

**SENATE MEETING  
PUBLIC SESSION  
MINUTES**

April 15, 2009  
3:30 – 5:30 PM

Room 7-172 Bentley Centre - Prince George Campus

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**Present:**

E. Annis, S. Beeler, T. Binnema, N. Black, C. Bock, D. Casperson, C. Chasteauneuf, A. Dayanandan, S. Déry, H. Donker, U. Eka, R. Ellis, G. Fondahl, W. Haque, I. Hartley, R. Hoffman, K. Hutchings, J. Hyndman, A. Jacob, C. Jago, J. Jeffery, E. Jensen, T. Knudsen, R. Lazenby, T. Levis, P. Madak (Acting Secretary of Senate), W. McGill, S. McKenzie, C. Myers (Recording), C. O'Callaghan, M. Reid, S. Rennebohm, R. Robinson, K. Vandersteen, S. Wagner, J. Young, S. Zahir

**Regrets:**

D. Macknak, A. Michalos, D. Nyce, I. Uche-Ezeala, A. Yakemchuk

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The meeting commenced at 3:30 p.m. Prior to commencing the meeting, Dr. Jago introduced several new Senators.

**1.0 S-200904.01**

**Approval of the Agenda**

Annis / Hutchings

That the Agenda for the April 15, 2009 Public Session of Senate be approved as presented.

CARRIED.

**2.0 S-200904.02**

**Approval of Senate Minutes**

Reid / Déry

That the Minutes of the March 11, 2009 Public Session of Senate be approved as presented.

CARRIED.

**3.0 Business Arising from Previous Minutes of Senate**

No business arising was identified.

**4.0 President's Report**

**Jago**

Dr. Jago reported that he was delighted to welcome Dr. George Iwama as UNBC's next President, along with his wife Dr. Marilyn Iwama. He had dinner with the Iwamas on a recent trip to Ottawa, which was very enjoyable. Dr. Jago added that, in his opinion, UNBC has a bright future with Dr. Iwama.

## 5.0 Report of the Provost

Dale

Dr. Dale reported that the search committees were close to reaching a decision for the position of the Dean of the College of Arts and Social Sciences and the Chair of the Physical Therapy Program. He added that the Ministry would be on campus on Friday to discuss the Physical Therapy Program.

## 6.0 Question Period

A Senator asked whether procedures were underway to fill the position of the Dean of the College of Science and Management. Dr. Dale responded that no plans had been made to fill this position. Dean McGill noted that this question had been raised at Senate for 3 months consecutively but that he would not be leaving until the end of December, 2009.

## 7.0 Committee Reports

### 7.1 Senate Committee on Academic Policy and Planning

Dale

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

It was proposed that motions S-200904.03 to S-200904.05 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

#### **S-200904.03**

#### **Change to Degree Requirements — Bachelor of Health Sciences (BHSc) Program**

Dale / Young

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the degree requirements for the Bachelor of Health Sciences (BHSc) program be changed from NURS 301-3 Advanced Pathophysiology to HHSC 301-3 Pathophysiology.

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]):

#### **3rd year -12 credits**

HHSC 330-3 Health Information Management Technology

HHSC 370-3 Occupational Health

~~NURS 301-3 Advanced Pathophysiology~~

HHSC 301-3 Pathophysiology

SOCW 444-3 Social Work Critical Issues in Aging

#### **S-200904.04**

#### **Change to Program Requirements — Bachelor of Health Sciences (BHSc) Prerequisite Statement**

Dale / Young

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the addition of a C- or better prerequisite statement for the Bachelor of Health Sciences (BHSc) program be approved as proposed.

Effective date: May 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]):

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 ~~M~~ majors, and electives, ~~as follows~~:

Biomedical Studies: Students take 48 credit hours of courses from the Biomedical Studies major and 15 elective credit hours.

Community and Population Health-Aboriginal and Rural 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 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: Students take 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.

Students enrolling in Health Sciences courses with prerequisites are required to have completed all prerequisite courses for those courses with a C- or better, or have permission to enroll from the Program Chair.

**Pg 224, 2008/2009 Calendar**

**Health and Human Science**

Students enrolling in Health Sciences courses with prerequisites are required to have completed all prerequisite courses for those courses with a C- or better, or have permission to enroll from the Program Chair.

**HHSC 101-3 Introduction to Health Sciences I: Issues and**

**Controversies** This course provides a A review of current issues and controversies with respect to individual and population health. Topics covered ~~will~~ include infectious disease, cancer, genetic disease, behavioural determinants of health, addictive behaviour, eating behaviour and the role of nutrition in chronic disease.

*Prerequisites: none*

**S-200904.05**

**Change to Program Preamble — Bachelor of Health Sciences (BHSc) Program**

Dale / Young

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Bachelor of Health Sciences (BHSc) program preamble be approved as proposed.

Effective date: May 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]):

## 2<sup>nd</sup> column

Graduation from either of the Community and Population Health Majors enables students to embark on careers or graduate programs related to health care management, administration, information systems or public health.

Students pursuing the Biomedical Studies Major are required to complete a set of courses that enables them to be ~~better~~ prepared for application to professional programs, ~~for example such as, in~~ medicine, nursing, pharmacy, occupational therapy, dentistry, speech pathology or physiotherapy. This major provides a foundational, multidisciplinary knowledge base that is focused ~~more~~ on the natural, ~~and~~ physical, and social sciences, ~~thus enabling those students to be better prepared to undertake health-related research or to work in scientific laboratories.~~ and includes population health and research methodology.

All students graduating with the Bachelor of Health Sciences degree will have developed critical analytical skills, life-long learning skills, and the ability to work from the evidence of best practice.

### **S-200904.06**

#### **Change to Program Requirements — BHSc Major in Community and Population Health (Environmental Health)**

Dale / Wagner

That, on the recommendation of the Senate Committee on Academic Policy and Planning, HHSC 430-3 Toxicology & Environmental Health be listed as an elective in the BHSc major in Community and Population Health – Environmental Health.

Effective date: May 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]):

Students must take:

ENPL 205-3 Environment and Society

ENSC 308-3 Northern Contaminated Environments

Students must take an additional 6 credit hours from the following list (please note that some of these courses may require additional prerequisites):

ECON 410-3	Health Economics
ENPL 208-3	First Nations Community and Environmental Planning
ENPL 304-3	Mediation, Negotiation and Public Participation
ENVS 306-3	Human Ecology
HIST 360-3	An Introduction to Environmental History
<u>HHSC 430-3</u>	<u>Toxicology &amp; Environmental Health</u>
INTS 470-3	International Environmental Policy
NREM 306-3	Society, Policy and Administration
or POLS 334-3	Society, Policy and Administration of Natural Resources

It was proposed that motions S-200904.07 and S-200904.08 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

### **S-200904.07**

#### **New Course Approval — HHSC 105-3**

Dale / Wagner

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course HHSC 105-3 Functional Anatomy be approved as proposed.

Proposed semester of first offering: 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]):

The purpose of this course is to provide a macroscopic examination of the human body. Lecture topics include musculoskeletal system and mobility, and major organ systems including cardiovascular, digestive and neurological, with emphasis on how these systems integrate for body function. A laboratory component is included. This course is appropriate for students who intend to enter health profession fields.

#### **S-200904.08**

##### **New Course Approval — HHSC 301-3**

Dale / Wagner

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course HHSC 301-3 Pathophysiology be approved as proposed.

Proposed semester of first offering: 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]):

This lecture course examines central concepts in pathophysiology. Topics include cell-tissue biology, mechanisms of self-defense, and alterations to organs and systems, all in relation to human health.

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

It was proposed that motions S-200904.09 to S-200904.12 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

#### **S-200904.09**

##### **New Course Approval — HIST 257-3**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course HIST 257-3 Public Law in Canada be approved as proposed.

Proposed semester of first offering: 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]):

Public law includes the areas of law regulating the internal operations of governments and state agencies, the interactions among orders or levels of government and the interactions between state and non-state actors. Subjects covered in this course include constitutional law, administrative law, human rights law and criminal law and procedures.

#### **S-200904.10**

##### **New Course Approval — HIST 258-3**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course HIST 258-3 Private Law in Canada be approved as proposed.

Proposed semester of first offering: September 2009

A Senator asked whether this course had sufficient overlap with the course COMM 300-3 (Introduction to Business Law), which covers contracts and torts, to require that course to be precluded. Another Senator noted that the proposed new course, POLS 258-3, would likely also be impacted by the answer to this question, as it was cross-listed with HIST 258-3. Senator Binnema indicated that he was not certain of the response to this question. The Chair asked for confirmation that the matter at issue was whether preclusions should be considered, and not whether to approve the new course. The Senator who had

raised the question replied that Dr. Jago's interpretation was correct. It was therefore suggested that the matter be referred to the Office of the Registrar which, in consultation with the Programs, would advise Senate about whether there is an issue that should result in preclusions.

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]):

Private law refers in general to the areas of law that regulate the interactions among non-state actors including citizens, corporations and non-state agencies. The course covers such areas as property law, torts, contracts, family law and commercial law in Canada.

#### **S-200904.11**

##### **New Course Approval — HIST 295-3**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course HIST 295-3 History of Law be approved as proposed.

Proposed semester of first offering: 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]):

This course examines the historical origins and development of the law and its subsequent evolution within the social, political, economic and legal contexts.

#### **S-200904.12**

##### **New Course Approval — HIST 441-3**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course HIST 441-3 Internship in Legal Studies 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 is an academic work study course delivered in relevant workplace settings where students experience the work environment in an assortment of law and legal services occupations.

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

It was proposed that motions S-200904.13 to S-200904.17 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

#### **S-200904.13**

##### **Change to Program Requirements — Major in Political Science**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Program requirements for the Major in Political Science 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]):

## **Program Requirement**

### **Lower Division Requirement**

#### **100 Level**

POLS 100-3 Contemporary Political Issues

#### **200 Level**

ECON 205-3 Statistics for Social and Management Sciences

or ~~MATH 242-3 Statistics for Social and Health Sciences~~ MATH 240-3 Basic Statistics

INTS 205-3 Introduction to International Studies

POLS 200-3 Canadian Government and Politics

POLS 202-3 Comparative Government and Politics

POLS 270-3 Political Philosophy: Plato to Locke

POLS 290-3 Research and Writing in Political Science

#### **S-200904.14**

#### **Change to Program Requirements — Joint Major in English / Political Science**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the course requirements for the Joint Major in English/Political Science 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]):

## **Program Requirements**

### **Lower Division Requirement**

ECON 205-3 Statistics for Social and Management Sciences

or ~~MATH 242-3 Statistics for Social and Health Sciences~~ MATH 240-3 Basic Statistics

ENGL 211-3 Survey of English Literature I

ENGL 212-3 Survey of English Literature II

POLS 100-3 Contemporary Political Issues

POLS 200-3 Canadian Government and Politics

POLS 202-3 Comparative Government and Politics

POLS 270-3 Political Philosophy: Plato to Hobbes

POLS 290-3 Research and Writing for Political Science

#### **S-200904.15**

#### **Change to Program Requirements — Joint Major in History / Political Science**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the course requirements for the Joint Major in History/Political Science 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]):

## **Program Requirements**

## Lower Division Requirement

HIST 190-3 The West and the World to 1660  
HIST 191-3 The West and the World since 1660  
POLS 100-3 Contemporary Political Issues  
ECON 205-3 Statistics for Social and Management Sciences  
or ~~MATH 242-3 Statistics for Social and Health Sciences~~ MATH 240-3 Basic Statistics  
POLS 200-3 Canadian Government and Politics  
POLS 202-3 Comparative Government and Politics  
POLS 270-3 Political Philosophy: Plato to Locke  
POLS 290-3 Research and Writing for Political Science

### **S-200904.16**

#### **Change to Program Requirements — Joint Major in International Studies / Political Science**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the course requirements for the Joint Major in International Studies/Political Science 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]):

## Program Requirement

### Lower Division Requirement

ECON 100-3 Microeconomics  
or ECON 202-3 History of Economic Thought  
ECON 101-3 Macroeconomics  
ECON 205-3 Statistics for Social and Management Sciences  
or ~~MATH 242-3 Statistics for Social and Health Sciences~~ MATH 240-3 Basic Statistics  
INTS 101-3 Canada and the World  
INTS 205-3 Introduction to International Studies  
POLS 100-3 Contemporary Political Issues  
POLS 200-3 Canadian Government and Politics  
POLS 202-3 Comparative Government and Politics  
POLS 270-3 Political Philosophy: Plato to Locke  
POLS 290-3 Research and Writing for Political Science

### **S-200904.17**

#### **Change to Program Requirements — Joint Major in Political Science / Women's Studies**

Dale / Binnema

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the course requirements for the Joint Major in Political Science/Women's Studies 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]):

## Program Requirement

### Lower Division Requirement

POLS 100-3 Contemporary Political Issues

POLS 200-3 Canadian Government and Politics  
WMST 100-3 Introduction to Women's Studies  
POLS 202-3 Comparative Government and Politics  
ECON 205-3 Statistics for Social and Management Sciences  
or ~~MATH 242-3 Statistics for Social and Health Sciences~~ MATH 240-3 Basic Statistics  
POLS 270-3 Political Philosophy: Plato to Locke  
POLS 290-3 Research and Writing for Political Science

It was proposed that motions S-200904.18 and S-200904.19 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

**S-200904.18**

**New Course Approval — POLS 257-3**

Dale/ Hutchings

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course POLS 257-3 Public Law in Canada be approved as proposed.

Proposed semester of first offering: 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]):

Public law includes the areas of law regulating the internal operations of governments and state agencies, the interactions among orders or levels of government and the interactions between state and non-state actors. Subjects covered in this course include constitutional law, administrative law, human rights law and criminal law and procedures.

**S-200904.19**

**New Course Approval — POLS 258-3**

Dale/ Hutchings

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course POLS 258-3 Private Law in Canada be approved as proposed.

Proposed semester of first offering: 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]):

Private law refers in general to the areas of law that regulate the interactions among non-state actors including citizens, corporations and non-state agencies. The course covers such areas as property law, torts, contracts, family law and commercial law in Canada.

An Executive Summary of Biochemistry and Molecular Biology curriculum changes was included for information.

**S-200904.20**

**Change to Program Requirements — Biochemistry and Molecular Biology BSc (Preamble) and Major and Minor in Biochemistry and Molecular Biology**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the program preamble for the Biochemistry and Molecular Biology B.Sc. degree, and changes to the Major and Minor in Biochemistry and Molecular Biology Degree, 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]):

Biochemistry and Molecular Biology are the disciplines upon which Biotechnology is based. The Biochemistry and Molecular Biology program provides students with a thorough understanding of all aspects of the life sciences, including practical and theoretical studies along with an understanding of ethical issues. The course of study is truly an amalgam of both disciplines. It also includes a grounding in organic chemistry and the physical sciences as these are the disciplines from which modern Biochemistry and Molecular Biology were born. The degree is designed with sufficient flexibility to allow students to follow their interests and they can expand the degree to include minors or course work in any number of complementary disciplines from computer science to mathematics to business to environmental studies. (BCMB) major investigates how molecules work in living systems. There is no clear line dividing living from non-living systems; rather, there is a gradual increase in complexity from clearly inanimate molecules up to obviously complex organisms. The goal of biochemistry and molecular biology is to understand how simple, inanimate molecular interactions support life.

The BCMB major has two main components: learning about molecules and learning about the scientific method. The former involves acquiring expertise in the foundations of biochemistry, such as organic and physical chemistry, and then exploring biological molecules and how they operate in living systems. The latter involves exploring how science asks questions to understand the workings of nature, while developing competence in laboratory skills and analysis. These two aspects are linked because an understanding of how information is acquired is as important as the information itself, since different experimental systems can yield different insights into complex biological problems.

BCMB majors continue on to successful careers in a diverse range of fields, notably medicine, teaching, pharmacy, the biotechnology industry, science policy, and law. BCMB majors acquire strong skills in laboratory techniques, and are therefore qualified for many kinds of research positions, including graduate programs such as immunology, molecular genetics, and developmental biology. BCMB majors are encouraged to pursue their interests by combining BCMB with minors in other fields, such as computer science, physics, business, or education.

## Major in Biochemistry and Molecular Biology

The major in Biochemistry and Molecular Biology requires students to take at least 85 credit hours of Biochemistry & Molecular Biology, Biology, and Chemistry courses, of which 42 credit hours must be upper division (i.e. 300 or 400 level). The minimum requirement for completion of a Bachelor of Science with a major in Biochemistry and Molecular Biology is 129 credit hours.

## Program Requirements

### Lower Division Requirement

#### 100 Level

- BIOL 101-4 Introductory Biology I
  - BIOL 102-4 Introductory Biology II
  - CHEM 100-3 General Chemistry I
  - CHEM 101-3 General Chemistry II
  - CHEM 120-1 General Chemistry Lab I
  - CHEM 121-1 General Chemistry Lab II
  - PHYS 100-4 Introduction to Physics I
    - or PHYS 110-4 Introductory Physics I: Mechanics
  - PHYS 101-4 Introduction to Physics II
    - or PHYS 111-4 Introductory Physics II: Waves & Electricity
- One of the following three options:
- MATH 100-3 Calculus I
    - and MATH 101-3 Calculus II
  - or MATH 105-3 Enriched Calculus
    - and MATH 101-3 Calculus II
  - or MATH 150-3 Finite Mathematics for Business and Economics
    - and MATH 152-3 Calculus for Non-majors

*Students are strongly encouraged to take MATH 100-3 or MATH 105-3, and MATH 101-3, for the ~~first year~~ first-year Mathematics requirement.*

#### 200 Level

BIOL 201-3 Ecology  
BIOL 203-3 Microbiology  
BIOL 210-3 Genetics  
CHEM 201-3 Organic Chemistry I  
CHEM 203-3 Organic Chemistry II  
CHEM 204-3 Introductory Biochemistry  
CHEM 250-1 Organic Chemistry Lab I  
CHEM 251-1 Organic Chemistry Lab II  
CHEM 255-1 Biochemistry Lab I

#### Upper Division Requirement

#### 300 Level

BIOL 311-3 Cell and Molecular Biology  
BIOL 312-3 Molecular Cell Physiology  
BIOL 323-3 Evolutionary Biology  
CHEM 306-3 Intermediary Metabolism  
CHEM 307-3 Proteins  
CHEM 308-3 Biochemistry Lab II  
CHEM 330-3 Nucleic Acids  
CHEM 340-3 Physical Biochemistry

#### 400 Level

BIOL 423-3 Molecular Evolution and Ecology  
BIOL 425-3 Applied Genetics and Biotechnology  
~~CHEM 405-3 Topics in Biochemistry~~  
CHEM 409-3 Enzymology  
One of:  
BCMB 401-3 Basic Science of Oncology  
BCMB 402-3 Macromolecular Structure  
BCMB 403-3 Advanced Nucleic Acids

### Subject Requirements

Twelve additional credit hours of Biology and/or Chemistry at the 200 level or above, of which at least 6 credit hours must be at the 300 or 400 level to ensure completion of 42 ~~upper-division~~ upper-division Biochemistry & Molecular Biology, Biology, and/or Chemistry credits. Note: NRES 430-6 can count toward this requirement with permission of the Program Chair.

### Elective Requirements

Elective credit hours as necessary to ensure completion of 129 credit hours.

## Minor in Biochemistry and Molecular Biology

The minor in Biochemistry and Molecular Biology is designed to provide students with a core of study in the field of Biochemistry and Molecular Biology. The program of study includes a grounding in chemistry and biology since these are the traditional disciplines from which modern ~~B~~biochemistry and ~~M~~molecular ~~B~~biology were born. The minimum requirement for completion of the minor in Biochemistry and Molecular Biology is 41 credit hours, of which at least 12 credit hours must be at the ~~upper-division~~ upper-division level.

#### 100 Level

BIOL 101-4 Introductory Biology I  
BIOL 102-4 Introductory Biology II  
CHEM 100-3 General Chemistry I  
CHEM 101-3 General Chemistry II  
CHEM 120-1 General Chemistry Lab I  
CHEM 121-1 General Chemistry Lab II

#### 200 Level

BIOL 210-3 Genetics  
CHEM 201-3 Organic Chemistry I  
CHEM 203-3 Organic Chemistry II  
CHEM 204-3 Introductory Biochemistry  
CHEM 255-1 Biochemistry Lab I

Note: Students are allowed to double-count all applicable first and second year courses; however, they must take ~~upper-division~~ upper-division courses for the minor that are not included in their major requirements or ~~upper-division~~ upper-division

subject requirements to ensure completion of 12 ~~upper-division~~ upper-division credit hours outside of their major. Students must ensure that all prerequisites are fulfilled prior to taking a course.

300 and 400 Level

12 credit hours must be chosen from the following:

BCMB 401-3 Basic Science of Oncology  
BCMB 402-3 Macromolecular Structure  
BCMB 403-3 Advanced Nucleic Acids  
BIOL 311-3 Cell and Molecular Biology  
BIOL 312-3 Molecular Cell Physiology  
BIOL 323-3 Evolutionary Biology  
BIOL 423-3 Molecular Evolution and Ecology  
BIOL 425-3 Applied Genetics and Biotechnology  
CHEM 306-3 Intermediary Metabolism  
CHEM 307-3 Proteins  
CHEM 308-3 Biochemistry Lab II  
CHEM 330-3 Nucleic Acids  
CHEM 340-3 Physical Biochemistry  
CHEM 405-3 Topics in Biochemistry  
CHEM 409-3 Enzymology

It was proposed that motions S-200904.21 to S-200904.23 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

#### **S-200904.21**

##### **New Course Approval — BCMB 401-3**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course, BCMB 401-3 Basic Science of Oncology, be approved as proposed.

Proposed semester of first offering: 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 is a lecture-based course designed to provide insight into our basic understanding of the biological chemistry of cancer. Major topics include chemical carcinogenesis, genomic instability, oncogenes and tumor suppressor genes, cell growth, apoptosis, tumor progression and metastasis, tumor angiogenesis, hormones, viruses, and drug resistance. This course also provides an in-depth look at the advanced technology used in controlling the disease, including immunotherapy and therapeutic approaches in controlling gene expression.

#### **S-200904.22**

##### **New Course Approval — BCMB 402-3**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course, BCMB 402-3 Macromolecular Structure, be approved as proposed.

Proposed semester of first offering: 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 is a lecture-based course designed to provide students with an understanding of the theory behind structural techniques used in biochemical laboratories. Topics include X-ray crystallography, nuclear magnetic resonance spectroscopy and electron microscopy; students are expected to develop an understanding of the theory and application of these techniques and technical considerations. Students also learn how to judge the quality of data.

#### **S-200904.23**

### **New Course Approval — BCMB 403-3**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course, BCMB 403-3 Advanced Nucleic Acids, 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 is a lecture-based course designed to provide in-depth knowledge on advanced topics in nucleic acid biochemistry. Topics include mechanistic analysis of nucleic acid metabolism; the RNA world hypothesis and theories of the origin of life; epigenetics; specificity and role of polymerases and repair pathways; replication and recombination mechanisms; RNA structural motifs and physical processing in gene expression; structure and function of non-coding RNA; silencing and micro RNA; catalytic RNA molecules; and applications of RNA molecules.

### **S-200904.24**

#### **New Course Approval — CPSC 351-3**

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 351-3 Management Information Systems be approved as proposed.

Proposed semester of first offering: 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]):

This course emphasizes the strategic role of information systems in modern business. Topics include the technical foundations of information systems, the impact of information systems on business operations and decision-making, and the processes that are required for successful implementation of business information systems.

It was proposed that motions S-200904.25 and S-200904.26 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

### **S-200904.25**

#### **Change to Program Requirements and Calendar Description — Environmental Science (BSc Program)**

Dale / Déry

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the revisions to the program requirements and calendar description for Environmental Science (B.Sc. Program) 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]):

## **Program Requirements**

\*Important: Courses with an asterisk (\*) have prerequisites not taken in the major requirements; it is the student's responsibility to ensure that they have completed the required prerequisites.

## Lower Division Requirement

### 100 Level

BIOL 101-4	Introductory Biology I
BIOL 102-4	Introductory Biology II
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II
MATH 100-3	Calculus I
MATH 101-3	Calculus II
PHYS 100-4	Introduction to Physics I
and PHYS 101-4	Introduction to Physics II
or PHYS 110-4	Introductory Physics I: Mechanics
and PHYS 111-4	Introductory Physics II: Waves and Electricity

### 200 Level

BIOL 201-3	Ecology
BIOL 203-3	Microbiology
CHEM 201-3	Organic Chemistry I
CHEM 250-1	Organic Chemistry Lab I
ENSC 201-3	Introduction to Atmospheric Science
ENSC 202-3	Introduction to Aquatic Systems
FSTY 205-3	Introduction to Soil Science
GEOG 205-3	Cartography and Geomatics
GEOG 210-3	Geomorphology
<del>MATH 342-3</del>	<del>Biostatistics</del>
<u>MATH 240-3</u>	<u>Basic Statistics</u>
<u>Or MATH 371-3</u>	<u>Probability and Statistics for Scientists and Engineers</u>

#### **S-200904.26**

#### **Change to Calendar Description — Environmental Science (BSc Program) “Areas of Focus”**

Dale / Déry

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the wording for the Environmental Science calendar description of “Areas of Focus” be revised 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]):

## Areas of Focus

Students ~~may~~ must choose to focus in an environmental system (atmospheric, aquatic, terrestrial or ecological), in Environmental Chemistry or in Environmetrics (environmental techniques). Four courses from one of the following lists are required, with the following provisions ~~that~~:

1. at least two of the courses must be at the upper division (300 or 400 level); and
2. courses used to fulfill major requirements above may not be used to fulfill an area of focus requirement.
  - i. Aquatic Systems
  - ii. Atmospheric Systems
  - iii. Terrestrial Systems
  - iv. Ecological Systems
  - v. Environmental Chemistry
  - vi. Environmetrics

### To Senate for Information:

#### **SCAPP200903.32**

##### **Calendar Course Description Change — ENPL 204-3**

That the change(s) to the course description for ENPL 204-3 Principles and Practices of Planning 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]):

~~History, theory, methods and processes in regional planning; contemporary issues and professional practices.~~

This course provides an introduction to, and understanding of, land use planning systems. Land use planning practice is heavily influenced by the legal and institutional structures in place, the values of the society it serves, and the local dynamics that exist. To gain an increased understanding of the importance of the context of planning, this course examines the structure of various land use planning systems, with a detailed focus on the structure and operation of the Canadian system. The course draws heavily upon examples of planning at the provincial and local levels in British Columbia.

#### **SCAPP200903.33**

##### **Calendar Course Description and Prerequisite Change — ENPL 401-3**

That the change(s) to the course description and prerequisites for ENPL 401-3 Environmental Law 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]):

ENPL 401-3 Environmental Law

This course covers the interpretation and application of international, national, provincial, and aboriginal environmental law. ~~Interpretation and application.~~ (This course is recommended for students who intend to pursue the study of law.)

~~Prerequisites: POL 100~~

Prerequisites: 60 credit hours

### **SCAPP200903.37**

#### **Calendar Course Description, Title and Prerequisite Change — ENSC 425-3**

That the changes to the Calendar course description, title and prerequisites for ENSC 425-3 Global Change Science 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]):

~~ENSC 425-3 Global Change Science—Climate Change and Global Warming Earth's environmental systems—atmosphere, biosphere, lithosphere and hydrosphere—are intimately interconnected and undergoing periodic and chaotic natural variability. A fifth "system"—the anthrosphere (human species)—has become an increasingly significant component of the Earth system. This course covers topics in global change science including: past climate and environmental change, climate and environmental variability and prediction, climate and environmental change interactions with biological organisms and ecosystems, implications of climate and environmental change for terrestrial systems, and the human role in global change.~~

Climate change and global warming caused by human activity has become one of the most significant environmental, social and economic threats that we have faced. This course presents the science of global climate change and global warming. Emphasis is placed on scientific principles responsible for climate changes, observed evidence of global climate change and global warming, and future climate change. Course topics include climate system, greenhouse effect, El Niño, atmospheric and ocean circulation, Earth's past and present climate, climate models, future climate projection, and climate change impacts on Canada.

Prerequisites: ENSC 201 ~~ENSC 201~~ and ~~BIOL 110~~ or BIOL 204

Precluded: ENSC-625

### **SCAPP200903.09**

#### **Change to Calendar Course Description and Prerequisites — HHSC 111-3**

That the change(s) to the calendar course description and prerequisites for HHSC 111-3 be approved as proposed.

Effective date: May 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]):

#### **Pg 224, 2008/2009 Calendar 2<sup>nd</sup> Column**

**HHSC 111-3 Anatomy and Physiology I** This course is the first half of a comprehensive survey of the structures and functions of the human organ systems. Lecture topics include cellular physiology, histology, and studies of the integumentary, skeletal, nervous and endocrine systems. A laboratory component is included. This course is appropriate for students who intend to enter ~~H~~health Sciences ~~programs~~ profession fields.

*Prerequisites:* Biology 12 and Chemistry 11

*Recommended:* HHSC 105-3

### **SCAPP200903.38**

#### **Calendar Course Description Change — MATH 100-3**

That the calendar description for MATH 100-3 Calculus I be changed 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]):

This course is an introduction to the calculus functions of one variable, primarily for majors and students in the sciences. Functions of one variable, inverses, limits and limit theorems, continuity, the difference quotient and derivatives, rules for differentiation, differentiability, the mean value theorem, the differential as a linear functional, definitions and derivatives of trigonometric functions, informal definitions of logarithmic and exponential functions and their derivatives, L'Hopital's rule, higher derivatives, maxima and minima, curve sketching, Newton's method, antiderivatives, definite integrals, the fundamental theorem of calculus, integrals of elementary functions, area between curves, applications of integration, and integration by substitution are discussed. All sections of this course ~~are will be~~ taught using the Maple software.

### **SCAPP200903.39**

#### **Calendar Course Description and Prerequisite Change — MATH 101-3**

That the changes to the course description and prerequisites for MATH 101-3 Calculus II 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]):

This course provides a continuation of MATH 100. Areas of study include the definition of the natural logarithm as an integral and of the exponential function as its inverse, integration by substitution and by parts, miscellaneous techniques of integration, improper integrals, volumes by slicing and by shell techniques, the trapezoidal rule and Simpson's rule, infinite sequences and series, Taylor series, masses, volumes, moments, centre of mass, first order linear differential equations, definition of partial derivatives. All sections of this course ~~are will be~~ taught using the Maple software.

~~MATH 100 Minimum Grade of C- or MATH 105 Minimum Grade of C-~~  
Prerequisites: MATH 100-3 or MATH 105-3

### **SCAPP200903.40**

#### **Calendar Course Description and Prerequisite Change — MATH 150-3**

That the changes to the course description and prerequisites for MATH 150-3 Finite Mathematics for Business and Economics be changed 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]):

**MATH 150-3 Finite Mathematics for Business and Economics** This course is offered primarily for students in the School of Business and the Economics Program. The course covers functions and graphs, linear systems of equations, matrix notation and properties, matrix inversion, linear programming, sets, counting and probability, and an introduction to actuarial mathematics.

**This course may not be used for credit towards a major, or joint major, in Mathematics or Computer Science.**

~~Prerequisites: Math 12 or~~ Principles of Math 12 or MATH 115-3

### **SCAPP200903.21**

#### **Course Prerequisite Change — POLS 320-3**

That the change(s) to the prerequisite for POLS 320-3 Canadian Politics and Policy 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]):

**POLS 320-3 Canadian Politics and Policy** This course provides an introduction to the concepts, goals and methods of policy analysis, with applications to current policy issues in Canada, British Columbia and the North. Topics include public opinion surveys and the statistical analysis of policy preferences.

*Prerequisites:* ECON 205-3 or ~~MATH 242-3~~ MATH 240-3

## 7.2 Senate Committee on Research and Graduate Studies

Fondahl / Hartley

An Executive Summary and labour market articles related to the proposed new Academic Program Proposal for a PhD in Health Sciences were included for information.

### **S-200904.27**

#### **New Academic Program Approval — PhD in Health Sciences**

Hartley / Casperson

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new PhD in Health Sciences be approved as proposed.

Proposed start date: September 2009

Dr. Jago noted that this was the first proposed new PhD program since 1997, so it is a significant development. He added that Senate approval was one step in the process of having the degree approved, which needed to also be approved by the province and the UNBC Board of Governors. Several questions were raised, discussed and addressed. It was asked whether a proposed start date of September 2009 was realistic given the approval processes required. Dr. Hartley responded that the Senate Committee on Research and Graduate Studies had also discussed this. He noted that when the proposal was initiated, in December 2008, it was perceived that September 2009 would be appropriate, but the start date would more likely be January 2010 at the earliest. Dr. Jago noted that the Ministry approval process was unlikely to be complete in time for this motion to be considered at the June Board meeting. He added that, because the next Board meeting after that would be held in September 2009, a January 2010 start date would likely be more realistic, so the Provost may wish to revise the proposed start date prior to posting the material on the Ministry's website for comment.

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]):

**General Calendar Description:** The PhD in Health Sciences offers students the opportunity to develop an advanced level of understanding and training in any one scientific discipline, or a combination of scientific disciplines, related to human health, the processes (e.g. sociological, biological, chemical, physical) that influence human health or the organization and delivery of health services. The PhD in Health Sciences promotes an integration of the linkages between social, ethical, political, and cultural dimensions, and an understanding of basic biological, ecological and physical determinants of health. Students are expected to acquire a familiarity with the scope of disciplines that contribute to knowledge and practice in health while developing expertise in a specific disciplinary area. Graduates from this program will have an area of concentration and a familiarity with other disciplines and be able to work constructively and show leadership within the increasingly complex multidisciplinary frameworks that are evolving across all parts of the health continuum.

Students must complete 6 credit hours of a **mandatory interdisciplinary seminar series: HHSC 800-3 Graduate Seminar I and HHSC 801-3 Graduate Seminar II**. The seminars cover core topics of Grant Writing and Project Management, Ethics and Human Subjects Research, and Methodologies Employed in Health Sciences Research as well as presentations on areas of concentration by faculty and senior students in the program.

Students must also complete a 12 credit hour thesis (**HHSC 890-12 PhD Dissertation**) to the satisfaction of their committee. In addition, they must also take a minimum of 6 credit hours in elective courses relevant to their area of concentration as determined by their supervisor. Students may be required, at the discretion of their supervisory committee, to take additional courses within their area of concentration.

Students must pass three separate checks on their academic progress towards a PhD: a qualifying exam, a defense of the thesis proposal, and a defense of the thesis. The qualifying exam is tailored to ensure a cross-disciplinary aptitude, and tests the student's grasp of the core interdisciplinary materials presented in the seminar series as well as core concepts of their area of concentration derived from elective course work. The thesis proposal defense is tailored to ensure students have a grasp of their area of concentration, and therefore examines the level of knowledge within the area of concentration. Upon successfully passing both the qualifying examination and the thesis proposal defense, students are granted candidate status, and embark upon the thesis work under the supervision of their faculty advisor. Following completion of the research, candidates must defend their thesis before an examination committee.

### Summary

HHSC 800-3 Graduate Seminar I	3 Credit Hours
HHSC 801-3 Graduate Seminar II	3 Credit Hours
Elective Courses	6 Credit Hours
HHSC 890-12 PhD Dissertation	<u>12 Credit Hours</u>
Total Required	24 Credit Hours

### Admission Requirements

Students are normally expected to hold a Master's degree from an accredited post-secondary institution. Normally, applicants must hold a cumulative GPA of 3.33 (B+) from the Baccalaureate and Master's degree, to be calculated over the last 30 credits of graded academic work.

In addition to a completed UNBC Graduate Application Form, applicants must provide official transcripts from all post-secondary institutions attended, a statement of intent indicating the student's research interests, possible future career aspirations, and perceived fit within the Faculty mandate and research directions; three letters of reference; and a sample of written academic work. GRE scores are optional. Only students with high GPAs and innovative research interests are likely to be successful in their applications.

Application deadlines are found in this calendar under "Semester Dates" or on line at [www.unbc.ca/calendar/graduate](http://www.unbc.ca/calendar/graduate), and also under "Semester Dates." The Health Sciences PhD Program accepts students for the September semester.

For additional information about graduate admissions or to download application materials, go to the Graduate Programs website at [www.unbc.ca/graduateprograms](http://www.unbc.ca/graduateprograms).

### Recommended Progression

#### **First Year: Mandatory Interdisciplinary Seminar, Elective Graduate Courses, Qualifying Exam**

During the first two semesters, students take a **mandatory interdisciplinary seminar series: HHSC 800-3 and HHSC 801-3 Graduate Seminars**. Based upon determinations made either prior to entry into the program, or in the first semester, elective courses determined by the supervisor will be also taken.

#### **Second Year: Area of Concentration, Defense of Thesis Proposal**

If students are required to take additional courses to address deficiencies within their area of concentration, they may select courses from relevant course offerings within the UNBC programs, or from other accredited graduate programs in other post-secondary institutions. In addition, students normally conduct some exploratory research in their area of concentration. Students in their second and third years are expected to present on their area of concentration to the interdisciplinary seminar series as an exercise in communicating their research field to a more general audience.

At the end of their course work, PhD students normally take a qualifying exam consisting of written and oral components. The general part of the exam should demonstrate the student's ability to synthesize and extrapolate from the core interdisciplinary materials presented in the seminar program. The specialty part of the exam assesses the student's background knowledge and familiarity with the theory and methodology associated with his/her thesis topic. Students normally take the qualifying exam upon completion of the 12 credit hours of required core courses.

Once course work is complete, students work towards finalizing a thesis proposal, which should demonstrate academic rigour and be of publishable quality. Students are expected to present the thesis proposal before their committee, and to demonstrate their knowledge within their area of concentration. Normally, this defense is scheduled either at the end of the third semester or at the beginning of the fourth semester of study.

### **Third to Fifth Year: Thesis**

Upon successful completion of course work, and the successful completion of the qualifying exam and the defense of the thesis proposal, the student is officially designated as a PhD candidate, and proceeds to full-time work on the thesis under the direct supervision of the advisor and any other designated committee members. Once the thesis proposal has been approved by the committee, any major changes made to the thesis proposal require further approval of the committee.

Under normal circumstances, students are expected to complete their research and the writing of the thesis within three years of becoming a doctoral candidate.

It was proposed that motions S-200904.28 to S-200904.30 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

#### **S-200904.28**

##### **New Course Approval — HHSC 800-3**

Hartley / Hyndman

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course HHSC 800-3 Graduate Seminar I be approved as proposed.

Proposed semester of first offering: 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]):

This seminar is geared toward developing critical thinking skills and aims to help students evaluate a broad spectrum of topics. The seminar functions to generate debate on key issues, promotes interaction with faculty members and other students in the program, and acts as a context for presentations by the students and invited speakers. Each PhD student is expected to give two 50-minute presentations. One presentation will be on a topic agreed upon by the student and the course instructor, and the other is related to the student's thesis research.

#### **S-200904.29**

##### **New Course Approval — HHSC 801-3**

Hartley / Hyndman

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course HHSC 801-3 Graduate Seminar II be approved as proposed.

Proposed semester of first offering: 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]):

This seminar is geared toward developing critical thinking skills and aims to help students evaluate a broad spectrum of topics. The seminar functions to generate debate on key issues, promotes interaction with faculty members and other students in the program, and acts as a context for presentations by the students and invited speakers. Each PhD student is expected to give two 50-minute presentations. One presentation will be on a topic agreed upon by the student and the course instructor, and the other is related to the student's thesis research.

**S-200904.30**

**New Course Approval — HHSC 890-12**

Hartley / Hyndman

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course HHSC 890-12 PhD Dissertation be approved as proposed.

Proposed semester of first offering: 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]):

The doctoral thesis must emphasize the candidate's original research or provide an original investigation, interpretation or synthesis of existing research.

**To Senate for Information:**

**SCRGS200903.03**

**Calendar Course Description and Title Change — ENSC 625-3**

That the changes to the Calendar course description and title for ENSC 625-3 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]):

~~ENSC 625-3 Global Change Sciences—Climate Change and Global Warming Earth's environmental systems— atmosphere, biosphere, lithosphere and hydrosphere— are intimately interconnected and undergoing periodic and chaotic natural variability. A fifth "system"— the anthrosphere (human species)— has become an increasingly significant component of the Earth system. This course covers topics in global change science including: past climate and environmental change, climate and environmental variability and prediction, climate and environmental change interactions with biological organisms and ecosystems, implications of climate and environmental change for terrestrial systems, and the human role in global change.~~

The climate change and global warming caused by human activity has become one of the most significant environmental, social and economic threats that we have faced. This course presents the science of global climate change and global warming. Emphasis is placed on scientific principles responsible for climate changes, observed evidence of global climate change and global warming, and future climate change. Course topics include climate system, greenhouse effect, El Niño, atmospheric and ocean circulation, Earth's past and present climate, climate models, future climate projection, and climate change impacts on Canada.

**7.3 Steering Committee of Senate**

**Jago**

**S-200904.31**

**Revision to Senate Handbook — Terms of Reference for the SCAPP and SCRGS Continuing Studies Credit Committee (CSCC)**

Casperson / Hyndman

That, on the recommendation of the Steering Committee of Senate, the revision to the terms of reference for the SCAPP and SCRGS Continuing Studies Credit Committee be approved as proposed.

Effective date: Immediately upon approval by Senate

CARRIED.

**7.4 Senate Committee on Nominations**

**Reid**

**S-200904.32**

**Membership Changes to Senate Committees (no material)**

General Consent

That, on the recommendation of the Senate Committee on Nominations, and barring further nominations from the floor of Senate, the following candidates, who have met all eligibility requirements to serve on

Senate committees as indicated, be approved as proposed.

Senator Reid asked that Senators consider a revision to the proposed appointments, noting that the position of Faculty Member on the Senate Committee on Academic Appeals was not actually available, and recommending that David Casperson thus be appointed instead to the position of Faculty Senator from CSAM on the Senate Committee on Honorary Degrees and Other Forms of Special Recognition. Senators were in agreement with the proposed revision, noted below by “~~strike through~~” for the position removed and “underline” for the position added to the report.

CARRIED.

**Steering Committee of Senate (SCS)**

Faculty Senator (to March 31, 2012)  
Faculty Senator (to March 31, 2012)  
Student Senator (to March 31, 2010)

Kevin Hutchings (current incumbent)  
David Casperson  
Joseph Jeffery

**Senate Committee on Nominations (SCN)**

Student Senator (to March 31, 2010)

Shawn Rennebohm (current incumbent)  
Adele Yakemchuk

Lay Senator (to March 31, 2011)

**Senate Committee on Academic Appeals (SCAA)**

Faculty Senator — CASHS (to March 31, 2012)  
Faculty Senator — CSAM (to March 31, 2012)  
~~Faculty Member (to March 31, 2012)~~  
Graduate Student Senator (to March 31, 2010)  
Undergraduate Student Senator (to March 31, 2010)

Richard Lazenby  
Erik Jensen (current incumbent)  
~~David Casperson~~  
Ijeoma Uche-Ezeala  
Shawn Rennebohm (current incumbent)  
Thomas Knudsen  
Carmen O’Callaghan

Student Senator (Aboriginal if possible) (to March 31, 2010)

Lay Senator (to March 31, 2012)

**Senate Committee on Admissions and Degrees (SCAD)**

Faculty Member — CASHS (to March 31, 2012)  
Faculty Member — CSAM (to March 31, 2012)

Loraine Lavallee  
Alex Aravind (current incumbent)  
Jueyi Sui (current incumbent)  
Lisa Dickson (current incumbent)  
Aji Jacob  
Tara Levis

Faculty Member — Professional Program (to March 31, 2012)

Faculty Member (to March 31, 2012)

Graduate Student (to March 31, 2010)

Undergraduate Student (to March 31, 2010)

**Senate Committee on Academic Policy and Planning (SCAPP)**

Faculty Senator (to March 31, 2012)

Colin Chasteauneuf (current incumbent)

Faculty Senator (to March 31, 2012)

Jennifer Hyndman (current incumbent)

Faculty Senator (to March 31, 2012)

Waqar Haque

Faculty Member — CSAM (to March 31, 2012)

Pranesh Kumar

Graduate Student (to March 31, 2010)

Ukeme Eka

Undergraduate Student (to March 31, 2010)

Christina Bock (current incumbent)

Student Senator (to March 31, 2010)

Kyle Vandersteen

Lay Senator

Shelley McKenzie

**Senate Committee on Research and Graduate Studies (SCRGS)**

Faculty Member — CASHS (to March 31, 2012)

Sherry Beaumont

Faculty Member — CSAM (to March 31, 2012)

Alex Aravind

Graduate Student — CASHS (to March 31, 2010)

Ukeme Eka

Graduate Student — CSAM (to March 31, 2010)

Aji Jacob

**SCAPP and SCRGs Subcommittee on Curriculum and Calendar (SCCC)**

Faculty Senator, designate of the Dean of CASHS

(to March 31, 2012)

Kevin Hutchings

Faculty Senator, designate of the Dean of CSAM

(to March 31, 2011)

Jennifer Hyndman

**SCAPP and SCRGs Continuing Studies Credit Committee (CSCC)**

Graduate Student (to March 31, 2010)

Aji Jacob

**Senate Committee on Honorary Degrees and Other Forms of Special Recognition (SCHDSR)**

Student Representative (to March 31, 2010)

Thomas Knudsen

Faculty Senator — CSAM (to March 31, 2012)

David Casperson

**Senate Committee on First Nations and Aboriginal Peoples (SCFNAP)**

Faculty Member — CSAM (to March 31, 2012)

Kevin Keen (current incumbent)

Aboriginal Lay Senator (to March 31, 2012)

Rheanna Robinson (current incumbent)

**Senate Committee on Scholarships and Bursaries (SCSB)**

Faculty Senator — CSAM (to March 31, 2012)

Erik Jensen (current incumbent)

Graduate Student (to March 31, 2010)

Ijeoma Uche-Ezeala

Undergraduate Student (to March 31, 2010)

Sarah Pickett (current incumbent)

Student Senator (to March 31, 2010)

Joseph Jeffery (current incumbent)

**Senate Committee on the University Budget (SCUB)**

Faculty Member — Professional Program (to March 31, 2012)

Jueyi Sui (current incumbent)

Faculty Member (to March 31, 2012)

Paul Bowles (current incumbent)

Graduate Student (to March 31, 2010)

Ijeoma Uche-Ezeala

Undergraduate Student (to March 31, 2010)

Farouk Ramji (current incumbent)

Student Senator (to March 31, 2010)

Christina Bock

**Senate Committee on Student Discipline Appeals (SCSDA)**

Undergraduate Student (to March 31, 2010)

Joseph Jeffery

Graduate Student (to March 31, 2010)

Ukeme Eka

**To Senate for Information:**

**Senate Election Results**

*(terms from April 1, 2009 to March 31, 2012, unless otherwise indicated)*

Faculty Member from CASHS

Stan Beeler

Faculty Member from CASHS

Colin Chasteauneuf (returning)

Faculty Member from CASHS

Ajit Dayanandan

Faculty Member from CASHS

Kevin Hutchings (returning)

Faculty Member from CASHS

Richard Lazenby

Faculty Member from CASHS

Shannon Wagner (returning)

Faculty Member from CSAM

David Casperson (returning)

Faculty Member from CSAM

Robert Ellis

Faculty Member from CSAM

Waqar Haque

Faculty Member from CSAM

Jennifer Hyndman (returning)

Faculty Member from CSAM

Erik Jensen (returning)

Faculty Member at Large

Eleanor Annis (returning)

Undergraduate Student (April 1, 2009 to March 31, 2010)

Christina Bock (returning)

Undergraduate Student (April 1, 2009 to March 31, 2010)

Joseph Jeffery (returning)

Undergraduate Student (April 1, 2009 to March 31, 2010)

Thomas Knudsen

Undergraduate Student (April 1, 2009 to March 31, 2010)

Tara Levis

Undergraduate Student (April 1, 2009 to March 31, 2010)  
Undergraduate Student (April 1, 2009 to March 31, 2010)  
Graduate Student (April 1, 2009 to March 31, 2010)  
Graduate Student (April 1, 2009 to March 31, 2010)  
Graduate Student (April 1, 2009 to March 31, 2010)  
Lay Senator  
Lay Senator  
Lay Senator  
Lay Senator

Shawn Rennebohm (returning)  
Kyle Vandersteen  
Ukeme Eka  
Aji Jacob  
Ijeoma (IJ) Uche-Ezeala  
Shelley McKenzie  
Carmen O'Callaghan  
Rheanna Robinson (returning)  
Adele Yakemchuk

Senators Whose Terms Have Ended

Faculty Member from CASHS  
Faculty Member from CASHS  
Faculty Member from CASHS  
Faculty Member from CSAM  
Faculty Member from CSAM  
Undergraduate Student  
Undergraduate Student  
Undergraduate Student  
Graduate Student  
Graduate Student  
Graduate Student

Boris DeWiel  
Jacqueline Holler  
Glenda Prkachin  
Balbinder Deo  
Jianbing Li  
Corbin Greening  
Trevor Shaw  
Devan Tasa  
Julius Bankole  
Elizabeth Sharp  
Jon Schneider

Senate Vacancies

Lay Regional Senator — Aboriginal / First Nations Communities  
Lay Regional Senator — Northwest Community College Region  
Lay Regional Senator — College of New Caledonia Region  
Lay Regional Senator — Northern Lights College Region

**8.0 Other Business**

**8.1 Computer Science Program External Review**

**Dale / Fondahl**

**8.1.1 S-200904.33**

**Move to In Camera Session**

Bock / Reid

That the meeting move In Camera.

CARRIED.

The meeting moved in camera. After review of documents containing confidential information in the in camera session, the following motions resulted for consideration in the public session of Senate:

Motion 1:

That admissions to the undergraduate major in Computer Science (for September 2010) be suspended starting in September 2009 and that the suspension be maintained until a new Computer Science undergraduate curriculum that meets outside scrutiny is passed by Senate. (If that approval occurs before September 2009, the suspension will not be necessary.)

Motion 2:

That admissions to graduate programs in Computer Science (for September 2010) be suspended starting in September 2009 and that the suspension be maintained until a new Computer Science undergraduate curriculum that meets outside scrutiny is passed by Senate. (If that approval occurs before September 2009, the suspension will not be necessary.)

**Motion:**

Dale / Fondahl

That admissions to the undergraduate major in Computer Science (for September 2010) be suspended starting in September 2009 and that the suspension be maintained until a new Computer Science undergraduate curriculum that meets outside scrutiny is passed by Senate.

Discussion ensued regarding this motion. The vote was taken by ballot, and this motion was DEFEATED.

In light of the decision regarding motion 1, the Provost requested that motion 2 be withdrawn.

**9.0 Information (no material)**

There were no items for information.

**10.0 S-200904.36**

**Adjournment**

General consent

That the Senate meeting be adjourned.

CARRIED.

The meeting ended at 6:30 p.m.