UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA

SENATE MEETING
PUBLIC SESSION
MINUTES

December 9, 2009
3:30 – 5:30 PM
Room 7-172 Bentley Centre

Present:
D. Adamick, E. Annis, G. Ashoughian, T. Binnema, C. Bock, C. Carriere, D. Casperson, C. Chasteauneuf, A. Dayanandan, J. DeGrace (Secretary of Senate), S. Déry, H. Donker, R. Ellis, G. Fondahl, W. Haque, I. Hartley, R. Hoffman, K. Hutchings, J. Hyndman, G. Iwama (Chair), E. Jensen, R. Lazenby, D. Macknak, W. McGill, S. McKenzie, C. Myers (Recording), D. Nyce, C. O'Callaghan, M. Reid, R. Robinson, I. Uche-Ezeala, K. Vandersteen, S. Wagner, A. Yakemchuk, S. Zahir

Regrets:
S. Beeler, M. Dale (Vice Chair), U. Eka, A. Jacob, J. Jeffery, S. Rennebohm, J. Young

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The meeting commenced at 3:30 p.m.

1.0 S-200912.01
Approval of the Agenda
Hutchings / Binnema
That the Agenda for the December 9, 2009 Public Session of Senate be approved as presented.
CARRIED.

2.0 S-200912.02
Approval of Senate Minutes
Uche-Ezeala / Annis
That the Minutes of the November 18, 2009 Public Session of Senate be approved as presented.

Senator Adamick noted that he had been in attendance at the meeting, but was not recorded as such. Ms. Myers agreed to make this correction to the minutes.

CARRIED.

3.0 Business Arising from Previous Minutes of Senate

Mr. DeGrace noted that, at the previous meeting of Senate, he had been asked to address a point in Academic Regulation 32 in the Graduate Calendar, whereby the course instructor is the student's supervisor. He thus proposed that the regulation be amended by adding the phrase "if the instructor is the supervisor, the Chair;" so that the complete first sentence of Academic Regulation 32(a) would read:

a. The student must meet with the supervisor, or the supervisory committee, or the Chair of the Program as appropriate (or, if the instructor is the supervisor, the Chair; or, if the Chair is the supervisor, the

College Dean; or, if the College Dean is the supervisor, the Provost) in an attempt to resolve the matter.

Senators were in general agreement with this proposed amendment.

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]):

32. Appeals Concerning Academic Program Matters

In the case of appeals concerning matters other than those listed above, the following procedures shall be followed:

a. The student must meet with the supervisor, or the supervisory committee, or the Chair of the Program as appropriate (or, if the instructor is the supervisor, the Chair; or, if the Chair is the supervisor, the College Dean; or, if the College Dean is the supervisor, the Provost) in an attempt to resolve the matter. Within 5 days of the meeting, the Chair of the Program (or College Dean) must send a written report of the meeting to the Dean of Graduate Programs, with a copy to the student. The report shall notify the Dean of Graduate Programs of the particulars of the case, and of the result of the meeting.

3.1 Consent agendas (verbal report regarding next steps)

Dr. Iwama reminded Senators that they had agreed to pilot the use of consent agendas for three months beginning in January 2010, in order to allow time for discussion of deeper topics. He added that the Steering Committee would plan the agenda, would which look different than the format of the current agenda, but that Senators were welcome to pull, off the consent agenda, any items that they wished to discuss. The President added that he would provide this information by covering document in January, and that he would attempt to arrange for a discussion topic.

4.0 President's Report **Iwama**

Dr. Iwama congratulated Senators on the completion of another term of teaching, and then reported on some initiatives that were currently underway. First, he noted that UNBC was working on a proposal for a "Wood Innovation and Design Centre," in cooperation with the provincial government and Partnerships BC. If this Centre came to fruition, it would provide support for programs such as Engineering, and would establish a UNBC presence in downtown Prince George. Dr. Iwama indicated that this proposal would be presented to the government for consideration by mid-January.

With regard to the UNBC planning process, Dr. Iwama reported that several town hall meetings had been held and that there had been consultation with off-campus groups, including the Chamber of Commerce, and the UNBC regions, whose input he desired. The consultations have been summarized, but he would like to have more discussion with students. Dr. Iwama noted that he hoped to have a refocused and refreshed University Plan drafted by mid-January, to be forwarded to Senate at some point after that time.

Finally, Dr. Iwama advised Senators that the Vice Presidents were moving up to the second floor of the Administration Building to allow for greater communication between the senior administrators and better service to the University community.

5.0 Report of the Provost **Dale**

As Dr. Dale was absent from the meeting, there was no report of the Provost.

6.0 Question Period

Senator Reid, Chair of the Senate Committee on Nominations, advised Senators that there was a vacant position for a student Senator on the Senate Committee on Academic Appeals, and encouraged any student Senators interested to contact him or Ms. Myers.

A Senator raised a question regarding Continuing Studies courses for credit and the possibility of earning double credit. He indicated he understood there was a policy now in place to prevent this situation until it was formally resolved, but asked if the Director of Continuing Studies would comment. The Director of Continuing Studies, Senator Macknak, responded that he had hoped to resolve this issue sooner, but that a proposal should be available for consideration at the next meeting of Senate. He added that there are currently no registrations allowed in courses for which double credit could be obtained. The Senator noted that there was currently a proposal before the Senate Committee on Academic Policy and Planning to change some degree requirements, in which the number of Continuing Studies course credits that could be applied was limited. He asked whether there was a policy to address this type of situation or if it was a "one-off" set of circumstances. The Registrar responded that this was one of the items on the agenda for discussion with regard to Continuing Studies courses, but that he could not prejudge the outcome of that meeting. The Senator replied that, when this proposed change to degree requirements comes forward to Senate in January, those in a position to do so may want to be prepared to speak to this matter.

The Registrar was questioned about a deferred grade form that had been disseminated, to which he provided clarification and responded he would like to follow up on further to ensure it was consistent with the Academic Regulations.

7.0 Committee Reports

7.1 Senate Committee on Academic Policy and Planning — Dale

In the absence of the Provost, this report was presented by Dean McGill.

S-200912.03
Changes to Calendar Course Description and Program Requirements — Bachelor of Fine Arts Program
Adamick / Donker
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Calendar Course Description and Program requirements for the Bachelor of Fine Arts Program, on page 122 of the 2009/10 undergraduate academic calendar, be approved as proposed, and that the program management context be as set out under the "Rationale" heading in this Motion.
Effective date: 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]):

Bachelor of Fine Arts (Fine Arts and Creative Writing) (BFA Program)

[ECU offers several programs under the "Fine Arts" umbrella. The change in program name is intended to distinguish this one. It also leaves room for the subsequent introduction of other Joint degree programs - for example "Bachelor of Fine Arts (Fine Arts and First Nation Studies)" or "Bachelor of Fine Arts (Fine Arts and History)" if the Universities choose to do so.]

~~**Joint degree in Fine Arts and Creative Writing offered through partnership between The University of Northern British Columbia and Emily Carr Institute of Art & Design**~~

This text has been moved, and slightly amended, to follow the Faculty List.]

Dee Horne, Professor, and Program Chair
Karin Beeler, Associate Professor
Stan Beeler, Associate Professor
Robert Budde, Associate Professor
Lisa Dickson, Associate Professor
Kristen Guest, Associate Professor
Kevin Hutchings, Associate Professor, and Canada Research Chair, Romantic Studies: Environment, Culture, and Representation
Maryna Romanets, Associate Professor
Blanca Schorcht, Associate Professor and Regional Chair, South-Central Region
Marian Scholtmeijer, Assistant Professor

[Faculty listing will be updated editorially in advance of printing the 2010-2011 Calendar, and ECU Faculty members will be caused to be added, clearly identified as being associated with that Institution and not UNBC.]

Website: http://www.unbc.ca/finearts

The Joint Degree in Fine Arts and Creative Writing is offered through a partnership between the University of Northern British Columbia and Emily Carr University of Art & Design.

The ~~Bachelor of Fine Arts~~ degree is an interdisciplinary four-year joint-degree program between the ~~University of Northern British Columbia and the Emily Carr University of Art & Design~~ two universities that connects creative writing and studio practice. Courses within the program offer students the opportunity to develop applied, conceptual, and theoretical skills.

The program begins in September of each year and the application deadline is February 1. Anyone ~~needing~~ seeking information about the application process should contact the UNBC Office of the Registrar. Students who want help regarding ~~the required courses~~ course selection are encouraged to contact the ~~Program~~ UNBC Student Advisor.

The UNBC/ECU joint degree in Fine Arts and Creative Writing is an interdisciplinary project-based degree that links creative writing and studio practice within a critical context. Studio courses within the degree ensure that students establish foundational skills during their first year, and that they build expertise within several different disciplines in their second and third years. The fourth year of study focuses on work in an independent studio environment. Concurrently, academic courses in theory and creative writing provide a theoretical basis of understanding that enhances and informs studio experience.

Although intended to support students in central northern BC, the unique character of this program may prove to be attractive for students from elsewhere in Canada and around the

world. Such exposure will not only allow students to develop and combine a significant range of artistic abilities, it will also cultivate highly transferable skills. While many graduates may elect to pursue careers as practicing artists, others may choose to apply for graduate degrees in English or Fine Arts; to apply for professional degrees, such as law or education, requiring highly developed critical thinking skills; to seek employment in areas such as graphic design, web/computer design, and information-based industries.

Students must take 120 credit hours, whether directly or by transfer, split equally between the University of Northern British Columbia and the Emily Carr University of Art & Design. Students may elect to complete a portion of the required courses at the ECU's main campus during the summer months. All costs associated with student travel and stay at ECU are the responsibility of the student.

Admission Requirement

Admission to the Bachelor of Fine Arts joint degree is competitive by direct entry to UNBC based on academic qualifications, portfolio, and available space. Priority admission will be given to students who meet admission criteria and apply by the deadline of February ~~0~~1. Applications received after the deadline may be reviewed based on available space in the program.

Applicants from BC and Yukon secondary schools must:

- meet the admission requirements as specified in the Admissions section of the UNBC Undergraduate Calendar with an admission average of at least 67%, and ~~UNBC admission requirements, and~~
- ~~have completed English 12 and other approved Grade 12 courses as specified in the Admissions section of the Undergraduate Calendar with an admission average of at least 67%, and~~
- submit a portfolio that includes ten examples of studio art and five pieces of creative writing. There will be sessions throughout the year for students to learn how to prepare a portfolio. For dates and times, please click on events on the English Program home page.

[Beginning with 2010 admission, students will be required to submit their portfolios on-line. The UNBC web pages will be updated to provide the necessary information. Portfolio preparation instruction will be provided through ECU.]

Other applicants must demonstrate that they possess qualifications at least equivalent to the UNBC and Yukon requirement.

Application of Academic Regulations

On a semester-by-semester basis, students are subject to the Academic Regulations in place at the institution to which their course numbers are designated (ECU or UNBC or both). Grading, for courses bearing their institutional designation, is by the grading scales of each institution respectively.

Transfer Credit and Residency

Transfer credit and/or advanced standing may be awarded for course work completed at other recognized institutions, and will be assigned by the two institutions in conformity with their Academic Regulations. The minimum residency requirement for graduation is 30 credit hours each at UNBC and ECU.

[For example ECU, in accord with its expertise and standard practice in a subject area, might decide to accept transfer credit of a studio art course against one of the ECU-listed courses without requiring UNBC input. UNBC might do the same in respect of a course under its own listing. Although, from the student's perspective, their "residency" is at UNBC, it is necessary to be clear that they must complete the requisite number of academic credits at each of the two institutions.]

Graduation

It is the responsibility of the student to ensure that his/her degree requirements are met. Students must have a CGPA of at least 2.0 (63%) over all courses at both institutions to graduate.

~~**Student Transfers and Residency**~~

~~Transfers into the program are allowed as long as the prerequisite courses or articulated courses are completed and there is space available in the program. The deadline for transfer students is the same as all students: February 1. Regardless of the articulated courses transferred, students must complete a minimum of 30 credit hours of their program at each of the granting institutions (at UNBC and at ECU).~~

~~The minimum residency requirement for graduation is 30 credits at each of UNBC and ECU.~~

[This section is not necessary, since the needed information is conveyed under "Transfer Credit and Residency," above.]

Curriculum

Program Requirements

[Proposed changes in this area follow extensive consultation between the academic program leaders at each of the participating institutions.]

In order to meet the graduation requirements for a BFA, students must successfully complete the following requirements consisting of 120 credit hours. Students may count no more than 60 credit hours from each of UNBC and ECU towards the degree. For ECU course descriptions, please refer to the following ~~website~~ URL: http://www.ecuad.ca/programs/courses

Please Note: Many of the ECU courses are ~~to be~~ provided on-line only. For further information, contact the ~~Program~~ Student Advisor. Courses marked with an asterisk (*) may be available to be taken on-site at Emily Carr during the summer in advance of the semester offering.

~~**Lower Level Requirements**~~

[See below: The structure of the program is revised to indicate requirements by year of study rather than by Lower and Upper Divisions. As restated in this manner, specific changes are indicated beginning with the heading "Foundation (First) Year".

~~**ECU Courses**~~

~~FNDT 106 3~~	~~Drawing and 2-Dimensional Language~~
~~FNDT 108 3~~	~~Creative Processes~~
~~FNDT 109 3~~	~~Visual Communication~~
~~AHIS 102 3~~	~~Visual Culture~~
~~AHIS 103 3~~	~~Visual Culture II~~
~~PHOT 200 3~~	~~Photography Immersion~~
~~GEVA 202 3*~~	~~Project Research~~
~~DIVA 200 3~~	~~Digital Visual Arts~~
~~AHIS 210 3~~	~~Twentieth Century Art~~

~~Three credits of ECU Electives at the 100 or 200 level*~~

~~**UNBC Courses**~~

ENGL 271-3	Introduction to Creative Writing

One of:

ENGL 100-3	Introduction to Literary Structures
ENGL 102-3	Introduction to Poetry
ENGL103-3	Introduction to Fiction
ENGL 104-3	Introduction to Drama and/or Film

Two of:

ENGL 205-3	Fiction
ENGL 210-3	Women's Literature
ENGL 270-3	Expository Writing

Upper Division Requirements

ECU Courses

GEVA 313-3*	Visual Arts Projects
HUMN 311-3	Visual Art Seminar
GEVA 410-6*	Senior Studio (6-credit)
HUMN 411-3	Written Project

One of:

DIVA 301-3	Online Portfolio
PHOT 319-3	Telling Story

Two of:

DHIS 310-3	History of Canadian Design
MHIS 330-3	History of Photographic Practices
DHIS 311-3	Pacific Rim Design History
AHIS 304-3	Art Now

Six credits of ECU Electives at the 300 or 400 level*

~~UNBC Courses~~

~~ENGL 400-3~~	~~Contemporary Theory~~
~~ENGL 470-3~~	~~Creative Writing Poetry~~
~~ENGL 471-3~~	~~Creative Writing Fiction and Creative Non-Fiction~~
~~ENGL 472-3~~	~~Creative Writing Drama and Scriptwriting~~
~~ENGL 493-3~~	~~Cultural Studies~~

~~Two of:~~

~~ENGL 309-3~~	~~Intermediate Studies in Film or Television~~
~~ENGL 409-3~~	~~Special Topics in Film or Television Studies~~
~~FNST 301-3~~	~~Art and Material Culture of BC First Nations~~
~~FNST 408-3~~	~~Clothing and Adornment~~
~~FNST 410-3~~	~~Advanced Topics: Art and Culture~~
~~WMST 309-3~~	~~Gender and Film~~
~~WMST 401-3~~	~~Cultural Studies: Gender, Race, and Representation~~

~~UNBC Electives at any level in any subject to ensure completion of a minimum of 120 credit hours in total between the two institutions.~~

Foundation (First) Year

ECU Courses

FNDT 106-3	Drawing and 2-Dimensional Language
FNDT 108-3	Creative Processes (on-line)
FNDT 109-3	Visual Communication (on-line)
AHIS 102-3	Visual Culture (on-line)
AHIS 103-3	Visual Culture II (on-line)

~~PHOT 200-3~~	~~Photography Immersion~~
~~GEVA 202-3*~~	~~Project Research~~
~~DIVA 200-3~~	~~Digital Visual Arts~~
~~AHIS 210-3~~	~~Twentieth Century Art~~

~~Three credits of ECU Electives at the 100 or 200 level*~~

UNBC Courses

~~**12 credits from:**~~

~~ENGL 271-3~~	~~Introduction to Creative Writing~~

One of:

ENGL 100-3	Introduction to Literary Structures
ENGL 102-3	Introduction to Poetry
ENGL103-3	Introduction to Fiction
ENGL 104-3	Introduction to Drama and/or Film
ENGL 170-3	Writing and Communication Skills

~~Two of:~~

~~ENGL 205-3~~	~~Fiction~~
~~ENGL 210-3~~	~~Women's Literature~~
~~ENGL 270-3~~	~~Expository Writing~~

and:

12 elective credit hours

~~**Upper Division Requirements**~~

Second Year

ECU Courses

~~GEVA 313-3*~~	~~Visual Arts Projects~~
~~HUMN 311-3~~	~~Visual Art Seminar~~

~~GEVA 410-6*~~ ~~Senior Studio (6-credit)~~

~~HUMN 411-3~~ ~~Written Project~~

~~One of:~~

~~DIVA 301-3~~ ~~Online Portfolio~~

~~PHOT 319-3~~ ~~Telling Story~~

~~Two of:~~

~~DHIS 310-3~~ ~~History of Canadian Design~~

~~MHIS 330-3~~ ~~History of Photographic Practices~~

~~DHIS 311-3~~ ~~Pacific Rim Design History~~

~~AHIS 304-3~~ ~~Art Now~~

~~Six credits of ECU Electives at the 300 or 400 level*~~

AHIS 210-3 Art and Culture

12 Open Studio credit hours (200 level) selected from across Emily Carr University in any combination of 3 or 6 credit hours.

UNBC Courses

ENGL 271-3 Introduction to Creative Writing

6 credit hours from:

ENGL 205-3 Fiction
ENGL 210-3 Women and Literature
ENGL 270-3 Expository Writing

6 elective credit hours

Third Year

ECU Courses

HUM 311-3 Visual Art Seminar

9 open studio credit hours (300 level) selected from across Emily Carr University in any combination of 3 or 6 credit hours

3 AHIS/DHIS/MHIS credit hours (300/400 level)

UNBC Courses (Third + Fourth Year: 30 credit hours)

ENGL 470-3	Creative Writing – Poetry
ENGL 471-3	Creative Writing – Fiction and Creative Non-Fiction
ENGL 472-3	Creative Writing – Drama and Scriptwriting
ENGL 493-3	Cultural Studies

One of:

ENGL 300-3	Theory
ENGL 400-3	Contemporary Theory

15 credit hours 300/400 elective courses

Fourth /Year

ECU Courses

HUM 411-3	Written Project

3 AHIS/DHIS/MHIS credit hours (300/400 level)
9 Open Studio credit hours

UNBC Courses

(See above for Third + Fourth Year Requirements)

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

Motions S-200912.04 and S-200912.05 were dealt with as an omnibus motion.

S-200912.04
Changes to Degree Requirements — Bachelor of Health Sciences, Community and Population Health Majors
Wagner / Donker
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the degree requirements for Bachelor of Health Sciences, Community and Population Health majors, be changed from ECON 110 to ECON 210.
Effective date: 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]`):

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Majors in Community and Population Health:
Students pursuing a major in either Community and Population Health-Aboriginal and Rural Health, or Community and Population Health-Environmental Health are required to complete the following 33 credit hours. It is recommended that students take the courses listed below in the year of study indicated:

1st year - 9 credit hours
CHEM 110-3 Chemistry of Everyday Life
or CHEM 100-3 General Chemistry I
~~ECON 110-3~~ ECON 210-3 Introduction to Health Economics and Policy

S-200912.05
Changes to Degree Requirements — Bachelor of Health Sciences, Biomedical Studies Major
Wagner / Donker
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the changes to the degree requirements for the Biomedical Studies major of the Bachelor of Health Sciences degree, to reflect the new course designations, be approved as proposed.
Effective date: September 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]`):

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Major in Biomedical Studies

Students pursuing a major in Biomedical Studies are required to complete the following 48 credit hours of courses. It is recommended that students take the courses listed below in the year of study indicated:

1st year-22 credit hours
BIOL 101-4 Introductory Biology I
BIOL 102-4 Introductory Biology II
CHEM 100-3 General Chemistry I
CHEM 120-1 General Chemistry Lab I
CHEM 101-3 General Chemistry II
CHEM 121-1 General Chemistry Lab II

Two of:
ENGL 100-3 Introduction to Literary Structures
ENGL 102-3 Introduction to Poetry
ENGL 103-3 Introduction to Fiction
ENGL 104-3 Introduction to Drama and/or Film

2nd year-17 credit hours
BIOL 203-3 Microbiology
BIOL 210-3 Genetics
CHEM 201-3 Organic Chemistry I
CHEM 250-1 Organic Chemistry Lab I
CHEM 203-3 Organic Chemistry II
CHEM 251-1 Organic Chemistry Lab II
CHEM 204-3 Introductory Biochemistry

3rd and 4th years-9 credit hours
BIOL 311-3 Cell and Molecular Biology

~~CHEM~~ BCMB 306-3 Intermediary Metabolism
~~CHEM~~ BCMB 307-3 Proteins

Note: Students intending to apply to professional health degree programs are encouraged to take as electives the following courses: PHYS 110-4, PHYS 111-4, MATH 100-3 and MATH 101-3.

Motions S-200912.06 and S-200912.07 were dealt with as an omnibus motion.

S-200912.06
New Course Approval — NURS 458-6
Adamick / Annis
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course NURS 458-6 Remote Nursing Certified Practice 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 focuses on Remote Nursing Certified Practice competencies. Key content areas include history and physical assessment, advanced clinical reasoning, informed judgment and pharmacotherapeutics for the management of specified common and predictable health conditions. Dispensary management and medication dispensing functions are also included. Content and course evaluation are based on a body-systems approach and incorporate the CRNBC Decision Support Tools for Remote Nursing Certified Practice. An extended workshop focusing on nursing practice in remote communities is included. Upon successful completion students apply for CRNBC Remote Nursing Practice Certification.

Major Restriction: Restricted to the Rural Nursing Certificate Program or Post-Diploma BScN students only, or by permission of the Chair, School of Nursing.

S-200912.07
Changes to Program Requirements — Addition of NURS 458-6 to the Post-Diploma Baccalaureate Nursing Program
Adamick / Annis
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the addition of NURS 458-6 Remote Nursing Certified Practice to the Post-Diploma Baccalaureate Nursing Program be approved as proposed.
Effective date: 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]):

400 Level
NURS 403-3 Introduction to Nursing Research
NURS 408-3 Nursing Leadership
NURS 415-3 Introduction to Community Health and Nursing
NURS 451-3 ~~Heath~~ Health Assessment Across the Lifespan
POLS 403-3 Social and Health Policy and Administration

A minimum of 9 credit hours selected from the following:

ANTH 101-3 Peoples and Cultures

ANTH 201-3 Medical Anthropology
COMM 230-3 Organizational Behaviour
NURS 301-3 Advanced Pathophysiology
NURS 303-3 Nutrition
or HHSC 311-3 Nutrition
NURS 402-3 Health Promotion
or HHSC 473-3 Health Promotion
NURS 409-3 Pharmacotherapeutics for Nurses
NURS 411-3 Medical Diagnostics for Nurses
NURS 412-3 Women and Health
NURS 416-4 Clinical Practicum: Community Nursing
NURS 452-6 Chronic Disease Management, Palliative Care and Wound Care
NURS 453-3 Nursing Practice with Older Persons
NURS 454-6 Perinatal Care
NURS 455-6 Critical Care, Emergency and Trauma
NURS 456-3 Mental Health and Addictions
NURS 457-3 Living and Working in a Rural Community
NURS 458-6 Remote Nursing Certified Practice

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

A Senator congratulated members of the Computer Science Program for initiating these changes in response to the external review of their Program.

Motions S-200912.08 to S-200912.37 were dealt with as an omnibus motion.

S-200912.08
Changes to Program Requirements — Computer Science Major
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the changes to the Computer Science Major be approved as proposed.
Effective date: September 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]`):

Major in Computer Science

A major in Computer Science requires at least ~~21~~ 20 Computer Science courses and at least ~~67~~ 61 credit hours in Computer Science, at least 27 credit hours of which must be upper division courses, and of those upper-division credits~~,~~ at least 12 must be taken at the 400 level. MATH 335-3 and MATH 371-3 can count towards this requirement.

The following courses may not be used for credit towards a Computer Science major or joint major:

MATH 150-3	Finite Mathematics for Business and Economics
MATH 342-3	Biostatistics

The minimum requirement for completion of a Bachelor of Science with a major in Computer Science is 120 credit hours.

Program Requirements

*__Note:__ Unless otherwise specified, ~~s~~Students enrolling in any Computer Science or Mathematics course with prerequisites are required to have completed all prerequisite courses for that course with a "C-" or better, or have permission to enroll from the Program Chair.

Lower Division Requirement

100 Level

CPSC 100-4	Computer Programming I
CPSC 101-4	Computer Programming II
~~CPSC 126-3~~	~~- Introduction to Computer Systems~~
CPSC 141-3	Discrete Computational Mathematics
~~CPSC 142-3~~	~~Discrete Computational Mathematics II~~
ENGL 170-3	**Writing and Communication Skills**
or ENGL 270-3	**Expository Writing**
MATH 100-3	Calculus I
or MATH 105-3	Enriched Calculus
~~MATH 101-3~~	~~- Calculus II~~

***Note:** MATH 101-3 Calculus II is strongly recommended.

200 Level

CPSC 200-3	Algorithm Analysis and Development
CPSC 222-3	Introduction to Concurrent and Distributed Programming
CPSC 230-4	Introduction to Logic Design
CPSC 231-4	Computer Organization and Architecture
CPSC 242-3	Mathematical Topics in Computer Science
CPSC 260-3	Ethics in Computing
CPSC 281-3	Data Structures I
~~CPSC 290-3~~	~~- Systems Analysis and Design~~
MATH 220-3	Linear Algebra

General Science Requirement

Students must take two courses from the following list of science courses. It is recommended that computer science majors take PHYS 110-4 and PHYS 111-4. However, students may take any two courses from the following list, according to their interests, to fulfill the general science requirement:

PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity
PHYS 100-4	Introduction to Physics 1
PHYS 101-4	Introduction to Physics 2
CHEM 100-3	General Chemistry 1
CHEM 101-3	General Chemistry 2
BIOL 101-4	Introductory Biology 1
BIOL 102-4	Introductory Biology 2
PSYC 101-3	Psychology as a Science

ENVS 110-3	Introduction to Environmental Citizenship
GEOG 204-3	Introduction to GIS for the Social Sciences
GEOG 205-3	Cartography and Geomatics
GEOG 210-3	Geomorphology

*__Note:__ In some special cases other science courses approved by the Chair of Computer Science may be used to satisfy this requirement.

Upper Division Requirement

~~300 Level~~Computer Science Breadth

CPSC 300-3	Software Engineering
CPSC 320-3	Programming Languages
CPSC 321-3	Operating Systems
CPSC 324-3	Introduction to Database Systems
~~CPSC 325-3~~	~~Introduction to Compiler Design~~
CPSC 340-3	Theory of Computation
CPSC 344-3	Data Communication and Networking
or CPSC 444-3	Computer Networking
~~CPSC 370-3~~	~~Functional and Logic Programming~~
~~MATH 371-3~~	~~Probability and Statistics for Scientists and Engineers~~

~~*While not required for the major, students are urged to include CPSC 300-3 (Software Engineering I) and CPSC 301-3 (Software Engineering II) in their program.~~
__*Note:__ MATH 371-3 Probability and Statistics for Scientists and Engineers is strongly recommended.

400 Level

At least 12 credit hours of Computer Science courses must be taken at the 400 level, and at least nine of these credit hours must be outside the seminar, project course (other than CPSC 400-3), research course, or special topics course category.

Alternate courses may be substituted for the above with the written permission of the Program Chair and Dean of the College.

Subject Requirement

~~Six additional credit hours of computer science at any level. MATH 335-3 (Numerical Analysis I) may be counted as a computer science course by computer science majors.~~

Six additional credit hours chosen from the following:

Computer Science at any level
MATH 335-3 Numerical Analysis I
MATH 371-3 Probability and Statistics for Scientists and Engineers

Elective Requirement

Elective credit hours as necessary to ensure completion of a minimum of 120 credit hours. A total of 45 credit hours in upper division (300 and 400 level) courses from any discipline are required for graduation.

S-200912.09
Changes to Program Requirements — Joint Major in Computer Science/Mathematics
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Joint Major in Computer Science/Mathematics be approved as proposed.
Effective date: September 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]`):

Joint Major in Computer Science/Mathematics

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Computer Science and Mathematics is 124 credit hours.

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

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

Program Requirements

Literacy Requirement

One of:

ENGL 170-3	Writing and Communication Skills
ENGL 270-3	Expository Writing

Lower Division Requirement

CPSC 100-4	Computer Programming I
CPSC 101-4	Computer Programming II
CPSC 141-3	Discrete Computational Mathematics
~~CPSC 142-3~~	~~Discrete Computational Mathematics II~~
CPSC 242-3	Mathematical Topics for Computer Science
CPSC 200-3	Algorithm Analysis and Development
CPSC 230-4	Introduction to Logic Design
CPSC 231-4	Computer Organization and Architecture
CPSC 281-3	Data Structures I
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 226-3	Advanced Linear Algebra
MATH 224-3	Foundations of Modern Mathematics
MATH 230-3	Linear Differential Equations and Boundary Value Problems

General Science Requirement

Two of:

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

***Note:** PHYS 110-4 (Introductory Physics I: Mechanics) and PHYS 111-4 (Introductory Physics II: Waves and Electricity) are strongly recommended for all majors.

Upper Division Requirement

CPSC 320-3	Programming Languages
CPSC 321-3	Operating Systems
CPSC 370-3	Functional and Logic Programming

*Six credit hours of 300 or 400 level Computer Science.
Six credit hours of 400 level Computer Science (excluding seminar, project, and special topics courses).

MATH 320-3	Survey of Algebra
MATH 335-3	Numerical Analysis I
MATH 371-3	Probability and Statistics for Scientists and Engineers

*Six credit hours of 300- or 400-level Mathematics.
Six credit hours of 400-level Mathematics.
*Three of these 12 credit hours must be at the 400 level so that the total number of Computer Science and Mathematics credit hours at the 400 level is at least 15.

Note: MATH 435-3 (Numerical Analysis II) and CPSC 340-3 (Theory of Computation) are recommended.

Elective Requirement

Elective credit hours as necessary to ensure completion of a minimum of 124 credit hours.

S-200912.10
Changes to Program Requirements — Joint Major in Computer Science/Physics
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the change(s) to the Joint Major in Computer Science/Physics be approved as proposed.
Effective date: September 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]`):

Joint Major in Computer Science/Physics

The minimum requirement for completion of a Bachelor of Science with a Joint Major in Computer Science and Physics is 127 credit hours.
MATH 342-3 (Biostatistics) may not be used for credit towards any Mathematics or Computer Science major, minor, or joint major.

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

PHYS 307-3 (Selected Topics in Environmental Physics) may not be used as Physics credit toward any Physics major, minor, or joint major.

Program Requirements

Literacy Requirement

One of:

ENGL 170-3	**Writing and Communication Skills**
ENGL 270-3	**Expository Writing**

Lower Division Requirement

CPSC 100-4	Computer Programming I
CPSC 101-4	Computer Programming II
CPSC 141-3	Discrete Computational Mathematics
~~CPSC 142-3~~	~~Discrete Computational Mathematics II~~
CPSC 242	Mathematical Topics for Computer Science
CPSC 200-3	Algorithm Analysis and Development
CPSC 231-4	Computer Organization and Architecture
CPSC 281-3	Data Structures I
MATH 100-3	Calculus I
or MATH 105-3	Enriched Calculus
MATH 101-3	Calculus II

MATH 200-3	Calculus III
MATH 220-3	Linear Algebra
MATH 230-3	Linear Differential Equations and Boundary Value Problems
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity
PHYS 200-3	Thermal Physics
PHYS 202-4	Electromagnetism and Optics
PHYS 205-3	Modern Physics I

Upper Division Requirement

CPSC 320-3	Programming Languages
CPSC 321-3	Operating Systems
CPSC 370-3	Functional and Logic Programming

*Six credit hours of 300 or 400 level Computer Science.
Six credit hours of 400 level Computer Science (excluding seminar, project, and special topics courses).

MATH 336-3	Intermediate Differential Equations
MATH 335-3	Numerical Analysis I
MATH 340-3	Introduction to Probability
PHYS 300-3	Classical Mechanics
PHYS 302-3	Quantum Mechanics I
PHYS 305-4	Electronics [which must be taken before CPSC 231-4 (Computer Organization and Architecture)]
PHYS 404-3	Solid State Physics

*Three credit hours of 300- or 400-level Physics.
Six credit hours of 400-level Physics (excluding seminar, project, and special topics courses).
*Three of these nine credit hours must be at the 400 level so that a minimum of 15 credit hours of 400-level Computer Science and Physics are completed.

S-200912.11
Course Deletion — CPSC 142-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the course CPSC 142-3 Discrete Mathematics II be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 142 - Discrete Computational Mathematics II Elements of number theory. The Euclidean algorithms. The concept of program correctness. Analysis of algorithms. Partial order. The principle of inclusion and exclusion. Generating functions. Recurrence relations. Algorithmic graph theory.~~

S-200912.12
Course Deletion — CPSC 290-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 290-3 Systems Analysis and Design be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 290 - Systems Analysis and Design Topics include: Introduction to the basic concepts, ideas and tools involved in the analysis and design phases of software systems development. Comparing and contrasting software systems with other types of systems, the evolution of software system design approaches, basic concepts used to handle complexity and change in software systems, modeling with UML, requirements elicitation. Systems analysis: overview, concepts, activities, and examples. Systems design: overview, concepts, activities, and examples.~~

S-200912.13
Course Deletion — CPSC 301-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 301-3 Software Engineering II be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 301 - Software Engineering II A continuation of CPSC 300-3. Instead of following a normal lecture format, the instructor will lecture once per week to the entire class and meet regularly with each individual team.~~

S-200912.14
Course Deletion — CPSC 311-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 311-3 Computer Applications Programming be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 311 - Computer Applications Programming Intended to develop programing skills in an object- oriented language with emphasis on applications programing. Topics include system analysis and design of larger programs programming with classes and objects, dynamic storage allocation, recursion, sorting and searching algorithms. Examples and assignments will be drawn from various areas of computer applications.~~

S-200912.15
Course Deletion — CPSC 322-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 322-3 Introduction to Concurrent and Distributed Programming be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 322 - Introduction to Concurrent and Distributed Programming This course introduces the core concepts, techniques, and tools for concurrent and distributed programming. It covers concurrent programming in shared memory systems and distributed programming in message passing systems. After introducing the necessary concepts, various coordination problems are discussed and then solved using different synchronization mechanisms. Relevant programming environments are introduced and the students will gain hands-on experience through programming assignments in both shared memory systems and message passing systems.~~

S-200912.16
Course Deletion — CPSC 325-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 325-3 Introduction to Compiler Design be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 325 - Introduction to Compiler Design Introduction to programming language translation. Compilers, interpreters, and other language processors. The phases of a compiler. Lexical analysis and scanner design. Syntax analysis and parsing techniques. Semantic analysis and code generation. Compile-time and run-time aspects of semantics. Execution environment and run-time support. Code optimization. Testing. The students will design and implement a compiler for a small Pascal-like language.~~

S-200912.17
Course Deletion — CPSC 401-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 401-3 Software Engineering for Real-Time Systems be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 401 - Software Engineering for Real-time Systems This course intoduces typical real-time applications including hard vs. soft real-time systems. A reference model for~~

~~real-time systems is developed. Other topics covered include scheduling of periodic and aperiodic tasks, resource access control, multiprocessor scheduling and synchronization, real-time aspects of operating systems and communication protocols, software engineering methods for real-time systems, and representing real-time concepts with Unified Modeling Language (UML). Software tools for development of real-time systems are introduced.~~

S-200912.18
Course Deletion — CPSC 421-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the course CPSC 421-3 Advanced Compilation techniques be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 421 - Advanced Compilation Techniques Based on the concepts established in CPSC 325-3, this course provides a broad overview of modern techniques for lexical analysis, syntax analysis, syntax directed translation, type checking, code generation, and code optimization. It addresses the implementation aspects of advanced programming language features, and introduces the student to compiler-writing tools and compiler generators.~~

S-200912.19
Course Deletion — CPSC 422-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 422-3 Database Systems be deleted from the Calendar.
Effective date: September 2012
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]`):

~~CPSC 422 - Database Systems The course will cover relational, hierarchical, and network systems, storage structure and access methods, data definition and data manipulation language, SQL, relational data structure, relational algebra and calculus, query optimization, recovery and concurrency, security and integrity, introduction to functional dependencies, normalization, 1NF, 2NF, 3NF and BCNF. A relational DBMS and data processing software will be used for understanding SQL and other concepts.~~

S-200912.20
Course Deletion — CPSC 434-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 434-3 Hardware Architecture be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 434 - Hardware Architecture CPU architecture including registers and accumulators, ALU design, control unit, operand codes and instruction sets, register transfer level language, fetch execute cycle and branching, address and data buses, microcoding of instructions. Memory design and addressing, memory types and memory performance, cache and caching techniques, memory indirect addressing. Interrupts and exception handling techniques. DMA controllers. Pipeline and parallel architectures.~~

S-200912.21
Course Deletion — CPSC 443-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 443-3 Mobile Computing be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 443 - Mobile Computing This course provides an overview of internet, TCP/IP and the field of mobile computing. The topics covered in detail include IEEE 802.11 Wireless LANs, Physical Layer for CDMA and OFDM, MAC Layer for CSMA/CA, 2.5G and 3G cellular architectures, Physical Layer for cellular networks (CDMA, TDMA and OFDM), MAC layer for CDMA and TDMA based cellular networks, Mobile IPv4/v6, and Application Layer (IP Multimedia Subsystem, Multimedia Messaging, Location-Based Services).~~

S-200912.22
Course Deletion — CPSC 460-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 460-3 Computer Science Seminar be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 460 - Computer Science Seminar Topic will vary from year to year. Offered in a seminar format with limited enrolment. Students will complete a substantial project under the supervision of the instructor.~~

S-200912.23
Course Deletion — CPSC 490-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 490-3 Computing Project I be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 490 - Computing Project I This course consists of a large computing project undertaken by the student or teams of students. Projects will be geared to industrial or research needs and designed to give the senior students first-hand experience in applying their knowledge and skills to the design and implementation of medium to large software systems. Students will employ standard software engineering practices. Regular project team meetings will be held to review project milestones.~~

S-200912.24
Course Deletion — CPSC 491-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the course CPSC 491-3 Computing Project II be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 491 - Computing Project II This course consists of a large computing project undertaken by the students or by teams of students. Projects will be geared to industrial or research needs and designed to give the senior students first-hand experience in applying their knowledge and skills to the design and implementation of medium to large software systems. Students will employ standard software engineering practices. Regular project team meetings will be held to review project milestones.~~

S-200912.25
Course Deletion — CPSC 496-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 496-3 Undergraduate Research Project II be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 496 - Undergraduate Research Project II This course consists of a small research project undertaken by the student or by teams of students. Projects will consist of the definition of a problem in computing and a literature survey of recent work in the field. Students will be encouraged to define their own possible solutions and to prototype the~~

~~solutions where appropriate. Regular review of progress will be made in meetings. Skills will be developed in the preparation of topic survey notes and in the development of arguments in support for or against published approaches to computing. Students will be expected to prepare and present their work.~~

S-200912.26
Course Deletion — CPSC 498-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the course CPSC 498-3 Special Topics in Computer Science I be deleted from the calendar.
Effective date: September 2012
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]`):

~~CPSC 498 - Special Topics in Computer Science I The topic of this course will vary depending upon Faculty and student interest and Faculty availability.~~

S-200912.27
New Course Approval — CPSC 222-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, CPSC 222-3 Introduction to Concurrent and Distributed Programming 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 ~~strikethrough~~, new text indicated by underline, and `[commentary, where included, in Courier New font within square brackets]`):

CPSC 222-3 Introduction to Concurrent and Distributed Programming This course introduces the core concepts, techniques, and tools for concurrent and distributed programming. Topics include concurrent programming in shared memory systems and distributed programming in message passing systems. After introducing the necessary concepts, various coordination problems are discussed and then solved using different synchronization mechanisms. Relevant programming environments are introduced and students gain hands-on experience through programming assignments in both shared memory systems and message passing systems.

Prerequisites: CPSC 101-4

S-200912.28
New Course Approval — CPSC 242-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 242-3 Mathematical Topics for Computer Science 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]`):

CPSC 242-3 Mathematical Topics for Computer Science This course introduces topics in graphs and trees: terminology, trails, paths, cycles, and shortest paths. As well, this course discusses counting methods: principles of inclusion and exclusion, combinatorial identities and arguments, and generating functions. Topics in probability theory are introduced.
Prerequisites: CPSC 141-3; and either MATH 100-3 or MATH 105-3
Preclusions: CPSC 142-3

S-200912.29
New Course Approval — CPSC 260-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 260-3 Ethics in Computing Science 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 focuses on codes of ethics of computing professional societies, technology and human values, costs and benefits of technology, the social context of work in computer science and engineering, copyright, patents, access, and other concepts.

S-200912.30
New Course Approval — CPSC 346-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 346-3 Cryptography and Data Security 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 is an introduction to the basic algorithms for confidentiality and authenticity of data. Topics include cryptographic primitives and specific realizations, transposition and substitution ciphers, modern private and public key encryption systems, digital signature, realization of AES, DES, RSA, and other systems.
Prerequisites: CPSC 100-4 and CPSC 141-3

S-200912.31
New Course Approval — CPSC 377-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 377-3 Introduction to Robotics 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 is an introduction to hardware architecture and control architecture of robotic and mechatronic devices. Topics include electronics, sensor capabilities, calibration of sensors, control of sensor I/O, motor and motion control through duty cycle and pulse width modulation.

Laboratory topics include the development of interfaces between sensors, their control boards and digital circuitry including microprocessors. Microprocessor control of sensors and motors is developed, including the use of reasoning embedded in onboard microprocessor software for control of robotic actions.
Prerequisites: PHYS 100-4 or PHYS 110-4, CPSC 231-4 or permission of the instructor

S-200912.32
New Course Approval — CPSC 400-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 400-3 Software Engineering Project 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]):

The course provides students, working in groups, with a significant project experience in which they can integrate much of the material they have learned in CPSC 300 Software Engineering, including matters relating to requirements, design, human factors, professionalism, and project management.
Prerequisites: CPSC 300-3
Preclusions: CPSC 301-3
Course Equivalencies: CPSC 301-3

S-200912.33
New Course Approval — CPSC 424-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 424-3 Advanced Database Systems 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 ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course is an introduction to advanced concepts in database design and applications. Topics discussed include transaction management, concurrency control, query processing and optimization, recovery and security, data warehousing and data mining, handling of special data types such as multimedia, spatial data, and XML documents. An introduction to object-oriented and object-relational models, parallel and distributed databases, and special purpose databases is also provided. Support for complex applications, information retrieval and data analysis is examined.
Prerequisites: CPSC-321 and CPSC-324 or permission of instructor
Preclusions: CPSC-422-3, CPSC-624-3

S-200912.34
New Course Approval — CPSC 425-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 425-3 Introduction to Compiler Design 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 ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

CPSC 425-3 Introduction to Compiler Design This course is an introduction to programming language translation, compilers, interpreters, and other language processors. Topics include the phases of a compiler, lexical analysis and scanner design, syntax analysis and parsing techniques, semantic analysis, code generation, compiler generation tools, compile time and run time aspects of semantics, execution environment and run time support, code optimization, and testing. Students design and implement a compiler for a small language.

Prerequisites: CPSC 281-3, CPSC 340-3

Preclusions: CPSC 325-3.

S-200912.35
New Course Approval — CPSC 444-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 444-3 Computer Networks 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 ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

This course explores essential topics in computer networks including TCP protocol, TCP reliable transport service, Internet protocol IP addresses, IP datagram and datagram forwarding, IPv6, network applications, real time interactive applications protocols (RTP, RTCP, SIP, H.323), security in computer networks, and network management. Network applications discussed include client-server interaction, naming and domain name system DNS, multimedia networking, VoIP, audio and video streaming.
Prerequisites: CPSC 321-3

S-200912.36
New Course Approval — CPSC 451-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 451-3 Digital Image Processing and Computer Vision 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 ~~strikethrough~~, new text indicated by underline, and [commentary, where included, in Courier New font within square brackets]):

Digital image processing is central to our digital age. This course explores topics in image representation, transforms, enhancement, restoration, segmentation, retrieval, and indexing.
Prerequisites: CPSC 101-4, CPSC 142-3 or CPSC 242-3, MATH 220-3

S-200912.37
New Course Approval — CPSC 475-3
Casperson / Hyndman
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course CPSC 475-3 Multiagent Systems 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]):

Calendar Course Description: An introduction to the theoretical and practical aspects of intelligent agents and multiagent systems, this course is open to undergraduate students majoring in different areas and fosters creative multidisciplinary interaction. Coverage includes the basic concepts, agent architectures, deductive and practical reasoning agents, reactive and hybrid agents, multiagent interactions, human-agent interactions, agreements, communication, and teamwork. Individual or team projects allow students to explore specific topics in their areas of interest through theoretical or laboratory work.
Prerequisites: Upper-division standing in Computer Science, or upper-division standing in another area and permission of the instructor.

S-200912.38
New Program Approval — Minor in International Development Studies
Adamick / Carriere
That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new Minor in International Development Studies be approved as proposed.
Proposed start date: September 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]):

General Calendar Description: The International Development Studies minor provides students with the opportunity to learn about the lives of the majority of the world's population. Students have the opportunity to explore the diversity of cultures, political systems, histories, and economic strategies that shape the contemporary context for development. By combining courses from several subject areas and analyzing development as a concept and as a practice at the local, national and international levels, the program provides students with the knowledge and perspectives needed to gain a better understanding of the world in which we all live.

The Minor requires 27 credit hours. 12 credit hours are required in the lower division and at least 12 credit hours must be from the upper division. In the upper division, courses must be chosen from at least three subject areas.

Curriculum: Lower division required courses:

ANTH 101-3 Peoples and Cultures
ECON 120-3 Globalization and the World's Economies
GEOG 101-3 Human Geography
HIST 191-3 The West and the World Since 1660

In addition, students must take 15 credit hours of elective courses from at least three subject areas of which at least 12 credit hours must be from the upper division.

Students must take two or more of:

ECON 321-3 Economics of Developing Countries
ECON 401-3 The Global Economy and Development
ECON 404-3 Poverty, Inequality and Development
GEOG 306-3 Geography of International Development
INTS 304-3 International Development

Other approved courses are:

ANTH 401-3 Anthropological Perspectives on Inequality
ANTH 404-3 Comparative Study of Indigenous Peoples of the World
ENGL 340-3 Postcolonial Literature
ENGL 350-3 Comparative Literature
ENGL 440-3 Postcolonial Literature
ENGL 450-3 Special Topics in Comparative Literature
FNST 416-3 Indigenous Issues in International Perspective
GEOG 301-3 Cultural Geography
GEOG 305-3 Political Geography
GEOG 308-3 Introduction to Medical Geography
GEOG 309-3 Geographies of Migration and Settlement
GEOG 401-3 Resource Geography
GEOG 422-3 Geography and the World Economy
GEOG 426-3 Geographies of Culture, Rights and Power
HIST 240-3 The Expansion of Europe
HIST 241-3 The Age of Empire: Europe and the World 1789-1914
HIST 280-3 Colonial Latin America
HIST 281-3 Republican Latin America
HIST 290-3 The Contemporary World
HIST 380-3 Modern Mexico
INTS 205-3 Introduction to International Studies
INTS 306-3 Human Rights
INTS 308-3 Gender and International Studies
INTS 350-3 Pacific Relations
INTS 371-3 Globalization
INTS 402-3 Pacific Affairs
OTRM 403-3 International Dimensions of Recreation and Tourism
POLS 303-3 Democracy and Dictatorship
POLS 309-3 Politics and Society in China
POLS 412-3 Comparative Aboriginal State Relations

Students may count up to 12 credit hours in their Major towards their Minor.

To Senate for Information:

The following items were presented to Senate for information.

SCAPP200911.38
Course Description Change — CPSC 101-4
That the changes to the course description for CPSC 101-4 Computer Programming II be approved as proposed.
Effective date: January 2010

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]`):

CPSC 101-4 Computer Programming II This course is a continuation of CPSC 100-4. Objects, classes, inheritance and polymorphism are discussed in depth. Other topics include object-oriented program design and development using principles of software

engineering; modeling with UML; GUI components and graphics; dynamic storage allocation, exception handling, the heap, and garbage collection; run-time support for program execution; and the use of standard libraries. Students work cooperatively to complete a medium-sized project. This course requires both tutorial and laboratory components.

Prerequisites: CPSC 100-4 and CPSC 141-3

SCAPP200911.39
Course Title and Description Change — CPSC 126-3
That the changes to the course title and calendar description for CPSC 126-3 Introduction to Computer Systems be approved as proposed.
Effective date: January 2010

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]`):

CPSC 126-3 Introduction to ~~Computer Systems~~ Computing This course is an introduction to computer science. It introduces and exposes the student to the many facets and fields of computer science. Topics discussed include history of computing; algorithms, the hardware and software models of the computer, computer security, problem solving using computers and computer programming; basic and emerging concepts and applications of computer science; the basics of computer networking, and the Internet.

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

SCAPP200911.40
Course Title and Description Change — CPSC 141-3
That the change(s) to the course title and description for CPSC 141-3 Discrete Computational Mathematics I be approved as proposed.
Effective date: January 2010

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]`):

CPSC 141-3 Discrete Computational Mathematics ~~Set theory (review). Elements of combinatorics and probability theory. Mathematical induction. Logical and formal reasoning. Functions and relations. Algorithms. Automata theory and formal languages. Graphs. Trees and tree traversal algorithms. Boolean algebra.~~This course provides an introduction to set theory, elements of combinatorics and probability theory, logical and formal reasoning using predicate and propositional calculus, together with narrative proof techniques. Other topics include well ordered sets, recursive definitions and mathematical induction; introductory number theory including the division algorithm, Euclidean algorithm, prime numbers and the fundamental theorem of arithmetic; properties of functions and relations including bijections, projections, inverses, composition, and Cartesian products.

Prerequisites: Math 12 or Principles of Math 12 or math 115-3

Precluded: CPSC 240-3

SCAPP200911.41
Course Description and Prerequisite Change — CPSC 200-3
That the changes to the course description and prerequisites for CPSC 200-3 Algorithm Analysis and Development I be approved as proposed.
Effective date: September 2010

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]`):

~~**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

SCAPP200911.42
Course Prerequisite Change — CPSC 230-4
That the changes to the prerequisites for CPSC 230-4 Introduction to Logic Design be approved as proposed.
Effective date: September 2010

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]`):

CPSC 230-4 Introduction to Logic Design Topics include principles of digital circuit design, boolean algebra, basic switching functions and gate-level implementation, canonical forms, algebraic simplifications, Karnaugh maps, Quine-McCluskey tables, voltage assignments, logic technologies, combinational logic circuits, decoders, encoders, multiplexers, demultiplexers, comparators, adders, sequential logic circuits, clocked flip-flops, registers, counters, register transfer logic, central processing unit, instruction set, addressing modes, arithmetic and logic units, control unit, bus organization.

Prerequisites: CPSC 100-4, ~~CPSC 142-3~~ CPSC 141-3

SCAPP200911.43
Course Description Change — CPSC 231-4
That the changes to the course description for CPSC 231-4 Computer Organization and Architecture be approved as proposed.
Effective date: September 2010

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]`):

CPSC 231-4 Computer Organization and Architecture This course introduces computer organization and architecture. Topics include~~:~~ ~~C~~computer abstractions and technology, characteristics of good computer architecture, instruction set architecture, Reduced Instruction Set Computers (RISC), Complex Instruction Set ~~Architecture~~ Computers (CISC), ~~CPU~~, processor datapath and control, pipelining, hyper-threading, memory systems, ~~acceleration mechanisms~~, I/O systems, bus, multiprocessors, parallel computers, and Flynn's Taxonomy. ~~Single Instruction Multiple Data (SIMD) machines, Multiple Instructions Multiple Data (MIMD) machines.~~ Students gain hands-on experience through a series of assembly level programming lab assignments using a simulator of a simple machine.

Prerequisites: CPSC 230-4

SCAPP200911.44
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: January 2010

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]`):

CPSC 300-3 Software Engineering ~~I~~ —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 are discussed. 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

SCAPP200911.45
Course Description and Prerequisite Change — CPSC 320-3
That the changes to the course description and prerequisites for CPSC 320-3 Programming Languages be approved as proposed.
Effective date: September 2010

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]`):

CPSC 320-3 Programming Languages This course is a general introduction to programming languages. Topics include~~:~~ ~~Formal grammars, Extended Backus-Naur Form (EBNF), and syntax diagrams; lambda calculus, Floyd-Hoare logic, and denotational semantics; data types, memory models, control structures, definitions, and binding; abstraction and parameter passing; programming paradigms; language design and evaluation; and case studies. Assignments include laboratory work~~. an overview of programming languages and language design objectives, specification of syntax and semantics, virtual machines and language translation, lambda calculus and theoretical fundamentals, program correctness and reasoning about programs, programming language constructs, declarations and types, abstraction mechanisms, and programming paradigms. An interpreter-based approach is used to describe the semantics of language constructs. Assignments include case studies and laboratory work.

Prerequisites: ~~CPSC 231-4 and CPSC 281-3~~ CPSC 242-3 and CPSC 200-3, or permission of

the instructor.
Recommended: CPSC 340-3

SCAPP200911.46
Course Description and Prerequisite Change — CPSC 321-3
That the changes to the course description and prerequisites for CPSC 321-3 Operating Systems be approved as proposed.
Effective date: September 2010

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]):

CPSC 321 - Operating Systems This course introduces the fundamental concepts of operating systems. Topics include tasking and processes, process co-ordination and synchronization, scheduling and dispatch, physical and virtual memory organization, paging and segmentation, device management, file systems, and security and protection.~~,~~ ~~communications and networking, distributed and real-time systems~~. Students ~~will~~ study a simple operating system and have an opportunity to make modifications to it in laboratory exercises.

Prerequisites: CPSC 231-4, CPSC 281-3, ~~MATH 340,~~ CPSC 222, CPSC 242

SCAPP200911.47
Course Description and Prerequisite Change — CPSC 340-3
That the change(s) to the course description and prerequisites for CPSC 340-3 Theory of Computation be approved as proposed.
Effective date: September 2010

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]):

CPSC 340-3 Theory of Computation This course examines regular expressions, deterministic and non-deterministic finite automata, ~~Mealy machines~~, context-free and other grammars, pushdown automata, Chomsky and Greibach normal forms, Chomsky hierarchy, pumping lemmas, Turing machines, undecidability, computability, recursive function theory, computational complexity ~~of computation~~, NP-hard and NP-complete problems.

Prerequisites: CPSC ~~241-3~~142-3 or CPSC 242-3

SCAPP200911.48
Course Description and Prerequisite Change — CPSC 370-3
That the change(s) to the course description and prerequisites for CPSC 370-3 Logic and Functional Programming be approved as proposed.
Effective date: September 2010

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]):

CPSC 370-3 Logic and Functional Programming This course provides an ~~i~~introduction to programming in symbolic languages such as the functional language Scheme and the logic programming language Prolog, with applications to systems programming, symbolic computation, artificial intelligence and other ~~and other~~ areas.

Prerequisites: CPSC 281-3 and CPSC ~~142-3~~ 141-3

SCAPP200911.49
Course Description Change — CPSC 441-3
That the changes to the course description for CPSC 441-3 Distributed Systems be approved as proposed.
Effective date: January 2010

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]):

CPSC 441-3 Distributed Systems ~~Evolution of technology and concepts underlying distributed computing systems. Fundamentals and principles of distributed computing. Language constructs for distributed programming. Formal specification of distributed systems. Distributed algorithms. Elements of distributed operating systems. Elements of fault-tolerant distributed architecture~~. This course covers the fundamental principles and paradigms underlying the design of distributed computing systems. Coverage includes the definition and types of distributed systems, communication, processes, naming, synchronization, consistency and replication, fault tolerance, and security. Term projects focus on case studies of specific systems representing web-based, peer-to-peer, mobile, grid, and other modern paradigms.

Prerequisites: CPSC 321-3, or permission of the instructor

SCAPP200911.50
Course Description Change — CPSC 442-3
That the changes to the course description for CPSC 442-3 Parallel Computing be approved as proposed.
Effective date: January 2010

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]):

CPSC 442-3 Parallel Computing ~~Classification of parallel architectures. SIMD vs. MIMD. Distributed vs shared memory. Interconnection networks. Topologies of dynamic and static networks. Basic communications operations. Basic procedures on processor networks. Vectorizing. Pipelining. Parallel algorithms (for matrix multiplication, Gaussian elimination, sorting, etc.). Task scheduling. Implementation of parallel programs on parallel machines. Performance issues in parallel computing. Parallel libraries (PVM and MPI).~~

This course introduces students to concepts in high performance computing. Topics include classification of parallel architectures, basic communications operations, interconnection networks, topologies of dynamic and static networks, performance issues and techniques for optimization, and dynamic programming. Parallel algorithm design for high-performance computing such as applications in computational biology, finite-element and finite-difference methods for numerical simulations, dense/sparse matrix algorithms, and multidimensional data structures is also discussed. Message passing (MPI and OpenMP) is used for implementation of algorithms on high performance cluster computers.

Prerequisites: CPSC 321-3 or permission of the instructor

SCAPP200911.51
Course Description and Prerequisite Change — CPSC 450-3
That the changes to the course description and prerequisites for CPSC 450-3 Bioinformatics be approved as proposed.
Effective date: January 2010

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]`):

CPSC 450-3 – **Bioinformatics** ~~Bioinformatics studies~~ This course introduces computational techniques for solving biological problems~~. The course introduces students to the computational analysis of biological sequence data~~ and presents an overview of the ~~research, its applications,~~ tools and the methods used to analyze large biological data sets. ~~The topics covered include an introduction to~~ After introducing molecular biology for computer scientists—cells and organelles, chromosome, gene, DNA, RNA, proteins, transcription and translation—the course explores pairwise and multiple sequence alignment, sequence database searches, pattern identification of genes, promoters and transcription factor binding sites, as well as secondary and tertiary structure prediction for RNA and proteins. Markov models for gene prediction are introduced. ~~and bioinformatics, DNA, Markov chains, Gene algorithms, string matching Pairwise alignment, Multiple sequence alignment, Grammatical framework Hidden Markov Models, Protein secondary structure, Protein 3D structure RNA structure, database searching. General Programming skills (e.g. Perl) are required.~~

~~*Co-requisites*: CPSC 422-3 or permission of the instructor.~~
Prerequisites: CPSC 324-3 or permission of the instructor.

SCAPP200911.52
Course Description and Prerequisite Change — CPSC 472-3
That the changes to the course description and prerequisites for CPSC 472-3 Knowledge Based Systems be approved as proposed.
Effective date: September 2010

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]`):

~~Rule-based forward-chaining and backward-chaining systems, theorem provers, inference engines and meta-interpreters. Knowledge representation and knowledge acquisition, machine learning techniques. Uncertainty, Bayesian probability, certainty factors, non-monotonic logics and reasoning with beliefs, fuzzy logic and other approaches~~.

This course introduces students to Expert Systems. The two major topics addressed are Rule-based systems and Fuzzy Logic systems. Goal driven forward-chaining and backward-chaining paradigms are introduced. Automatic theorem provers, inference engines and problems of knowledge representation and knowledge acquisition are discussed. Approaches to reasoning about uncertainty are covered including Bayesian probabilities, certainty factors, non-monotonic logics and reasoning with beliefs. A Fuzzy Logic system is implemented and an application is developed and tested.

Prerequisites: CPSC ~~371-3~~ 370-3 or permission of the instructor

SCAPP200911.53
Course Description and Prerequisite Change — CPSC 474-3
That the changes to the course description and prerequisites for CPSC 474-3 Natural Language Processing be approved as proposed.
Effective date: September 2010

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]`):

CPSC 474-3 Natural Language Processing ~~Formal grammars and the Chomsky hierarchy. Natural languages and models of syntax. Lexicons and augmented lexicons, feature structures, morphology. Top down and bottom up parsers, left corner and chart parsers. Dealing with context sensitivity. Semantic structures and knowledge representation for NLP. Linguistic models, LFP, HPSG, Principles and Parameters. Introduction to discourse models and extra sentential processing.~~

The course introduces the formal and practical methods of Natural Language processing. Topics include formal grammars and the Chomsky hierarchy, natural languages, models of syntax, augmented lexicons, parsing methods, semantic structures and knowledge representation for natural language processing, linguistic models, discourse models, problems of reference, machine translation, part of speech tagging, ambiguity and information retrieval.

Prerequisites: CPSC ~~371-3~~ 370-3 or permission of the instructor

SCAPP200911.54
Course Description and Title Change — CPSC 499-3
That the change to the course description and title for CPSC 499-3 Special Topics II be approved as proposed.
Effective date: September 2010

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]`):

CPSC 499-3 Special Topics ~~II~~

The topics for this course ~~will~~ vary, depending on student interest and faculty availability. This course ~~M~~may be retaken any number of times, provided all topics are distinct.

Prerequisites: Permission of the instructor

SCAPP200911.55
Calendar Description Change — Environmental Engineering Program
That the change(s) to the Calendar Description for Environmental Engineering be approved as proposed.
Effective date: January 2010

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]`):

Graduation

It is the responsibility of the student to ensure that his/her degree requirements are met. Students must have a ~~CGPA of at least 2.00 (63%) over all courses~~ good academic standing at

both institutions to graduate: a CGPA of at least 2.00 (63%) over all courses taken at UNBC; and an average of at least 55%, and passing grades in at least 65% of the credits taken at UBC. The diploma will carry crests from both granting institutions (UNBC and UBC).

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

S-200912.39
Calendar Change — Time Limit for Completion of Master's Degree Requirements
Reid / Chasteaneuf
That, on the recommendation of the Senate Committee on Research and Graduate Studies, 4.2 Time Limit of the Graduate Calendar be amended to read as proposed.
Effective date: January 1, 2010 but retroactive for all current students
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]`):

4.2 Time Limit

The maximum time for completion given below is not intended to be the normal time for completion. It is intended to take into account a wide variety of extraordinary circumstances and events that may delay completion.

4.2.1 Normally, a student proceeding toward a Master's degree will be required to complete all degree requirements within five years (60 consecutive months) from the date of the first registration in the Master's degree. In no case will a degree be awarded in less than 12 consecutive months from the time of the first registration. However, it is expected that a full-time student will complete a Master's degree within 36 consecutive months from the date of first registration.

4.2.2 Variances to the time limits specified in 4.2.1 are as follows:

- Master of Education (Part time) seven years (84 consecutive months),
- Master of Education (Full time) four years (48 consecutive months).

4.2.2 3 If a degree is not awarded within ~~five years of~~ the specified period following the first registration, the student will be withdrawn from the program. Under exceptional circumstances, time extensions may be granted by the ~~Associate~~ Dean of Graduate Programs. Such requests for time extension must be made in writing to the ~~Associate~~ Dean of Graduate Programs prior to the end of the semester in which the student's time limit expires.

4.2.4 Variances to the time limits specified in 4.2.3 are as follows:

- Master of Education (Part time) seven years (84 consecutive months).

The request must include a timeline for the completion of the degree accompanied by supporting documentation from the student's supervisor.

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

S-200912.40

Change to September Semester Application Deadline — Disability Management MA

Hartley / Adamick

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the change to the Application deadline for the September Semester for Disability Management (MA), from March 15 to February 15, be approved as proposed.

Effective date: Upon Senate approval

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 35, Graduate 2009/10 Calendar:

Under **2010 January Semester**

February

12 Friday	Last day to withdraw from January Semester courses without academic penalty*.
15 Monday	Application deadline for UNBC administered Graduate Awards. Application deadline for the May Semester for the following Graduate Programs: Interdisciplinary Studies (MA, MSc). Application deadline for the September Semester for the following Graduate Programs: Community Health Science (MSc), Disability Management (MA), Education (MEd), First Nations Studies (MA), Gender Studies (MA), History (MA), Interdisciplinary Studies (MA, MSc), International Studies (MA), Mathematical, Computer, & Physical Sciences (MSc), Natural Resources & Environmental Studies (MA, MSc, MNRES) and (PhD), Nursing (MScN, MScN:FNP), Political Science (MA), Social Work (MSW). Beginning of Mid-Semester Break. No classes February 15-19.

March

1 Monday	Deadline for application to graduate in 2010.
~~15 Monday~~	~~Application deadline for Disability Management (MA) for September 2010 Semester.~~ (DELETE)

S-200912.41

Change to Program Requirements — List of Elective Courses, MA Disability Management Distance Mode

Hartley / Adamick

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the change to the list of elective courses for the MA Disability Management – Distance Mode, an addition of HHSC 602-3 Organization and Financing of Canadian Health Care, be approved as proposed.

Effective date: Upon Senate approval

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]):

(Page 66, Graduate 2009 – 2010 Calendar, under Distance Mode)

Elective Courses

Candidates must complete a minimum of ~~9~~ nine credit hours from the following list. Not more than six credit hours can be from any one area other than Disability Management.

DISM 720-3 Special Topics
DISM 798-(3-6) Directed Studies
HHSC 602-3 Organization and Financing of Canadian Health Care
POLS 603-3 Social and Health Policy and Administration
PSYC 620-3 Health Psychology
SOCW 605-3 Community Work/Politics of Change

Other courses may be substituted or added with the approval of the student's Supervisory Committee.

Motions S-200912.42 to S-200912.44 were dealt with as an omnibus motion.

S-200912.42
Change to Program Requirements — Community Health Science, MSc Program (Cancellation of Nursing Stream)
Wagner / Hutchings
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the changes to the Community Health Science (MSc Program), cancelling the Nursing Stream and making the following deletions, be approved as proposed.
Effective date: Upon Senate approval
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) Page 62 (right column)

Admission

In addition to the admission application requirements outlined in Section 1.0 of the Graduate Academic Calendar, applicants are required to undergo a criminal records search~~,~~ and provide evidence of this prior to being considered for admission.

~~There are two streams for the Community Health Science (MSc Program): i) General Stream and ii) Nursing Stream.~~ DELETE

Application deadlines are found in this calendar under "Semester Dates" or online at: www.unbc.ca/calendar/graduate.html, also under "Semester Dates." The Community Health Science MSc Program accepts students for the September Semester.

B) Page 63 (left column)

~~Additional Prerequisites for Nursing Stream~~

~~Students are expected to have undergraduate courses in nursing theory, health assessment, and community health nursing. Students must have and maintain practising registration with the Registered Nurses Association of British Columbia. A letter confirming verification of registration from the Association must be received by the Office of the Registrar prior to registration each year.~~ DELETE

Requirements

~~i) General Stream~~
Seven ~~(21 credit hours)~~ courses (21 credit hours) at the graduate level, and a thesis (nine credit hours) are required.

~~ii) Nursing Stream~~
~~Seven (21 credit hours) courses at the graduate level, and a thesis (nine credit hours) are required.~~ DELETE

C) Page 63 (right column)

Additional Course Requirements

~~i) General Stream~~
Three ~~(9 credit hours)~~ courses (9 credit hours), chosen in consultation with the advisor.

Examples of courses taken by our students are:
ECON 610-3 Health Economics
EDUC 603-4 Advanced Educational Research Data Analysis
GEOG 628-3 Medical Geography
PSYC 605-4 Quantitative Methods II
PSYC 620-3 Health Psychology
PSYC 720-3 Cross-Cultural Communication in Health Care Settings
SOCW 610-3 Addictions and Mental Health

~~Thesis~~

~~The thesis (HHSC 799-9) shall be assigned a credit of nine hours.~~

~~ii) Nursing Stream~~
NURS 701-6 Advanced Clinical Practice in Community Health Nursing
~~or NURS 702-6 Continuing Community Care~~
NURS 702-6 Continuing Community Care
NURS 703-3 Health Program Development and Evaluation

Thesis

The thesis (HHSC 799-9) shall be assigned ~~a credit of~~ nine credit hours.

S-200912.43
Change to Program Requirements — Community Health Science, MSc Program (Addition of HHSC 603-3 to List of Additional Course Requirements)
Wagner / Hutchings
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the change to the list of additional course requirements in Community Health Sciences (MSc program), an addition of HHSC 603-3 Community Research Methods, be approved as proposed.
Effective date: Upon Senate approval
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]):

i) General Stream

Three ~~(9 credit hours)~~ courses (9 credit hours), chosen in consultation with the advisor.
Examples of courses taken by our students are:

HHSC 603-3 Community Research Methods
ECON 610-3 Health Economics
EDUC 603-4 Advanced Educational Research Data Analysis
GEOG 628-3 Medical Geography
PSYC 605-4 Quantitative Methods II
PSYC 620-3 Health Psychology
PSYC 720-3 Cross-Cultural Communication in Health Care Settings
SOCW 610-3 Addictions and Mental Health

S-200912.44
New Course Approval — HHSC 795-3
Wagner / Hutchings
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course HHSC 795-3 Research Seminar be approved as proposed.
Proposed semester of first offering: January 2010

It was asked whether the effective date of this motion should not be January 2010, and the Registrar responded that, because no courses were created without Senate approval, the proposed semester of first offering was effectively January 2010.

CARRIED, with the "Proposed semester of first offering" changed from "Upon Senate approval" to "January 2010."

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]`):

Calendar Course Description: This course is focused on supporting students' ongoing work with respect to their theses. In particular, the course identifies and explains the various tasks that are typically involved in the development of a thesis, including, for example, design, implementation, analysis, interpretation, and writing. Co-operative problem solving is employed to assist students in developing their thesis plans.

Prerequisites: EDUC 602-4 or HHSC 601-3 and HHSC 603-3
Co-requisites: Nil.
Preclusions: EDUC 795-3
Course Equivalencies: EDUC 795-3

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

Motions S-200912.45 to S-200912.50 were dealt with as an omnibus motion.

S-200912.45
Course Deletion — CPSC 622-3
McGill / Hartley
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the course CPSC 622-3 Database Systems be deleted from the calendar.
Effective date: September 2012
CARRIED.

~~CPSC 622 - Database Systems Relational, hierarchical, and network systems, storage structure and access method, data definition and data manipulation languages, SQL, relational data structure, relational algebra and calculus, query optimization, recovery and concurrency, security and integrity, introduction to functional dependencies, normalization, 1NF, 2NF, 3NF and BCNF. A relational DBMS and data processing software will be used for understanding SQL and other concepts.~~

S-200912.46
New Course Approval — CPSC 624-3
McGill / Hartley
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course CPSC 624-3 Advanced Database Systems 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 ~~strikethrough~~, new text indicated by underline, and `[commentary, where included, in Courier New font within square brackets]`):

This course introduces advanced concepts in database design and applications. Topics include transaction management, concurrency control, query processing and optimization, recovery and security, data warehousing and data mining, handling of special data types such as multimedia, spatial data, and XML documents. An introduction to object-oriented and object-relational models, parallel and distributed databases, and special purpose databases is also provided. Support for complex applications, information retrieval and data analysis is examined.

Prerequisites: Permission of the instructor
Co-requisites: None
Preclusions: CPSC 424-3

S-200912.47
New Course Approval — CPSC 642-3
McGill / Hartley
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course CPSC 642-3 Parallel Computing 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 ~~strikethrough~~, new text indicated by underline, and `[commentary, where included, in Courier New font within square brackets]`):

This course introduces students to concepts in high performance computing. Topics include classification of parallel architectures, basic communications operations, interconnection networks, topologies of dynamic and static networks, performance issues and techniques for optimization, and dynamic programming. Parallel algorithm design for high-performance computing—such as applications in computational biology, finite-element and finite-difference methods for numerical simulations, dense/sparse matrix algorithms, and multidimensional data structures—is also discussed. Message passing (MPI and OpenMP) is used for implementation of algorithms on high performance cluster computers.
Prerequisites: Permission of instructor

Co-requisites: None

Preclusions: CPSC 442-3

S-200912.48
New Course Approval — CPSC 644-3
McGill / Hartley
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course CPSC 644-3 Computer Networks 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 ~~strikethrough~~, new text indicated by underline, and `[commentary, where included, in Courier New font within square brackets]`):

This course explores essential topics in computer networks including TCP protocol, TCP reliable transport service, Internet protocol IP addresses, IP datagram and datagram forwarding, IPv6, network applications, real time interactive applications protocols (RTP, RTCP, SIP, H.323), security in computer networks, and network management. Network

applications discussed include client-server interaction, naming and domain name system DNS, multimedia networking, VoIP, audio and video streaming.
Prerequisites: Permission of the instructor
Co-requisites: None
Preclusions: CPSC 444-3

S-200912.49
New Course Approval — CPSC 651-3
McGill / Hartley
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course CPSC 651-3 Digital Image Processing and Computer Vision be approved as proposed.
Proposed semester of first offering: September 2010

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]):

Digital image processing is central to our digital age. This course explores topics in image representation, transforms, enhancement, restoration, segmentation, retrieval, and indexing.
Prerequisites: Permission of instructor
Co-requisites: None
Preclusions: CPSC 451-3

S-200912.50
New Course Approval — CPSC 675-3
McGill / Hartley
That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course CPSC 675-3 Multiagent Systems 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]):

Calendar Course Description: An introduction to the theoretical and practical aspects of intelligent agents and multiagent systems, this course is open to graduate students in different areas and fosters creative multidisciplinary interaction. Coverage includes the basic concepts, agent architectures, deductive and practical reasoning agents, reactive and hybrid agents, multiagent interactions, human-agent interactions, agreements, communication, and teamwork. Individual or team projects allow students to explore specific topics in their areas of interest through theoretical or laboratory work.
Prerequisites: Permission of the instructor
Co-requisites: none
Preclusions: CPSC 475-3

To Senate for Information:

The following items were presented to Senate for information.

SCRGS200911.11
Change to Calendar Course Description — HHSC 602-3
That the change to the course description for HHSC 602-3 Organization and Financing of Canadian Health Care, adding a Preclusion of POLS 603-3 and POLS 403-3, be approved as proposed.
Effective date: Upon Senate approval

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 113, Graduate 2009/10 Calendar:
Under **Health and Human Sciences**

HHSC 602-3 Organization and Financing of Canadian Health Care
The historical development and current structure and financing of the Canadian health care system ~~will be~~are related to changes that have occurred in the political, social, and technological environment.

Precluded: POLS 603-3 and POLS 403-3

SCRGS200911.12
Change to Calendar Course Description — HHSC 703-3
That the changes to the calendar course description for HHSC 703-3 Advanced Qualitative Research Approaches in Health and Human Sciences be approved as proposed.
Effective date: Upon Senate approval

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. Page 63

Under **Requirements**

One (1) Research Methods Course:

HHSC 700-3 Advanced Techniques in Epidemiology
or HHSC 703-3 ~~Advanced~~ Qualitative Research Approaches in Health and Human Sciences

b. Page 114

Under: **Health and Human Sciences**

HHSC 703-3 ~~Advance~~ Qualitative Research Approaches in Health and Human Sciences This course ~~will~~ explores various approaches to qualitative research in the health and human sciences. These approaches ~~will be~~are discussed in light of the epistemological and ontological commitments, their methods and their demands upon the researcher. Included ~~will be~~ is an examination of inherent issues of ethics and rigour. The approaches ~~to be~~ examined ~~would~~ normally include~~:~~ phenomenology, interpretive phenomenology, participatory action research, feminist research, grounded theory and institutional ethnography.

Precluded: NURS 609-3

SCRGS200911.40
Course Description and Prerequisite Change — CPSC 641-3
That the changes to the course description and prerequisites for CPSC 641-3 Distributed Systems be approved as proposed.
Effective date: January 2010

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]):

CPSC 641-3 Distributed Systems ~~Evolution of technology and concepts underlying~~

~~distributed computing systems. Fundamentals and principles of distributed computing. Language constructs for distributed programming. Formal specification of distributed systems. Distributed algorithms. Elements of distributed operating systems. Elements of fault-tolerant distributed architectures.~~ This course covers the fundamental principles and paradigms underlying the design of distributed computing systems. The coverage includes the definition and types of distributed systems, communication, processes, naming, synchronization, consistency and replication, fault tolerance, and security. Term projects focus on case studies of specific systems representing web-based, peer-to-peer, mobile, grid, and other modern paradigms.

Prerequisites: ~~CPSC 320-3 and 321-3 or~~ Permission of the instructor
Precluded: CPSC 441-3

SCRGS200911.41
Course Description Change — CPSC 650-3
That the changes to the course description for CPSC 650-3 Bioinformatics be approved as proposed.
Effective date: January 2010

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]`):

CPSC 650 – **Bioinformatics** ~~Bioinformatics studies~~ This course introduces computational techniques for solving biological problems~~. The course introduces students to the computational analysis of biological sequence data~~ and presents an overview of the ~~research, its applications,~~ tools and ~~the~~ methods used to analyze large biological data sets. ~~The topics covered include an introduction to~~ After introducing molecular biology for computer scientists—cells and organelles, chromosome, gene, DNA, RNA, proteins, transcription and translation—the course explores pairwise and multiple sequence alignment, sequence database searches, pattern identification of genes, promoters and transcription factor binding sites, as well as secondary and tertiary structure prediction for RNA and proteins. Markov models for gene prediction are introduced. ~~and bioinformatics, DNA, Markov chains, Gene algorithms, string matching Pairwise alignment, Multiple sequence alignment, Grammatical framework Hidden Markov Models, Protein secondary structure, Protein 3D structure RNA structure, database searching. General Programming skills (e.g. Perl) are required.~~

Prerequisites: Permission of the instructor.

Precluded: CPSC 450-3

SCRGS200911.42
Course Description and Prerequisite Change — CPSC 672-3
That the changes to the course description and prerequisites for CPSC 672-3 Knowledge Based Systems be approved as proposed.
Effective date: January 2010

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]`):

CPSC 672-3 Knowledge Based Systems
~~Rule-based forward-chaining and backward-chaining systems, theorem provers, inference engines and meta-interpreters. Knowledge representation and knowledge acquisition, machine~~

~~learning techniques. Uncertainty, Bayesian probability, certainty factors, non-monotonic logics and reasoning with beliefs, fuzzy logic and other approaches~~.

This course introduces students to Expert Systems. The two major topics addressed are Rule-based systems and Fuzzy Logic systems. Goal-driven forward-chaining and backward-chaining paradigms are introduced. Automatic theorem provers, inference engines and problems of knowledge representation and knowledge acquisition are discussed. Approaches to reasoning about uncertainty, including Bayesian probabilities, certainty factors, non-monotonic logics and reasoning with beliefs, are covered. A Fuzzy Logic system is implemented and an application is developed and tested.

Prerequisites: ~~CPSC 371-3 or~~ permission of the instructor
Precluded: CPSC 472-3

SCRGS200911.43
Course Description and Prerequisite Change — CPSC 674-3
That the changes to the course description and prerequisites for CPSC 674-3 Natural Language Processing be approved as proposed.
Effective date: September 2010

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]):

~~Formal grammars and the Chomsky hierarchy. Natural languages and models of syntax. Lexicons and augmented lexicons, feature structures, morphology. Top down and bottom up parsers, left corner and chart parsers. Dealing with context sensitivity. Semantic structures and knowledge representation for NLP. Linguistic models, LFP, HPSG, Principles and Parameters. Introduction to discourse models and extra sentential processing.~~

This course introduces the formal and practical methods of Natural Language processing. Topics include formal grammars and the Chomsky hierarchy, natural languages, models of syntax, augmented lexicons, parsing methods, semantic structures and knowledge representation for natural language processing, linguistic models, discourse models, problems of reference, machine translation, part of speech tagging, ambiguity and information retrieval.

Prerequisites: ~~CPSC 371-3 or~~ permission of the instructor
Precluded: CPSC 474-3

7.3 Senate Committee on Admissions and Degrees **Dickson**

S-200912.51
Change to Admission Requirements — Bachelor of Health Sciences
Wagner / Robinson
That, on the recommendation of the Senate Committee on Admissions and Degrees, the change to the admission requirements for Bachelor of Health Sciences to include Chemistry 11 and Biology 12 be approved as proposed.
Effective date: September 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]):

2009/2010 Calendar

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Admission Requirements by Degree Groups

Bachelor of Arts	**Bachelor of Fine Arts** see program regulations	**Bachelor of Commerce**	**Bachelor of Planning & Bachelor of Science**	**Nursing**** see program regulations	**Bachelor of Health Sciences** see program regulations	**Environmental Engineering** see program regulations
English 12**	English 12**	English 12**	English 12**	English 12**	English 12**	English 12**
	Portfolio			Principles of Mathematics 11 (65% minimum) Chemistry 11 (65% minimum)	Principles of Mathematics 11 (65% minimum) Chemistry 11 (65% minimum)	Principles of Mathematics 12
Three Approved Grade 12 Courses*	Three Approved Grade 12 Courses*	Three Approved Grade 12 Courses*	Three Approved Grade 12 Courses*	Biology 12 (65% minimum) Two other approved* Grade 12 courses	~~Three Approved Grade 12 Courses*~~ Biology 12 (65% minimum) Two other approved* Grade 12 courses ***Biomedical Studies see program regulations	Two provincially examinable Science 12 courses: Biology 12 Chemistry 12 Physics 12 (recommended) Chemistry 11 and Biology 11 see program regulations
A fifth Grade 12 course**	A fifth Grade 12 course**	A fifth Grade 12 course**	A fifth Grade 12 course**	A fifth Grade 12 course**	A fifth Grade 12 course**	A fifth Grade 12 course**
Minimum admission average 65%	Minimum admission average 67%	Minimum admission average 65%	Minimum admission average 65%	Minimum admission average 65%	Minimum admission average 65%	Minimum admission average 75%

2009/2010 Calendar
Page 27, 4th paragraph under table

† Students interested in pursuing the BHSc Biomedical Studies Major are strongly encouraged to take Principles of Math 12~~,~~ and Chemistry 12 ~~and Biology 12~~ before entering the Program.

2009/2010 Calendar
Page 139, 1st column

Under Admission Requirement

Applicants from BC and Yukon secondary schools must:

- Meet the basic UNBC admission requirements, and
- Have completed Principles of Mathematics 11, Chemistry 11, Biology 12, English 12 and other approved Grade 12 courses as specified in the Admissions sections of the Undergraduate Calendar~~.~~ with a minimum of "C+" (65%) in each course.

Other Applicants must:

- Meet UNBC admission requirements, and
- ~~and~~ Have completed the equivalent of Principles of Mathematics 11, Chemistry 11, Biology 12, English 12, and other approved Grade 12 courses as specified in the Admissions section of the Undergraduate Calendar with a minimum of "C+" (65%) in each course.

Students interested in specializing in the Biomedical Studies Major are strongly encouraged to take: Principles of Mathematics 12~~,~~ and Chemistry 12 ~~and Biology 12~~ before entering the Program.

7.4 Senate Committee on Academic Appeals **Binnema**

To Senate for Information:

The following item was presented to Senate for information.

SCAA200910.06
Approval of 2008-2009 Annual Report
That the 2008-2009 Annual Report (September 1, 2008 to August 31, 2009) from the Senate Committee on Academic Appeals be approved as proposed, and forwarded to Senate for information.
Effective date: October 30, 2009

Senator Binnema, Chair of the Senate Committee on Academic Appeals, was asked why the number of appeals has risen since last year. Senator Binnema responded that, in his estimation, as certain Programs grow, so do the number of appeals coming from students in some of those Programs.

8.0 Other Business

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

Mr. DeGrace reported a change to the proposed semester of first offering for MATH 671 (from January 2011 to September 2010) and MATH 675 (from January 2011 to January 2010), but noted that there was no change required to the corresponding 400-level courses.

9.0 Information

Senators were advised that a document containing revisions to the student conduct policy and regulations, recently approved by the Board of Governors, was available for pickup near the sign-in sheet.

10.0 S-200912.52
Adjournment
Hutchings / Hyndman
That the Senate meeting be adjourned.
CARRIED.

The Senate meeting ended at 4:10 p.m.