

SENATE MEETING PUBLIC SESSION MINUTES

August 24, 2016 3:30 – 5:30 PM Senate Chambers (Room 1079 Administration Building)

Present: A. Aravind, S. Beeler, M. Bouchard, A. Blanding, D. Casperson, M. Dale, G. Deo, D. Erasmus, E. Ezedebego, W. Fellers, L. Handfield, K. Howitt (Recording Secretary), E. Jensen, K. Keen (Vice Chair), A. LeBlanc, H. Lowe, S. McKenzie (Interim Secretary of Senate), G. Nixon, I. Olasanmi, A. Palmer, M. Peterson, M. Prevost, A. Robinson, R. Robinson, M. Romanets, D. Ryan, P. Sanborn, G. Schmidt, E. Searle, K. Smith, A. Stroet, T. Summerville, D. Weeks (Chair), C. Whalen, T. Whitcombe, A. Wilson

<u>**Regrets:**</u> S. Bach, A. Clay, B. Deo, A. Fordjour, L. March, B. Menounos, J. Moore, M. Murphy, G. Payne, K. Reimer, B. Schorcht, N. Thompson,

Absent: D. Nyce

The meeting commenced at 3:30 p.m.

1.0 <u>S-201608.01</u>

Approval of the Agenda

Whitcombe

That the agenda for the August 24, 2016 Public Session of Senate be approved as presented.

Friendly Amendment

Blanding

That agenda item 12.0 Other Business and 12.1 Letter from NUGSS and NBCGSS – Academic Planning Action Planning Groups be moved to agenda 8.0 and 8.1; and agenda item 8.0 Question Period be moved to agenda item 12.0.

CARRIED as amended.

2.0 Information

2.1 Truth and Reconciliation Commission Recommendations

Lheidli T'enneh Elder Darlene McIntosh provided an opening welcome and prayer. Drs. Paulette Regan and Rheanna Robinson delivered a presentation on the Truth and Reconciliation Commission; what the National Centre for Truth and Reconciliation is; the calls to action put forward; and the role of higher education in responding. A discussion followed.

3.1 Steering Committee of Senate

"For Information" Item

SCS201608.06

Discussion on the Integration of First Nations Content into Degree Programs

That discussion on the inclusion of First Nations content in degree programs be referred to the Senate Committee on First Nations and Aboriginal Peoples (SCFNAP). In addition to committee level discussions, SCFNAP will engage in discussions with: the College of Science and Management; the College of Arts, Social and Health Sciences; and the Office of Graduate Programs. SCFNAP will provide a report and put forth a recommendation regarding the inclusion of First Nations content in UNBC's degree programs at the November 23, 2016 Senate Meeting. Effective Date: August 18, 2016

4.0 <u>S-201608.02</u>

Approval of Senate Minutes

Blanding

That the minutes of the June 22, 2016 Public Session of Senate be approved as presented. CARRIED

5.0 President's Report

Dr. Weeks attended UNBC's regional convocations at the end of May and beginning of June.

In June, Dr. Weeks attended 17 off campus meetings, including meetings regarding fundraising, potential donations, and potential international partnerships.

In July, Senior Administrators from UNBC and Royal Roads University met to discuss opportunities for their institutions to collaborate.

In August, Dr. Weeks traveled to China with the Director of International Education and they met with several potential partners to look at pathways to UNBC.

6.0 Report of the Provost

Dr. Ryan reported that the Registrar Search Committee will meet on August 26, 2016 to review candidates put forward by the search company, and interviews will begin at the end of September or beginning of October.

Enrollment numbers were up compared to the same time last year. FTEs were up as well.

For the first time, UNBC posted a small deficit. A new budget process is being developed for the next budget cycle and will be brought forward to the Senate Committee on the University Budget, the Board of Governors, a Town Hall, and Senate in September.

The Provost and the President continue to meet with various units within the University.

Dr. Ryan congratulated Dr. Henry Harder on his appointment to, **The Governing Council of the Canadian Institutes of Health Research - Institutes Advisory Boards on Indigenous Peoples' Health.**

Dr. Ryan congratulated Dr. Oscar Venter on the recognition his research on the global impact of human activity recently received in National Geographic.

7.0 Report of the Registrar

Report attached to these minutes as Appendix I.

Dr. Ryan added that the University Residences are currently at 99% occupancy for the September.

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Ms. McKenzie

Dr. Ryan

Dr. Weeks

Other Business 8.0

8.1 Letter from NUGSS and NBCGSS -Academic Planning Action Planning Groups

A letter from NUGSS and NBCGSS regarding student representation on the Academic Planning Action Planning Groups was included for information, and was discussed

The President of the Northern Undergraduate Student Society, Ms. Arctica Cunningham, and the President of the Northern British Columbia Graduate Student Society, Ms. Trina Johnson, were present and responded to questions. Dr. Weeks asked Dr. Heather Smith to look into alternative (more effective and efficient) methods of receiving student input on Academic Planning. Dr. Weeks will report back to Senateand NUGSS and NBCGSS on this issue.

Motion

Casperson

In accordance with Senate regulation 3(w) iii, that the Senate session extend beyond 5:30 p.m. CARRIED

The following motion was put forth:

Motion

Whitcombe

Be it resolved that Senate encourages the Academic Planning Action Planning Groups to endeavor to complete their work by February 1, 2017.

Senate further encourages the Academic Planning Action Planning Group Chairs to make all best efforts to ensure that the time required by student representatives on the Academic Planning Action Planning Groups does not exceed five hours in any given week, and:

Senate directs the Secretary of Senate to prepare a letter of recognition, acceptable to Senate, for students who serve on the Academic Planning Action Planning Groups.

CARRIED

9.0 Removal of Motions from the Consent Agenda

There were no requests to remove motions from the consent agenda.

10.0 **Committee Reports**

10.1 Senate Committee on Academic Affairs

"For Approval" Items:

S-201608.03

Changes to Program Requirements - Minor in Atmospheric Science Smith

That, on the recommendation on the Senate Committee on Academic Affairs, the changes to the Minor in Atmospheric Science, on page 116 of the 2015/2016 undergraduate calendar, be approved as proposed. Effective date: September 2016 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]):

Minor in Atmospheric Science

The minor in Atmospheric Science provides students with an opportunity to focus on atmospheric processes.

Dr. Weeks

Dr. Ryan

Atmospheric Science, or meteorology, is the study of Earth's atmosphere, weather and climate. The minor in Atmospheric Science provides students with an opportunity to focus on atmospheric processes that occur near Earth's surface. Emphasis is given to physical and chemical processes that govern the development of weather systems on timescales of days and that regulate Earth's climate on timescales of decades.

Students are required to take $\underline{32}$ $\underline{35}$ credit hours. Of these, $\underline{14}$ $\underline{47}$ credit hours are foundational courses in Chemistry, Geography, Mathematics, and Physics; 12 credit hours are required atmospheric science courses; and 6 credit hours are selected from a list of suggested elective courses. In addition to the $\underline{14}$ $\underline{47}$ credit hours of foundational courses at the 100 level, an additional 6 credit hours of upper division courses can also be used to meet the requirements of a major or another minor.

NOTE: Some upper-division courses are may be taught in alternate years; students should consider this when planning their course schedules.

Required Courses

CHEM 100-3	General Chemistry I
CHEM 120-1	General Chemistry Laboratory I
ENSC 201-3	Weather and Climate
ENSC 312-3	Biometeorology
ENSC 408-3	Storms
ENSC 425-3	Climate Change and Global Warming
GEOG 100-3	Environments and People: The Geography of Natural Hazards-
MATH 100-3	Calculus I
MATH 101-3	Calculus II
PHYS 100-4	Introduction to Physics I
or PHYS 110-4	Introductory Physics I: Mechanics
(PHYS 110-4 is strongly re	ecommended.)

Elective Courses*

Six credit hours from the following list:

ENSC 412-3	Air Pollution
ENSC 450-3	Environmental and Geophysical Data Analysis
ENSC 454-3	Snow and Ice
GEOG 310-3	Hydrology
or NREM 410-3	Watershed Management

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

S-201608.04

Changes to Program Requirements - BSc- Biochemistry and Molecular Biology Smith

That, on the recommendation on the Senate Committee on Academic Affairs, the change(s) to the program requirements for the BSc- Biochemistry and Molecular Biology, on pages 63-64 of the 2015/2016 undergraduate calendar, be approved as proposed. Effective date: September 2016 CARRIED

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

Biochemistry & Molecular Biology (BSc Program)

Kathy Lewis, Professor and Co-Chair

Todd Whitcombe, Associate Professor and Co-Chair Keith Egger, Professor Dezene Huber, Professor Chow Lee, Professor Geoffrey Payne, Professor Stephen Rader, Professor Kerry Reimer, Professor Mark Shrimpton, Professor Andrea Gorrell, Associate Professor Brent Murray, Associate Professor Daniel Erasmus, Senior Lab Instructor

Website: www.unbc.ca/biochemistry

Biochemistry and Molecular Biology (BCMB) investigates how molecules work in living systems. There is no clear line dividing living from non-living systems; rather, there is a gradual increase in complexity from clearly inanimate molecules up to obviously complex organisms. The goal of biochemistry and molecular biology is to understand how simple, inanimate molecular interactions support life and how living systems are shaped by their molecular foundation.

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

BCMB majors continue on to successful careers in a diverse range of fields, notably medicine, teaching, pharmacy, the biotechnology industry, science policy, and law. BCMB majors acquire strong skills in laboratory techniques, and are therefore qualified for many kinds of research positions, including graduate programs such as immunology, molecular genetics, and developmental biology. For students with interests in human health but not necessarily its molecular basis, UNBC also offers a degree in Health Science (the BHSc degree), which focuses on the social determinants of health and how health care is delivered. BCMB majors are encouraged to pursue their interests by combining the BCMB degree with minors in other fields, such as computer science, physics, business, or education.

Major in Biochemistry and Molecular Biology

The major in Biochemistry and Molecular Biology requires students to take at least 74 credit hours of Biochemistry and Molecular Biology_oriented courses, of which 33 credit hours must be upper division (i.e., 300 or 400 level). The minimum requirement for completion of a Bachelor of Science with a major in Biochemistry and Molecular Biology is 127_credit hours.

Program Requirements

Lower-Division Requirements

100 Level

BIOL 103-3 Introductory Biology I BIOL 104-3 Introductory Biology II BIOL 123-1 Introductory Biology I Laboratory BIOL 124-1 Introductory Biology II Laboratory CHEM 100-3 General Chemistry I CHEM 101-3 General Chemistry II CHEM 120-1 General Chemistry Lab I CHEM 121-1 General Chemistry Lab II PHYS 100-4 Introduction to Physics I or PHYS 110-4 Introductory Physics I: Mechanics PHYS 101-4 Introduction to Physics II or PHYS 111-4 Introductory Physics II: Waves & Electricity One of the following three options: MATH 100-3 Calculus I and MATH 101-3 Calculus II or MATH 105-3 Enriched Calculus and MATH 101-3 Calculus II or MATH 150-3 Finite Mathematics for Business and Economics and MATH 152-3 Calculus for Non-majors Students are strongly encouraged to take MATH 100-3 or MATH 105-3, and MATH 101-3, for the fi rst-year Mathematics requirement.

200 Level

BCMB 255-2 Biochemistry Lab I BIOL 203-3 Microbiology BIOL 210-3 Genetics CHEM 201-3 Organic Chemistry I CHEM 203-3 Organic Chemistry II CHEM 204-3 Introductory Biochemistry CHEM 250-1 Organic Chemistry Lab I CHEM 251-1 Organic Chemistry Lab I STAT 240-3 Basic Statistics or STAT 371-3 Probability and Statistics for Scientists and Engineers

Upper-Division Requirements

300 Level

BCMB 306-3 Intermediary Metabolism BCMB 308-3 Biochemistry Lab II BCMB 340-3 Physical Biochemistry BIOL 311-3 Cell and Molecular Biology **400 Level** BCMB 404-3 Proteins and Enzymology

Four of <u>the following</u>: BCMB 401-3 Basic Science of Oncology BCMB 402-3 Macromolecular Structure BCMB 403-3 Advanced Nucleic Acids BCMB 405-3 Special Topics in Biochemistry BIOL 312-3 Molecular Cell Physiology BIOL 323-3 Evolutionary Biology BIOL 423-3 Molecular Evolution and Ecology BIOL 425-3 Applied Genetics and Biotechnology

Subject Requirements

Twelve additional credit hours chosen from the following, of which at least 6 credit hours must be at the 300 or 400 level:

Any 200-level or above BCMB, BIOL or CHEM courses CPSC 450-3 Bioinformatics HHSC 301-3 Pathophysiology HHSC-305-3 Human Physiology I HHSC-306-3 Human Physiology II PSYC 317-3 Psychobiology PSYC 318-3 Sensation and Perception PSYC 419-3 Neuropsychology

Note: NRES 430-6 can count towards this requirement with

permission of the Program Chair.

Elective and Academic Breadth

Elective credit hours as necessary to ensure completion of 127 credit hours including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Academic Regulation 15). Note: no more than 3 credit hours of continuing education courses may be used towards the BCMB major.

S-201608.05

Changes to Course Prerequisite - BCMB 405-3 Whitcombe

That, on the recommendation on the Senate Committee on Academic Affairs, the change(s) to the course prerequisite for BCMB 405-3 Topics in Biochemistry and Molecular Biology, on page 200 of the 2015/2016 undergraduate calendar, be approved as proposed. Effective date: September 2016 CARRIED (consent agenda)

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

BCMB 405-3 Topics in Biochemistry and Molecular

Biology This course considers selected advanced topics in biochemistry. Topics depend on instructor and student interest and normally focus on material not dealt with in other courses. Note: Credit may be granted for both 400- and 600-level offerings of Topics in Biochemistry and Molecular Biology courses, and either the 400- or 600-level courses or a combination of both may be repeated to a maximum of 6 credit hours, provided the content of the independent offerings of the courses is sufficiently different (as determined by the Program Chair or College Dean). *Prerequisites:* BCMB 330-3, BCMB 307-3, BCMB 340-3 with a

minimum grade C. in all prerequisite courses

S-201608.06

Change to Program Requirements – 400 Level for the Major in Computer Science Smith

That, on the recommendation on the Senate Committee on Academic Affairs, the change to the Program Requirements – 400 Level for the Major in Computer Science, on the PDF calendar accessible on the UNBC web page of the 2015/2016 undergraduate calendar, be approved as proposed. Effective date: September 2016

CARRIED

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

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 <u>course</u>, 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.

S-201608.07 Change in Credit hours - BSc Honours Environmental Science Whitcombe That, on the recommendation on the Senate Committee on Academic Affairs, the changes to the BSc Honours – Environmental Science, on page 115 of the 2015/2016 undergraduate calendar, be approved as proposed. Effective date: September 2016 CARRIED

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

BSc Honours-Environmental Science

The BSc Honours-Environmental Science provides a higher level of specialization and research experience, especially for students planning to proceed to postgraduate work.

Honours students are required to complete the degree requirements for the BSc Environmental Science Major, with the exception that Honours students must complete an undergraduate thesis chosen from ENSC 430-6 (Undergraduate Thesis), or NRES 430-6 (Undergraduate Thesis) in place of the requirement for ENSC 440-3 (Internship) or ENSC 499-3 (Independent Study). ENSC 440-3 or ENSC 499-3 may be taken by Honours students, but they are not required for the Honours degree. The undergraduate thesis must be conducted under the supervision of a faculty member.

The minimum requirement for a BSc Honours degree is <u>129</u> <u>127</u> credit hours. Students are responsible to find their own undergraduate thesis research supervisor. Faculty members are under no obligation to supervise Honours students. To be admitted to the Honours degree program, students must have completed 60 credit hours and obtained a minimum Cumulative GPA of 3.33. Attaining the minimum requirement will not guarantee admission into the Honours program, which will be at the discretion of the Environmental Science Program. Maintenance of a Cumulative GPA of 3.33 is required to remain in the Honours program.

S-201608.08

Changes to Program Requirements - BSc Major Environmental Science Whitcombe

That, on the recommendation on the Senate Committee on Academic Affairs, the changes to the BSc Major – Environmental Science, on page 114 of the 2015/2016 undergraduate calendar, be approved as proposed. Effective date: September 2016

CARRIED

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

Environmental Science (BSc Program)

Todd Whitcombe, Associate Professor and Chair Joselito Arocena, Professor Stephen Déry, Professor Peter Jackson, Professor Jianbing Li, Professor Philip Owens, Associate Professor and Endowed Research Chair in Landscape Ecology Michael Rutherford, Professor Jueyi Sui, Professor Youmin Tang, Professor Youmin Tang, Professor Steve Helle, Associate Professor Steve Helle, Associate Professor <u>Gerald Kutney, Adjunct Professor</u> <u>Nikolaus Gantner, Adjunct Professor</u> <u>Tricia Stadnyk, Adjunct Professor</u> <u>You Qin Jean</u> Wang, Senior Lab Instructor

Website: http://www.unbc.ca/environmental-science

Major in Environmental Science

The Environmental Science Bachelor of Science degree is an interdisciplinary degree in which students take a core curriculum along with an area of specialization. The core curriculum is designed to provide students with knowledge of the fundamental biological, chemical, physical and applied aspects integral to the field of environmental science. In addition, students receive exposure to many of the human dimensions that underlie environmental issues. This approach ensures a uniform preparation among students and allows for the development of a diversity of expertise necessary to address the complexity of present environmental problems and future unanticipated ones.

The degree has been designed in part to address educational components of the National Occupational Standards (NOS) for Environmental Employment set out by Environmental Careers Organization (ECO Canada). The NOS forms the basis of the Canadian Certified Environmental Practitioner (CCEP) accreditation process of the Canadian Environmental Certification Approvals Board (CECAB).

Undergraduate students are required to take a total of <u>93</u><u>97</u> credit hours of program core requirements in addition to an Area of Specialization as indicated below. The Area of Specialization allows students to develop expertise within an area of their interest. The major requires elective credit hours as necessary to ensure completion of a minimum of <u>126</u><u>124</u> credit hours, including any additional credit hours necessary to meet the Academic Breadth requirement of the University (see Undergraduate Academic Regulation 15).<u>Students needing to improve their communication skills should take ENGL 170-3</u> Writing and Communication Skills or NRES 100-3 Communication in NRES as an elective. Note that ENGL 170-3 also fulfills the Academic Breadth requirement for Arts and Humanities. while courses from the remaining three quadrants are required in the Major. Other areas of Academic Breadth are covered in the major.

Program Core Requirements

Lower-Division Requirements

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory
BIOL 124-1	Introductory Biology II Laboratory
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Laboratory I
CHEM 121-1	General Chemistry Laboratory II
ENSC 111-1	Introduction to Environmental Science
MATH 100-3	Calculus I
MATH 101-3	Calculus II
PHYS 100-4	Introduction to Physics I
and PHYS 101-4	Introduction to Physics II
OR **	
OK	
PHYS 110-4	Introductory Physics I: Mechanics
PHYS 110-4 and PHYS 111-4	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended.
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended.
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11 BIOL 201-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11 BIOL 201-3 BIOL 203-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology Microbiology
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11 BIOL 201-3 BIOL 203-3 ENSC 201-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology Microbiology Weather and Climate
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11 BIOL 201-3 BIOL 203-3 ENSC 201-3 ENSC 202-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology Microbiology Weather and Climate Introduction to Aquatic Systems
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11 BIOL 201-3 BIOL 203-3 ENSC 201-3 ENSC 202-3 ENSC 202-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology Microbiology Weather and Climate Introduction to Aquatic Systems Introduction to Environmental Data Analysis
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11 BIOL 201-3 BIOL 203-3 ENSC 201-3 ENSC 202-3 <u>ENSC 250-2</u> FSTY 205-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology Microbiology Weather and Climate Introduction to Aquatic Systems Introduction to Environmental Data Analysis Introduction to Soil Science
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11 BIOL 201-3 BIOL 203-3 ENSC 201-3 ENSC 201-3 ENSC 202-3 ENSC 202-3 FSTY 205-3 GEOG 205-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology Microbiology Weather and Climate Introduction to Aquatic Systems Introduction to Environmental Data Analysis Introduction to Soil Science Cartography and Geomatics
PHYS 110-4 and PHYS 111-4 ** PHYS 110-4 and PHYS 11 BIOL 201-3 BIOL 203-3 ENSC 201-3 ENSC 201-3 ENSC 202-3 <u>ENSC 250-2</u> FSTY 205-3 GEOG 205-3 GEOG 210-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology Microbiology Weather and Climate Introduction to Aquatic Systems Introduction to Environmental Data Analysis Introduction to Soil Science Cartography and Geomatics Geomorphology
PHYS 110-4 and PHYS 111-4 *** PHYS 110-4 and PHYS 11 BIOL 201-3 BIOL 203-3 ENSC 201-3 ENSC 202-3 <u>ENSC 202-3</u> FSTY 205-3 GEOG 205-3 GEOG 210-3 STAT 240-3	Introductory Physics I: Mechanics Introductory Physics II: Waves and Electricity 1-4 are strongly recommended. Ecology Microbiology Weather and Climate Introduction to Aquatic Systems Introduction to Environmental Data Analysis Introduction to Soil Science Cartography and Geomatics Geomorphology Basic Statistics

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

3 credit hours of any 200-level CHEM courses.

Students who are interested in pursuing professional designations should contact the program advisor regarding the correct course sequences required for <u>the</u> individual program as well as the appropriate choice of electives.

Upper-Division Requirements

ENPL 305-3	Environmental Impact Assessment
ENPL 401-3	Environmental Law
ENSC 308-3	Northern Contaminated Environments
ENSC 406-3	Environmental Modelling
ENSC 418-3	Environmental Measurement and Analysis
ENSC 440-3	Internship*
or ENSC 499-3	Independent Study
ENSC 450-3	Environmental and Geophysical Data Analysis
ENVS 414-3	Environmental and Professional Ethics
One of the following:	
ENVS 325-3 <u>225-3</u>	Global Environmental Change: Science and Policy
FNST 304-3	Indigenous Environmental Philosophy First Nations Environmental Philosophy and Knowledge

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<u>GEOG 307-3</u>	Changing Arctic: Human and Environmental Systems
GEOG 401-3	Tenure, Conflict, and Resource Geography
INTS 307-3	Global Resources

OR 3 credit hours of any upper-division ENVS courses.

Two of the following:	
ENSC 404-3	Waste Management
ENSC 412-3	Air Pollution
<u>ENGR-ENSC</u> 451-3	Groundwater Hydrology
ENSC 452-3	Reclamation and Remediation of Disturbed Environments

And 6 credit hours from the following (if not already taken above):

ENGC 202 2	En aner Development
ENSC 302 3	Energy Development
ENSC 312-3	Biometeorology
ENSC 325-3	Soil Physical Properties and the Environment
ENSC 350-3	Fluid Mechanics
ENSC 404-3	Waste Management
ENSC 408-3	Storms
ENSC 412-3	Air Pollution
ENSC 425-3	Climate Change and Global Warming
ENSC 435-3-	Soil Biological Processes and the Environment
ENSC 440-3	Internship
ENSC 451-3	Groundwater Hydrology
ENSC 452-3	Reclamation and Remediation of Disturbed Environments
ENSC 454-3	Snow and Ice
ENSC 460-3-	Soil Chemical Processes and the Environment-
ENSC 498 (1-6)	Special Topics
ENSC 499-3	Independent Study
FSTY 415-3-	Forest Soils

FSTY 425-3	Soil Formation and Classification
GEOG 300-3	Geographic Information Systems (GIS)
GEOG 310-3	Hydrology
	Watershed Management
GEOG 311-3	Drainage Basin Geomorphology
GEOG 312-3	Geography of Cold Regions-
GEOG 320-3	Sedimentology
GEOG 405-3	Fluvial Geomorphology
GEOG 411-3	Quaternary and Surficial Geology
GEOG 413-3	Advanced GIS
GEOG 414-3	Weathering Processes
GEOG 432-3	Remote Sensing
GEOG 457-3	Advanced Remote Sensing

*Students with extensive experience related to the environment may be waived from this degree requirement with approval from the Program.

Area of Specialization Requirement for BSc (Major) in Environmental Science

Environmental Science majors are required to complete an \underline{aA} rea of \underline{sS} pecialization satisfying the requirements of any available minor at UNBC as part of their degree. A minor allows students to specialize in a subject area relevant to the advancement, utilization and dissemination of environmental knowledge. Some minors may result in students taking more than the required 126 124 credit hours in order to obtain the Environmental Science Major. Many minors allow 100-level prerequisite courses and an additional 6 credit hours of other courses to be used for meeting the requirements of both the major and minor. Check Consult the current UNBC \underline{uU} ndergraduate \underline{eC} alendar for the requirements of minors available at UNBC.

S-201608.09

Course Deletion - ENSC 460-3

Smith That, on the recommendation on the Senate Committee on Academic Affairs, ENSC 460-3 Soil Chemical Processes and the Environment on page 237 of the 2015/2016 Undergraduate Calendar, be deleted. Effective date: September 2016 CARRIED

S-201608.10

Changes to Program Requirements - Minor in Soils and the Environment Smith That, on the recommendation on the Senate Committee on Academic Affairs, the changes to the Minor in Soils and the Environment, on page 117 of the 2015/2016 undergraduate calendar, be approved as proposed. Effective date: September 2016 CARRIED

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

Minor in Soils and the Environment

Processes and their dynamics at the interface between the biosphere, atmosphere, hydrosphere and lithosphere are critical to the regulation of environmental quality from the micro-scale of millimetres to macro-scale climatic conditions. The minor in Soils and the Environment provides students with an opportunity to focus on the Earth's "Critical Zone," the thin outer layer which supports terrestrial life on the planet. The emphasis is on key biological, chemical and physical processes active in soils, and how they influence environmental conditions.

Students are required to take 34 credit hours. Of these, 16 credit hours are prerequisites to FSTY 205 and ENSC 435, 15 credit hours are required soils courses, and 3 credit hours are selected from a list of suggested elective courses. In addition to the 16 credit hours of prerequisite courses at the 100 level, an additional 6 credit hours can also be used to meet the requirements of a major or another minor.

Required Courses

BIOL 103-3	Introductory Biology I
BIOL 104-3	Introductory Biology II
BIOL 123-1	Introductory Biology I Laboratory
BIOL 124-1	Introductory Biology II Laboratory
CHEM 100-3	General Chemistry I
CHEM 101-3	General Chemistry II
CHEM 120-1	General Chemistry Laboratory I
CHEM 121-1	General Chemistry Laboratory II
ENSC 307-3	Introduction to Geochemistry
ENSC 325-3	Soil Physical Processes and the Environment
ENSC 435-3	Soil Biological Processes and the Environment
ENSC 460-3	Soil Chemical Processes and the Environment
FSTY 205-3	Introductory Soil Science
FSTY 425-3	Soil Formation and Classification
Elective Courses*	
Three credit hours from the following list:	
ENSC 404-3	Waste Management
ENGR ENSC 451-3	Groundwater Hydrology
ENSC 452-3	Reclamation and Remediation of Disturbed Environments
FSTY 415-3	Forest Soils

*Students must ensure they have the appropriate prerequisites to take these courses.

<u>S-201608.11</u>

New Course Approval - FSTY 605-3

Smith That, on the recommendation on the Senate Committee on Academic Affairs, the new course (FSTY 605-3, Forest Growth and Yield) be approved as proposed. Proposed semester of first offering: September, 2016 CARRIED.

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

This course explores factors influencing forest yields, traditional prediction methods, and growth and yield simulation. The course also explores stand dynamics, quantitative implications of management treatments, and environmental limitations to tree and stand growth.

Prerequisites (taken prior): permission of instructor

Prerequisites with concurrency (taken prior or simultaneously): <u>none</u>

Co-requisites (must be taken simultaneously): none

Preclusions: FSTY 405-3

There was one graduate admissions appeal in the spring, which was successfully dealt with by the Chair, Dean, and student. A couple of other admission appeals were dealt with informally and not pursued. 10.3 Senate Committee on First Nations and Aboriginal Peoples Dr. Ryan No report 10.4 Senate Committee on Scholarships and Bursaries Dr. Owen No report 10.5 Senate Committee on Nominations Dr. Casperson "For Approval" Item: S-201608.12 **Recommendation of Senate Committee Members to Senate** Casperson That, on the recommendation of the Senate Committee on Nominations, the following candidates, who have met all eligibility requirements to serve on Senate committees as indicated, be appointed as proposed. Effective date: Immediately upon approval by Senate SENATE COMMITTEE POSITION TO BE FILLED CANDIDATE (except as otherwise noted, all terms begin immediately) SENATE COMMITTEE ON ACADEMIC APPEALS Faculty Member (03/31/2017) Dr. Stan Beeler SENATE COMMITTEE ON FIRST NATIONS AND **ABORIGINAL PEOPLES** Lheidli T'enneh Nation Representative Mr. Vincent Joseph Further nominations were sought from the floor, and there being none, the motion was CARRIED. "For Information" Item: Student Senator Elected to Senate for a position beginning immediately: Student Senator – Graduate (until March 31, 2017) Ms. Audrey Fordjour Lay Senator Appointed for Term of Office Commencing Immediately: Lay Senator (until March 31, 2018) Ms. Lisa Handfield Academic Planning Action Planning Group appointment beginning immediately: Academic Administrative Organization Collaborative Team Vice President Finance and Business Operations Appointment Ms. Barb Daigle 10.6 Senate Committee on the University Budget Dr. Whitcombe

SCUB met a few times over the summer and will continue to meet in the fall.

10.2

Senate Committee on Admissions and Degrees

Dr. Owen

10.7 Ad Hoc Committee of Senate Considering Motion S-201603.16 -Recommendations for Changes to Undergraduate Regulations 50 and 51

The ad hoc committee has been populated. The committee's first meeting will take place in mid-September.

11.0 <u>S-201608.13</u>

Approval of Motions on the Consent Agenda Whitcombe

That the motions on the consent agenda, except for those removed for placement on the regular agenda, be approved as presented. CARRIED

12.0 Question Period

A Senator asked if there was a timeline for the appointment of members to the selection committee for the Vice President Academic and the Vice President Research. Dr. Weeks indicated that they are receiving tenders for a search consultant. The search committee for the Vice President Academic and Provost should be populated sometime in September. Once that Committee has neared the end of its activity,

there will be a transition into a search committee for the Vice President of Research.

13.0 Move to In Camera Session

There were no in camera agenda items.

14.0 <u>S-201608.14</u>

Adjournment Nixon That the Senate meeting be adjourned. CARRIED

The meeting was adjourned at 5:53 p.m.

Dr. Weeks

Dr. Weeks



Appendix I

SENATE - REPORT OF THE (Interim) REGISTRAR

Senate Date: August 24, 2016

- Thank you very much for the warm welcome I've received as Interim Registrar
- Over the past two months, the Interim Registrar has been meeting and conversing with Program Chairs, Deans, faculty, staff, a few students and Directors (an invitation has been sent to NUGSS & GSS Presidents) regarding service levels and process issues in the Office of the Registrar. For example, what is working well? What's not working well or needs improvement? Are there roadblocks stopping or hindering students?
 - Simultaneously, we continue to work on an analysis of our processes that need to be improved or eliminated.
 - Open invitation to Senators, staff & faculty: Please let me know your feedback. Let's have an open dialogue.
- SCAA Ad-Hoc Committee update: see Senate Agenda item 10.7
- September 2016 Application numbers (as at Aug 19): *Dr. Ryan or Dr. Owen to report out on* We are up over measure (average of last 3 years official final application numbers)
- Registration numbers for September 2016 Semester are up 17.5% from Fall 2015
 - Will change up to the end of the add/drop period (September 21)
 - Graduate-level registrations are often late coming in as students require signatures and that's usually done when they arrive to campus for start of term
 - Waitlists are evaluated and processed every morning. Our office works with the respective program to inquire about the possibility of adding seats or additional section
- The Office of the Registrar is currently in the process of updating our website (<u>http://www.unbc.ca/registrar/</u>) with new content and more information for students and faculty. The majority of work will be completed before September 2, but will be updated regularly. As you come across items that require changing or enhancing, please let me know.
- The Interim Registrar is starting to work on drafting the proposed UNBC Academic (Semester) Dates. These will need to be approved by Senate no later than the November Senate meeting.

Sincerely,

Shelley McKenzie