

**SENATE MEETING
PUBLIC SESSION
MINUTES**

November 12, 2008
3:30 – 5:30 PM
Room 7-172 Bentley Centre - Prince George Campus

Present:

T. Binnema, N. Black, C. Bock, D. Casperson, C. Chasteauneuf, M. Dale, B. DeWiel, H. Domshy, H. Donker, B. Ellis, G. Fondahl, C. Greening, R. Hoffman, J. Holler, J. Hyndman, C. Jago, J. Jeffery, E. Jensen, G. Kerr (Secretary of Senate), J. Li, P. Madak, B. McGill, A. Michalos, C. Myers (Recording), G. Prkachin, S. Rennebohm, J. Schneider, E. Sharp, T. Shaw, D. Tasa, M. Thomson, S. Wagner, J. Young, S. Zahir

Regrets:

E. Annis, J. Bankole, S. Déry, K. Hutchings, E. Kinghorn, D. Macknak, D. Nyce, M. Reid, R. Robinson

The meeting commenced at 3:35 p.m. Dr. Jago welcomed two new Senators, Senator DeWiel and Senator Jeffery.

1.0 S-200811.01

Approval of the Agenda

Hyndman / Ellis

That the Agenda for the November 12, 2008 Public Session of Senate be approved as presented.
CARRIED.

2.0 S-200811.02

Approval of Senate Minutes

Madak / Donker

That the Minutes of the October 8, 2008 Public Session of Senate be approved as presented.
CARRIED.

3.0 Business Arising from Previous Minutes of Senate

3.1 Detailed Enrolment Report

Dean Madak provided a report regarding enrolment, noting that enrolment was up 2.3% over the previous year. In response to a question, Dean Madak added that other universities had experienced similar growth, but not all of them to the extent that UNBC had. The Chair of Senate thanked Dean Madak for his report.

3.2 Report on International Recruitment and Retention

Ms. C. Russell attended the Senate meeting and provided an overview of this report. Dr. Jago indicated that, in reversing the decision made by the UNBC budget cabinet last year, to locate International Studies

with Continuing Studies, there was strong feeling that International Studies should be integrated into the main service areas of the University as opposed to being set up as a separate business. Ms. Russell was asked how the targets of 10 – 15% international students were arrived at, and she replied that the Canadian Education Centre had laid out guidelines for institutions to follow for general international enrolment targets. She added that UNBC had not yet met these targets, and that our enrolment numbers were currently around 5%.

A Senator expressed his pleasure with the report, adding that he hoped Senate would continue to receive reports of this quality, and asked if this report could be made available on the UNBC website. Dr. Jago responded that the report was public, and the most appropriate location for the report to be posted was on the Student Success web page. He concluded with the sentiment that it should be routine for documents of this nature to come to Senate, and that once reports are tabled in Senate, they become public documents.

Ms. Russell was asked, with regard to the proposed budget outlined in the report, whether UNBC hit its enrolment targets this year. Ms. Russell responded that the undergraduate student enrolments had dropped slightly this year, which may have been influenced by the fact that there were a number of vacant staff positions in the International Studies area, which are key to enrolment. When asked whether these positions had now been filled, Ms. Russell replied that the Admissions position was posted within the past few days and would hopefully be filled soon.

4.0 President's Report

Jago

4.1 Budget Guidelines, 2009-2010

Dr. Jago provided Senators with a presentation regarding the budget guidelines for the 2009-2010 fiscal year. He indicated that a balanced budget was projected to the end of this fiscal year, with no need to embark on mid-year cost reductions, although the budget was tight. He also identified the financial challenges UNBC has faced in the past year and will continue to face. One of the challenges noted by the Chair was the 2.6% reduction to the base budget in March of the previous fiscal year, which resulted in a shortfall of approximately \$1 million. Because the reduction was to the university's base budget, it is reflected in the revenue projections for future years. Another challenge identified by Dr. Jago was the collapse of the stock market, which he indicated has hit the endowment funds, which in turn affects the flow of funds to scholarships and bursaries, as well as Research Chairs. He noted a detailed report in this regard would be received within the next few days, which would need to be assessed. He also noted that the economic downturn could affect future government funding. However, for the purposes of the 2009/10 budget, the university was relying on the Ministry's projections of future government funding. The President was of the opinion that funding from the federal government would also remain static.

Dr. Jago indicated that the budget reductions of the past few years had affected at least some Programs, and he was sensitive to the fact that many operational areas are vulnerable to further cuts. The assumptions built into the budget are FTE growth of 2%, consistent with what has been obtained this year, as well as a tuition fee increase allowance of 2%. Dr. Jago noted that salary increases are built into the budget, that the aim is to maintain the current level of operations, and that units will be advised to work within their current budgets. The President also noted that negative earnings from the endowment fund might require some redirection of funds from the operating budget to support scholarships and research chairs. With regard to the Strategic Investment Fund, Dr. Jago advised that the plan was to maintain this initiative in principle, at the rate of \$500,000, \$330,000 of which has already been committed. He added that consideration would need to be given to the "rules of engagement" for the fund, but that he feels it is an important initiative worth retaining. It is also intended, Dr. Jago stated, that the capital equipment replacement fund be retained at \$800,000, noting that the needs in this regard are greater than the amount available. With regard to the maintenance of operations at their current level, Dr. Jago indicated that minor capital funding would be maintained at the current level. He also noted that the residence subsidy would likely be increased by \$50,000 to \$250,000.

The President reiterated that the aim for the coming fiscal year is to maintain stability. With regard to revenue, Dr. Jago noted that two potential fee increases are being considered, which he expected to be controversial. First, consideration is being given to increasing residence fees, but any additional funding that resulted would be invested to improve the quality of the residences, including the installation of wireless networks. Second, an increase to parking fees is being contemplated. Dr. Jago added that

increased parking rates are being considered partly because it is currently cheaper to drive to UNBC than to use alternate modes of transportation. The Green University Committee had also raised this concern. If parking fees are raised, additional revenues obtained would be directed into the green fund to assist with achieving the goals established by the Green University Committee. Finally, with regard to revenues, Dr. Jago mentioned that the Research University Council was lobbying the provincial government for reinstatement of the funds that were lost earlier this year.

In relation to the budget process, the President reported that the plan is to revert somewhat to the process that had been used prior to the past few years. It was noted that President's Executive Council (PEC) would take the lead in developing and finalizing the budget, but that additional individuals would be invited to meet with PEC to provide input regarding the budget. This expanded group would meet at least three times before the end of March. Dr. Jago added that he would keep President's Council involved in the process. He also indicated that he had met with the Senate Committee on the University Budget. The President noted that he had ensured the committee that they would receive the budget information they required in January, and that in early March they would be provided with the opportunity to advise the President and PEC of their recommendations regarding budgetary issues. He noted that, since the guidelines had been shared with Senate, they were now public and would be posted on the budget area of the UNBC website.

4.2 Other matters

Dr. Jago reported that the dates for the workshop involving the Board of Governors and Senate are the evening of Friday, January 23 and during the day on Saturday, January 24. The focus of the workshop will be university governance, including the respective roles of the Senate and the Board, as well as identification of areas of overlap between the two bodies. Dr. Jago suggested that shared areas of interest and concern be identified and targeted for discussion on how the two governance bodies might work together in addressing them. He added that he had considered the notion of striking a senate committee to provide advice on the workshop and possible foci, but for now asked that Senators send their ideas to him. Dr. Jago advised Senators that at the December meeting he would provide a fuller account of what might be discussed at the workshop.

The President indicated that he was delighted at the recent #2 ranking of UNBC in Maclean's magazine. He added that he was struck by the complementarity of the ratings UNBC had received recently, results which were reported in Maclean's magazine, the Globe and Mail, and the National Post. The President noted that he was preparing summaries of the reports to provide to the Board of Governors, and would be willing to include them in the Senate package. He suggested that the Provost bring the reports to the joint Senate and Board workshop and report on what he views as positive aspects identified in the reports, as well as areas that could use improvement. In this way, the discussion may bring the Senate and the Board together on identifying, and conversing about, the possible strengths to be built upon and weaknesses to be addressed. A student Senator suggested that, since student Senator terms of office are only one year in length, the workshop be designed in such a way as to be offered every year. Dr. Jago responded that a workshop of this nature had not been offered since 1994, so the upcoming workshop would be somewhat of an experiment. He thus suggested that the question of whether the workshop should be offered on a yearly basis be discussed at the end of the workshop.

Action:	Dr. Jago to provide Senate with summaries of the recent reports in which UNBC was ranked against other universities.
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5.0 Report of the Provost

Dale

5.1 Completion of the Planning Phase of the Academic Visioning Initiative

Dr. Dale indicated that, with regard to the closure of the Academic Visioning Initiative (AVI) planning phase, discussion of which had begun at the previous Senate meeting, he had a verbal motion to put to Senate. Dr. Dale read the motion, moved the motion, and then asked for a seconder for the motion.

Motion:

Dale / Michalos

That, on the recommendation of the Special Senate AVI Steering Committee:

- 1) the Special Senate AVI Steering Committee be dissolved;
- 2) the recommendations outlined in the final reports of the Academic Alignment Working Group and the Pedagogy Working Group be carried on, with the input of Senate

Dr. Jago advised Senators that, because the motion was not included in the meeting package, it would be appropriate if Senators wished to defer this item to the next meeting of Senate. A Senator asked whether the dissolution of the Academic Alignment Working Group (AAWG) was included in the motion. The Provost replied that it was not, as both working groups had submitted final reports to Senate, so could be considered dissolved. In response, the Senator noted that the second recommendation in the recommendations adopted by Senate in June, 2008, from the final report of the AAWG, established that the group be continued as a Senate-appointed committee. He felt this required addressing. Dr. Jago suggested that it should be made clear in the motion that one of the implications of dissolving the AVI Steering Committee would be to reject recommendation 2 of the AAWG, and given the confusion created by the current motion, indicated it would be appropriate to table the motion.

Motion to postpone:

Hyndman / Tasa

That the motion to dissolve the AVI Steering Committee be postponed to the next meeting of Senate.
CARRIED.

6.0 Question Period

A Senator asked what movement the University was making to demonstrate that it was Canada's Green University. Dr. Jago thanked the Senator for this question, and indicated that the Provost was the chair of the Green University Committee, which had been looking into the appointment of two people to examine energy conservation and sustainability. He indicated that, essentially, there was a lot happening behind the scenes that hadn't yet come to fruition. Dr. Dale noted that he was sympathetic to this comment, and was concerned that we weren't included in the Globe and Mail publication regarding green universities, and had questioned whether it was the result of a lack of publicity or promotion. Dr. Jago concluded with the statement that UNBC has established the claim that it is Canada's Green University, and must live up to it. Dr. Jago recommended that a report from the Green University Committee be presented at the Senate meeting in December or January.

Action: Dr. Dale to arrange for a report from the Green University Committee to be provided at the Senate meeting in December or January.
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A Senator reminded Senators that a motion had been passed by Senate to replace the breadth requirement in time for publication in the 2009-2010 calendar, a deadline which would not be met. He suggested that some sort of action needed to be taken. Dr. Dale responded that some confusion seemed to have existed over the difference between course-based breadth requirements and the change to learning outcomes that had been proposed. He added that the issue of breadth had been discussed at the last meeting of the Senate Committee on Academic Policy and Planning (SCAPP), and the committee would be recommending to Senate that the timeline for the conversion to the new breadth requirement be removed. The Senator who had raised the concern responded that this motion had resulted in unintended consequences, as students weren't currently required to meet any breadth requirements, and asked how this could be addressed. Dr. Dale replied that a policy vacuum had been created by the process of changing the breadth requirement. He added that students should be advised to continue to meet a form of breadth, but that he didn't think there was much that could be done about this issue now. Dr. Dale was asked if something would be coming from SCAPP to Senate, and he replied that Senate should expect a motion from SCAPP regarding the breadth requirement at the December meeting of Senate. The question was raised as to whether the plan was still to provide Chairs with assistance in ensuring that their programs meet the new requirements for breadth, and Dr. Dale responded that it was. Dr. Owen, Director of the Centre for Teaching, Learning and Technology indicated that the AVI Pedagogy Working Group had been reconstituted in a different form and would be assisting with this process.

7.0 Committee Reports

It was proposed that motions S-200811.03 to S-200811.05 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

S-200811.03

Revision to Program Requirements — Environmental Engineering (BASc Program)

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the calendar entry for Environmental Engineering (BASc Program) be modified as proposed.

Effective date: September 2009

CARRIED.

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

Environmental Engineering (BASc Program)

Kerry Reimer, Associate Professor and Program Chair

Joselito Arocena, Professor, and Canada Research Chair, Soil and Environmental Sciences

Ron Thring, Professor and Co-Director

Jueyi Sui, Associate Professor and Co-Director

Philip Owens, Associate Professor and Endowed Chair Landscape Ecology

Peter Jackson, Professor

Michael Rutherford, Associate Professor

Youmin Tang, Associate Professor, and Canada Research Chair, Climate Prediction and Predictability

Stephen Dery, Assistant Professor, and Canada Research Chair, Northern Hydrometeorology

Steve Helle, Assistant Professor

Jianbing Li, ~~Associate Professor~~ Associate Professor

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

Engineers serve society across a wide range of economic sectors, and an increased number of engineering graduates are needed by the province to assure its economic growth and maintain its high quality of life. ~~As one aspect of this~~ Therefore, future development decisions in most major sectors of the British Columbia economy must fully integrate environmental and economic factors. Problems in water, air and soil pollution control and remediation, solid waste management, mine waste disposal, and geo-environmental engineering require highly skilled engineers with a solid background in environmental engineering, strong communication skills and the ability to work across disciplines. The program prepares graduates for a wide range of employment opportunities where the technical expertise and ~~problem solving~~ problem-solving skills of engineers are needed in conjunction with a strong awareness and understanding of environmental issues and problems. This is the case most particularly for resource industries (e.g. forestry, fisheries, mining, oil and gas, pulp and paper, and the agri-food industry); various government departments

and research organizations; and in environmental engineering consulting companies. It is also anticipated that graduates will work in the new environmental economy – areas related to environmental reclamation, remediation and restoration.

The Environmental Engineering Bachelor of Applied Science program is a 4.5 year (nine semester) joint degree between the University of British Columbia and the University of Northern British Columbia. The program is based on a unique collaboration between UNBC and UBC that capitalizes on the strength of UNBC in Environmental Science and the strength of UBC in Engineering. It incorporates complementary elements and expertise from each institution while maintaining the exposure of students to the distinctive character of both institutions. The program starts with a two-year foundation in mathematics, basic and environmental sciences from UNBC. In the third and fourth years, the program provides a thorough education and training in engineering fundamentals, engineering analysis and engineering design, largely through courses in Civil Engineering and Chemical and Biological Engineering at the University of British Columbia. The final term at UNBC exposes students to practical environmental engineering problems.

The Environmental Engineering program is accredited by the Canadian Engineering Accreditation Board of ~~the Canadian Council of Professional Engineers Canada~~.

Admission Requirements

Admission to the program is limited and is based on academic qualifications and available space. Priority admission will be given to students who meet admission criteria and apply by the deadline of **March 1**.

Applicants from BC and Yukon secondary schools must:

- Meet UNBC admission requirements, and
- Have an average of at least 75% based on the following four courses: Principles of Math 12, English 12 and two provincially examinable Science 12 courses. In addition, applicants must have successfully completed Chemistry 11 ~~and either Biology 11 or Biology 12~~ in order to meet course prerequisites in the Program. Physics 12 or an equivalent is strongly recommended, as it is a prerequisite for first-year Physics courses in the program. Students who are admitted without the Physics 12 prerequisite may be delayed in their studies as they may not be able to complete the first four semesters of the program in the normal two year time period. Meeting the minimum GPA does not guarantee admission. Under exceptional circumstances the prerequisites may be waived.

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

Regulations

Unless otherwise specified, the rules and regulations will be those applicable at the institution (UBC or UNBC) at which the students are attending at the time the rules/regulations need to be applied. In the case where the rules and regulations are needed to cover the program as a whole, or where the institution of attendance is not relevant, then the more stringent rules/regulations will be applied. Any academic appeals will be handled using the procedures at the institution where the rules/regulations need to be applied.

Residency

The minimum residency requirement is 90 credits. These may be fulfilled through a combination of courses taken at UNBC and UBC, provided that at least 30 credits are completed at each of the two institutions.

Progression

Progression between years and institutions requires good academic standing in the program at the most recent institution of residence (UNBC or UBC). At UNBC this means a GPA of at least 2.00 or 63%. At UBC this means an average of at least 55%, and passing grades in at least 65% of the credits taken.

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 at both institutions to graduate. The diploma will carry crests from both granting institutions (UNBC and UBC).

Transfers

Transfers into the program are allowed provided that the prerequisite courses or articulated courses are completed, and space is available in the program. Acceptance of transfers into the program will be based upon GPA, with priority given to those with the highest GPA. Regardless of the articulated courses transferred, students must satisfy the residency requirement (see above).

Co-operative Education

Co-operative education, available through UBC Engineering Co-op. is an optional but strongly recommended element of the Environmental Engineering program.

Program Requirements

UNBC requirements:	91 <u>90</u> credit hours
UBC degree	70 <u>71</u> credit hours

requirements:

Total credits for degree: 161 credit hours

Semester 1 and 2 completed at UNBC

BIOL 101-4	Introduction to Biology I
BIOL 102-4	Introduction to Biology II
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Lab I
CHEM 121-1	General Chemistry Lab II
CPSC 110-3	Introduction to Computer Systems and Programming
ENSC 100-1	Introduction to Engineering Seminar
<u>ENSC 150-3</u>	<u>Fundamentals of Environmental Engineering</u>
<u>ENSC 151-1</u>	<u>Engineering Tools</u>
MATH 100-3	Calculus I
MATH 101-3	Calculus II
NRES 100-3	Communications in NRES
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 111-4	Introductory Physics II: Waves and Electricity
CORE 101-3	Humanities
or CORE 103-3	Social Sciences or three credit hours of Humanities and Social Science courses. Humanities and Social Science courses may be selected from among the areas that are considered Humanities and Social Science for purposes of the BA (General). POLS 100-3 Contemporary Political Issues is recommended in meeting this requirement as it is a prerequisite for ENPL 401-3 in semester 9 of the program.

Semester 3 and 4 completed at UNBC

<u>BIOL 110-3</u>	<u>Introductory Ecology</u>
CHEM 200-3	Physical Chemistry I
CHEM 220-3	Organic and Biochemistry
ENSC 200-3	Fundamentals of Environmental Engineering
ENSC 201-3	Introduction to Atmospheric Science
ENSC 202-3	Introduction to Aquatic Systems
<u>ENSC 210-3</u>	<u>Material and Energy Balances</u>
ENSC 350-3	Fluid Mechanics
<u>ENSC 451-3</u>	<u>Groundwater Hydrology</u>
FSTY 205-3	Introduction to Soil Science
<u>GEOG 210-3</u>	<u>Geomorphology</u>
MATH 200-3	Calculus III
MATH 220-3	Linear Algebra
MATH 230-3	Linear Differential Equations and Boundary Value Problems
MATH 371-3	Probability and Statistics for Scientists and Engineers

Semester 5 and 6 completed at UBC

Note: Course lists for Semesters 5 through 8 completed at UBC are provided for information only. Please refer to the UBC calendar for official requirements.

CHBE 241-3	Material and Energy Balances
CHBE 242-3	Chemical and Biological Process Technology
CHBE 364-2	Environmental Engineering Laboratory
CHBE 373-3	Water Pollution Control
CHBE 484-3	Green Engineering Principles and Applications for Process Industries
<u>CHBE 485-3</u>	<u>Air Pollution Prevention and Control</u>
CIVL 200-3	Engineering and Sustainable Development
CIVL 210-4	Soil Mechanics I

CIVL 315-4	Fluid Mechanics II
CIVL 316-4	Hydrology and Open Channel Flow
MINE 391-3	Mining and the Environment
<u>EOSC 429-3</u>	<u>Groundwater Contamination</u>

~~Three credit hours of technical elective chosen from a constrained list.~~

Semester 7 and 8 completed at UBC

CHBE 346-3	Chemical and Biological Engineering Thermodynamics
CHBE 351-3	Transport Phenomena II
CHBE 459-3	Chemical and Biological Engineering Economics
CHBE 485-3	Air Pollution Prevention and Control
<u>CIVL 311-4</u>	<u>Soil Mechanics II</u>
CIVL 402-2	Engineering Law and Contracts in Civil Engineering
CIVL 408-3	Geoenvironmental Engineering
CIVL 416-3	Environmental Hydraulics
CIVL 418-3	Engineering Hydrology

Three credit hours of design elective chosen from a list of ~~design oriented~~ design-oriented courses.

Nine credit hours of technical electives chosen from a constrained list.

Semester 9 completed at UNBC

ENPL 401-3	Environmental Law
ENSC 417-6	Designing Solutions in Environmental Engineering
ENSC 418-3	Environmental Measurement and Analysis

Three credit hours of Social Science or Humanities elective.

Three credit hours of elective.

Technical electives available at UNBC for the UBC portion of the curriculum in the UBC/UNBC Joint Environmental Engineering Program

The following UNBC courses may be used to meet a Technical Elective requirement in the UBC portion of the Joint UBC/UNBC Environmental Engineering BAsc. program. Normally, no more than one course from the list may be used. To qualify towards UBC technical elective requirements, the technical elective must be taken prior to transition to UBC.

Technical Electives at UNBC

ENSC 404-3	Waste Management
ENSC 406-3	Environmental Modelling
ENSC 408-3	Storms
ENSC 425-3	Global Change Science
ENSC 451-3	Groundwater Hydrology
ENSC 452-3	Reclamation and Remediation of Disturbed Environments
ENSC 453-3	Environmental Resources Management and Decision Making
FSTY 455-3	Biogeochemical Processes in Soil Systems
NREM 410-3	Watershed Management

S-200811.04

New Course Approval — ENSC 151-1

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course ENSC 151-1 Engineering Tools 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]):

This course provides an introduction to engineering problem solving using common software tools, including spreadsheets, CAD, and GIS software. Case studies provide relevance and serve to bind together many of the topics covered in the course.

Preclusions: ENSC 200-3

S-200811.05

New Course Approval — ENSC 210-3

Dale / McGill

That, on the recommendation of the Senate Committee on Academic Policy and Planning, the new course ENSC 210-3 Material and Energy Balances be approved as proposed.

Effective date: September 2009

CARRIED.

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

This course provides an introduction to the analysis of environmental engineering processes using the laws of conservation of mass and energy. Material and energy balances are applied to open and closed systems, non-reacting and reacting systems, and non-steady state systems.

Prerequisites: Admission to the Environmental Engineering Program

Co-requisites: CHEM 200, MATH 200

To Senate for Information:

The following items were presented to Senate for information. Senators were invited to pose any questions they might have regarding the motions.

SCAPP200810.05

Change to Course Number and Calendar Course Description — ENSC 200-3

That the changes to the course number and calendar course description for ENSC 200-3 Fundamentals of Environmental Engineering be approved as proposed.

Effective date: September 2009

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

ENSC 200-3 ENSC 150-3 **Fundamentals of Environmental Engineering**

~~This course introduces Environmental Engineering~~ is introduced through the application of engineering problem-solving methods by introducing principles, applications, and design concepts to contemporary environmental concerns. Topics include physical, chemical, and biological fundamentals; water, soil and air pertinent to water quality and pollution; drinking water and waste water treatment; solid and hazardous waste management; and air pollution and control. Additionally, the course includes some fundamental engineering concepts, such as the centroid of a body and composite bodies, moments, and Mohr's circle. Lab sessions include an introduction to computer-based engineering analysis and design tools such as spreadsheets, CAD and GIS. A tour of a wastewater treatment plant or another similar facility provides context for the lecture material.

~~Prerequisites: 30 credit hours and admission to the Environmental Engineering program~~

~~Co-requisites: MATH 100-3 and MATH 101-3, or MATH 152-3, and CHEM 101-3~~

~~Precluded: ENSC 200-3~~

SCAPP200810.09

Change to Calendar Course Description and Co-requisites — ENSC 417-6

That the changes to the calendar course description and co-requisites for ENSC 417-6 Designing Solutions in Environmental Engineering be approved as proposed.

Effective date: January 2009

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

ENSC 417-6 Designing Solutions in Environmental Engineering ~~In this project-oriented course, students will apply concepts and principles from Environmental Science and fundamentals from Engineering to design Eengineering solutions to Eenvironmental problems. The course may include group projects and working with an industry in north/central BC, and cooperative work with students in ENSC 418-3 and ENPL 419-3.~~

~~Prerequisites: completion of 90 credit hours in an Engineering Program.~~

~~Co-requisites: ENSC 418-3/ENVS 418-3. The students will take the courses concurrently and use ENSC 417-6 to develop a mitigation strategy/design.~~

SCAPP200810.10

Change to Calendar Course Description and Prerequisites — ENSC 451-3

That the changes to the calendar course description and prerequisites for ENSC 451-3 Groundwater Hydrology be approved as proposed.

Effective date: January 2009

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

ENSC 451-3 Groundwater Hydrology This course introduces fundamental principles of groundwater flow ~~and subsurface contaminant transport~~, and their application to solve problems related to groundwater resources evaluation, development, and management. Topics include the role of groundwater in geological processes, the occurrence and movement of groundwater, steady-state and transient well hydraulics, aquifer testing techniques, ~~sire characterization~~, unsaturated flow theory, groundwater quality and contamination, ~~contaminant transport simulation~~, ~~petroleum hydrocarbon transport and remediation systems~~, and groundwater modeling techniques. Supporting computer software may be used.

Prerequisites: ~~ENSC 202 or ENSC 350 or GEOG 310~~ MATH 100-3 and MATH 101-3, or MATH 152-3, or permission of the instructor.

SCAPP200810.11

Change to Prerequisites, Co-Requisites and Calendar Course Description — FSTY 408-3

That the prerequisites and co-requisites be changed for FSTY 408-3 Forest Practices & Management to reflect the revised requirements for Forestry majors, and that the calendar course description be changed as proposed.

Effective date: January 2009

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

FSTY 408-3 Forest Practices & Management Principles and operational practices for the management of forest land including forest estate planning, harvest scheduling, and legislative requirements.

Prerequisites: FSTY 302-3 minimum of 90 credit hours

Co-requisites: ~~FSTY 405-3~~

7.2 Senate Committee on Research and Graduate Studies

Fondahl

It was proposed that motions S-200811.06 and S-200811.07 be dealt with as an omnibus motion, and in the absence of opposition, Senate proceeded in this manner.

S-200811.06

New Course Approval — NRES 773-3

Fondahl / Casperson

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course NRES 773-3 Advanced Qualitative Research Methodology be approved as proposed.

Effective date: January 2009

CARRIED.

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

This seminar course explores methodological approaches to, and theoretical frameworks of, qualitative research. Emphasis is given to exploring key concepts of validity, rigour, reliability, subjectivity/objectivity, and ethics of concern to qualitative researchers. The course surveys various frameworks including indigenous, feminist, and critical methodologies, among others, to understand their assumptions and approaches to fieldwork including interviewing, survey work, field notes, writing results, and reciprocity. This course explores how to translate abstract concepts such as place, space, scale, region, and mobility into viable field methods.

S-200811.07

New Course Approval — NRES 774-3

Fondahl / Casperson

That, on the recommendation of the Senate Committee on Research and Graduate Studies, the new course NRES 774-3 Dimensions of Outdoor Recreation and Nature-Based Tourism be approved as proposed.

Effective date: January 2009

CARRIED.

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

This course integrates ecological and social science approaches to the study of outdoor recreation, nature-based tourism and protected areas. The course emphasizes the latest quantitative and qualitative theoretical research and its applicability to recreation and tourism and draws upon examples from British Columbia, Canada and the world.

Prerequisites: Permission of the Instructor

To Senate for Information:

The following items were presented to Senate for information. Senators were invited to pose any questions they might have regarding the motions.

SCRG200810.08

Change to Calendar Course Description — ENSC 651-3

That the changes to the calendar course description for ENSC 651-3 Groundwater Hydrology be approved as proposed.

Effective date: January 2009

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

ENSC 651-3 Groundwater Hydrology This course introduces fundamental principles of groundwater flow and subsurface contaminant transport, and their applications to solve problems related to groundwater resources evaluation, development, and management. Topics include the role of groundwater in geological processes, the occurrence and movement of groundwater, steady-state and transient well hydraulics, aquifer testing techniques, site characterization, unsaturated flow theory, groundwater quality and contamination, contaminant transport simulation, petroleum hydrocarbon transport and remediation systems, and groundwater modeling techniques. Supporting computer software may be used.

7.3 Senate Committee on Scholarships and Bursaries

Madak

S-200811.08

Revised Administrative Policies — Undergraduate Admissions Awards

Madak / McGill

That, on the recommendation of the Senate Committee on Scholarships and Bursaries, the revisions to the Administrative policies for undergraduate admissions awards be approved as proposed.

Effective date: October 2008

CARRIED.

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

3. Administrative Policies

Unless otherwise stated these policies apply to the criteria listed on subsequent pages.

Admission Awards

Admission awards are open to students commencing an undergraduate degree program at the University of Northern British Columbia for the first time. ~~To be considered for awards adjudicated on the basis of criteria such as leadership skills and community service, it is recommended that students submit a résumé or curriculum vitae along with a completed Application for Awards to the Awards and Financial Aid office.~~

New students will be evaluated on their admission average as calculated by the Office of the Registrar. Students who have prior post-secondary experience will be evaluated on the grade point average of their transferable courses as calculated by the Office of the Registrar.

A limited number of admission awards are based solely on academic standing, and may be provisionally offered to new students at the time of admission to the University, based on self-reported grades and/or transfer GPA. Students who wish to be considered for these awards are strongly advised to apply for admission to the University as early as possible.

Other admission awards require application. To be considered for these awards, students are advised to submit an awards application by the March 1 deadline.

To be considered for awards adjudicated on the basis of criteria such as leadership skills and community service, it is recommended that students submit a résumé or curriculum vitae along with a completed Application for Awards to the Awards and Financial Aid office.

To Senate for Information:

The following items were presented to Senate for information. Senators were invited to pose any questions they might have regarding the motions.

SCSB20081008.03

Revised Terms and Conditions — David Hoy Memorial Annual Scholarships

That the revised Terms and Conditions for the David Hoy Memorial Annual Scholarships be approved.

Effective date: January 2009

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

CALENDAR INFORMATION:

Award Category: Open

Award Name: David Hoy Memorial Annual Scholarship

Calendar Description/Intent: David Hoy began his career as a logger in the Fort St James area when at the age of twenty he started his operations under the company name, Tsayta Contracting Ltd. From there the number of companies has grown to sixteen or more. He was a very dynamic individual who was far ahead of his years. He died in a crash on August 5, 1998 while flying his helicopter and cruising timber in the Fort St James area. He leaves behind three children, two sons and one daughter. His two sons Ben and Andrew have completed their degrees at the University of British Columbia as Registered Professional Foresters and are now running their Dad's main logging company, K & D Logging Ltd. under the KDL Group Logo. ~~His two sons are currently studying to be Registered Professional Foresters and they will likely follow their Dad's footsteps.~~ The companies David was involved with along with his two partners, Ken Rasmussen and Keith Playfair, employed the largest number of individuals in the area except for the mills. David was an excellent businessman with a big heart who helped almost everyone he touched in some manner or other. He was highly respected by his business associates and loved very much by his family.

Donor: The staff at Deloitte & Touche LLP, Chartered Accountants

Value: \$1,000

Number: One

Placement in which Calendar: Undergraduate and Graduate

Award Type: Scholarship

Eligibility: Available to a full time undergraduate or graduate student. First preference will be given to a student from the Fort St. James area enrolled in the Forestry Program. Second preference will be given to any student enrolled in the Forestry Program who has indicated he/she will continue to pursue his/her studies to become a Registered Professional Forester.

Criteria: Academic proficiency.

Conditions: In the event that there are no applicants from the Fort St. James area, the award should be given, at the discretion of the University of Northern British Columbia, to a student who is from an outlying community et. Vanderhoof, Fort Fraser, Fraser Lake or Burns Lake.

Note: Student eligible to receive award more than once, subject to maintaining the eligibility and criteria academic standing for this award.

Application Instructions: Fill out all sections of the Awards Application form and attach a letter outlining your career goals.

Effective Date: Established 2000

Recipient Selection: Awards Officer/Committee-Senate Committee on Scholarships and Bursaries on recommendation by the UNBC Awards Office.

SCSB20081008.04

Revised Terms and Conditions — David Hoy Memorial Endowed Scholarships

That the revised Terms and Conditions for the David Hoy Memorial Endowed Scholarships be approved.

Effective date: January 2009

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

CALENDAR INFORMATION:

Award Category: Open

Award Name: David Hoy Memorial Endowed Scholarship Fund

Calendar Description/Intent: David Hoy began his career as a logger in the Fort St James area when at the age of twenty he started his operations under the company name, Tsayta Contracting Ltd. From there the number of companies has grown to sixteen or more. He was a very dynamic individual who was far ahead of his years. He died in a crash on August 5, 1998 while flying his helicopter and cruising timber in the Fort St James area. He leaves behind three children, two sons and one daughter. His two sons Ben and Andrew have completed their degrees at the University of British Columbia as Registered Professional Foresters and are now running their Dad's main logging company, K & D Logging Ltd. under the KDL Group Logo. ~~His two sons are currently studying to be Registered Professional Foresters and they will likely follow their Dad's footsteps.~~ The companies David was involved with along with his two partners, Ken Rasmussen and Keith Playfair, employed the largest number of individuals in the area except for the mills. David was an excellent businessman with a big heart who helped almost everyone he touched in some manner or other. He was highly respected by his business associates and loved very much by his family.

Donor: Mrs. Lori Hoy

Value: \$1,000

Number: Two

Placement in which Calendar: Undergraduate and Graduate

Award Type: Scholarship

Eligibility: Available to a full time undergraduate or graduate student. One of the scholarships must be given to a student from the Fort St. James area and enrolled in the Forestry Program. The second recipient must be any student enrolled in the Forestry Program who has indicated he/she will continue to pursue his/her studies to become a Registered Professional Forester.

Criteria: Satisfactory academic standing.

Conditions: In the event that there are no applicants from the Fort St. James area, the award should be given, at the discretion of the University of Northern British Columbia, to a student who is from an outlying community et. Vanderhoof, Fort Fraser, Fraser Lake or Burns Lake.

Note: Student eligible to receive award more than once, subject to maintaining the eligibility and criteria academic standing for this award.

Application Instructions: Fill out all sections of the Awards Application form and attach a letter outlining your career goals.

Effective Date: Endowed 2000

Recipient Selection: ~~Awards Officer/Committee~~ Senate Committee on Scholarships and Bursaries on recommendation by the UNBC Awards Office.

SCSB20081008.06

Revised Terms and Conditions — UNBC Leadership Awards

That the revised Terms and Conditions for the UNBC Leadership Awards be approved.

Effective date: October 2008

A Senator suggested that the purpose of this award, to reward “those students who have made an effort to balance their academics with leadership activities,” appeared to be somewhat at odds with the effect of the proposed motion, lowering the academic criteria. She indicated that, although she was not opposed to lowering the requirement from “Academic Proficiency” (B- average) to “Satisfactory Academic Standing” (normally a minimum C average), a C average didn't, in her opinion, demonstrate a balance between academics and leadership activities. She suggested the wording in the preamble of the award be revised to reflect an emphasis on leadership. Dr. Jago thanked the Senator for her comments, and asked Dean Madak, Chair of the Senate Committee on Scholarships and Bursaries, to refer these comments to that committee for consideration.

Action: P. Madak to bring the matter expressed regarding the UNBC Leadership Awards to the Senate Committee on Scholarships and Bursaries.

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]):

UNBC Leadership Awards

As one of MacLean's magazine's 'Leaders of Tomorrow', UNBC is committed to rewarding those students who have made an effort to balance their academics with leadership activities-both within their school and their community.

Value \$2,000

Number Twenty

Eligibility Available to full-time students entering UNBC directly from high school.

Criteria ~~Academic proficiency and~~ Demonstrated leadership/involvement and satisfactory academic standing

Application Instructions Complete the UNBC Leadership Awards application form and attach the required documentation.

Note The deadline to apply for these awards is December 15 each year.

Established 2003

SCSB20081008.05

Dissolution of Terms and Conditions — FMC of Canada Limited Environmental Engineering Scholarship

That the dissolution of the Terms and Conditions for the FMC of Canada Limited Environmental Engineering Scholarship be approved.

Effective date: January 2009

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

CALENDAR INFORMATION:

Award Category: ~~Admission~~

Award Name: ~~FMC of Canada Limited Environmental Engineering Scholarship~~

Calendar Description/Intent: ~~As a worldwide company with stake holdings in northern British Columbia, FMC wishes to ensure a strong northern employee base, and to protect the environment. At FMC, people across operations work together in teams. Their shared perspectives spark innovation, identify opportunities, and generate exciting new products.~~

Donor: ~~FMC of Canada Limited Peroxygen Chemicals Division~~

Value: ~~\$2,000~~

Number: ~~One~~

Placement in which Calendar: ~~Undergraduate~~

Award Type: ~~Scholarship~~

Eligibility: ~~Available to a full time first year student who is entering the his/her first year of the Environmental Engineering program. Preference will be given to a resident of northern British Columbia.~~

Criteria: ~~Academic excellence.~~

Effective Date: ~~Established 2003~~

Recipient Selection: ~~Senate Committee on Scholarships and Bursaries on recommendation by the UNBC Awards Office.~~

SCSB20081008.09

Awarding of 2009/2010 Merit-Based Entrance Awards

That the 2009/2010 merit-based entrance awards be offered as proposed.

Effective date: October 2008

To Senate for Information:**SCAA200810.04**

That the 2007-2008 Annual Report (September 1, 2007 to August 31, 2008) from the Senate Committee on Academic Appeals be approved as proposed, and forwarded to Senate for information.
Effective date: October 3, 2008

7.5 Senate Committee on Nominations

Reid

S-200811.09**Membership Changes to Senate and/or Senate Committees (no material)**

Thomson / Donker

That, on the recommendation of the Senate Committee on Nominations, and barring further nominations from the floor of Senate, the following candidates, who have met all eligibility requirements to serve on Senate and/or Senate committees as indicated, be approved as proposed.

As there were no further nominations from the floor, the motion was CARRIED and the candidates were declared appointed.

Senate Committee on Regional Policy and Inter-Institutional Relations

Regional Student (until March 31, 2009)

Kim Howcroft

Senate Committee on Academic Policy and Planning

Faculty Member, CASHS (until March 31, 2010)

Nicholas Tyras

Senate Committee on First Nations and Aboriginal Peoples

Faculty Member, CSAM (until March 31, 2009)

Kevin Keen

Senate Committee on Scholarships and Bursaries

Faculty Senator, CASHS (until March 31, 2011)

Student Senator (until March 31, 2009)

Colin Chasteauneuf
Joseph Jeffery**Senate Committee on the University Budget**

Faculty Senator, CASHS (until March 31, 2011)

Boris DeWiel

8.0 Other Business

8.1 Report of the Registrar (no material)

Kerr

The Registrar had nothing to report.

9.0 Information (no material)

There were no items for information.

10.0 **S-200811.10****Move to In Camera Session**

Hyndman / Donker

That the meeting move In Camera.
CARRIED.

11.0 **S-200811.13****Adjournment**

Tasa / McGill

That the Senate meeting be adjourned.
CARRIED.

The meeting ended at 4:50 p.m.