Boundary Value Problems

MATH 320-3 Survey of Algebra

or MATH 302-3 Theory of Metric Spaces

~~MATH 340-3 Introduction to Probability~~

MATH 371-3 Probability and Statistics for Scientists and Engineers

Six additional credit hours of 300 or 400 level Mathematics (~~MATH 341-3 is strongly recommended~~ MATH 372-3 is strongly recommended).

Six additional credit hours of 400 level Mathematics.

### Additional Requirements

CPSC 100-4 Computer Programming I

### Elective Requirements

Elective credit hours as necessary to ensure completion of a minimum of 121 credit hours.

Motions S-200908.27 to S-200908.31 were dealt with as an omnibus motion.

**200908.27**

**Course Deletion — MATH 440-3**

Dale / Hyndman

That, on the recommendation of the Senate Committee on Academic Policy and Planning, MATH 440-3 Advanced Probability and Statistics be deleted as a course offering.

Proposed semester of first offering: Changed from September 2009 to January 2010

CARRIED.

**Friendly amendment:**

Dale / Hyndman

That the effective dates for motions 200908.27 and S-200908.29 be changed from September 2009 to January 2010.

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

~~The course will consider the following advanced topics in Probability and Statistics: Limit theorems: laws of large numbers and CLT, Kolmogorov inequality, weak and strong convergence, large deviations, Markov chains with applications, ergodic theorems, martingales, and martingale methods, extreme value theory and order statistics, estimation of parameters.~~

**S-200908.28**

**New Course Approval — MATH 471-3**

Dale / Hyndman

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course MATH 471-3 Linear Models be approved as proposed.

Proposed semester of first offering: January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course discusses the estimation of parameters in the multiple linear regression model by the least-squares method. Topics covered include the statistical properties of the least-squares estimators, the Gauss-Markov theorem, estimates of residual and regression sums of squares, distribution theory under normality of the observations, assessment of normality, variance stabilizing transformations, examination of multicollinearity, variable selection methods, logistic regression for a binary response, log-linear models for count data, and generalized linear models.

**Preclusions:** MATH 671-3, MATH 499-3 - Special Topics – Regression

**Prerequisites:** One of MATH 100-3 or MATH 152-3 and one of MATH 240-3, MATH 371-3, ECON 205-3, or PSYC 315-4

**Course Equivalencies:** MATH 671-3

**S-200908.29**

**New Course Approval — MATH 472-3**

Dale / Hyndman

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course MATH 472-3 Survey Sampling Design and Analysis be approved as proposed.

Proposed semester of first offering: Changed from September 2009 to January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike~~through, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course discusses the planning and practice of sample surveys. Topics covered include simple random sampling, unequal probability sampling, stratified sampling, cluster sampling, multistage sampling, cost-effective design, analysis and control of sources of sampling and non-sampling error, ratio estimation, model-based regression estimation, resampling, and replication methods.

**Prerequisites:** One of MATH 100-3 or MATH 152-3 and one of MATH 240-3, MATH 371-3, ECON 205-3, or PSYC 315-4

**Preclusions:** MATH 672-3; MATH 499-3 - Special Topics – Design of Sample Surveys

**Course Equivalencies:** MATH 672-3

**S-200908.30**

**New Course Approval — MATH 473-3**

Dale / Hyndman

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course MATH 473-3 Experimental Design and Analysis be approved as proposed.

Proposed semester of first offering: September 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike~~through, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course discusses experimental designs and analyses. Topics covered include basic principles and guidelines for designing experiments, simple comparative designs, single factor analysis of variance, block designs, factorial designs, response surface methods and designs, nested and split plot designs, and the analysis of covariance.

**Prerequisites:** One of MATH 100-3 or MATH 152-3 and one of MATH 240-3, MATH 371-3, ECON 205-3, or PSYC 315-4

**Preclusions:** MATH 673-3; MATH 499-3 - Special Topics – Design of Experiments

**Course Equivalencies:** Proposed MATH 673-3

**S-200908.31**

**New Course Approval — MATH 475-3**

Dale / Hyndman

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course MATH 475-3 Methods for Multivariate Data be approved as proposed.

Proposed semester of first offering: January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike~~through, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course discusses practical techniques for the analysis of multivariate data. Topics covered include estimation and hypothesis testing for multivariate means and variances; partial, multiple and canonical correlations; principal components analysis and factor analysis for data reduction; multivariate analysis of variance; discriminant analysis for classification; and cluster analysis.

**Prerequisites:** One of MATH 150-3 or MATH 220-3, and MATH 471-3

**Preclusions:** MATH 675-3; MATH 499-3 – Special Topics – Applied Multivariate Analysis

**Course Equivalencies:** MATH 675-3

**To Senate for Information:**

**SCAPP200908.07**

**Course Prerequisite Change — ARTS 101-3**

That the changes to the prerequisites for ARTS 101-3 Learning Strategies be approved as proposed.

Effective date: September 2009

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike~~through, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

*Northern Advancement program students are required to take these courses and ~~so~~ have priority for registration. Any spaces remaining may be filled by other students.*

ARTS 101-3 Learning Strategies This course helps students identify their strengths and weaknesses as learners, master essential academic learning strategies, identify appropriate career goals and majors, and make a successful transition to university.

**Prerequisites:** ~~none~~ Fewer than 30 credit hours or permission of Program Dean/Regional Chair

**Precluded:** CORE 100-3, NRES 100-3

**SCAPP200908.08**

**Change to Course Description and Prerequisite — ARTS 102-3**

That the changes to the course description and prerequisites for ARTS 102-3 Research Writing be approved as proposed.

Effective date: September 2009

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike~~through, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

Northern Advancement program students are required to take these courses and so have priority for registration. Any spaces remaining may be filled by other students.

ARTS 102-3 Research Writing This course is the second half of a comprehensive study in University Study Skills that will complements ARTS 101-3 and focuses primarily on skills associated with effective research writing techniques. In addition, ~~the~~ The course also focuses on the knowledge and skills necessary for the productions of university-level, library-based research papers. Using the library, mastering computers, reviewing grammar, and presenting findings orally ~~will be~~ are integral components of the process.

~~Prerequisites: none~~ Fewer than 30 credit hours or permission of Program Dean/Regional Chair

~~Precluded: CORE 100-3, NRES 100-3~~

### **SCAPP200908.22**

#### **Course Description and Prerequisite Change — CPSC 200-3**

That the change(s) to the course description and prerequisite for CPSC 200-3 Algorithm Analysis and Development I be approved as proposed.

Effective date: September 2009

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

~~**CPSC 200-3 Algorithm Analysis and Development** Topics include asymptotic complexity and notation. Algorithm analysis. Comparison of various sorting algorithms. NP Completeness. Assertions, loop and data type invariants and an introduction to program correctness. Correctness proofs of simple programs. Recursion relationships. Applications.~~

**CPSC 200-3 Algorithm Analysis and Development** This course introduces the development and analysis of algorithms. Topics include asymptotic complexity and notation, algorithm analysis, comparison of sorting algorithms, NP Completeness, assertions, and loop and data type invariants. An introduction to program correctness is given and correctness proofs of simple programs are discussed. Recursion relationships are examined. Applications of algorithms are considered.

~~Prerequisites: CPSC 101-4 and CPSC 142-3~~ 141-3

### **SCAPP200908.23**

#### **Course Title and Description Change — CPSC 300-3**

That the changes to the title and course description for CPSC 300-3 Software Engineering I be approved as proposed.

Effective date: September 2009

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

~~**CPSC 300-3 Software Engineering I** ~~F~~This course examines fundamental problem-solving concepts, the software development process, software requirements and specifications, software design and implementation, verification and validation, organization and management of programming teams, and documentation. Students work on a ~~major team programming~~~~

project over two semesters, and should enroll in CPSC 301-3 upon successful completion of this course.

Prerequisites: CPSC 281-3

**SCAPP200908.13**

**Course Prerequisite Change — NURS 220-5**

That the change(s) to the prerequisite for NURS 220-5 Extended Clinical Practicum I be approved as proposed.

Effective date: September 2009

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

**NURS 220-5 Extended Clinical Practicum I** This practicum pProvides the opportunity for consolidated clinical nursing practice with adults who have health problems. This course builds on previous clinical practice with the adult and ~~will~~ occurs in various settings in northern BC.

~~Prerequisites: NURS 205 3, 211 5. Restricted to students in the NCBNP.~~

Prerequisites: All required 100 and 200 level NURS and HHSC courses (or equivalent) in the NCBNP

Major Restriction: Restricted to students in the NCBNP.

**SCAPP200908.15**

**Course Description and Title Change — NURS 451-3**

That the change(s) to the course description and title for NURS 451-3 Health Assessment Across the Lifespan be approved as proposed.

Effective date: September 2009

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

**NURS 451-3 Health Assessment Across the Lifespan and RN First Call**

This course provides students with the knowledge and skills needed to extend their ability to conduct a thorough health assessment for diverse client populations throughout the lifespan. The competencies required for RN First Call certified practice are taught. Students conduct age-appropriate comprehensive health histories and physical examinations, identify health concerns and risks, taking into account culture, ethnicity and health beliefs, and make informed clinical judgments. The diagnoses and treatment of minor acute illnesses and the suturing of minor wounds, as determined by the CRNBC approved Decision Support Tools, are included. ~~This course includes a~~An extended skills-building workshop is included. ~~This course is restricted to registered nurses.~~ Upon successful completion students apply for CRNBC RN First Call Practice Certification.

**SCAPP200907.01**

**New Course Approval — XWRI 131-3**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XWRI 131-3 Writing Winning Funding and Grant Proposals be approved as proposed.

Proposed semester of first offering: May 2009

**SCAPP200907.02**

**New Course Approval — XGIS 111-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XGIS 111-1 Geographic Information Systems – Module One: Data Creation and Manipulation be approved as proposed.

Proposed semester of first offering: May 2009

A Senator noted that in some cases students could obtain credit for courses offered by Continuing Studies for credit and a credit course with very similar content, such as XGIS and GEOG. The Registrar responded that the Senate Committee on Academic Policy and Planning would be reviewing this matter.

**SCAPP200907.03**

**New Course Approval — XGIS 112-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XGIS 112-1 Geographic Information Systems – Module Two: Software Customization, Data Symbolization, Labeling and Map Output be approved as proposed.

Proposed semester of first offering: May 2009

**SCAPP200907.04**

**New Course Approval — XGIS 113-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XGIS 113-1 Geographic Information Systems – Module Three: Geodatabases, Attributes and Data Conversion be approved as proposed.

Proposed semester of first offering: May 2009

**SCAPP200907.05**

**New Course Approval — XGIS 114-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XGIS 114-1 Geographic Information Systems – Module Four: Vector GIS Analysis and Modeling be approved as proposed.

Proposed semester of first offering: May 2009

**SCAPP200907.06**

**New Course Approval — XGIS 115-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XGIS 115-1 Geographic Information Systems – Module Five: Raster GIS Analysis be approved as proposed.

Proposed semester of first offering: May 2009

**SCAPP200907.07**

**New Course Approval — XGIS 116-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XGIS 116-1 Geographic Information Systems – Module Six: TINS, Perspectives, Flys, Referencing and Rectification be approved as proposed.

Proposed semester of first offering: May 2009

**SCAPP200907.08**

**New Course Approval — XMAT 161-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XMAT 161-1 Intermediate Algebra: Module 1 be approved as proposed.

Proposed semester of first offering: May 2009

**SCAPP200907.09**

**New Course Approval — XMAT 162-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XMAT 162-1 Intermediate Algebra: Module 2 be approved as proposed.

Proposed semester of first offering: May 2009

**SCAPP200907.10**

**New Course Approval — XMAT 163-1**

That, on the recommendation of the Continuing Studies Credit Committee, the new course XMAT 163-1 Intermediate Algebra: Module 3 be approved as proposed.

Proposed semester of first offering: May 2009

**7.2 Senate Committee on Research and Graduate Studies**

**Fondahl / Hartley**

**S-200908.32**

**Approval of New Certificate — “Leading for Learning,” School of Education**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new “Leading for Learning” School of Education graduate level Certificate be approved as proposed.

Proposed start date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~striketrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

**Thesis, Project or Comprehensive Examination**

EDUC 797-3 Comprehensive Examination

EDUC 798-6 MEd Project (Research or non-research option)

EDUC 799-9 MEd Thesis

**Leading for Learning Graduate Certificate**

The Leading for Learning Graduate Certificate is intended for those professionals who wish to receive a British Columbia Education Leadership Council approved certificate. The certificate prepares graduates to become recognized educational leaders whether in a teacher-leader or administrative-leader position. The certificate is designed to ladder into the MEd Multidisciplinary specialization degree.

**Admission**

Admission requirements are the same as for the MEd degree.

The Leading for Learning Graduate Certificate requires 15 credit hours of course work — that is, five courses, two of which are required courses in the MEd Multidisciplinary Leadership (MDL) specialization, and the other three of which are part of a series of acceptable courses for the Educational Leadership Focus Area of the MDL. The certificate courses are normally offered over a four-semester cycle. While it is expected that most certificate completers will continue with completion of a Masters of Education Multidisciplinary Leadership degree, students may choose to complete only the certificate. The schedule of courses offered on most UNBC campuses allows completion of the certificate first and in the sequence of courses as follows but this is not a requirement. Variation from this schedule of courses requires the permission of the MEd MDL coordinator and School Chair. It is also possible to complete the MEd MDL without meeting all the requirements of the certificate. The five required courses in their intended sequence are:

1. EDUC 626 - 3      Inclusive Education: Learning for All
2. EDUC 609 - 3      Aboriginal Learners: History, Culture, and Ways of Knowing
3. EDUC 617 - 3      Leading for Learning: Teacher Leadership and Principal Preparation
4. EDUC 656 - 3      Instructional Leadership
5. EDUC 606 - 3      Leading for Change

Students already enrolled in the MEd MDL specialization may complete these courses and receive the certificate, subject to a sequence of available courses being offered by the university.

It was proposed that Senate motions S-200908.33 to S-200908.36 be dealt with as an omnibus motion, and Senate proceeded in this manner.

**S-200908.33**

**Course Deletion — EDUC 605-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, EDUC 605-3 Multidisciplinary Leadership: Theory and Practice be deleted.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

~~This course surveys historical and contemporary literature about leadership, emphasizing the multiplicity of perspectives, values and beliefs represented. A central theme is that leadership is not limited to positions of responsibility, but is a complex phenomenon arising from a variety of events, social roles and contexts. Other areas of focus include the ethics of leadership; the social, cultural, economic and oranzational contexts for leadership; gender and leadership; and contemporary challenges for leaders.~~

**S-200908.34**

**Course Deletion — EDUC 646-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, EDUC 646-3 First Nations Education be deleted.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

~~A study of educational foundations, curriculum and instruction theory, and teaching practices in relation to the needs and resources of First Nations students. This course will also include a critical examination of commercially produced teaching resources that are currently available for use in First Nations schools.~~

**S-200908.35**

**Course Deletion — EDUC 647-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, EDUC 647-3 Educational Issue in Northern Schools be deleted.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

~~A study of educational issues in relation to the unique needs and resources of students and educators in northern communities. The issues selected for this course will be of particular interest to teachers, counsellors and school administrators.~~

**S-200908.36**

**Course Deletion — EDUC 657-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, EDUC 657-3 Educational Issues in Northern Communities be deleted.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~striketrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

~~This course focuses on the complexity of issues facing northern and rural communities and school leaders. Topics include the challenges of inclusivity and diversity in smaller schools, distance education, recruitment and retention of teachers, professional development, building school community involvement and outreach, aboriginal education, technology, economic and financial resources, and the social dynamics of changing rural environments.~~

Motions S-200908.37 to S-200908.39 were dealt with as an omnibus motion.

**S-200908.37**

**New Course Approval — EDUC 617-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course EDUC 617-3 Leading for Learning: Teacher Leadership and Principal Preparation be approved as proposed.

Proposed semester of first offering: September 2009 (previously offered as EDUC 692-3 Special Topics)  
CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~striketrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course provides an overview of the skills, knowledge, and personal attributes central to effective teacher leadership and principal leadership in schools in British Columbia. It features a current emphasis on distributed leadership and on various kinds of influence within schools that function as sustainable learning communities. The course explores collegial relationships as a background for instructional improvement and invites identification of personal leadership goals as well as plans for implementation.

**Preclusions: EDUC 615-3**

**S-200908.38**

**New Course Approval — EDUC 626-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course EDUC 626-3 Inclusive Education: Learning for All be approved as proposed.

Proposed semester of first offering: September 2009 (previously offered as EDUC 692-3 Special Topics)  
CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course presents “inclusive education” as a transition toward the predominance of a “success for all” educational philosophy. Components of inclusion include but are not limited to integration of exceptional students and examination of achievement data for minority groups. Issues of quality and equity of educational opportunity for all genders, orientations, cultures, religions, and socioeconomic groups are also explored. Connections are made to current instructional concepts such as culturally relevant practice and differentiated instruction. Students are expected to apply course content to develop action inquiry projects designed to improve equity in their own professional settings.

**Preclusions:** EDUC 535-3 and EDUC 635-3

**S-200908.39**

**New Course Approval — EDUC 609-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies and the Senate Committee on First Nations and Aboriginal Peoples, the new course EDUC 609-3 Aboriginal Learners: History, Culture, and Ways of Knowing be approved as proposed.

Proposed semester of first offering: September 2009 (previously offered as EDUC 692-3 Special Topics)  
CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course explores the difficult history Aboriginal people have had with western education. It also explores Indigenous ways of knowing, contemporary educational theory, and instructional practices in relation to the needs and resources of Aboriginal students in rural and urban northern communities. Students will be encouraged to examine achievement data and to explore cultural assumptions around definitions of Aboriginal student success. Students will consider the cultural relevance of teaching resources, assessment tools, and school improvement interventions. Issues of Aboriginal access, retention, and participation in education systems will be emphasized, along with the need for rebuilding trust among educational institutions and Aboriginal communities.

**Preclusions:** EDUC 646-3

Motions S-200908.40 and S-200908.41 were dealt with as an omnibus motion.

**S-200908.40**

**Calendar Description Change — Master of Education (Deletion of Courses EDUC 605-3, EDUC 646-3, EDUC 647-3, and EDUC 657-3)**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, courses EDUC 605-3 Multidisciplinary Leadership: Theory and Practice, EDUC 646-3 First Nations Education, EDUC 647-3 Educational Issue in Northern Schools, and EDUC 657-3 Educational Issues in Northern Communities be deleted from the calendar.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

## **p.68 [Counselling]**

### Elective Courses

EDUC 603-4 Advanced Educational Research Data Analysis  
EDUC 618-3 Working with Parents and Families  
EDUC 619-3 First Nations Counselling  
EDUC 620-4 Educational Measurement and Evaluation  
EDUC 633-3 Human Development: Implications for Education  
EDUC 634-3 Achievement Motivation  
EDUC 635-3 Educating Exceptional Students  
EDUC 636-3 Language and Learning Disabilities  
EDUC 641-3 Principles of Instruction  
EDUC 644-3 Educational Programs: Development, Implementation and Evaluation  
~~EDUC 646-3 First Nations Education~~  
~~EDUC 647-3 Educational Issues in Northern Schools~~  
EDUC 690-3 Health and Human Sciences: Interdisciplinary Seminar  
EDUC 691-3 Education Programs: Interdisciplinary Seminar

## **p.69 [MDL]**

### Required Core Courses

EDUC 602-4 Quantitative Research Design and Data Analysis  
~~EDUC 605-3 Multidisciplinary Leadership: Theory and Practice~~  
EDUC 606-3 Leading for Change  
EDUC 610-4 Qualitative Analysis in Education

### Required Educational Leadership Focus Area Courses

Two of the following five courses must be completed to meet the focus area requirements, the remaining three courses may become electives.

EDUC 615-3 The School Principalship  
EDUC 616-3 Policy and Politics in Public Education  
EDUC 655-3 Collaboration, Communication and Community:  
Leaders as Community Builders  
EDUC 656-3 Instructional Leadership  
~~EDUC 657-3 Educational Issues in Northern Communities~~

### Elective Courses

EDUC 603-4 Advanced Quantitative Data Analysis  
EDUC 615-3 The School Principalship  
EDUC 616-3 Policy and Politics in Public Education  
EDUC 620-4 Educational Assessment and Evaluation  
EDUC 621-3 Individual Assessment of Aptitudes and Achievement  
EDUC 631-3 Educational Applications of Computer Technology  
EDUC 633-3 Human Development: Implications for Education  
EDUC 634-3 Achievement Motivation  
EDUC 635-3 Educating Exceptional Students  
EDUC 636-3 Language and Learning Disabilities  
EDUC 641-3 Principles of Instruction  
EDUC 644-3 Educational Programs: Development, Implementation and Evaluation  
~~EDUC 646-3 First Nations Education~~  
~~EDUC 647-3 Educational Issues in Northern Schools~~  
EDUC 648-3 Oral Traditions and Literacy Development  
EDUC 649-3 Elementary Language, Literacy, and Literature  
EDUC 650-3 Secondary Language, Literacy, and Literature  
EDUC 651-3 Mathematics Education  
EDUC 652-3 Science Education  
EDUC 653-3 Social Studies Education  
EDUC 655-3 Collaboration, Communication and Community:  
Leaders as Community Builders  
EDUC 656-3 Instructional Leadership  
~~EDUC 657-3 Educational Issues in Northern Communities~~  
EDUC 690-3 Health and Human Sciences: Interdisciplinary Seminar

EDUC 691-3 Education Programs: Interdisciplinary Seminar  
EDUC 692-3 Special Topics  
EDUC 693-3 Directed Reading: Independent Study under the  
direction of a faculty member  
EDUC 795-3 Research Seminar

**S-200908.41**

**Calendar Description Change — Master of Education (Addition of New Courses EDUC 617-3, EDUC 626-3, and EDUC 609-3)**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the calendar be amended to include the addition of courses EDUC 617-3, EDUC 626-3, and EDUC 609-3.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strike through~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

**p.68 [Counselling]**

Elective Courses

EDUC 603-4 Advanced Educational Research Data Analysis  
EDUC 618-3 Working with Parents and Families  
EDUC 619-3 First Nations Counselling  
EDUC 620-4 Educational Measurement and Evaluation  
EDUC 633-3 Human Development: Implications for Education  
EDUC 634-3 Achievement Motivation  
EDUC 635-3 Educating Exceptional Students  
EDUC 636-3 Language and Learning Disabilities  
EDUC 641-3 Principles of Instruction  
EDUC 644-3 Educational Programs: Development, Implementation and Evaluation  
EDUC 646-3 First Nations Education  
EDUC 609 -3 Aboriginal Learners: History, Culture, and Ways of Knowing.  
EDUC 647-3 Educational Issues in Northern Schools  
EDUC 690-3 Health and Human Sciences: Interdisciplinary Seminar  
EDUC 691-3 Education Programs: Interdisciplinary Seminar

**p.69 [MDL]**

Required Core Courses

EDUC 602-4 Quantitative Research Design and Data Analysis  
EDUC 605-3 Multidisciplinary Leadership: Theory and Practice  
EDUC 606-3 Leading for Change  
EDUC 610-4 Qualitative Analysis in Education

Required Educational Leadership Focus Area Courses

Two of the following ~~five~~ six courses must be completed to meet the focus area requirements, the remaining three courses may become electives.

EDUC 615-3 The School Principalship  
EDUC 616-3 Policy and Politics in Public Education  
EDUC 655-3 Collaboration, Communication and Community: Leaders as Community Builders  
EDUC 656-3 Instructional Leadership  
EDUC 657-3 Educational Issues in Northern Communities  
EDUC 617 -3 Leading for Learning: Teacher Leadership and Principal Preparation  
EDUC 626 -3 Inclusive Education: Learning for All

Elective Courses

EDUC 603-4 Advanced Quantitative Data Analysis

EDUC 615-3 The School Principalship  
 EDUC 616-3 Policy and Politics in Public Education  
 EDUC 620-4 Educational Assessment and Evaluation  
 EDUC 621-3 Individual Assessment of Aptitudes and Achievement  
 EDUC 631-3 Educational Applications of Computer Technology  
 EDUC 633-3 Human Development: Implications for Education  
 EDUC 634-3 Achievement Motivation  
 EDUC 635-3 Educating Exceptional Students  
 EDUC 636-3 Language and Learning Disabilities  
 EDUC 641-3 Principles of Instruction  
 EDUC 644-3 Educational Programs: Development, Implementation and Evaluation  
 EDUC 646-3 First Nations Education  
EDUC 609-3 Aboriginal Learners: History, Culture, and Ways of Knowing.  
EDUC 617-3 Leading for Learning: Teacher Leadership and Principal Preparation  
EDUC 626 -3 Inclusive Education: Learning for All  
EDUC 605-3 Multidisciplinary Leadership: Theory and Practice  
 EDUC 647-3 Educational Issues in Northern Schools  
 EDUC 648-3 Oral Traditions and Literacy Development  
 EDUC 649-3 Elementary Language, Literacy, and Literature  
 EDUC 650-3 Secondary Language, Literacy, and Literature  
 EDUC 651-3 Mathematics Education  
 EDUC 652-3 Science Education  
 EDUC 653-3 Social Studies Education  
 EDUC 655-3 Collaboration, Communication and Community: Leaders as Community Builders  
 EDUC 656-3 Instructional Leadership  
 EDUC 657-3 Educational Issues in Northern Communities  
 EDUC 690-3 Health and Human Sciences: Interdisciplinary Seminar  
 EDUC 691-3 Education Programs: Interdisciplinary Seminar  
 EDUC 692-3 Special Topics  
 EDUC 693-3 Directed Reading: Independent Study under the direction of a faculty member  
 EDUC 795-3 Research Seminar

**S-200908.42**

**Course Deletion — MATH 640-3**

Fondahl / Donker

That, on the recommendation of the Senate Committee on Research and Graduate Studies, MATH 640-3 Advanced Probability and Statistics be deleted as a course offering.

Effective date: September 2009

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

~~The course will consider the following advanced topics in Probability and Statistics: Limit theorems: laws of large numbers and CLT, Kolmogorow inequality, weak and strong convergence, large deviations, Markow chains with applications, ergodic theorems, martingales, and martingale methods, extreme value theory and other statistics, estimation of parameters.~~

Motions S-200908.43 to S-200908.46 were dealt with as an omnibus motion.

**S-200908.43**

**New Course Approval — MATH 671-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course MATH 671-3 Linear Models be approved as proposed.

Proposed semester of first offering: January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course discusses the estimation of parameters in the multiple linear regression model by the least-squares method. Topics covered include the statistical properties of the least-squares estimators, the Gauss-Markov theorem, estimates of residual and regression sums of squares, distribution theory under normality of the observations, assessment of normality, variance stabilizing transformations, examination of multicollinearity, variable selection methods, logistic regression for a binary response, log-linear models for count data, and generalized linear models.

**Preclusions:** MATH 471-3; MATH 499-3 - Special Topics – Regression

**Course Equivalencies:** MATH 471-3

**S-200908.44**

**New Course Approval — MATH 672-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course MATH 672-3 Survey Sampling Design and Analysis be approved as proposed.

Proposed semester of first offering: January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course discusses the planning and practice of sample surveys. Topics covered include simple random sampling, unequal probability sampling, stratified sampling, cluster sampling, multistage sampling, cost-effective design, analysis and control of sources of sampling and non-sampling error, ratio estimation, model-based regression estimation, resampling, and replication methods.

**Preclusions:** MATH 472-3; MATH 499-3 - Special Topics – Design of Sample Surveys]

**Course Equivalencies:** MATH 472-3

**S-200908.45**

**New Course Approval — MATH 673-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course MATH 673-3 Experimental Design and Analysis be approved as proposed.

Proposed semester of first offering: January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course discusses experimental designs and analyses. Topics covered include basic principles and guidelines for designing experiments, simple comparative designs, single factor

analysis of variance, block designs, factorial designs, response surface methods and designs, nested and split plot designs, and the analysis of covariance.

**Preclusions:** MATH 473-3; MATH 499-3 – Special Topics – Design of Experiments

**Course Equivalencies:** MATH 473-3

**S-200908.46**

**New Course Approval — MATH 675-3**

Fondahl / MacMillan

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course MATH 675-3 Methods for Multivariate Data be approved as proposed.

Proposed semester of first offering: January 2010

CARRIED.

Details of the approved calendar text are as follows (for revisions, deleted text indicated by ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course discusses practical techniques for the analysis of multivariate data. Topics covered include estimation and hypothesis testing for multivariate means and variances; partial, multiple and canonical correlations; principal components analysis and factor analysis for data reduction; multivariate analysis of variance; discriminant analysis for classification; and cluster analysis.

**Preclusions:** MATH 475-3; MATH 499-3 - Special Topics – Applied Multivariate Analysis

**Course Equivalencies:** MATH 475-3

**To Senate for Information:**

**SCRG200908.23**

**2008 Annual Report to Senate from the Senate Committee on Research and Graduate Studies**

That the 2008 Annual Report (January 1, 2008 to December 31, 2008) from the Senate Committee on Research and Graduate Studies be approved by SCRG and forwarded to Senate.

Effective date: August 5, 2009

**7.3 Steering Committee of Senate**

**Iwama**

In order for Dr. Iwama to present the report from the Steering Committee of Senate, Dr. Dale assumed the Chair.

**S-200908.47**

**Revision to Senate Handbook — Terms of Reference for the Senate Committee on Research and Graduate Studies (SCRG)**

Iwama / Casperson

That, on the recommendation of the Senate Committee on Research and Graduate Studies and the Steering Committee of Senate, the revision to the terms of reference for the Senate Committee on Research and Graduate Studies be approved as proposed.

Effective date: Immediately upon approval by Senate

CARRIED.

**S-200908.48**

**Revision to Senate Handbook — Terms of Reference for the Senate Committee on Scholarships and Bursaries (SCSB)**

Iwama / Zahir

That, on the recommendation of the Steering Committee of Senate, the revision to the terms of reference for the Senate Committee on Scholarships and Bursaries be approved as proposed.

Effective date: Immediately upon approval by Senate

CARRIED.

**S-200908.49**

**Revision to Senate Handbook — Terms of Reference for the Senate Committee on Honorary Degrees and Other Forms of Special Recognition (SCHDSR)**

Iwama / Hutchings

That, on the recommendation of the Steering Committee of Senate, the revision to the terms of reference for the Senate Committee on Honorary Degrees and Other Forms of Special Recognition be approved as proposed.

Effective date: Immediately upon approval by Senate

CARRIED.

**8.0 Other Business**

**8.1 Report of the Registrar (no material)**

**DeGrace**

Mr. DeGrace noted that he had nothing to report, but invited the Dean of Student Success and Enrolment Management, Dr. Madak, to provide a report on enrolment numbers. Dean Madak highlighted the following points in his report:

- The numbers presented are as of August 15, 2009, and will change until the add/drop date in September
- Overall, registration numbers are down by .5% from last year
- Numbers have dropped most significantly in the College of Arts, Social and Health Sciences graduate student population
- International student numbers are up, while BC high school student numbers are down
- Projected FTE's are up 2.3%
- August is a big registration period for undergraduates, following the same pattern as last year
- Graduate students often register late, and there may be outstanding graduate registrations from the regions, who often submit regional student registration forms in bulk
- Students can register for Continuing Studies courses for credit throughout the September semester, so numbers may change as a reflection of these registrations
- Overall, undergraduate registrations are down, while graduate registrations have increased
- Registrations are down 33.3% from the lower mainland area, suggesting that the University needs to recruit from other British Columbia areas, as well as outside BC, in order to keep undergraduate numbers up

Dean Madak concluded his report and invited questions. A Senator commented that, if graduate student numbers are growing, the University should be putting more resources into this area, which fits with being a research-intensive university and builds on strengths.

It was noted that CNC had a recent increase in enrolment in transfer courses, and UNBC should be encouraging these students to come to UNBC in two years. Dean Madak agreed with this suggestion.

**9.0 Information**

**9.1 Report of the Harassment and Discrimination Policy Advisor**

This report was provided for information.

**10.0**    **S-200908.50**  
**Move to In Camera Session**  
Casperson / Hyndman  
That the meeting move In Camera.  
CARRIED.

**11.0**    **S-200908.54**  
**Adjournment**  
Hyndman / Donker  
That the Senate meeting be adjourned.  
CARRIED.

The meeting ended at 5:30 p.m.