

# THE UNIVERSITY OF BRITISH COLUMBIA



## Vancouver Senate Secretariat

Enrolment Services  
Senate and Curriculum Services  
2016-1874 East Mall  
Vancouver, BC V6T 1Z1  
[www.senate.ubc.ca](http://www.senate.ubc.ca)

## Vancouver Senate

### AGENDA

#### THE NINTH REGULAR MEETING OF THE VANCOUVER SENATE FOR THE 2009/2010 ACADEMIC YEAR

**WEDNESDAY, MAY 12, 2010**

**7:00 P.M.**

**ROOM 182, IRVING K. BARBER LEARNING CENTRE, 1961 EAST MALL**

#### 1. Senate Membership -- Mr. James Ridge

- a. Introduction of new Student Senators (information) (circulated)
- b. Call for Nominations and Notice of Elections (information)

This is a call for nominations for two Student Senators to serve on the Nominating Committee for the term from May 12, 2010 until March 31, 2011 and thereafter until replaced.

The Secretary has received to date nominations for Mr. Joël Mertens and Ms. Khatereh Aminoltejari. Should no further nominations be received by 4:00 p.m. on Tuesday, May 11, Mr. Mertens and Ms. Aminoltejari will be declared acclaimed as elected.

#### 2. Minutes of the Meeting of March 31, 2010 -- Prof. Stephen J. Toope (approval) (circulated)

#### 3. Business Arising from the Minutes (information)

- a. Response from the Faculty of Medicine re: MCAT minimum Scores -- Dr. David Fielding
- b. Correspondence with Alma Mater Society re: Elections System -- Mr. James Ridge (circulated)

#### 4. Remarks from the Chair and Related Questions -- Prof. Stephen J. Toope

- a. Certificate of Appreciation for Resigning Senator Dr. John Dennison

#### 5. From the Council of Senates<sup>1</sup> -- Dr. James Brander

Oral Report from the Council of Senates Budget Committee, Vancouver Sub-committee (information)

*.../continued*

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1. Suggested time limit of 10 minutes.

**6. From the Board of Governors -- Prof. Stephen J. Toope**

Confirmation that the following items approved by the Vancouver Senate were subsequently approved by the Board of Governors as required under the *University Act* (information)

**Senate Meeting of March 3, 2010**

New Awards

ICORD Relocation

**Senate Meeting of March 31, 2010**

Curriculum Proposals from the Faculties of Education, Forestry, Graduate Studies (Applied Science, Arts, Education, Land & Food Systems, Medicine, and Science) and Land & Food Systems

New Graduate Programs in Genome Science and Technology

New Awards

Enrolment Targets 2010-2011

**7. Candidates for Degrees and Diplomas<sup>2</sup> (approval) -- Prof. Stephen J. Toope**

The Chair of Senate calls for the following motion:

That the candidates for degrees and diplomas, as recommended by the Faculties and Schools, be granted the degrees and diplomas for which they are recommended, effective May 2010, and that a committee composed of the Registrar, the appropriate Dean, and the Chair of the Vancouver Senate be empowered to make any necessary adjustments.  
(2/3 majority required)

**8. Discussion Paper: Promoting Intercultural Understanding<sup>3 4</sup>-- Prof. Stephen J. Toope**  
(information) (circulated)

**9. Report on Research Strategic Plan<sup>5</sup> (information) (circulated) -- Dr. David Farrar**  
introducing guest presenter Dr. John Hepburn, Vice-President, Research & International

**10. Report on Great Northern Way Campus<sup>6</sup> (information) (circulated) -- Dr. David Farrar**  
introducing guest presenters Dr. Wesley Pue, Vice-Provost and Vice-President, Academic Resources, and Dr. Matthew Carter, President, Great Northern Way Campus

.../continued

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2. Lists of candidates for degrees and diplomas will be available for advance inspection upon request from Enrolment Services and will also be available at the meeting.

3. The Vice-Chair of Senate will serve as meeting chair for this item.

4. Suggested time limit of 20 minutes.

5. Suggested time limit of 10 minutes.

6. Suggested time limit of 10 minutes.

**11. Annual Reports on Student Appeals 2009-2010**

(information) (circulated)

- a. Admissions Committee -- Dr. David Fielding
- b. Appeals on Academic Standing Committee -- Dr. Ronald A. Yaworsky
- c. Student Appeals on Academic Discipline Committee -- Prof. Bruce MacDougall

**12. Admissions Committee -- Dr. David Fielding**

(approval) (circulated)

- a. Conditional Undergraduate Admission Program
- b. Doctor of Medicine -- Admission: British Columbia Residency Requirement
- c. Master of Music -- TOEFL and GRE Requirements
- d. Bachelor of Applied Science -- Admission
- e. UBC Admission Student Declaration
- f. Graduate Programs in Teaching English as a Second Language -- TOEFL Requirement

**13. Academic Building Needs Committee -- Dr. Robert Sparks**

Annual Report on Committee Activities (information) (to be circulated at the meeting)

**14. Agenda Committee -- Dr. Peter Marshall**

Call for Topics of Broad Academic Interest (information) (circulated)

**15. Curriculum Committee -- Dr. Peter Marshall**

Curriculum Proposals from the Faculties of Applied Science, Arts, Commerce & Business Administration, Graduate Studies (Arts, Commerce & Business Administration, Education, Medicine and Science), and Science (approval) (circulated)

**16. Library Committee -- Dr. Mark Vessey**

Annual Report on Committee Activities (information) (circulated)

**17. Nominating Committee -- Dr. Rhodri Windsor-Liscombe**

(approval) (circulated)

- a. Changes to Committee Composition -- Academic Building Needs
- b. Appointment of Student Senators to Committees of Senate and Committees of the Council of Senates
- c. Election of Student Senators to the Council of Senates

**18. Student Awards Committee -- Mr. Clinton F. Meyers**

New Awards (approval) (circulated)

**19. Tributes Committee -- Dr. John Dennison**

(approval) (circulated)

- a. Candidates for Emeritus Status
- b. Memorial Minute for Dr. Ian McTaggart-Cowan

*.../continued*

**20. Reports from the Provost & Vice-President, Academic -- Dr. David Farrar**  
(circulated)

- a. Annual Report on the Institute for the Scholarship of Teaching and Learning (information)
  - i. Agenda Committee Motion re: Reporting Requirement (approval)
- b. Establishment of the Quantum Matter Institute in the Faculty of Science (approval)
- c. Disestablishment of the Centre for International Health (approval)

**21. Proposed Agenda Items**

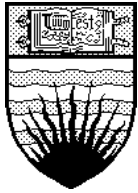
**22. Other Business**

Section 16 (b) of the *Rules and Procedures of Senate* states that meetings will adjourn no later than 9:30 p.m.

Regrets: Lauren Hume, telephone 604.822.5239 or e-mail: [lauren.hume@ubc.ca](mailto:lauren.hume@ubc.ca)

*UBC Senates and Council of Senates website: <http://www.senate.ubc.ca>*





## The University of British Columbia – Vancouver Senate

### Members of Senate

Effective 19 April 2010

#### EX OFFICIO

<b>Chancellor</b>	Ms Sarah Morgan-Silvester
<b>President, Chair</b>	Prof Stephen J Toope
<b>Secretary</b>	Mr James Ridge
<b>Academic Vice-President</b>	Dr David Farrar

#### DEANS

<b>Applied Science</b>	Dr Tyseer Aboulnasr
<b>Arts</b>	Dr Nancy Gallini
<b>Commerce and Business Administration</b>	Dr Daniel Muzyka
<b>Dentistry</b>	Dr Charles Shuler
<b>Education</b>	Dr Jon Shapiro (Acting Dean)
<b>Forestry</b>	Dr John N Saddler
<b>Graduate Studies</b>	Dr Barbara Evans
<b>Land and Food Systems</b>	Dr Murray Isman
<b>Law</b>	Prof Mary Anne Bobinski
<b>Medicine</b>	Dr Gavin C E Stuart
<b>Pharmaceutical Sciences</b>	Dr Robert D Sindelar
<b>Science</b>	Dr Simon Peacock

#### PRINCIPALS OF COLLEGES

<b>College of Health Disciplines</b>	Dr Louise Nasmith, Principal
<b>College for Interdisciplinary Studies</b>	Dr Michael Burgess, Principal

#### ELECTED BY THE FACULTIES

<b>Applied Science</b>	Dr William G Dunford Dr Wendy Hall
<b>Arts</b>	Dr Darrin Lehman Dr Mark Vessey
<b>Commerce and Business Administration</b>	Dr James Brander Dr Thomas Ross
<b>Dentistry</b>	Prof Bonnie Craig Dr Lance Rucker
<b>Education</b>	TBD TBD
<b>Forestry</b>	Dr Bruce Larson Dr Peter L Marshall
<b>Graduate Studies</b>	Dr Philip Loewen Dr Chris Orvig
<b>Land and Food Systems</b>	Dr Andrew Riseman Dr Mahesh Upadhyaya
<b>Law</b>	Prof Bruce MacDougall Prof Benjamin Perrin
<b>Medicine</b>	Dr Kenneth Baimbridge Dr Trevor Young
<b>Pharmaceutical Sciences</b>	Dr Brian Cairns Dr David W Fielding
<b>Science</b>	Dr Santokh Singh TBD

#### FACULTY REPRESENTATIVES OF THE COLLEGE FOR INTERDISCIPLINARY STUDIES

Dr Gunilla Öberg, Director, Institute for Resources, Environment and Sustainability  
TBD

#### ELECTED BY THE JOINT FACULTIES

Dr Richard Anstee	Dr Katharine Patterson
Mr Robert Gardiner	Dr Robert Sparks
Dr Paul Harrison	Dr Sally Thorne
Dr André Ivanov	Dr Rhodri Windsor-Liscombe
Dr William McKee	Vacancy

#### ELECTED CONVOCATION MEMBERS OF SENATE

Mr Gavin L Dew	Mr. Dean Leung
Ms Andrea A Dulay	Mr William B McNulty
Mr Christopher Gorman	Mr Clint F Meyers
Mr. Sean Haffey	Ms Betsy Segal
Dr Stanley B Knight	Mr Des Verma
Dr Bikkar S Lalli	Dr Ronald A Yaworsky

#### REPRESENTATIVES OF AFFILIATED COLLEGES

<b>St Mark's College</b>	Dr John D Dennison
<b>Vancouver School of Theology</b>	Rev Dr Stephen Farris
<b>Regent College</b>	Dr Rod Wilson
<b>Carey Theological College</b>	Dr Brian Stelck

#### LIBRARIAN

Ms Ingrid Parent, University Librarian

#### ELECTED REPRESENTATIVE OF THE PROFESSIONAL LIBRARIANS

Ms Margaret Friesen

#### EXECUTIVE DIRECTOR OF CONTINUING EDUCATION

Dr Judith Plessis

#### ELECTED STUDENT REPRESENTATIVES

(Term from April 1, 2010 to March 31, 2011. One representative elected by each faculty plus one representative from the College for Interdisciplinary Studies, plus five members at large)

<b>Applied Science</b>	Ms Lin Watt
<b>Arts</b>	Mr Kristian Arciaga
<b>Commerce and Business Administration</b>	Mr Chad Embree
<b>Dentistry</b>	Ms Cheryle Colombe
<b>Education</b>	Ms Arshleen Johl
<b>Forestry</b>	Mr Angus Cheung
<b>Graduate Studies</b>	Mr Francisco Grajales
<b>Land and Food Systems</b>	Mr Erik Hilmer
<b>Law</b>	Mr Joseph Scafe
<b>Medicine</b>	Mr Dipen Thakrar
<b>Pharmaceutical Sciences</b>	Mr Daniel Heejae Kim
<b>Science</b>	Mr Justin Yang
<b>College for Interdisciplinary Studies</b>	Ms Khatereh Aminoltejari
<b>Members at-large</b>	Mr AJ Hajir Hajian, Science Ms Alyssa Koehn, Arts Mr Joël Mertens, Applied Science Mr Spencer Rasmussen, Arts Mr Johannes Rebane, Commerce

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## Vancouver Senate

### MINUTES OF MARCH 31, 2010

#### Attendance

Present: Prof. S. J. Toope (Chair), Mr. J. Ridge (Secretary), Dean T. Aboulnasr, Ms. K. Aminoltejari, Dr. R. Anstee, Dr. K. Baimbridge, Dean M. A. Bobinski, Principal M. Burgess, Dr. B. Cairns, Mr. A. Cheung, Mr. G. Costeloe, Mr. G. Dew, Ms. A. Dulay, Dr. W. Dunford, Dean B. Evans, Dr. D. Farrar (Provost & Vice-President, Academic), Rev. Dr. S. Farris, Dr. D. Fielding, Ms. M. Friesen, Mr. R. Gardiner, Mr. C. Gorman, Mr. S. Haffey, Dr. P. G. Harrison, Mr. S. Heisler, Dean M. Isman, Dr. A. Ivanov, Ms. A. Johl, Dr. S. B. Knight, Dr. B. S. Lalli, Dr. B. Larson, Mr. D. Leung, Dr. P. Loewen, Mr. B. MacDougall, Dr. P. L. Marshall, Mr. W. McNulty, Mr. J. Mertens, Mr. C. Meyers, Ms. S. Morgan-Silvester (Chancellor), Dr. C. Orvig, Ms. I. Parent, Dr. K. Patterson, Dean S. Peacock, Mr. B. Perrin, Dr. J. Plessis, Ms. S. Purewal, Dean J. Saddler, Mr. M. Sami, Ms. E. Segal, Ms. A. Shaikh, Acting Dean J. Shapiro, Dr. S. Singh, Dr. R. Sparks, Dr. B. Stelck, Mr. D. Thakrar, Dr. S. Thorne, Mr. B. Tomlinson, Dr. M. Upadhyaya, Mr. D. Verma, Dr. M. Vessey, Mr. A. Wazeer, Dr. R. A. Yaworsky, Dr. T. Young.

**Guests:** Mr. K. Arciaga, Ms. K. Beaumont, Mr. A. C. Embree, Mr. A. J. Hajir Hajian, Dr. J. Hepburn, Mr. E. Hilmer, Mr. D. H. Kim, Mr. W. Pue, Mr. S. Rasmussen, Ms. J. Teasdale, Mr. J. Yang.

**Regrets:** Mr. C. Au, Dr. J. Brander, Mr. B. Cappellacci, Ms. B. Craig, Dr. J. Dennison, Dean N. Gallini, Dr. W. Hall, Ms. K. Ho, Mr. A. Johal, Ms. A. Kelly, Dr. D. Lehman, Dr. W. McKee, Dean D. Muzyka, Principal L. Nasmith, Dr. G. Öberg, Dr. A. Riseman, Dr. T. Ross, Dr. L. Rucker, Mr. J. Sealy-Harrington, Dean C. Shuler, Dean R. Sindelar, Dean G. Stuart, Dr. R. Wilson, Dr. R. Windsor-Liscombe.

**Recording Secretary:** Ms. L. M. Collins.

## **Call to Order**

### **Senate Membership**

#### **VICE-CHAIR OF SENATE ELECTION**

The Secretary reported that in response to the March 3 call for nominations, he had received two nominations for the position of Vice-Chair of Senate: Ms. Margaret Friesen and Mr. Sean Haffey. Each candidate presented a brief candidate statement and an election by ballot was conducted at the meeting. Mr. Haffey was declared elected. The President expressed his appreciation to both candidates for their willingness to serve.

### **Minutes of the Previous Meeting**

<i>Mr. Meyers</i>	}	<i>That the minutes of the meeting of March 3, 2010 be adopted as circulated.</i>
<i>Dr. Loewen</i>		

### **AMENDMENTS**

The following amendments were accepted by unanimous consent:

1. In reference to the last paragraph on p. 123, Mr. Thakrar clarified that his question had related to medical students travelling abroad for extra-curricular activities rather than students undertaking elective coursework abroad.
2. Mr. Costeloe requested that the minutes record his vote against the motion to approve UBC Policy 69: Student Safety Abroad.

The motion to adopt the minutes as amended was put and carried.

### **Remarks from the Chair and Related Questions**

#### **VICE-CHAIR OF SENATE**

On behalf of the Senate, Prof. Toope thanked outgoing Vice-Chair Mr. Geoff Costeloe for his service in the role. He recalled that Mr. Costeloe had been called upon to chair a portion of a Senate meeting, and that he had conducted his duties with great discipline.

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*Remarks from the Chair & Related Questions, continued*

## **FEDERAL BUDGET**

The President described the recently announced federal budget as relatively positive for Canadian higher education, considering current economic circumstances. He noted that the government faced a significant deficit. In response to concerted advocacy efforts, the government had established a new postdoctoral fellowship program, which represented an investment of approximately \$45 million over five years. The federal granting councils had received approximately two-percent increases to their budgets: \$16 million for CIHR, \$13 million for NSERC, and \$3 million for SSHRC. Funding for indirect costs of research had also seen a small increase. The President expressed disappointment in the government's decision not to apply a differential increase for SSHRC, given the lesser impact of the two-percent increase on its small base budget.

The federal government had also decided to undertake a review of all federal support for research and development. The terms of reference for the review were being prepared. While Canadian universities looked forward to making a powerful case for investment in research, the President acknowledged that there was some risk involved in any large-scale review of this type.

Other announcements included \$126 million for TRIUMF over five years and \$74 million for Genome Canada.

## **UBC BUDGET**

The President was pleased to report that a balanced budget had recently been submitted to the Board of Governors. Although it had been difficult to achieve a balanced budget in a complex fiscal environment, the new budget model would be more predictable and sustainable over the following years, as long as government funding remained stable. He

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*Remarks from the Chair & Related Questions, continued*

thanked the Vancouver Sub-Committee of the Council of Senates Budget Committee and the deans for their contributions to the budget process.

A number of measures had been necessary to balance the budget, including \$19 million in cuts to centrally funded activities and a 2.5-percent cut to Faculty budgets totalling \$10 million. To help offset the cuts to Faculty budgets, the University anticipated being able to transfer back some savings and investment revenues.

UBC's relatively stable financial position stood in stark contrast to the challenges faced by most other North American universities.

The President thanked Vice-Presidents Farrar and Ouillet in particular for their work on the budget.

## **GLOBE 2010 CONFERENCE**

The President reported on recent announcements he had made to delegates at the GLOBE 2010 environmental conference in Vancouver. UBC had already met international targets established by the Kyoto Protocol for its core academic buildings, which required a six-per cent reduction in greenhouse gas emissions from 1990 levels by 2012. The university next aimed to:

- reduce GHGs an additional 33 per cent from 2007 levels by 2015;
- reduce GHGs to 67 per cent below 2007 levels by 2020; and
- eliminate 100 per cent of GHGs by 2050.

## **CERTIFICATES OF APPRECIATION**

The President and Secretary presented certificates of appreciation to Student Senators completing their one-year terms of office on March 31, 2010.

## **Admissions Committee**

Committee Chair Dr. Fielding presented the reports.

### **DOCTOR OF MEDICINE ADMISSIONS**

The Committee recommended to Senate for approval proposed changes in admission requirements for applicants to the Doctor of Medicine program. Applicants would be required to meet a minimum score in each component of the Medical College Admission Test (MCAT).

*Dr. Fielding  
Mr. Mertens*

}

*That Senate approve the changes in admission requirements for applicants to the Doctor of Medicine program, effective for entry to the 2011 Winter Session and thereafter.*

## **DISCUSSION**

### ***Amendment***

In response to questions raised by Mr. Thakrar, the following amendment was accepted by unanimous consent:

Selection Process, item 2(f): append “who are applying in the Aboriginal admission stream.”

### ***Implementation of MCAT Minimum Score Requirement***

Mr. Thakrar expressed concern about the proposal to institute minimum scores for the Medical College Admissions Test (MCAT) for applicants to begin studies in the coming year. Given that applicants would receive relatively little notice about the new requirement, those falling short would need to find a way to re-write the MCAT within a limited period of time. He suggested that implementation be delayed until the following year. At the suggestion of the Chair, the Senate agreed to invite the Faculty of Medicine to respond to this suggestion at the April 2010 meeting of the Senate.

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*Admissions Committee, continued*

Dr. Dunford observed that students intending to apply to the Doctor of Medicine tended to select courses where they could obtain high grades so as to present the highest possible admission average, and that many of those course selections were unrelated to the study of medicine. He expressed the opinion that an applicant's grades on MD prerequisite coursework should be considered most important. Dr. Fielding suggested that the MD admissions process did consider this factor. He explained that three averages were calculated for each applicant: one overall average, one average on the most recent 60 credits, and finally an average on the prerequisite coursework.

Dr. Singh asked about the deletion of the requirement for a non-academic autobiographical essay, and noted that it seemed unclear how the various admission requirements would be weighted. Dr. Fielding explained that it had been difficult for Medicine to verify that these essays had been written by the applicants themselves. Dr. Harrison observed that admissions changes proposed by the Faculty of Medicine were generally based on careful thought and research, and he suggested that Senate avoid making significant amendments on the Senate floor.

The motion to  
approve the  
amended proposal  
was put and  
carried.

## **GRADUATE PROGRAMS IN LIBRARY, ARCHIVAL AND INFORMATION STUDIES**

The Committee recommended changes in admission requirements for applicants to graduate programs in Library, Archival and Information Studies (Master of Library and Information Studies, Master of Archival Studies, Master of Arts in Children's Literature, Doctor of Philosophy in Library, Archival and Information Studies and Certificate of Advanced Study). Applicants would be required to achieve a minimum paper-based

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*Admissions Committee, continued*

TOEFL score of 600, a minimum internet-based TOEFL score of 100 or a minimum overall band score of 7.5 with a minimum score of 7.0 in each component of the academic (not general) International English Language Testing System (IELTS) test.

<i>Dr. Fielding</i>	}	<i>That Senate approve the changes in admission requirements for applicants to the Master of Library and Information Studies, Master of Archival Studies, Master of Arts in Children's Literature, Doctor of Philosophy in Library, Archival and Information Studies and Certificate of Advanced Study programs, for admission to the 2011 Winter Session and thereafter.</i>
<i>Dr. Anstee</i>		

Carried.

#### APPLICATION AND DOCUMENT DEADLINES FOR SUMMER SESSION

The Committee recommended approval of a revised calendar entry on Application and Document Deadlines. Applications for undergraduate admission to the Summer Session must be received by January 15 to allow for timely evaluation and notification of admission decisions.

<i>Dr. Fielding</i>	}	<i>That Senate approve the revised calendar entry on Application and Document Deadlines, effective for admission to the 2011 Summer Session and thereafter.</i>
<i>Mr. Heisler</i>		

Carried.

#### APPLICANTS FROM A COLLEGE OR UNIVERSITY: BRIDGING PROGRAMS AND PRE-MAJORS/BACHELOR OF MUSIC: MUSIC PRE-MAJOR

The Committee recommended approval of revised calendar entries on Applicants from a College or University: Bridging Programs and Pre-Majors and the Bachelor of Music: Music Pre-Major. The proposed changes moved the Music Pre-Major content from the general Admission section of the Calendar under "Applicants from a College or Univer-



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*Admissions Committee, continued*

sity” to the Bachelor of Music “Music Admission” section and created a more general section under “Applicants from a College or University” speaking to bridging and pre-major programs at the University.

<i>Dr. Fielding</i>	}	<i>That Senate approve the revised calendar entries on Applicants from a College or University: Bridging Program and Pre-Majors and the Bachelor of Music: Music Pre-Major.</i>
<i>Mr. Wazeer</i>		

Carried.

## ENROLMENT TARGETS 2010/2011

The Committee recommended approval of proposed undergraduate enrolment targets for the 2010/2011 academic year for each Faculty, division and year level. The proposed enrolment targets had been reviewed by the Provost & Vice-President Academic and the Committee of Deans.

<i>Dr. Fielding</i>	}	<i>That Senate approve the 2010/2011 enrolment targets, as per section 27(2)(r) of the University Act.</i>
<i>Dr. Marshall</i>		

## DISCUSSION

In response to a question about a target of 1600 unknown/non-degree students, the assembly recognized Vice-Provost Wesley Pue, who stated that this number included several types of unclassified, visiting, and other students who were not included in the standard counting of regular degree students.

The motion was put and carried.

## **Curriculum Committee**

*See also 'Appendix A: Curriculum Summary.'*

Committee Chair Dr. Marshall presented the report.

<i>Dr. Marshall</i>	}	<i>That the new and changed courses and programs brought forward by the Faculties of Education, Forestry, Graduate Studies (Applied Science, Arts, Education, Land and Food Systems, Medicine, and Science), and Land and Food Systems be approved.</i>
<i>Mr. Costeloe</i>		

Carried.

## **Joint Report from the Admissions Committee and the Curriculum Committee**

### **GRADUATE PROGRAMS IN GENOME SCIENCE AND TECHNOLOGY**

Curriculum Committee Chair Dr. Marshall presented the joint report.

<i>Dr. Marshall</i>	}	<i>That Senate approve the new Graduate Programs in Genome Science and Technology and their associated courses, as set out in the attached report.</i>
<i>Mr. Mertens</i>		

Carried.

## **Student Awards Committee**

Committee Chair Dr. Stelck presented the report.

### **NEW AWARDS**

*See also 'Appendix B: New Awards'.*

<i>Dr. Stelck</i>	}	<i>That Senate accept the awards as listed and forward them to the Board of Governors for approval, and that letters of thanks be sent to the donors.</i>
<i>Mr. Verma</i>		

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*Student Awards Committee, continued*

## **DISCUSSION**

Referring to the terms of the Aker Solutions Award in Engineering, Mr. Mertens noted that the award would be given to students entering their first or second year in chemical or mechanical engineering. He asked how this would work because the first year of the Bachelor of Applied Science was in general engineering. By general consent, the Senate agreed make its approval **subject to any necessary clarification or correction to the terms for this award to address the above-mentioned concern.**

The motion was  
put and carried.

## **Teaching & Learning Committee**

### **TOPIC OF BROAD ACADEMIC INTEREST: INTEGRATING INTERNATIONAL LEARNING INTO ACADEMIC PROGRAMS**

At the request of Committee Chair Ms. Friesen, the assembly recognized guest speaker Ms. Katherine Beaumont, Director, Go Global: International Learning Programs.

The Committee had proposed that Senate consider the following questions:

1. What are the current program activities for undergraduate and graduate students?
2. What are the barriers to participation?
3. What guidance and direction can Senate provide to achieve the goals in the Student Learning and International Engagement commitments in Place and Promise?
4. What are the expectations UBC holds with respect to student international learning (study, research or service-learning) to ensure both students and communities are well supported in this international engagement?

Ms. Beaumont gave a brief overview of Go Global activities in four categories: study and research abroad, international service learning, group study programs, and incoming exchange students. Participation in all four categories was expected to increase in 2010/11 over 2009/2010 levels, with a particularly significant increase in study and research abroad.

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*Teaching & Learning Committee, continued*

Ms. Beaumont reported that lack of funds, inflexible curricula, and lack of faculty awareness had been identified as significant barriers to participation. A 2008 survey on student engagement indicated that while 48 percent of first-year students intended to participate, only 14 percent of the graduating class had done so.

Ms. Beaumont drew attention to the following relevant sections in Place and Promise:

**Student Learning**

Action: Provide undergraduate students with at least two enriched educational opportunities during their course of studies

**International Engagement**

Action: Increase student participation in learning and service abroad.

Ms. Beaumont gave an overview of the concept of transformative international education and the necessary conditions for deep learning to occur. Students participating in high-impact learning experiences benefited from more deep/integrative learning as compared to their peers. The focus was therefore to collaborate with academic programs to create transformative educational opportunities facilitated through an integrated strategy. Examples of potential collaboration and integration were discussed.

**DISCUSSION**

Noting that only 14 percent of students participated in an international learning experience, he asked whether that figure included international travel experiences not formally facilitated by Go Global. Ms. Beaumont replied in the negative and distinguished between an international travel experience (which was of value in itself) and an international learning experience. She was hopeful that data collected under the new Student Safety Abroad policy would allow measurement of a broader range of international learning activities.

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*Teaching & Learning Committee, continued*

Dean Aboulnasr expressed the opinion that students should receive academic credit for international learning experiences, particularly those that required extensive pre-travel training and post-travel reflection. Ms. Beaumont suggested that Go Global would be pleased to work with academic programs to explore connections between international learning and credit coursework. After further discussion, it was suggested that while international learning credit might not meet specialized course requirements, perhaps credit could be applied more broadly within programs.

Mr. Costeloe pointed out that UBC students participating in exchange programs often waited a long time for transfer credit decisions. Mr. Ridge agreed that this had been problematic for some time, but that steps had been taken to address major backlogs and delays. He hoped for increased automation of transfer credit decisions in future through the construction of a transfer credit database.

Ms. Johl suggested improved marketing of international learning opportunities to students, expressing the opinion that many students were unaware until it was too late. She felt that information was available, but that students were required to take significant initiative to find it. Ms. Beaumont agreed, stating that identifying optimal ways to communicate with students constituted an important challenge for the University. Optimally, students would be introduced to a suite of available opportunities early in their programs.

Dr. Thorne drew attention to moral and ethical considerations associated with health professionals engaging in international experiences that were not sustainable over the long term. In some circumstances, the negative impact on the region outweighed the benefit to the student. Dr. Thorne suggested that the University focus less on the idea of short-term international experiences and more on ways for students to make contributions as global citizens either at home or abroad. Ms. Beaumont agreed that these were important con-

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*Teaching & Learning Committee, continued*

siderations, and noted that students planning an international service learning experience underwent a careful screening. Prof. Toope recalled a recent commitment to the Clinton Global Initiative to convene groups of students, faculty, and staff to discuss culturally sensitive international engagement. The College of Health Disciplines had been asked to facilitate this cross-university dialogue.

Ms. Aminoltejari asked about financial support for students. Ms. Beaumont explained that the Office of Student Financial Assistance & Awards administered endowed funds available to all UBC students, and that the amount of funding varied somewhat from year to year. The President stated that international learning was an important target area for fundraising efforts. He added that Mr. Ridge was leading a project to reimagine awards for students planning to undertake high-impact learning experiences. One of the goals was to ensure that international learning experiences were available to the broadest possible range of students -- not just those with independent means.

Mr. Wazeer noted that international learning also happened through interaction with international students attending UBC. He asked about initiatives to support increased interaction between domestic and international students in the UBC learning environment. Ms. Beaumont agreed that there were many such opportunities for learning on the UBC campus. While past discussions with academic units had focused primarily on reciprocity and capacity, Go Global was hopeful to expand those discussions to include communication with faculty about exchange students registered in their classes.

Dr. Knight spoke of the need for careful balance, noting that transfer students might arrive at UBC with 60 credits completed, then participate in a student exchange program before completing one final year at UBC. He suggested that, to the extent that UBC wished its graduates to reflect its institutionality, curricula should mandate a balance. He

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*Teaching & Learning Committee, continued*

also suggested increased use of communication technology to enhance the international learning experience.

Dr. Anstee observed that course articulations for UBC students on exchange abroad seemed awkward, and that students frequently were not granted their first choice of institution. He suggested that consideration be given to the optimal year for an international learning experience within each four-year program. For example, an intensive second year filled with required courses would not be the best time to participate in a student exchange. Ms. Beaumont expressed great interest in discussing with academic units how international experiences might best complement their programs. In response to a question from Mr. Costeloe, Ms. Beaumont stated that students could participate in an exchange program in fourth year, although they would likely graduate in November rather than in May.

Dr. Baimbridge asked whether it would be useful to develop a University policy on learning abroad. Ms. Beaumont suggested that it would be helpful to reflect on how this might be pursued most effectively, and that close collaboration with the Provost's office would be useful.

The President thanked Ms. Beaumont for her presentation.

### **Developing a Research Strategy**

At the request of the Provost & Vice-President Academic, the assembly recognized guest presenter Dr. John Hepburn, Vice-President, Research & International. Dr. Hepburn had circulated a document outlining the process undertaken to date to develop a research strategy for the Vancouver campus of the University. The document addressed the desirability of research strategy, its close relationship to *Place and Promise*, the importance of research to the University, diversity of scholarship, defining excellence in research, and

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*Developing a Research Strategy, continued*

key themes and partnerships. The document also outlined a set of draft actions the University could take to promote research excellence. Under each of the applicable goals and actions set out in *Place and Promise*, the document listed suggestions for more detailed and firmly defined actions in the area of research.

Dr. Hepburn indicated that -- after further wide consultation and discussion -- a revised draft Research Strategy would be brought to the Senate for discussion at the May 12, 2010 meeting. The goal was to finalize the document by the early summer of 2010. He encouraged Senators to provide input on the strategy through discussion at the meeting and/or by submitting comments through the comment form accessible at **[www.research.ubc.ca](http://www.research.ubc.ca)**. The deadline for comments to inform the preparation of the next draft was set at April 16.

## DISCUSSION

Dr. Baimbridge agreed that it was critical to involve researchers themselves in the development of the Strategy, but expressed concern that very few researchers in the Life Sciences Institute (LSI) seemed to be aware or actively involved. He noted that there remained only 18 days in the consultation period, with Easter and final examinations also occurring during this same timeframe. Given the short time available, it would be difficult for LSI researchers to prepare a coordinated submission. Dr. Hepburn acknowledged that it had been difficult to consult in detail with thousands of faculty researchers. His understanding had been that the Research Strategy had been discussed at the departmental level within the Faculty of Medicine. He accepted the concern about short timelines, and indicated that comments received after April 16 would still be taken into consideration. Dr. Hepburn also agreed to distribute another broadcast email message to explain the process and to invite participation.



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*Developing a Research Strategy, continued*

Dr. Singh noted an emphasis on faculty and post-doctoral graduate researchers, and noted that there were significant limitations on undergraduate research at UBC. Mr. Tomlinson added that he would appreciate more emphasis on undergraduate involvement in the “thinking” aspects of research, whereas undergraduate students often felt treated as a source of cheap labour. Dr. Hepburn agreed that language about undergraduate research needed to be strengthened. The intent was to specify that there should be opportunities to expose undergraduate students to the research process, even though not all undergraduate students would choose to actively engage. Mr. Costeloe observed that, at least in the Faculty of Science, there were significant barriers to undergraduate students engaging in research unless their grades were high enough to obtain funding support from NSERC. Barriers were also significant for students who were not in a research-intensive program stream. He asked whether there were mechanisms to select and support a broader range of interested students. The President noted that future discussions about student awards programs might include how to support undergraduate students wishing to be involved in high-impact experiences such as research; it was possible that students could be given the means to effectively self-fund these types of learning experiences. Dr. Anstee emphasized that there was a broad range of research interests among undergraduates, from a desire from many students to gain a basic understanding of research to a much smaller group who wished to actually conduct research. He discouraged language that implied that every undergraduate student would conduct research.

Mr. Perrin drew attention to sections that he felt would be particularly helpful to pre-tenure researchers, e.g. provisions for internal review on grant proposals as a way to increase success rates. He suggested the addition of more detail about balancing teaching assignments with research responsibilities, particularly for pre-tenure faculty conducting empirical research. He also suggested more detailed language about the criteria under which

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*Developing a Research Strategy, continued*

research was evaluated at UBC, the diversity of research output, and a clearer expression of what kind of research contributions were valued.

Dr. Cairns requested clarification about the term “research excellence.” Dr. Hepburn agreed that this was important, but noted that was a very difficult concept to define. The document provided several examples of different kinds of research excellence. He requested feedback on whether there were glaring omissions in the types of examples selected. He expressed the opinion that it would be impossible, however, to create a short list of areas of research excellence at the University. While peer review served as a type of ‘gold standard’ for measuring research excellence, even peer review could potentially overlook, for example, the impact of research on public policy. The President urged Senators to forward written submissions about how research excellence should best be defined -- particularly suggestions for what kind of examples of research excellence should be included.

The President emphasized that the Research Strategy would become a very important statement by the University, and that it was critically important to engage. He hoped that the discussion would generate a broad enough sense of purpose to guide the University’s research endeavours over the following years.

### **Report from the Associate Vice-President, Enrolment Services & Registrar**

#### **2010 ELECTION OF STUDENT REPRESENTATIVES TO THE BOARD OF GOVERNORS & VANCOUVER SENATE**

Mr. Ridge had circulated the following report on recent student elections.

In accordance with Section 16 of the University Act, I am directed to report to you the results of the election of two (2) student representatives to the Board of Governors and five (5) student representatives at-large to the Vancouver Senate. As senators are aware, normally this report consists of a simple listing of the results of each election; however, given the extraordinary situation this year, and the

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*Report from the Associate Vice-President, Enrolment Services & Registrar, continued*

action I have decided to take as a result, I believe a lengthier report than usual is required.

Since 1974, student elections to UBC governing bodies at UBC Vancouver have been conducted in part by the students themselves. This was most recently confirmed in 2007 by virtue of the Council of Senates approving regulations that allowed the Registrar to permit student organizations to conduct most aspects of student elections to University positions.

In January 2010, the Elections Committee of the Alma Mater Society conducted an online poll for student representatives using the Society's electronic voting system. Information presented to the University in mid-February indicated that the results of that election were compromised, and further investigations indicated that at least 731 out of 6925 cast votes were in fact fraudulent and were cast via exploiting a flaw in the AMS election application's programming. My office worked closely with the AMS as a thorough investigation was undertaken by a forensic technology consulting firm.

As allowed by Section 5 (3) of our Election Regulations, I have decided to discard the 731 fraudulent votes, retabulate the results accordingly, and as such allow the elections to stand. Although I cannot say with absolute certainty that this one breach was the totality of problems, there is no evidence of other compromises of the system by the same method, and there is no evidence of any other successful compromise.

I therefore declare **Azim Wazeer** and **Sean Heisler** elected as student representatives to the Board of Governors for terms of one (1) year from 1 April 2010 and thereafter until replaced, and **Johannes Rebane**, **Joel Mertens**, **Spencer Rasmussen**, **Alyssa Koehn**, and **AJ Hajir Hajian** elected as student representatives at-large to the Vancouver Senate for terms of one (1) year from 1 April 2010 and thereafter until replaced.

I would like to thank all candidates for participating in these elections and assure the University community that we are actively pursuing those responsible for this fraud. My office will be reaffirming requirements for the highest levels of security and scrutiny for any elections conducted on the University's behalf in the future.

## **DISCUSSION**

In response to a question from Mr. Perrin, Mr. Ridge confirmed that the AMS elections system did allow elections staff to verify how students had voted in the elections. This lack of anonymity had been acknowledged by the AMS as a defect and Mr. Ridge had been assured that the AMS was committed to making the necessary repairs. After further discussion, the Secretary was directed to forward to the AMS leadership an expression of

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*Report from the Associate Vice-President, Enrolment Services & Registrar, continued*

Senate concern about the lack of voter anonymity in the current AMS elections system and a request that this problem be rectified immediately.

### **Report from the Senate Student Caucus**

Student Senator Geoff Costeloe gave a presentation as chair of the 2009/2010 Senate student caucus to highlight issues of importance to students, including the following:

- S: Student Union Building construction;
- T: Teams of UBC students competing around the world;
- U: Undergraduate and graduate societies and clubs;
- D: Development of students inside and outside the classroom -- community service learning, student exchange programs, cooperative education, etc.;
- E: Education -- the teaching and learning environment;
- N: Numbers -- in which ways does UBC want to be the best in the world?
- T: Taking responsibility for one's own education, e.g., student-directed seminars, student-initiated new programs, etc.;
- S: In Summary, one important role for Senate is to build the best possible learning environment, and students will do the rest.

The President thanked Mr. Costeloe for his presentation.

### **Adjournment**

There being no further business, the meeting was adjourned. The following regular meeting was scheduled to take place on April 21, 2010.

## **APPENDIX A: CURRICULUM SUMMARY**

### **Faculty of Education, School of Human Kinetics**

#### **NEW COURSE**

HKIN 472 (3)

### **Faculty of Forestry**

#### **NEW COURSE**

FRST 270 (3)

#### **NEW SPECIALIZATIONS IN THE B.S.F. PROGRAM:**

Integrated Resource Management  
Community and Aboriginal Forestry

#### **NEW MINOR**

Minor in Commerce within the Specialization in Community and Aboriginal Forestry

### **Faculty of Graduate Studies**

#### **COLLEGE FOR INTERDISCIPLINARY STUDIES**

#### **NEW PROGRAMS**

Genome Science and Technology: Master of Science and Doctor of Philosophy

#### **FACULTY OF APPLIED SCIENCE**

#### **NEW COURSES**

EECE 542 (3)  
EECE 584 (6)  
EECE 585 (3)  
MECH 527 (3)  
MECH 529 (3)

#### **REVISED COURSE**

MECH 575 (1-3)d

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*Appendix A: Curriculum Summary, continued*

**FACULTY OF ARTS**

**NEW COURSES**

LIBR 553 (3)  
SOWK 504 (3)  
SOWK 550 (3)  
SOWK 551 (3)  
SOWK 555 (3)

**PROGRAM CHANGE**

M.S.W. Program Requirements

**FACULTY OF EDUCATION**

**NEW COURSE**

HKIN 571 (3)

**FACULTY OF LAND AND FOOD SYSTEMS**

**NEW COURSES**

SOIL 515 (3)  
SOIL 516 (3)  
SOIL 518 (3)

**FACULTY OF MEDICINE**

**NEW COURSES**

OBST 507 (3)  
SPPH 555 (3)

**PROGRAM CHANGE**

Anatomy and Cellular Biology Suspension of Admission

**FACULTY OF SCIENCE**

**NEW COURSES**

MATH 546 (3)  
MATH 548 (3)  
MATH 555 (3)

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*Appendix A: Curriculum Summary, continued*

MATH 556 (3)

**REVISED COURSE**

MATH 503 (3)

**Faculty of Land & Food Systems**

**NEW COURSE**

APBI 100 (3)

**NEW MINOR**

Minor in Commerce

## **APPENDIX B: NEW AWARDS**

**Aker Solutions Award in Engineering:** A \$1000 award is offered by Aker Solutions to a selected student entering his/her first or second year of study in Chemical or Mechanical Engineering. Recommendation is made by the Faculty of Applied Science. (First award available 2010-11 Winter session)

**Arthur Edamura Prize in Family Practice:** A \$500 prize is offered to a family medicine resident who shows exceptional consideration of and disposition towards diligent investigation, diagnosis and treatment of a chronic ailment, disease or condition the diagnosis of which is elusive and/or the incidence of which is rare. The prize has been established by a patient of Dr. Arthur Edamura (M.D. 1976) in recognition of his success in investigating and treating a chronic condition. Recommendation is made by the Department of Family Medicine. (First award available 2009-10 Winter session).

**Chih-Chuang and Yien-Ying Wang Hsieh Memorial Scholarship:** Scholarships totalling \$3,500 have been endowed in memory of Chih-Chuang and Yien-Ying Wang Hsieh, for students in atmospheric science, oceanography and other areas of environmental earth sciences. Preference will be given to graduate students. The awards are made on the recommendation of the Department of Earth and Ocean Sciences and, in the case of graduate students, in consultation with the Faculty of Graduate Studies. (First award available 2010-11 Winter session).

**Faculty Women's Club Patricia Chapman Memorial Scholarship in Music:** A \$1,000 scholarship has been endowed by family and friends of Patricia Chapman for a deserving student in the Elementary or Secondary Education stream in the Bachelor of Music program in the School of Music. Patricia was a regular supporter of the Vancouver Symphony School program, the spirit of which this scholarship perpetuates. The award is made on the recommendation of the School. (First award available 2010-11 Winter session).

**Concord Erickson Energy and Architecture Fellowship:** Fellowships totalling \$7,700 have been endowed by Concord Pacific Harmony Trust in honour of the late Arthur Erickson and his life's work in Architecture. The fellowships are awarded to architecture students in the School of Architecture and Landscape Architecture who are studying or carrying out scholarly research in innovative sustainable design principles which integrate efficient energy consumption and technology with architecture to help reduce the impact of the human footprint on the environment. The awards are made on the recommendation of the School in consultation with the Faculty of Graduate Studies. (First award available 2010-11 Winter session).

**Brian Hunter Memorial Entrance Award:** An annual entrance award in the amount of \$5000 has been endowed by Ron ('78) and Arleigh ('79) Tysoe in memory of Brian Hunter ('78) for a student entering the JD program. Mr. Hunter practiced law for 30 years and is fondly remembered for his keen intellect, terrific sense of humour and genuine concern for the well-being of others. To his many clients he was a true gentleman, trusted advisor and someone they could always depend upon. The winning recipient will



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*Appendix B: New Awards, continued*

have a high academic standing, made a positive impact on the lives of others and face challenges (financial or systemic) in accessing legal education. The award is made on the recommendation of the Faculty of Law. (First award available 2010-11 Winter session).

**Maureen Patricia Russell Marchak Scholarship in Music:** Scholarships totalling \$1,000 have been endowed by friends and family of Maureen Patricia Russell Marchak, and by the Faculty of Arts, to benefit undergraduate and graduate students showing exceptional promise in the School of Music, with preference given to students in voice or opera, and with consideration given to financial need. Recommendation is made by the School and, in the case of graduate students, in consultation with the Faculty of Graduate Studies. Dr. Marchak (BA '58, PhD '70) joined the UBC faculty in 1973, served as Head of the Department of Anthropology and Sociology, and as Dean of the Faculty of Arts from 1990 to 1996. She was an accomplished scholar and administrator, with passionate interests in many areas, including music. (First award available 2010-11 Winter session)

**Bill Millerd Award in Theatre:** Awards totalling \$3,500 have been endowed by William E. Millerd, C.M. (BA '65, LLD Hon '09), with matching funds from the Faculty of Arts and support from the community, for students who have completed the Theatre Internship Program at UBC's Department of Theatre and Film. The Program offers professional work-study opportunities in the form of internship placements with local theatre companies. As Artistic Managing Director of Vancouver's Arts Club Theatre Company since 1972, Bill Millerd has helped launch the careers of generations of Canadian theatrical talent, including award-winning UBC alumni Brent Carver, Nicola Cavendish, Morris Panych, Ken MacDonald and Bruce Greenwood. Recommendation is made by the Department of Theatre and Film. (First award available 2010-11 Winter session)

**Lawrence R. Munroe Memorial Scholarship in Community and Regional Planning:** Scholarships totalling \$1,750 have been endowed by Diana L. Belhouse (B.A. '47, LL.B. '73) in memory of Lawrence R. Munroe P. Eng. (B.A.Sc., Civil Engineering '46) for Canadian citizens who are students in the School of Community and Regional Planning, who majored or received a degree in geography or civil engineering in their undergraduate studies at the University of Victoria or The University of British Columbia. Preference will be given to students who have demonstrated an interest in urban design which enhances the environmental sustainability and beauty of cities or other urban areas. Financial need may be considered. Recommendation is made by the School in consultation with Student Financial Assistance and Awards. (First award available 2010-11 Winter session).

**Milton and Bess Narod Scholarship in English:** Scholarships totalling \$700 are offered by the estate of Milton and Bess Narod for students who demonstrate excellence in the study of English within the Faculty of Arts. The awards are made on the recommendation of the Department and, in the case of graduate students, in consultation with the Faculty of Graduate Studies. (First award available 2010-11 Winter session).

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*Appendix B: New Awards, continued*

**Violet Denison Pearson Memorial Bursary:** Bursaries totalling \$1,000 have been endowed by Jack Pearson (B.Com. 1952) in memory of his mother, Violet Denison Pearson, for students in any year or faculty who are in need of financial assistance to begin or continue their post-secondary studies at UBC. Violet Denison Pearson was a fourth generation Canadian, born in 1877, and lived at the Dovercourt Estate near Toronto. She later married C. Wilfred R. Pearson and was much loved by her five children. She spent most of her later life in Oak Bay near Victoria, where her youngest son, Jack, grew up. (First award available 2010-11 Winter session)

Previously-Approved Awards With Changes in Terms or Funding Source: none

# THE UNIVERSITY OF BRITISH COLUMBIA



Enrolment Services  
2016-1874 East Mall  
Vancouver, BC V6T 1Z1

April 13, 2010

To: Mr. Bijan Ahmadian  
President, Alma Mater Society

Mr. Ross Horton  
General Manager, Alma Mater Society

From: James Ridge  
Registrar & Secretary to the Vancouver Senate

**Subject: AMS Elections System**

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At the March 31 meeting of the Vancouver Senate, I delivered a brief summary of the 2010 elections of student representatives to the Board of Governors and the Senate. A copy of that report is attached for your information.

During the discussion that followed my report, some Senators expressed surprise that the AMS elections system currently connects individual voters to the votes they cast, thereby compromising the secrecy of the ballot.

Senate has directed me to convey to the AMS their concern with the AMS elections system not providing a secret ballot and their desire that this be rectified without delay.

I look forward to continuing discussions with you over the coming months on this and related matters.

**PROMOTING INTERCULTURAL UNDERSTANDING:  
A DISCUSSION PAPER DRAFT 2\***

**Professor Stephen J. Toope  
President and Vice-Chancellor**

**August 2009**

**\*The previous draft was called “Navigating Cultural Diversity”**

## *Introduction*

UBC is discussing a comprehensive strategic plan to support its primary mission to create a learning environment fostering excellent teaching and influential research. The plan will be built upon several components including: Aboriginal engagement, community engagement, equity, enhancing the student experience, interdisciplinary work, international reach and influence, strengthening research capabilities, and sustainability. Within this context, this discussion paper offers preliminary thoughts on an additional strategic priority, namely helping future generations of students to recognize the significant value of cultural, religious, intellectual, and other forms of diversity,<sup>1</sup> and to navigate amongst interdependent communities and societies. I hope that these reflections will generate a community dialogue on how we can better enable students to treat diversity as a strength in their academic, professional and personal lives.

Ours is a culturally diverse university now and for the future. There are many social and cultural groups within UBC: indigenous peoples, international students, immigrants, visible minorities, those born in British Columbia, women, men, members of sexual minority communities, members of religious minorities, those of differing socioeconomic status, and so on. Although our active respect for diversity is already reflected in the academic and administrative systems of UBC, more could be done to build community out of this diversity, and to ensure a wholly-felt sense of inclusion and belonging. Universities, by their very nature, privilege certain kinds of knowledge, traditions and forms of conduct over others. To remain legitimate in their claims of intellectual strength and innovation, and to serve as leaders in confronting the challenges of the 21<sup>st</sup> century, however, universities within multicultural societies such as Canada, and with student bodies as diverse as UBC's, must encourage the expression of views and aspirations of those groups new to the university and those groups traditionally marginalized in society. All students must be encouraged to interact actively with students from other cultural and social backgrounds, and facilitated in serious thinking on their place in a complex and diverse world. This practice implies openness to intellectual diversity, to engaging with people who hold strongly different views of the world, even views that would question the value of cultural diversity.

We faculty members and staff must first challenge ourselves. Given the remarkable changes that have taken place in the make-up of Canadian (and especially Vancouver) society over the last quarter century, many staff and faculty are not well equipped, technically or experientially, to recognize, understand and manage diversity in our work and in the classroom. Achieving greater intercultural understanding is not just a need for our students. If we are to encourage and guide effective learning, we may need first to do some learning ourselves.

A recent study by UCLA researchers indicates that a focus on diversity is rapidly growing at colleges and universities in the United States. Seventy-five percent of professors surveyed said that they work to “enhance students’ knowledge of and appreciation for other racial/ethnic groups.” This is up 17.6% in

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<sup>1</sup> Throughout this paper “cultural diversity” will be used as shorthand to encapsulate many forms of diversity, between and within groups. I do recognize, however, that there are important differences associated with various forms of diversity, as between the concepts of culture and religion, for example. What is more, groups that look homogenous from one perspective (people of Caucasian ancestry) may be quite diverse from other perspectives (religion, sexual orientation, social status). Given the limited scope of this paper, and its focus on planning for UBC rather than upon a detailed academic consideration of fundamental concepts, I ask the reader to forgive the shorthand. I chose “culture” as the encompassing concept primarily because it is fluid, and can be broadly encompassing.

three years since the previous survey. Why is this pattern occurring? For one thing, the current university student population, in part owing to gains in educational attainment among previously excluded groups, is now much more culturally diverse than it was 10 or 20 years ago. Secondly, in our multicultural world, the ability to work with people different from ourselves is a necessary skill and a critical advantage in the workplace. People who do not know how to recognize, understand and appreciate cultural difference or how to communicate across cultural and situational boundaries, are people who are unable to function effectively in many circumstances, and who do not enable, and may impede, critical work in our societies. Universities are excellent environments in which to acquire skills in dealing with diversity and to acquire the necessary training (e.g., language acquisition, appreciation for other regions and cultural practices, and experience engaging in productive discussions with a wide range of culturally diverse peers). Although some of this may be absorbed passively, active teaching and learning along these lines will greatly enhance the student experience. Indeed, one of the primary duties of a university in a democratic society like Canada is to promote intercultural understanding amongst students, alumni, staff and faculty.

In order to make strides along these lines we may have to re-imagine, at least in part, what UBC is and who it serves. Long before the government of British Columbia chose Point Grey as the ideal site to carry out the province's mission of higher education, the Musqueam people recognized the land as an important place of education and learning. Although a particular culture's set of ideals regarding human intellectual heritage came to dominate UBC's academic mission and practices, our university's rich and diverse origins as a site of intellectual learning provide a valuable foundation to move forward. UBC Vancouver is on the traditional territory of the Musqueam people just as UBC Okanagan is on the land of the Okanagan Nations Alliance. We are engaging in new thinking about how this history and our current relationships with First Nations should matter throughout the university.

To embark on a culturally more inclusive future while still maintaining focus, UBC must engage in an active process of reflection and change. We must also devote more attention and resources to the goal of having our faculty and our university leadership better reflect the cross-section of Canadian society (and more closely approximate our student body as well). In my view, this is best done not through quotas that tend to undermine the people actually hired, but through a conscious and determined effort to expand and diversify the applicant pool of outstanding talent. Embracing cultural diversity will carry us into a wider frame of life. We must make the values and standards that we think should characterize life at UBC as transparent as possible, and facilitate continuing discussion about these values and standards. In doing so, we will have to acknowledge a difficult reality: for some people, the idea that we should adopt affirmative postures towards multiculturalism and diversity is itself a cultural bias.

#### *A pedagogy acknowledging diversity*

How do we turn the very real challenges of diversity into an opportunity for the university? How do we ensure that our diversity is widely recognized as an asset? Here we need to do more as an institution. We can think about how to link our pedagogy, and our sense of social responsibility, to our diversity. We can encourage engagement with diversity across the curriculum, with students learning about multiple cultural perspectives, cross-perceptions of one cultural group toward another, manipulation of cultural systems in power relationships, and the like. Our students can learn from their collective diversity by sharing and validating their experiences when discussing these issues in the classroom. We can link the development of individual cultural self-reflection with a more self-aware institutional

culture. We can both strive to help students understand their role in a diverse society (i.e., respecting difference but also encouraging their capacity for critical thought), and strive to create an institution that does the same.

The many social and cultural groups within UBC enhance our entire community by contributing new ways of thinking, diverse perspectives and new values for consideration. And yet we often fail to build university learning experiences that account for different ways of learning and knowing, for different kinds of needs, and that aim to promote understanding instead of antipathy. To the extent that the university fails in enabling students to function effectively in situations of profound cultural difference, often where there are real and perceived power imbalances as well, we all suffer from the consequences: we don't know how to have the conversations we need to have. Conflicts escalate when polemics and confrontation prevail, rather than reasoned debate. As an institution, we have a choice to send out students who replicate this pattern of failure or to nurture the skills and competencies that can produce far more productive social interactions. Addressing our differences, real and perceived, calls for genuine curiosity and dialogue. Recent isolated incidents in the UBC dorms remind us where antipathies, often bred of ignorance, can lead; if they are not dealt with constructively, then everyone is damaged, from the students involved to the university and the wider community.

*Learning from those who go with us and have gone before us*

Within our university there already exist well-developed environments that foster the exploration of diversity both with a sense of inclusivity of other cultures and critical distance from one's own culture. One expects this from departments that tend to focus on topics of diversity such as Anthropology, English, Geography, History, Human Development-Learning and Culture, Law, Social Work, and Sociology. There are also programmes based outside traditional departmental structures that achieve this goal such as First Nations Studies, Go Global, Humanities 101, The Institute of Asian Research, The Learning Exchange, Museum of Anthropology, Musqueam 101, Trek, Women's and Gender Studies, etc. UBC's Centre for Intercultural Communication in Continuing Education has great experience in promoting learning around cultural difference; we rarely take advantage of that expertise within UBC itself. We should seriously consider applying the strategies that have worked in all these programmes to the university at large; if we don't learn from our own work, we are failing in one of the chief obligations of an institution of higher learning.

*A fundamental opportunity for our community at large*

Cultural diversity is obviously a fact of life not only for UBC but for the larger community of the Lower Mainland, and for other communities across British Columbia and throughout Canada. Diversity poses challenges to previously dominant groups; it also represents a primary source of dynamism that Canada requires to remain prosperous and forward-thinking in the early 21<sup>st</sup> century. Inasmuch as we endeavor to understand how diversity changes our communities, and to build institutions that harness the opportunities diversity creates, we position ourselves to remain a vibrant, livable, and attractive region, province and country. A strong UBC benefits all of British Columbia, and indeed all of Canada. People from all cultures of the world need to feel welcomed, respected, and at home in this institution.

The university is a dynamic but relatively safe space; it is a place where one's first significant conversations across difference often take place. Learning to converse effectively may be easier at

university than in the typically more polarized circumstances of work and community life. One way to help build up respect for diversity is to recognize the inherent dignity of individual people; it is harder to ignore difference or to stereotype when it becomes a friend staring you in the face. Our students can graduate not only with the important experience of having reached across boundaries, but they can have built networks with other people who will assume leadership positions in various communities. Students will know others who may have started from very different places, but with whom they have already learned to converse. This possibility is essential for the future health of our societies.

### *The significant inherent value of cultural diversity*

It is important to go beyond the obvious truisms (though they need to be stated) that developing research and student learning strategies related to diversity is a civic obligation and virtue in a multicultural society such as Canada. We can go further, and assert that in a complex, interdependent world, equipping students to engage constructively with cultural diversity is as much part of our institutional responsibility as the instilling of higher-level literacy and numeracy.

Given the complexity of our societies (local, national and international), people are increasingly thrust into situations that are unfamiliar. We all have some modest experience of what it is to be uprooted from set patterns; we can find ourselves in unsettling territory even at home. Although this experience can be alienating, it is also potentially liberating to the extent that we can develop a critical stance on our own culture. This critical stance can deepen and enrich the social critique and cultural memory that are so central to all areas of endeavor within universities.

The late cultural critic Edward Said once suggested that universities should encourage students to know their own cultures and religions with the sort of critical distance that comes from being in exile. Cultural diversity is essential to fostering such a perspective because experiencing difference so close to ourselves unsettles us and compels us to question our assumptions. Without such diversity, our ideas can be shallow and circular, self-awareness is limited, and self-critique is constrained. Innovation is stifled. To take but one example, great History departments thrive by studying difference over time and between cultures. They depend on comparison and the greater the range of differences, the better able they are to develop deep understandings of their field of study.

### *Research and cultural diversity*

Greater exposure to cultural diversity also means that students will be better prepared to excel as researchers in a world in which collaborative innovation on an international scale is becoming the norm. Although science may strive to be objective, biography and personal experience frequently guide the choice of research topics and how those research questions are formulated. Similarly, a non-diverse population will tend to focus on a narrower range of social and policy concerns. Diversifying the student body, staff and faculty, and paying more attention to “other” ways of thinking increase the development of new topics, and new views on old topics. The passion to conduct research on an infectious disease that strikes disproportionately in South Asia may be more likely to arise in a person with strong family ties in the region. Furthermore, when we educate and mentor those who are historically under-represented in the professions, they may go on to affect public policy in ways that people from a “majority” background may not be inclined or prepared to do.



Recent research in social psychology demonstrates that having diverse cultural experiences can enhance one's thinking toolkit (e.g., creativity, problem-solving), enabling one to approach problems from different perspectives, and to think "outside the box." Those with enriched cultural environments become more psychologically ready to accept and recruit ideas from unfamiliar sources and places.

*It won't come easy*

Diversity is not easy or trouble-free. At times it can even be threatening to strongly held beliefs and patterns of conduct. Conscious, time-consuming effort is required to be open to, and to understand, others' points of view, and to revisit our own worldviews in this light. One of the hardest forms of diversity to embrace is intellectual diversity, but it is the bedrock of the university.

Attempts to embrace diversity must go beyond superficial celebration of diversity in and of itself. Grappling with diversity involves difficult and sometimes painful efforts to interrogate the real differences amongst us and to find resolutions to the conflicts that arise from those differences that satisfy as much as possible the needs of different kinds of people. This is serious work that requires challenging deeply-rooted yet misleading views that assume that those who are culturally more distant from us are somehow lacking in various ways or are less trustworthy. And it is work best done at the university, which is by definition the place where people examine the manifold dimensions of our shared humanity.

*Engagement with the complications of diversity*

Perhaps the greatest good of cultural diversity comes from mere respectful exposure, or as Kwame Appiah puts it, from "getting used to one another." But behind the open embrace of others lurks a nagging question about whether we have addressed problems of value and identity. For example, should moral relativism--that is the notion that no culturally-based moral view is truer, better, or more reasonable than any other--be defended? Is "cultural equality" possible? Or are certain culturally-based moral views less defensible than others? Are there universal right and wrongs? There is an ineradicable tension between universal tolerance and universal value. Many of us would resolve this tension through compartmentalization. But this approach is never fully satisfying, and is a serious issue that can only be resolved with time, patience and extraordinarily careful thought.

Religious and atheistic diversity is particularly important because religion foregrounds one of the basic issues that institutions of higher learning tend to avoid. The university's most valued exercise is dialogue. Most scholars harbor the fundamental belief that everything can potentially be resolved by way of open and reasonable communication. Everything, in other words, can be observed, discussed, put on hold, questioned, maybe even jettisoned—but not communication itself. Yet, some belief systems, for example some of the world's most prominent religions (and in fact some atheist groups as well), often appear to limit communication that might encourage questioning of perceived "core" or "basic" truths. We must find ways to respectfully engage with belief-systems that cannot accept the possibility of alternatives. Here, the university faces an enormously difficult task. It is not a matter of teaching tolerance—for tolerance implies a power differential, in other words, it implies that one has the power or the right not to tolerate. It is not even simply a matter of respect—for that still implies an even ground that allows for an exchange of glances, no matter how far apart. It is, rather, a matter of fostering an intellectual climate that gives students the tools and capacity to understand the roots,

dynamics and consequences of cultural and religious differences, whether or not they agree with them. It is a matter of helping students understand how to deal with the difference between positions that allow for differing positions and those that do not.

We must be prepared to turn the lens inward. The cross-cultural skills we seek to engender must start not with a tendency to stigmatize the other, but with contemplation of our own situation. We must also recognize how cross-cultural communication can unintentionally increase cultural divides. For example, encounters with unfamiliar cultural values and practices can sometimes result in the reinforcement of stereotypes or biases about the other. Rather than ask why individuals from other cultures hold certain values and engage in certain practices, we could ask instead: why do we hold certain values? Why do we engage in certain practices?

Thinking about cultural diversity, far from being innately divisive, ultimately informs our understanding of universal human experience. With time and effort, one may observe another culture and perceive what is common to all humanity. Someone may spend 20 years studying Balinese music before recognizing that its modular construction rests on principles of balance and symmetry analogous, if not identical, to those in European music. However, none of this is to suggest that cultural difference is superficial or inconsequential. Culture plays an essential constitutive role in the formation of a person, that is, we are not full human beings without culture. Culture's effects are profound and influence us from the cradle to the grave, and that is why crossing cultural borders is so demanding.

If we move towards a stronger recognition of the distinctions that make us unique from one another, do we run the risk of failing to appreciate the myriad important ways in which we are similar? Might we be less likely to invest in the ties that bind us together? How can we successfully accommodate diversity, while still reconciling it with the goal of living together? When does the promotion of diversity and the expression of cultural pathways blur into cultural ghettos? For example, at UBC we like to talk about the incredible diversity of our student body, but how much interaction is really going on between groups of students from different ethnic and socio-economic backgrounds? Not just casual interaction, of course, but interaction that advances cultural sensitivity and understanding? How often are students encouraged to think deeply about critical issues in other countries and cultures? How can students themselves work to improve cross-cultural connections?

#### *Student opportunities to engage with and about diversity*

As citizens of the 21<sup>st</sup> century, our students must be informed about diverse cultures of the world – their traditions and beliefs, social and political systems, their geographies, economies, and psychologies. As Lester Pearson anticipated over 50 years ago we are moving into “an age when different civilizations will have to learn to live side by side in peaceful interchange, learning from each other, studying each other's history and ideals, art and culture, mutually enriching each other's lives. The alternative, in this overcrowded little world, is misunderstanding, tension, clash, and catastrophe.”

Universities have the responsibility to create environments in which we can engage in vigorous debate over culturally-sensitive and complex issues in a productive and respectful manner. I fear that Canadian universities are too often places where we shy away from the social realities of deep diversity, where comfort is prized over robust and challenging debate. We are not so good at principled but open-minded engagement with people whose values are not entirely compatible with our own. Conflict-averse

behavior can sometimes escalate conflict.

We must strive harder to create curricular and extra-curricular opportunities where students can freely and respectfully engage in dialogue around tough cultural, religious and political issues, including potentially contentious ones, with their peers and professors. A powerful and challenging example of work being done along these lines is “What I Learned in Class Today: Aboriginal Issues in the Classroom,” a video project by two graduates of the UBC First Nations Studies Program in which Aboriginal students are interviewed about their classroom experiences. The video exposes the alienation that occurs when discussions take place in an ill-informed and insensitive environment. This compelling documentary introduces the problem and then challenges the university community to transform the dialogue around difficult issues from ignorance and faulty assumptions to productive and intelligent exchange.

Our students must learn to engage with others with a conscious appreciation that the other person might view the world in very different ways. We should encourage students to develop their own conceptual framework for understanding how different life circumstances, assumptions or experiences may affect thoughts, feelings and behaviors. An open-minded orientation can enhance understanding and empathy and reduce ethnocentric projections and cultural misunderstandings. We continue building the bridges amongst cultures by fostering healthy person-to-person relationships. In other words, we have to help each other learn how to hold people in esteem even when we disagree with them.

#### *Our cultural mix at present*

UBC’s student demographics have changed dramatically over the past 25 years. It is impossible to compare today’s demographics with specific points in the past because until recently UBC did not keep track of such demographics. But at present our student body is roughly 40% white (to adopt the Statistics Canada terminology), 32% of Chinese ancestry, 7 % other Asian (Japanese, Korean, Filipino, etc), 5% South Asian, and 10% mixed heritage. Interestingly, in the first year class, the proportion of Chinese heritage students is even larger, at more than 35%. From these statistics, the existing pattern of cultural diversity at UBC might be described as “lumpy.” Our students are predominantly white or of Chinese heritage. South Asians come next, but are a far smaller proportion of the population than one might expect given the size of the South Asian community in BC. Every other cultural or ethnic group is but a small proportion of the total. The Aboriginal population remains small, at just over 5% at UBC V, not matching the proportion of Aboriginal people in the wider BC community. UBC should consider how to further diversify the student body, through revised local, national and international recruitment strategies.

#### *Concrete means to help students understand and address cultural diversity*

If any of the observations set out above have merit, then UBC must find practical ways to help future generations of students significantly value cultural diversity and appreciate its enormous complexity.

(1) *Diversity in the Curriculum*: UBC should offer even more courses, and enrich current courses, with content related to other countries, cultures and religions. These courses should be fundamentally challenging, prompting students to confront material outside areas of their cultural familiarity. (We might conduct internal evaluations, or invite research proposals, to assess the effects of taking these

courses on stereotyping, and on world-views.) In addition, one could consider the creation of courses in various Faculties and other units that specifically address the question of diversity using students' own experiences at UBC to encourage discussion. I have already noted that students of various ethnicities on campus tend not to mix as routinely as one might hope. Could this be specifically addressed in the curriculum?

(2) *Harness the diversity in our student body*: As argued above, diversity is a resource that we do not now fully leverage. We should find structured ways to promote interaction amongst students of diverse cultural and linguistic backgrounds both inside the classroom and in informal learning environments. Examples include more group work, intentional mixing of students in classroom discussion, shared artistic and intellectual pursuits bridging cultural groups, and encouraging international students to share experiences in informal settings. Living arrangements are also a crucial way in which students can learn to live with and reason through diversity. Should UBC be more active in promoting mixed housing opportunities for students (further blending international and Canadian students; creating virtual "colleges" that link students from various backgrounds together through meal plans, targeted activities and academic programming based around housing options)? Virtual colleges could also be extended to include commuting students by enriching meal opportunities and providing informal student space for "college" members.

(3) *Language Education*: Should UBC demand more in terms of language requirements? This could happen at an institutional or programmatic level. Should those students who speak only English be required to engage actively with another language as part of an academic programme? Should we actively encourage the retention of a heritage language (e.g., Chinese) as well as the acquisition of new languages? For example, should UBC award credit for the perfection of a heritage language (after an entry-level assessment), and require a modest degree of fluency in another language (apart from English) before graduation? Should UBC engage even more in work to advance Aboriginal languages, especially those Aboriginal languages of BC that are threatened?

(4) *Study and work abroad experiences*: Should UBC establish more aggressive targets for the number of undergraduate students who can experience international study or work as part of their undergraduate programme? Should our current set of internship, Go Global, and international Community Service Learning options be expanded, or should we consider new programmes as well? For example, we might specifically select groups of students from different backgrounds who would visit key sites of pivotal world events, and discuss the important historical issues that have caused conflict amongst their cultural groups and how these conflicts might be better resolved. Or we might expand options that combine courses with travel experiences, such as Professor Henry Yu's course in which students from both UBC and the National University of Singapore each visit the other city to examine the complicated cultural diversity of its urban spaces (and in so doing come to see their own city with a fresh set of eyes). Or we might build on the "Term Abroad in Global Citizenship" course designed by Professor Sylvia Berryman, which is an interdisciplinary Faculty of Arts initiative, integrating service learning with coursework, to introduce students to global disparities and to challenges faced by civil society organizations working for change across borders. Could we expand the new ATLAAS (Arts Travel and Learning Abroad Awards for Students) to support more students, and extend outside the Faculty of Arts?

(5) *Expand local community service learning opportunities*: The local communities in which UBC's principal campuses sit are rich in social and cultural diversity. Our students are fortunate in that they do

not have to go outside Canada to challenge their own assumptions and to develop the capacity for critical self-reflection. Should UBC establish more aggressive targets for opening up the curriculum with community service learning options? Might the options be further extended to work in communities throughout BC, including in First Nations and other Aboriginal communities? (The First Nations Studies practicum might be a useful model to pursue and expand).

(6) *Encourage research on cultural diversity*: Should UBC's research strategy establish a frame around the wide range of work done on "diversity" in the university? How might work in social, cultural and biological diversity be linked? Perhaps one or more of our existing research and education centres such as the Liu Institute for Global Issues, the Institute of Asian Research, Women's and Gender Studies, the Asian Studies Department, the Psychology Department, the Centre for Sustainable Social Enterprise, Critical Studies in Sexuality, or the Peter Wall Institute for Advanced Studies might serve as the locus for diversity research. Alternatively, a consortium of existing centres might consider joint programming to find ways to link diversity research across the university.

UBC might also try to enhance its programmes of local, community-based research in which students are the main drivers. Students would have the opportunity to learn about the value and dynamism of diversity directly from the communities in which they live, as is currently the case in programmes such as First Nations Studies. Research projects could prioritize the development of academic-community linkages. Some students could also conduct research on topics to help illuminate the changing dynamics of an increasingly global and transnational Vancouver (i.e. analyze the formation of community centres and organizations, the complexities of transnational civic and political life, the development of transnational family forms and economic strategies, etc.). With appropriate research protocols in place, UBC might also consider focusing more research work in local Aboriginal communities, especially working with the Musqueam and groups within the Okanagan Nations Alliance.

(7) *Diversity hiring*: It may seem strange to refer to hiring in a list of suggestions around how students can be helped and encouraged to appreciate and work with cultural diversity. However, modeling is one of the most compelling forms of education. If students see the university live out its articulated values, they are more likely to be inspired to do so themselves. UBC may want to explore best practices from other leading global universities in enhancing the diversity of applicant pools for faculty and staff positions. For example, might UBC consider the creation of a post-doctoral fellowship programme targeted to traditionally under-represented groups within academe? This might help to identify promising candidates who would otherwise not come to our attention.

### *Conclusion*

Amongst globally influential universities, UBC is one of the best positioned to benefit from the intellectual and social vitality that cultural diversity helps to create. Our position in a country that has been relatively open to immigration and that promotes an active multiculturalism is an asset. So too is our location in a region that has grown more and more diverse over the last three decades, a trend that promises to continue. UBC's status as a leading university on the Pacific Rim opens up unique opportunities, as does our presence in locales rich in the heritage and dynamism of First Nations. Over the last quarter-century, UBC has made significant progress in opening itself to the changing world by becoming more diverse internally and by seeking out engagement in diverse communities in BC, in Canada and around the world. But our openness can become deeper and richer if we exert ourselves to

value and foster cultural diversity as a good in and of itself. Not only would this process enrich our research and our community life, it would begin to meet one of the great responsibilities of the modern university: helping our students to achieve greater intercultural understanding in an increasingly complex and interconnected world.

DRAFT

## **Draft Research Strategy: Discussion Document**

Office of the Vice President Research & International



**a place of mind**

V5.3 April 28, 2010

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## Draft Research Strategy: Discussion document

### Guidelines for Use

This document is a working draft of UBC's revised strategic research plan. It also contains significant commentary intended to generate thoughtful discussion and response. Sections of text inside a box, such as this one, are presented as *commentary* and not as elements of the strategic plan.

To submit feedback on any portion of this document, please complete the online survey at:  
<http://www.surveyfeedback.ca/surveys/wsb.dll/s/1g5ed>.

### 1.0 What is this document?

In December 2009, UBC released its new, strategic plan, *Place and Promise*. One of the central commitments in *Place and Promise* was to Research Excellence, and a number of specific goals and actions were given. The purpose of this research strategy is to provide some background and more specific details about those goals.

This document is the second publicly released draft of the research strategy, and has been developed after extensive consultation with the UBC community. Initial drafts of this document were developed in consultation with the Associate Deans Research (ADRs) and several groups of researchers; in turn, the ADRs consulted within their respective faculties. The Deans were also consulted during the development of this document, and the result was a draft discussion document that was presented to Senate at the end of March. At that time the previous draft of this document was also posted on the Web and the entire UBC community was invited to comment. About 100 comments were received from students, staff, faculty, and the external community. While it would not be possible to incorporate every suggestion received into a strategy, this version has been revised based on the comments. *It is worth noting that a number of very thoughtful, specific, and extensive comments were received after our April 16 deadline for Senate, and not all have been incorporated into this draft as more consideration is needed of these excellent ideas.*

This document will be presented to Senate in its current form for discussion on May 12, and we shall continue to receive and consider feedback from the UBC community through our website. The goal is to generate a strategy that will continue to evolve, so while we hope to have a posted version of the research strategy by summer, it is our hope that this will be a living document. In fact, some of the recommendations given here will be quite preliminary and are meant to signal a need to investigate an area or issue before a detailed action can be proposed.

This strategy focuses attention on UBC's Vancouver campus; research strategies are largely campus-specific as they are closely tied to academic programs. While some elements of the strategy do apply to all of UBC, it was thought that since the Okanagan campus has defined its research strategy<sup>1</sup>, this document should focus attention on the Vancouver campus, including the main health research institutes where much of the University's health research is conducted. Thus, throughout this document when UBC is referred to, it is the Vancouver campus that is being referenced.

<sup>1</sup> UBC Okanagan's research strategy is published online at:  
[http://web.ubc.ca/okanagan/provost-research/\\_shared/assets/Strategic\\_Research\\_Plan8572.pdf](http://web.ubc.ca/okanagan/provost-research/_shared/assets/Strategic_Research_Plan8572.pdf)





As shall be discussed below, there are several types of scholarly activity at a large university like UBC. It is typical to refer to these activities as research, scholarship, or creative arts, although the definition of what is meant by those labels is not always clear, and sometimes the names have certain values attached to them. For the purposes of this strategy, all the different types of scholarly work done at UBC will be referred to as “research” to simplify the terminology. Similarly, our research can be carried out in partnership with, or be important to, a number of external groups, including companies, government organizations or departments, research labs, civil society organizations, community groups, and Aboriginal communities. In this document, “external communities” will refer to these groups or organizations, unless a specific group is being discussed.

## 2.0 Introduction to the Research Strategy

The UBC strategic plan, *Place and Promise*, was published in December 2009 and was developed through an extensive consultation over much of the preceding year. Of *Place and Promise*’s numerous commitments, three are highlighted as central to the University’s mission: Student Learning, Research Excellence, and Community Engagement. This strategy focuses on Research Excellence and specifically, how the University should promote and nurture it. While excellence is difficult to define or measure, it is a concept that is generally understood at a major university such as UBC (at least, individual researchers understand what excellence means within their own fields). While it would be unrealistic to expect excellence in all UBC research, the goal of a major university must be to achieve it in as many different fields as possible.

In *Place and Promise*, the notion of what constitutes research excellence is given in our commitment statement:

- *The University creates and advances knowledge and understanding, and improves the quality of life through the discovery, dissemination, and application of research across a wide range of disciplines.*

This compact statement of purpose and commitment describes the core of research excellence as we understand it at UBC. A university must value research whose main purpose is to create knowledge and understanding, including the creation of artistic works. Such research changes the way we understand ourselves and our world, and enriches our lives. Equally important is research that is more goal-oriented: improving health, reducing poverty, reducing environment impacts, creating jobs and strengthening the economy—essentially, the creation of research that makes communities more sustainable and society more robust. It is critical that we support and value both types of creative research, and that we resist viewing them as opposing or conflicting endeavours.

Improving our efforts to commercialize some of our research results should never come at the expense of research that does not have a clear commercial application. In the same way, it is wrong for us to view research that seeks to improve society as less valuable than research that has a major scholarly impact. While all types of research must be promoted, it is vital that universities vigorously promote research of a fundamental or basic nature (i.e., research that does not have a clear application or commercial outcome) as this type of research is typically least understood or valued by the broader community.



### 3.0 The Importance of Research at UBC

It is clear that excellent research is one of the central aspects of UBC's mission, as recognized in *Place and Promise*. Our international reputation is largely based on our research. While all universities have an important teaching mandate and should strive to create the best possible learning environment for their students, at major research-intensive universities like UBC the meaning of "learning environment" incorporates research to a far greater extent than at smaller universities, and graduate education is a much more significant part of our teaching mandate. Further, while all universities conduct research, at a major and well-funded university such as UBC that is ranked among the world's leading universities, there is an obligation to conduct research that leads and defines the field, in as many different fields as possible. It is recognized that not all research and not all researchers will meet this standard, and that incremental advances will also contribute to our research and education missions. This strategy will focus on promoting research that is at the leading edge.

One of the central roles of a large, research-intensive university is to carry out research that contributes to the educational mission of the university and also has an impact on society and the world. The modern university is a unique institution, evolved over many centuries to be one of the leading drivers of change in society. In no other institution is research conducted across such a diverse range of disciplines with researchers enjoying the freedom to choose their own topics of study and having the right (and even the obligation) to disseminate the results openly. Further, this research is carried out by a mixture of faculty, staff, and students, and is integrated with the education of those students, creating a constant renewal of the research enterprise. For research that is intended to have a more immediate impact on our world, the university must facilitate maximizing that impact; impact is one of the more important measures of excellence for this type of research.

#### 3.1 Defining "Excellence"

While everyone at a university should have some understanding of what excellence means, it is a great challenge to come up with a simple definition of excellence that is applicable across all domains, and to create unbiased ways of measuring it. It is broadly accepted that one of the most important measures of excellence is peer review, or the opinion of other researchers about a given body of work. This is the basis for most academic publishing, for the awarding of most research funding, and for assessments such as the Research Assessment Exercise (RAE) that is conducted in the UK every seven years. Because peer review is complex, as the RAE shows, surrogate measures are often used, such as: funding levels (compared with the norms for a given area), bibliometric analysis (citations, etc.), external awards and prizes to researchers, invitations to present at prestigious conferences, fellowship in prestigious societies, international collaborations, and service on important committees and boards. Rankings of universities will often use a mixture of peer review and these other measures in combination; the new version of the Times Higher Education rankings is an example.

While these metrics are valid for much of the research effort, they neglect to measure possible research impacts, such as informing public policy decisions, improving health care, or creating wealth. These impacts should also be considered when defining what makes excellent research as there are many areas of research where the impact is more important than scholarly publications. Because we are a university, we also need to be concerned about the role research plays in our training mission, as education is one of the important outcomes of our research effort.



### 3.2 Defining “Impact”

It is important to clarify the meaning of *impact*, as recent discussions about commercializing the results of university research have led in much of the public discourse to a narrowing of the definition of research impact into one of a commercial outcome, or a combination of commercial and health outcomes. This is too narrow a view, as research at universities can have a profound impact on the way we understand ourselves and others, changing society for the better. Excellent research can change public policy, help us to understand and eliminate conflict, and help to create a better society. Of course, much of the research at universities will lead to a stronger economy, more jobs and better health outcomes.

Although it is risky to create a single summary of meaningful impact for research, perhaps the notion that excellent research can create a better quality of life or a better world is one that embraces the full scope of our efforts. This definition of excellence also values research that doesn't have a commercial outcome or specific application. This emphasis on research impact, in addition to research excellence, is reflected in our vision statement in *Place and Promise* to “support outstanding research to serve the people of British Columbia, Canada, and the world.”

### 3.3 Defining “Areas of Excellence”

Although any strategy will highlight certain research areas or themes as being important to the university, it should be clearly understood by the readers of that strategy that *this is not an attempt to steer the research of the university community down defined paths*. The direction of research and the areas of emphasis are driven by a number of factors; among the most important are researcher interest, community need, and government and the priorities of funding providers.

University research strategies typically enumerate a number of areas of research deemed important to the university. Such lists are rarely informative as they generally list areas of current strength within the university research portfolio, and to minimize hurt feelings they try to work in the efforts of as many researchers on campus as possible. Furthermore, the most important determinant of areas of research excellence comes from the recruitment strategies of academic units and the areas of research focus of affiliated institutes. Thus, faculties or institutes will develop their own academic plans, and this may create areas of concentration. A current example at UBC is the Faculty of Medicine's focus on Brain Health as one of its strategic areas.

What can be done is to use examples of research excellence that exist at UBC to help illustrate various aspects of what is meant by excellence. The strategy can also point to thematic areas that have been identified in *Place and Promise* as being important to UBC, as any strategy must support the overall vision defined in *Place and Promise*.

### 3.4 Diversity of research

One of the greatest strengths of a large, research-intensive university is the range of research activities. This range of activity defines the cultural framework of the university community and creates an environment around the university that is critical to its social, cultural, and economic well-being. From creative and performing arts, where the production of a work of art or a performance is the scholarly creation, to engineering where the goal might be to improve an industrial process, all research at the university can contribute to improving lives, enriching culture, and furthering education.



However, a diverse research effort also creates a challenge when formulating a research strategy and providing appropriate support for that research. For those engaged in more solitary research, such as in pure mathematics or some humanities disciplines, significant research funding is far less vital than access to excellent library resources and time for detailed reflection. Research in the creative arts does require significant financial support, but this cannot be obtained through standard research grants. Most research does require significant external financial support, and support is increasingly needed for complex multidisciplinary projects, in addition to the standard types of projects driven by one or a few single-discipline investigators. For UBC to achieve its full potential, this diversity of needs must be recognized and strategies developed to support these various requirements.

### 3.5 *Conducting research ethically*

As a public institution, we have an obligation to conduct research to the highest ethical standards. While it is important not to create a system of ethical approvals that are so complex and cumbersome that they impede the research process, we also must attend to our obligations to the many communities that are involved in the research effort. There are clear statements of ethical requirements for all research conducted at UBC (e.g., the Tri-council Memorandum of Understanding). For research undertaken in partnership with communities, including community-based research, there is an obligation to work in true collaboration with these communities as equal partners in the research project. This is especially important for work with Aboriginal communities or vulnerable populations, which in the past have not always been treated as equal partners by some researchers.

## 4.0 **Defining Excellence: selected examples**

In the final form of the research strategy, this section will not exist. Given here are possible examples of various aspects of research excellence at UBC that will be used in sidebar discussions throughout the strategy document. All the examples listed alphabetically below have attracted considerable international attention but they display different aspects of research excellence at UBC.

*Commentary:* As with any major university, areas of research strength have evolved and will continue to evolve through a mixture of fortunate circumstance and design. While it is always a dangerous thing to “pick winners” from our very large research portfolio, there is value in using some examples to define aspects of research excellence, as long as it is understood that the examples are not comprehensive or exclusive. With this in mind, some possible examples are listed below, with the reasons why they are being highlighted.

Among the comments received about the previous draft document were several about some of the choices given below. Some were disagreements about the choices, or comments on the descriptions used, or possible extensions and modifications. There were also some suggestions for additional areas that should be highlighted in addition to or in place of these ones. I have left the original list alone, but intend to continue working to refine these choices and descriptions.

- The **Centre for Drug Research and Development (CDRD)** builds on our excellent drug discovery research and provides a new model for drug development and commercialization. UBC played an important role in establishing CDRD and is a major partner and host to this Centre of Excellence for Commercialization and Research. CDRD is unique in Canada and there are very few similar



organizations anywhere in the world. As a result, it has attracted national and global attention as an innovative answer to a common problem in translating laboratory results into new treatments.

- The **Centre for Interactive Research in Sustainability (CIRS)**, a green building currently under construction, is not just one of the world's most sustainable large buildings—it is also a technical and social experiment. An example of strong partnership with external groups and companies, and it will be a centerpiece for UBC's Sustainability Initiative.
- Important research into the treatment and prevention of **HIV/AIDS** is conducted by several research groups at UBC and at affiliated health research institutes. Much of this research has addressed vulnerable communities in BC, most notably in the Downtown Eastside. In addition to setting new standards for treatment of HIV/AIDS, this research has had enormous public policy impact and international reach, and has established UBC as one of the world's leading centres in this area.
- The new *Partnership of Peoples* project at the **Museum of Anthropology (MOA)** showcases UBC research from several cultural viewpoints. The renovation undertaken for *Partnership of Peoples* was a significant demonstration of Federal and Provincial investment in UBC research through the Canada Foundation for Innovation and BC Knowledge Development Fund, and it remains one of the most important CFI awards nationally in the social sciences and humanities. MOA is significant to UBC research because it creates a new platform for collaborations between university researchers and Aboriginal communities, and sets new standards for the way museums understand and display cultural artifacts.
- **Quantum materials** is one area of UBC research in which a critical mass of internationally renowned investigators have established a research cluster that is one of the best in the world in its field. Built on long-standing strength in condensed matter physics at UBC, this group has been built up through Canada Research Chair appointments and significant success in attracting external research funding. Their research excellence is reflected in the impact of their publications, major national and international awards, and substantial international partnerships with some of the world's leading universities and research institutes.

## 5.0 Key Theme Areas and Partnerships

*Place and Promise* gives nine commitments, one of which is Research Excellence. While each commitment has a linkage to research, some are more directly related to research and should be addressed in the Research Strategy. Many of the commitments are related to UBC's engagement with external communities. UBC research is increasingly undertaken in partnership with external communities who help to define and conduct the research, apply the results, or pay for the work. Among the most significant of these partnerships are in health research, involving affiliated Health Authority research institutes, community health care agencies, advocacy groups, and hospital partners. With this in mind, some of the research areas, themes, and partnerships that are strategically important to UBC are given below.

*Commentary:* In addition to the goal of building areas of research excellence at UBC without targeting areas of research, the research strategy must take into account factors that are vital to UBC's overall strategy. In *Place and Promise*, there are several commitments beyond Research Excellence that have a research component, and the research strategy should reflect this. The specific commitments made in *Place and Promise* are given below, with an explanation of how they fit with a research strategy. In addition, much of UBC research is carried out in partnership with Provincial Health Authorities and the communities they serve, using facilities and personnel



provided by the Health Authorities. The research institutes within the Health Authorities establish their own research agendas and have their own strategic plans. Given the enormous importance of health research, these vital partnerships must be reflected in a research strategy.

#### [Commitment: Student learning](#)

Much of the research work done at UBC is conducted by graduate students, postdoctoral fellows and other research staff; accordingly, there is a very strong connection between research excellence and teaching and learning for those students. However, most of the students at UBC are undergraduates, many of whom are never directly connected to UBC's excellent research. There need to be more opportunities to allow undergraduates to participate in research at UBC, both through direct participation in advanced research, and through being made aware of the excitement of current research going on. For more advanced research trainees, UBC should provide more than an excellent research environment—we must also provide training beyond their specific research projects.

#### [Commitment: Community engagement](#)

One of the central commitments in *Place and Promise*, this will be partly addressed under the goal to become a world leader in knowledge exchange and mobilization, as much of our strategy for that will be to strengthen partnerships with external communities. Community engagement also includes research with Aboriginal communities and community-based research. In general terms, much of the impact from our research will depend on exchange of knowledge with external communities, as that knowledge informs our research effort, and helps our research to have its maximum impact. While now all research directly relies on community engagement, the overall research enterprise will be better supported if the external community (and also the UBC community) is made aware of our research efforts and their importance.

#### [Commitment: Aboriginal engagement](#)

A key commitment in *Place and Promise* is to Aboriginal engagement. This engagement has a research component, as given by one of the actions listed to support this commitment:

- *Strengthen and expand research grounded in significant community collaboration and consultation.*

MOA/Partnership of Peoples has already been mentioned as an example of this type of research, and there are other important examples of successful partnerships within the Faculties of Education and Arts. The Aboriginal Strategy addresses this important area, and the research strategy supports expansion of this effort.

#### [Commitment: International engagement](#)

We are in the process of developing an International Strategy for UBC, so there is not a need to duplicate that effort in the research strategy. However, international partnerships are an important feature of research excellence, and research collaborations are an important feature of any international strategy, and much of the research at UBC has a necessary international component. Support for international engagement will be an important component of the strategy.



### Commitment: Sustainability (Campus as living laboratory)

*Place and Promise* identifies sustainability as one of UBC's strategic commitments. The UBC Sustainability Initiative identifies "campus as living laboratory" as one of its important themes. The CIRS project is an example of this, as is the newly announced bioenergy partnership with Nexterra. These important partnerships to advance sustainability will not be restricted to technology development but will include partnerships in social and health research and policy development, which are equally important features of sustainability.

#### Partnerships for health research

Health education and research at UBC is carried out in partnership with Provincial Health Authorities and the communities they serve. The importance of this collaboration is reflected in the fact that the majority of our health researchers work at Health Authority research institutes and hospitals, and most of our external funding for health research is awarded to researchers at the Health Authorities. Currently, discussions about unifying the administration of research at Health Authorities are underway, and UBC is working with the Health Authorities to help define this new vision.

## **6.0 Actions to Promote Research Excellence**

*Commentary:* The language, goals and actions in *Place and Promise* were arrived at through extensive consultation with the entire University community. They are presented here as a framework for the research strategy but *are not subject to revision or commentary* at this time. However, beneath each *Place and Promise* action are numbered suggestions for more defined actions from the VPRI. We invite commentary and feedback on these proposed actions, which form the basis of the Research Strategy.

In *Place and Promise*, one of the important commitments is to research excellence:

- *The University creates and advances knowledge and understanding, and improves the quality of life through the discovery, dissemination, and application of research across a wide range of disciplines.*

A number of actions in *Place and Promise* support this commitment, and these form the basis for providing support for UBC's research effort. The important goals that have been defined for research excellence are:

1. *Increase the quality and impact of UBC's research and scholarship; and*
2. *Be a world leader in knowledge exchange and mobilization*

Meeting these goals will require us to provide better support for UBC's researchers, particularly for interdisciplinary research, research undertaken in partnership with communities and organizations external to UBC, and research with international partners. The specific actions in *Place and Promise* that support the goals given above are still fairly high level, and one of the goals of this section is to suggest specific strategies that will make up these higher-level actions. In the following sub-sections, the action from *Place and Promise* forms the heading for a more detailed set of strategies that will create the overall action.



## 6.1 Place and Promise Goal: Increase the quality and impact of UBC's research and scholarship

### 6.1.1 P&P Action: Focus on areas of excellence

It is obvious that the goal of a research strategy is to promote research excellence as its primary goal. The idea of focusing on areas of excellence is a bit more specific, as it implies that not all research nor all research areas at UBC will achieve excellence. There is also an clear implication that while excellence should be promoted wherever it occurs, there is a need to support and build areas of excellence at UBC, meaning groups or teams of researchers who work in a similar area or on a common problem. There is a synergy that develops between groups of leading researchers that creates better research and leads to greater possibilities for research funding.

Research training is also greatly improved if there is a critical mass of excellent researchers in a given area. This attracts better graduate students and postdoctoral fellows, and increases their chances for success. The combination of better and more successful trainees also improves the research effort. In addition to nurturing research excellence, we must do a better job of recognizing and promoting that excellence, especially to the external community. This increases support for university research and enhances our reputation.

This action will create the most comment, as excellence in research is clearly rooted in getting the best researchers (faculty, students, and postdocs) to UBC, providing them with the support necessary for them to excel at research, and retaining them at UBC, independent of field. However, it is also true that we cannot hope to be world leaders in all areas of research, and so decisions have to be made about how to allocate resources in a way that creates global excellence in a few areas. This happens quite naturally in that it is difficult to attract the best talent (faculty, students, and postdocs) unless we have a strong reputation in a given area, and it is even harder to retain that talent unless the research environment is excellent.

#### Proposed Actions

1. *Provide focused assistance for researchers who are developing larger-scale initiatives, or for specific research funding opportunities as they arise, through an integrated grant facilitation office and better coordination of our network of facilitators.*

In recent years we have been able to provide support for Networks of Centres of Excellence, Centres of Excellence for Commercialization of Research, and Canada Excellence Research Chair proposals, and other large group proposals, based on methods developed for institutional CFI proposals. While this has led to success in these applications, our efforts are limited by available resources for assisting researchers, which are currently decentralized across our academic units. We need to do a better job of coordinating the activities of unit-level facilitators and using the emeriti faculty to allow more and better work to be done in supporting the development and improvement of these larger proposals. We also need to provide better resources for this effort, which was badly hurt by withdrawal of substantial support from the Michael Smith Foundation for Health Research.





2. *Provide seed funding resources to enable organization of larger initiatives.*

While it is not good to have long-term research funding from internal sources for these large initiatives, there is frequently a need to provide an initial investment to help get them started. We need to consolidate and clarify the nature of these seed funding opportunities, link them to proposal development, and make researchers aware of available funding opportunities.

3. *Work to develop international partnerships for defined areas of excellence.*

This overlaps with the international strategy, but it is important to use international connections to strengthen existing areas of excellence. This action is mentioned here as part of the Research Strategy but it will be developed more fully in the parallel International Strategy, which is currently under development.

4. *Evaluate the internal research support programs in order to design and deliver the most appropriate and effective programs.*

Several internal funds are presently available to researchers, such as the Hampton Fund, the Martha Piper Fund, the Peter Wall Institute, the International Initiatives fund, and various discretionary seed funds. The amount of available money is significant—a few million dollars per year. A task force with broad disciplinary representation will be struck to recommend how these funds could be better coordinated and how they could better support and develop research excellence. This will also serve to improve awareness among researchers about internal funding opportunities.

5. *Increase the number of external research prizes awarded to UBC faculty.*

When our faculty members win prestigious external awards it not only provides recognition of their excellence (and frequently a financial reward as well), it also greatly enhances the reputation of UBC researchers and the institution. A Presidential Advisory Committee on Major Awards will be established with a goal to increase both the quantity and quality of major award nominations from UBC.

6. *Develop a better understanding of the areas of research excellence at UBC.*

To better represent ourselves to potential partners and donors, and to better support research excellence independent of field, we need to develop better means of determining our areas of excellence—means that recognize inherent differences between research cultures. This will involve consultation with the faculties and research units, both to understand the factors that contribute to defining excellence, and to support the research priorities being established by the units. This will also help us to be more effective in working in partnership with the Development Office to create opportunities for philanthropic and foundation support of major research efforts.

**6.1.2 P&P Action: Increase UBC research and graduate support funding in both absolute and relative terms, including support from non-traditional sources**

For most of the research activities at UBC, funding levels strongly influence the amount and quality of research that can be undertaken. In addition, funding levels are frequently tied to our ability to recruit and retain faculty, students, postdocs, and research staff. The participation of undergraduate students in many areas of research is also limited by the availability of funds to support their research.



Most of the research conducted at UBC depends on the involvement of graduate students. While the *roles* of graduate students vary among research areas, the *quality* of the research that can be accomplished is frequently dependent on the quality of graduate students conducting the research, as well as the support provided to those students to enable their success. Even in areas where graduate students work independently of a research team, the overall level of research improves as the number and quality of students improves, and the quality of the research program is reflected by the both the quality of graduate students attracted to that program and by their success. Thus, to improve research excellence at UBC it is critical to increase the amount of money available to support researchers and graduate students

### Proposed Actions

1. *Individual grant facilitation and internal review.*

One of the more successful initiatives to increase researcher success at UBC over the past decade has been the use of internal review, for health researchers through the Health Research Resource Office (HeRRO), and for institutional CFI applications through the CFI/BCKDF Resource Office. We have recently added two new permanent positions to the VPRI Office to expand the grant facilitation available to researchers outside the domain of health. However, this has been offset by significant cuts to our budget resulting from Michael Smith Foundation budget cuts, which had a serious impact on HeRRO. We must make decisions about resource allocations; to increase the professional staff support for grant facilitation and internal review, we will have to reduce funding for other activities. We also need to take advantage of other sources of support, such as the pool of emeriti faculty, to expand our efforts.

2. *Increase scholarship support and funding packages for graduate students.*

Recruiting the best graduate students and helping them to succeed will require increased funds for support packages and more significant scholarship funding for foreign graduate students. We will work in cooperation with the Faculty of Graduate Studies in lobbying government to increase support for graduate students, and to increase support from the UBC budget for graduate funding packages.

<i>Commentary:</i> This overlaps with the Graduate Strategy being developed by Dean Evans.
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3. *Increase international funding opportunities.*

Now that the International Office is within the VPRI portfolio, more focus can be put on increasing funding for international research collaborations. This will be done through more effective grant facilitation and providing better and more timely information to researchers.

4. *Cooperate with the Development Office on working with foundations.*

Much of the research at UBC is supported by charitable foundations. While this support is well established and understood by health researchers, we could do a better job of connecting researchers with foundations and other potential sources of research funding. This will be achieved in cooperation with the Development Office.

5. *Create a seed fund to support creative productions.*

In the creative arts, money is needed to mount productions or to complete works. As funding sources are limited, it might be possible to create, perhaps through fundraising, a seed



investment fund to support the creative arts. This would be somewhat different from normal seed funding, as there would be an expectation that in many cases proceeds from performances could replenish the fund.

### **6.1.3 P&P Action: Improve infrastructure to support leading edge research**

While the previous actions dealt with funding for research, there are other forms of support necessary for strong research. These include the systems and practices that are used to administer and regulate research, common facilities and infrastructure for research, space for collaborative and interdisciplinary research, and other forms of support for researchers.

#### **Proposed Actions**

***1. Improvement in common equipment for research, and support for that equipment.***

The CFI Office has had an excellent record of helping groups of researchers obtain support for shared research equipment. This has led to a great improvement in the research equipment available to researchers, but it creates new challenges. To maximize the impact of this infrastructure, it should be made available to as many researchers as possible, and adequate support needs to be provided to maintain and operate this equipment. This can be accomplished by creating an inventory of equipment that is available for common use, and assisting research groups who are responsible for the equipment in finding external users who will use the equipment on a cost recovery basis. Increased support can also be obtained by lobbying governments and other external funders for increased support of indirect costs, which can then be used to support maintenance and operation.

***2. Improved business practice and research information.***

While necessary, the administrative systems in place for research can sometimes impede the research process by becoming cumbersome or bureaucratic. Examples can include ethical reviews for research with human subjects or animals, contracts for research partnerships, or agreements for collaborative research. We are finishing a complete overhaul of our core support system, the RISE system, and are helping to develop a harmonized system for ethics approvals for clinical research in BC. There is still work to be done to ensure that RISE meets the needs of our researchers, and that the processes of ethics approvals and contracts are streamlined. We also need to create a more efficient system for negotiating research and service contracts, through the use of standard agreements, and clarification of liability and indemnification issues.

***3. Create fellowships to support leading researchers and newer researchers.***

One of the most important issues in many areas of research is the need for time to conduct research. This is especially true for researchers early in their careers, when they are trying to establish a reputation. For all researchers, a competitive fellowship program should be investigated to add to the supply of internal research fellowships.

***4. Support the creation of new structures to support research.***

There are some proposals for the creation of new structures and programs that could support research excellence. Two that have been discussed recently are an Institute for Humanities and a School of Public Policy. While UBC may not proceed with either of these, these and other similar structures should be investigated. Humanities scholars often work in isolation, which can disadvantage them compared with other disciplines. An Institute of the Humanities, which



would include an interdisciplinary graduate program, could strengthen humanities research and graduate studies.

*Commentary:* It would be useful to investigate programs like this at other leading universities (Toronto, Hebrew University, etc.) to see if such a model would be useful at UBC.

A School of Public Policy could provide for an increased understanding of how university research, particularly scientific research, could be used to inform and change public policy. A proposal is being developed for such a school at UBC and should be seriously considered.

5. *Expand opportunities for interdisciplinary dialogue*

There are not enough locations and opportunities on campus for researchers to meet informally to develop an understanding of research outside of their own discipline. The old Faculty Club is often used as an example of a place where such discussions could be held. Currently, there are some places and opportunities provided by the Peter Wall Institute and the graduate colleges. Expanding the role of these places, promoting better synergy between them, and establishing new spaces for dialogue would foster a better environment for interdisciplinary research on campus.

**6.1.4 P&P Action: Expand recruitment of top ranked graduate students and postdoctoral fellows**

As already discussed, research excellence at a university relies on recruiting the best researchers and ensuring their success. Many of these researchers at UBC are research trainees: graduate students and postdoctoral fellows. UBC must work to maximize the success of these researchers, in addition to recruiting the best people. This emphasis on research trainees does not detract from the important role played by professional research staff, but a university has a special obligation to those being trained as researchers.

Proposed Actions

1. *Improve international recruitment of students.*

There is currently no developed strategy for recruitment of international graduate students. As an internationally important university, we should expect to attract the very best students from around the world into our graduate programs. This not only improves the overall quality of those programs, and allows for expansion of our graduate enrollment, it also creates future international linkages through our alumni when they leave UBC. This international network has greatly benefitted other great universities in their efforts to internationalize their research effort.

*Commentary:* Again, this overlaps with the pending Graduate Strategy.

2. *Lobby for creation of improved fellowships for graduate students and postdocs.*

This is discussed in the previous section and will be an important component for achieving the goal of recruiting internationally, where there are currently fewer scholarship opportunities.



3. *Work with MITACS to improve opportunities for graduate internships, including expansion of international internship, and to improve professional training.*

We can strengthen graduate education by creating opportunities for graduate students to have international and/or off-campus experience in industry, government, or civil society organizations. Students and postdocs also benefit from training that is not specific to their discipline (sometimes called “soft skills”). As most of our graduates will not go on to become university professors, it is important to provide them with training outside their research areas.

4. *Create new graduate residences similar to Green College and St. John’s College*

The graduate residences at UBC support our graduate students in two important ways: they provide badly needed housing – especially important for international students – and they provide a place for informal discussions among students from different disciplines, which improves their learning environment. We can only accommodate a small fraction of our graduate students in Green College and St. John’s College, and there seems to be a strong demand for more residences like them. One possibility for a graduate residence that has been proposed is a “sustainability house” on south campus, and this could be an exciting new college.

## 6.2 Place and Promise Goal: Be a world leader in knowledge exchange and mobilization

It is given that one of the most important determinants of excellence in research is the opinion of peers, who are generally researchers and academics at universities around the world. Without diminishing the need to have our research recognized by other researchers, it is often true that for research to have its maximum impact we must connect and collaborate with non-university communities. Some obvious examples are in health research, commercialization and public policy development. A potential breakthrough in treatment of disease that is discovered in a laboratory needs to be translated into clinical practice if it is to have an impact on health care.

Although universities can facilitate commercialization of research results, they are not commercial enterprises, which means partnerships are necessary with the private sector for commercialization of university discoveries. While university research can and should have an impact on public policy, we must partner with external agencies to see our research translated into policy practice. Health research is often performed in partnership with advocacy groups and affected populations.

### 6.2.1 P&P Action: Increase emphasis on engaging external communities in research at UBC

*Commentary:* It is also important to move beyond a traditional model of knowledge translation, where the role of the university is to generate knowledge and then bring enlightenment to those outside the university gates. This notion of one-way knowledge exchange is dated, and in some cases reflective of a colonial mentality (for example the historical practice of research “on” Aboriginal communities). What needs to be promoted is the concept of partnerships, where university researchers learn from external communities and carry out their research in partnership with them. Of course, this is not necessary or even desirable for all university research, but many types of research can be improved by increased partnership.



### Proposed Actions

1. *Facilitate the development of partnerships necessary to make “campus as living lab” successful.*

These partnerships are not restricted to ones with external companies for technology development, although those are an important component to “campus as living lab.” On-campus partnerships and work with external organizations and governments are also an important feature of our sustainability strategy, as it is important to not only change the way UBC behaves but to also implement successful strategies in the broader community.

2. *Expand university research capacity by fostering and managing partnerships and collaborations with non-UBC entities.*

The Pacific Institute for Mathematical Sciences, MITACS, and the Banff International Research Station are excellent examples of research organizations that have played an important role for UBC researchers, and which have greatly improved our research capacity. The Clean Energy Research Centre has a longstanding, mutually beneficial partnership with the NRC Institute for Fuel Cell Innovation, and UBC has strong and longstanding ties with the TRIUMF national laboratory on our south campus. There are many opportunities for similar partnerships with other institutions and organizations that should be developed.

3. *Develop and expand research carried out in partnership with Aboriginal communities.*

This is a very important priority for UBC, and forms a part of the Aboriginal Strategy. The VPRI portfolio needs to work with the Senior Advisor to the President on Aboriginal Affairs and the Standing Committee for the Aboriginal Strategic Plan to support the research goals of the Aboriginal Strategy.

4. *Develop a strategy to promote and support community-based research.*

There are specific issues and challenges involved in conducting community-based research, particularly when researchers are working with vulnerable or marginalized populations. This type of community engagement builds on UBC’s strength in research with vulnerable populations (e.g., in HIV/AIDS, mental health and addictions, etc.) and our focus on community service learning. The VPRI will work with the Learning Exchange and the VP External, Legal, and Community to develop a plan for supporting and promoting community-based research.

5. *Develop an integrated industry engagement strategy for UBC.*

There are several different levels on industrial engagement, from partnership for commercialization or research, through to provision of technical services such as instrumental analysis or animal care. In all cases, we need to develop a mutually beneficial strategy to facilitate this engagement at all levels, and to use this engagement to improve our research efforts. A key part of this will be the creation of a high-level external advisory committee who will help to define the engagement strategy.

6. *Work to expand knowledge and appreciation of the importance of UBC research.*

Continued public and political support for all aspects of our research effort rely on a better understanding and appreciation of our research. This promotion of our research must be across the full range of activity, and cannot rely on simply highlighting research with clear applications. This will be done in cooperation with the VP External, Legal, and Community.



*Commentary:* Clearly, a key part of this effort will be directed at politicians, public servants, and important opinion leaders, along with local, national and international communities.

### **6.2.2 P&P Action: Expand the multiplicity of knowledge exchange channels, such as global access licensing**

#### Proposed Actions

1. *Create and/or identify and implement alternative Intellectual Property (IP) mechanisms for data, research tools, software and other research inventions.*

There is a great deal of discussion locally and across the country about best practices for management of university-generated IP. UBC needs to be fully engaged in this discussion and must work to develop innovative ways of treating IP to maximize commercialization success and knowledge exchange while protecting the rights of UBC researchers.

2. *Build relationships with Centres of Excellence for Commercialization and Research and Business-Led Networks of Centres of Excellence to develop and advance UBC inventions.*

These relatively new programs of funding from the Federal Tri-councils (NSERC, SSHRC, and CIHR) have been very successfully exploited by UBC researchers, such that we have several CECRs based at UBC, of which the Centre for Drug Research and Development is a prominent example. These centres and networks provide new channels for knowledge exchange and research translation.

3. *Take an international leadership role in the development of Global Access practices and apply these practices to UBC inventions.*

UBC has taken a leadership role in adopting Global Access licensing practices, which make technologies available at cost to poor countries. We now need to develop effective means of identifying and helping to develop these technologies in partnership with the global south.

### **6.2.3 P&P Action: Develop a campus strategy for making UBC research accessible in digital repositories, especially open-access repositories**

#### Proposed Action

1. *Work to develop a central scholarly publications and data repository to ensure results of UBC research are freely accessible and meet the NIH and CIHR requirements regarding "open access."*

This is a partnership with UBC Library that helps to promote more openness in our research. A more detailed plan of action will be developed in cooperation with the University Librarian.

## **7.0 Summary**

This section will be written once the previous sections are finalized.

April 28, 2010

**Provost and Vice President Academic**

6328 Memorial Road  
Vancouver, B.C., Canada V6T 1Z2

Tel: (604) 822-4948

Fax: (604) 822-3134

To: Senate

From: David Farrar, Provost and Vice President Academic

Re: Report on Great Northern Way Campus

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Great Northern Way Campus is shared between the University of British Columbia, Simon Fraser University, Emily Carr University of Art and Design, and the British Columbia Institute of Technology. The site consists of “18.5 acres of land donated by Finning International in 2001 to the 4 academic partner institutions. It is located on the southern edge of the False Creek Flats, a 308 acre industrial area generally bounded by Main Street to the west, Clark Street to the east, Prior/Venables Streets to the north, and Great Northern Way to the south.” (<http://www.gnwc.ca/planning/planning-process>) The intent is to develop Great Northern Way Campus “into a vibrant, livable and sustainable community that attracts innovative businesses and academic programs and encourages collaboration between industry and the four partner institutions.” (<http://www.gnwc.ca/>)

Each of the partners has an academic interest in the site, including collaboration in an innovative Master of Digital Media programme. Other academic uses are made by one or other partner either alone or in collaboration with other institutions. UBC, for example maintains its theatre workshop at Great Northern Way Campus as well as a painting studio used by members of the Visual Arts program for large-scale painting projects.

Senate has given consideration to academic governance of programmes at Great Northern Way Campus on three previous occasions:

1. October 2006: <http://www.senate.ubc.ca/vancouver/minutes.cfm?article=minute06-07/1006/october.pdf> (p. 38). Principles of academic governance and administration of degree programs approved “with the proviso that Senate have ongoing oversight and right of approval for all academic programs, courses, regulations, and policies applicable to students who are candidates for degrees offered in part by the University of British Columbia at the Great Northern Way campus.”
2. January 2007: <http://www.senate.ubc.ca/vancouver/minutes.cfm?article=minute06-07/0107/january.pdf> (pp. 75-7). MOU on Academic Governance and Administration of Degree Programs (and three appendices) approved with the proviso that Senate be provided with updated information on development of programmes at Great Northern Way Campus.
3. February 2007: <http://www.senate.ubc.ca/vancouver/minutes.cfm?article=minute06-07/0207/february.pdf> (p. 107) MDM and associated courses approved.

The Great Northern Way Campus partnership is governed by a Board of Directors consisting of institutional representatives and community volunteers and managed by its President, Matthew Carter (formerly Vice President, UBC Properties Trust; Citibank, London). The current members of the Board of Directors are Jamie Bruce (Partner, Capital West Partners) (Chair), Chris Golding (VP Learning and Technology, BCIT), Andrew Grant (President, The PCI Group), Patricia Hibbitts (VP Finance and Administration, SFU), John C. Kerr (Managing Partner of Lignum Forest Products LLP and Chairman of Lignum Investments), J. Eric Martin (Vice



President Development, BOSA Developments), Tamara Vrooman (CEO Vancity), W. Wesley Pue (Vice Provost & AVP, UBC).

Although it is open for each partner institutions to develop initiatives alone or in concert at the site under conventional academic partnership arrangements, it is not intended to develop any further academic programmes under the governance of Great Northern Way Campus. The Master of Digital Media (MDM) is the only academic programme of the Great Northern Way Campus. It is:

... an innovative, full-time professional Master's degree in entertainment technology and digital media. This is a team-based, industry-facing program focused on project learning. The challenging curriculum, designed with input from academia and industry, ensures relevancy in today's ever-expanding marketplace. During the 20-month program, including an internship, graduates will develop the professional skills required to be effective creators, practitioners and senior managers in the rapidly growing digital media industry. (<http://mdm.gnwc.ca/program/mdm-program-overview> )

The MDM programme has been successful in attracting, retaining, and graduating well qualified students, as application, admissions, and graduation trends reveal: 2010 – 63 qualified applicants, 53 offers made to date; 2009 – 75 qualified applicants, 55 offers; 35 accepted, 34 remain registered; 2008 – 61 qualified applicants, 44 offers, 29 accepted, 26 graduating; 2007 – 29 applicants, 21 accepted, 21 enrolled, 21 graduated. There is a growing interest in the programme by international students (2009-2011, 41%; 2008-2010, 31%; 2007 – 2009, 29%). It is expected that an external review of the programme will be undertaken within the next 12-18 months.

Academic oversight for the MDM remains vested in an Academic Committee composed of representatives of all four partner institutions. Programme changes require the approval of the BCIT Education Council and the Senates of the three university partners. Simon Fraser University has agreed to provide oversight to the programme on behalf of the partnership so as to regularize governance of the programme and support for it. All four partner institutions are represented on a graduate programme committee which reports upwards both through Simon Fraser University's governance structures and to the Great Northern Way Campus Academic Committee (and thence to the Senates and Education Council).

The current members of the Master of Digital Media Graduate Programme Committee are Tom Calvert (Chair), Jim Bizzochi (SFU), Maria Lanton (ECUAD), Rhodri Windsor-Liscombe (UBC), Kim Dotto, (BCIT). The Director of the MDM Programme serves *ex officio*.

# THE UNIVERSITY OF BRITISH COLUMBIA



Vancouver Senate Admissions Committee  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
Vancouver BC V6T 1Z1  
Tel : (604) 822-8141 | Fax : (604) 822-5945

30 April 2010

To: Vancouver Senate

From: Admissions Committee

Re: **Annual Report – Appeals on Applications for Admission, Readmission and Transfer to Programs (information)**

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Pursuant to section 37(1)(b) of the *University Act*, the Vancouver Senate has conferred on the Admissions Committee the power to hear final appeals on applications for admission and readmission to the University.

Between May 1, 2009 and April 30, 2010, the Admissions Committee heard 35 student appeals:

- 23 appeals for admission to the University
- 7 appeals for readmission to the University
- 5 appeals by UBC students for admission/transfer to a Degree or Program

Of the appeals heard by the Committee, 16 were allowed and 19 were dismissed.

Respectfully submitted,

Dr. David Fielding  
Chair, Admissions Committee



Senate Committee on Appeals on Academic Standing  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
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Tel : (604) 822-8141 | Fax : (604) 822-5945  
amandeep.breen@ubc.ca

30 April 2010

To: Vancouver Senate

From: Committee on Appeals on Academic Standing

Re: Annual Report 2009-2010

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Senate has delegated to the *Senate Committee on Appeals on Academic Standing* the authority to hear and dispose of student appeals from decisions of Faculties in matters of academic standing. The Committee shall allow an appeal where it is decided that the decision of the Faculty was arrived at through improper or unfair procedures, and that as a result, a wrong decision on the merits has or may have been arrived at. However, the Committee has no jurisdiction where the sole question raised in an appeal turns on the exercise of academic judgment by a Faculty. The decision of the Committee on an appeal is a final disposition of that appeal. The Vancouver Senate has conferred on the Committee the power of making final decisions pursuant to section 37(1)(b) of the *University Act* (reference: *UBC Calendar, Academic Regulations, Senate Appeals on Academic Standing, section 2*).

Students may also appeal to the Committee the refusal of the Registrar to extend the time line for accepting an appeal, namely within 10 days of being informed in writing of the Faculty's final decision.

As per section 39(a) of the Rules and Procedures of the Vancouver Senate, the Committee is required to make an annual report to Senate, including the number of appeals heard, their disposition and the general nature of the appeals.

Since last reporting to Senate in May 2009, 8 appeals proceeded to Committee hearings, of which 3 were allowed and 5 were dismissed.

In addition to the 8 appeals concluded, which are summarized below, the Committee has been advised that in the past year an additional 13 appeals were presented to the Registrar, of which 1 was resolved prior to a Committee Hearing; 5 were dismissed by the Registrar due to lack of timely prosecution; and 7 are in progress and are expected to be heard by the Committee in the upcoming months.

## Appeals Allowed

- The student appealed a decision of the Faculty requiring the student's withdrawal due to the student's failure to meet program requirements. The Committee held that the decision had been arrived at through improper or unfair procedures and that, as a result, a wrong decision on the merits had or may have been arrived at.
- The student appealed a decision of the Faculty requiring the student's withdrawal due to the student's failure to meet program requirements. The Committee held that the Faculty failed to consider the student's extenuating circumstances and

that the decision had been arrived at through improper or unfair procedures. As a result, a wrong decision on the merits had or may have been arrived at.

- The student appealed a decision of the Faculty to deny a change of grade in response to a request for Review of Assigned Standing. The Committee held that the Faculty failed to undertake the review in a timely manner and consider all relevant information and granted the student academic standing as it saw fit in the circumstances.

### **Appeals Dismissed:**

- The student appealed a decision of the Registrar to deny a request to extend the 10-day time limit to submit a written notice of appeal against a decision of the Faculty requiring the student to withdraw. The Committee dismissed the appeal on the basis that the Registrar appropriately considered the student's extenuating circumstances and arrived at a decision in accordance to the Committee's rules and procedures.
- The student appealed a decision of the Faculty requiring the student's withdrawal for failed standing. The Committee held that the Faculty duly considered all information that ought to have been considered and found no unfairness or impropriety on the part of the Faculty as a result of the Faculty following its academic regulations.
- The student appealed a decision of the Faculty to deny a request for deferral for reinstatement to a program. The Committee concluded that the Faculty followed its policies and procedures in considering and rejecting the student's request for further deferrals and reached its decision through proper and fair procedures.
- The student appealed a decision of the Faculty requiring the student's withdrawal for failed standing. The Committee found that the Faculty duly considered the student's extenuating circumstances and arrived at its decision through fair and proper procedures.
- The student appealed a decision of the Faculty requiring the student's withdrawal for failed standing. The Committee found that the Faculty duly considered the student's extenuating circumstances and arrived at its decision in accordance with its published academic regulations.

### **General Observations**

The Committee continues to draw to the attention of faculty and departments the importance of following due process in all matters relating to student assessment, promotion and appeal; of maintaining scrupulous records of course requirements, grade schemes, and student performance; as well as drawing such regulations and requirements to the attention of students.

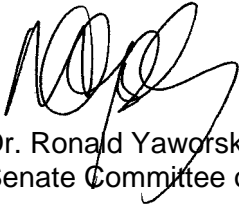
Additionally, the Committee would like to emphasize to faculties and departments the importance of dealing with these issues and student appeal inquiries in a timely manner

and of particular note, in notifying students of the right to appeal to the Senate Committee when issuing final decisions on matters of academic standing.

Based upon a review of the Committee's past files, the Committee observed that four Faculties consistently advise students when notifying them of the Faculty decision that they have the right to appeal to this Committee; four Faculties do not; in one Faculty practices vary, and the Committee could not determine the practices of three Faculties.

The Committee recommends that Faculties ensure their Advising Offices are fully informed as to the appeals process, and that students be consistently informed as to their right to appeal to the Senate Committee when provided with a final decision letter from the Faculty.

Respectfully submitted,



Dr. Ronald Yaworsky, Chair  
Senate Committee on Appeals on Academic Standing

Members of the Committee, 2009-2010:

- Dr. Ronald Yaworsky (Chair)
- Dr. Brian Cairns
- Prof. Bonnie Craig
- Dr. William Dunford
- Mr. Sean Heisler
- Dr. Bikkar S. Lalli
- Prof. Benjamin Perrin
- Dr. Lance Rucker
- Mr. Michael Sami
- Mr. Joshua Sealy-Harrington
- Dr. Trevor Young

# THE UNIVERSITY OF BRITISH COLUMBIA



Senate Committee on Student Appeals on Academic Discipline  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
Vancouver BC V6T 1Z1  
Tel : (604) 822-8141 | Fax : (604) 822-5945

30 April 2010

To: Vancouver Senate

From: Senate Committee on Student Appeals on Academic Discipline

Re: **Annual Report to Senate 2009-2010**

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Members of the Committee:

- Prof. Bruce MacDougall (Chair)
- Dr. Michael Burgess
- Prof. Bonnie Craig
- Dr. John Dennison
- Mr. William McNulty
- Mr. Clinton Meyers
- Mr. Michael Sami
- Mr. Dipen Thakrar
- Mr. Bryan Tomlinson
- Dr. Mahesh Upadhyaya
- Mr. Des Verma

The Senate Committee on Student Appeals on Academic Discipline is a standing committee of the Vancouver Senate established under section 37(1)(v) of the *University Act*, R.S.B.C. 1996, c.468. The Committee is the “standing committee in the final appeal for students in matters of academic discipline.” Under section 61(1) of the *Act*, the “president has power to suspend a student and to deal summarily with any matter of student discipline.” Under section 61(2), the President “must promptly report the action of the standing committee established under section 37(1)(v) with a statement of his or her reasons.” Under section 61(3), the “action of the president is final and subject in all cases to an appeal to the Senate.”

Student discipline is governed by the Academic Regulations section of the UBC Calendar. The rules and procedures of the Senate Committee on Student Appeals on Academic Discipline can be found at <http://www.senate.ubc.ca/vancouver/rules.cfm?go=discipline>.

During the period from 1 May 2009 and 30 April 2010, the Senate Committee heard five (5) appeals involving students disciplined by the President on the recommendation of the President's Advisory Committee on Student Discipline. All appeals considered by the Senate Committee were dismissed. The misconduct, the disciplinary actions taken by the President, the nature of the appeals and the decisions of the Senate Committee are as follows:

**1. October 2009**

The student was disciplined for plagiarizing a term paper. The discipline imposed by the President was a mark of zero in the course, suspension from the University for a period of 8 months and a notation of academic misconduct entered on the student's transcript. The student appealed with respect to the severity of the disciplinary action, namely that the period of suspension was excessive.

**Appeal dismissed.**



**2. December 2009**

The student was disciplined for submitting a term paper plagiarized from work submitted by another student for the same course. The discipline imposed by the President was a mark of zero in the course, suspension from the University for a period of 8 months and a notation of academic misconduct entered on the student's transcript. The student appealed with respect to the severity of the disciplinary action.

**Appeal dismissed.**

**3. January 2010**

The student was disciplined for non-academic misconduct. The discipline imposed by the President was expulsion from the University and a permanent (non-removable) notation of student misconduct entered on the student's transcript. The student appealed with respect to the severity of the disciplinary action, namely that expulsion from the University was excessive.

**Appeal dismissed.**

**4. February 2010**

The student was disciplined for non-academic misconduct. The discipline imposed by the President was a letter of reprimand and a notation of non-academic misconduct entered on the student's transcript. The student appealed the disciplinary action on the basis that the procedure of the President's Advisory Committee on Student Discipline was unfair or operated unfairly and that the discipline imposed by the President was excessive with respect to the transcript notation of non-academic misconduct.

**Appeal dismissed.**

**5. March 2010**

The student was disciplined for altering a marked midterm examination and submitting it for re-grading. The discipline imposed by the President was mark of zero in the course, suspension from the University for a period of 8 months and a notation of academic misconduct entered on the student's transcript. The student appealed on the following grounds: that the President incorrectly determined that the student's conduct, whether admitted or as found by the President, constituted misconduct; that there was a breach or unfair application of the University's procedure prior to the President's Committee hearing that was raised before the President's Committee but was not adequately remedied through the President's Committee; that the procedure of the President's Committee was unfair or operated unfairly in that there was bias or lack of independence in the President's Committee or the President's Committee's procedures were unfairly applied or breached; that the President erred in his assessment of the evidence in the President's Committee report; and that the discipline imposed by the President was excessive.

**Appeal dismissed.**

Respectfully submitted,

Prof. Bruce MacDougall, Chair  
Senate Committee on Student Appeals on Academic Discipline



Vancouver Senate Admissions Committee  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
Vancouver BC V6T 1Z1  
Tel : (604) 822-8141 | Fax : (604) 822-5945

30 April 2010

To: Vancouver Senate

From: Admissions Committee

Re: **Conditional Admission Program (approval)**  
**Doctor of Medicine – Admission: BC Residency Requirement (approval)**  
**Master of Music – TOEFL and GRE Requirements (approval)**

---

**a) Conditional Admission Program (approval)(circulated)**

The Admissions Committee has reviewed and recommends to Senate for approval the proposed calendar entry on the Conditional Admission Program (approved by Senate in September 2007) and the revised calendar entry on English Language Admission Standard.

Undergraduate applicants who meet admission requirements but who present an English language proficiency test score below the minimum required for direct entry to a degree program may be admitted under the Conditional Admission Program. The proposal outlines minimum competence for entry to the Program and the requirements for successful completion.

**Motion:** *That Senate approve the proposed calendar entry on applicants to the Conditional Admission Program, effective for entry to the 2010 Winter Session and thereafter.*

**b) Doctor of Medicine – Admission: BC Residency Requirement (approval)(circulated)**

The Admissions Committee has reviewed and recommends to Senate for approval the revised calendar entry on admission to the Doctor of Medicine program. Preference is given to residents of British Columbia. The proposed change clarifies the Faculty of Medicine's current practice.

**Motion:** *That Senate approve the revised calendar entry on admission to the Doctor of Medicine Program.*

**c) Master of Music – TOEFL and GRE Requirements (approval)(circulated)**

The Admissions Committee has reviewed and recommends for approval the change in admission requirements for applicants to the Master of Music program. The proposed change aligns the required TOEFL and GRE requirements for admission to the Master of Music program with the minimum admission requirements of the Faculty of Graduate Studies.

**Motion:** *That Senate approve the changes in admission requirements for applicants to the Master of Music program, effective for admission to the 2010 Winter Session and thereafter.*

Respectfully submitted,

Dr. David Fielding  
Chair, Admissions Committee





**Calendar Change Proposal Form**

<b>Approval Date:</b>  <b>Effective Session:</b> 2010 Winter Session and beyond  <b>Year for change:</b> To be posted to the calendar upon approval for the purpose of advising prospective students.	<b>Date:</b> April 28, 2010  <b>Contact Persons:</b> Dr. Anna Kindler Vice Provost and AVP Academic Affairs Office of the VP Academic 604 822-0206 <a href="mailto:anna.kindler@ubc.ca">anna.kindler@ubc.ca</a>  Michael Weiss Director, Continuing Studies 604 822-9077 <a href="mailto:michael.weiss@ubc.ca">michael.weiss@ubc.ca</a>  Karen McKellin Director, International Student Initiative 604 822-1418 <a href="mailto:karen.mckellin@ubc.ca">karen.mckellin@ubc.ca</a>												
<b>URL:</b> <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=2,19,0,0">http://www.students.ubc.ca/calendar/index.cfm?tree=2,19,0,0</a>													
<b>Proposed Calendar Entry:</b>  <b>Admissions</b> <u>Homepage</u> > <u>Admissions</u> > English Language Admission Standard  <b>Sub-sections</b> <table><tr><td><u>English Language Competence</u></td><td>≥</td></tr><tr><td><u>English Language Proficiency Tests</u></td><td>≥</td></tr><tr><td><u>Waiver of the English Language Admission Standard</u></td><td>≥</td></tr><tr><td><u>Language Proficiency Index (LPI)</u></td><td>≥</td></tr><tr><td><u>Requirement to Enroll in a First Year English Course</u></td><td>≥</td></tr><tr><td><u>Conditional Admission Program</u></td><td>&gt;</td></tr></table>		<u>English Language Competence</u>	≥	<u>English Language Proficiency Tests</u>	≥	<u>Waiver of the English Language Admission Standard</u>	≥	<u>Language Proficiency Index (LPI)</u>	≥	<u>Requirement to Enroll in a First Year English Course</u>	≥	<u>Conditional Admission Program</u>	>
<u>English Language Competence</u>	≥												
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<u>Conditional Admission Program</u>	>												
<b>Proposed Calendar Entry:</b>  <u>Homepage</u> > <u>Admissions</u> > English Language Admission Standard > <u>Conditional Admission Program</u>  <b><u>Conditional Admission Program</u></b>  <b><u>Applicants who do not meet UBC's minimum English language admission standard for an undergraduate program may be interested in the Conditional Admission</u></b>													



**Program offered through UBC's English Language Institute.** << hotlink "Conditional Admission Program" to the website set up by ELI to promote this program, located at <http://www.eli.ubc.ca/condadmission/index.html> >>

**To qualify for this program, applicants must:**

1. **Present academic and other admission selection qualifications, other than English language proficiency, that rank in the top 50% of students selected for admission to the program in the year prior to the date of application; and**
2. **Present evidence of English language proficiency that can be brought up to UBC's English Language Admission Standard in no more than one year. The minimum competence scores required to qualify for the program are listed in the Calendar under English Language Proficiency Tests.** << hotlink "English Language Proficiency Tests" to the proposed page in the Calendar, below>>

**Successful completion of the Conditional Admission Program requires achieving a level of 600 in the UBC Certificate in English Language, with a minimum of 75% in each sub skill. Successful completion for students admitted to degree programs that require a first year English course also includes presentation of the minimum score required on the Language Proficiency Index (LPI).** << link to LPI requirements in the Calendar>>

**Students admitted to the Conditional Admission Program are required to complete the program. Therefore, such students cannot substitute other English language proficiency exams to gain entry to the degree program.**

**Students admitted to the Conditional Admission Program must successfully complete the program within 12 months of first enrolling in the program.**

**Proposed Calendar Entry:**

**English Language Proficiency Tests**

	Test	<u>Minimum Competence for Undergraduate Admission</u> <sup>1</sup>	<u>Minimum Competence for entry to the Conditional Admission Program</u> <sup>2</sup>
CAE	Certificate in Advanced English <sup>4</sup>	B	<u>C</u>
CAEL	Canadian Academic English Language assessment	overall 70	<b><u>Overall 60 with no sub-test below 50</u></b>



	With the speaking sub-test	60	<b><u>50</u></b>
CEL	UBC Certificate in English Language <sup>2</sup>	600	<b><u>500</u></b>
CELP	Canadian English Language Proficiency Index Program <sup>3</sup>		
	CELPIT-A (Academic Reading and Writing) <sup>3</sup>	4L	<b><u>3H</u></b>
	CELL (Listening)	4L	<b><u>3H</u></b>
	CELTOP (Speaking)	4L	<b><u>3H</u></b>
CPE	Certificate of Proficiency in English <sup>4</sup>	C	<b><u>CAE<sup>4</sup>: C</u></b>
IELTS	International English Language Testing System (Academic)	6.5 with no part less than 6.0	<b><u>6.0 with no part less than 5.5</u></b>
MELAB	Michigan English Language Assessment Battery	85 final score, with 3 in the speaking test	<b><u>80 final score</u></b>
TOEFL	Test of English as a Foreign Language		
	<b>Either</b> the Paper-based test	55	<b><u>52</u></b>
	With the TWE (Test of Written English)	4.0	<b><u>3.0</u></b>
	<b>Or</b> the Internet-based test	Overall Score: 90	<b><u>Overall Score: 82</u></b>
		Reading: 22	<b><u>Reading: 20</u></b>
		Listening: 22	<b><u>Listening: 20</u></b>
		Writing: 21	<b><u>Writing: 19</u></b>
		Speaking: 21	<b><u>Speaking: 19</u></b>

<sup>1</sup> Unless otherwise stated, the score is the minimum on each part of the examination. Minimum scores must be achieved in a single sitting of the test (i.e., scores across multiple instances of a test may not be used to satisfy minimum component requirements). Tests taken more than two years prior to application for admission will not be considered.

<sup>2</sup> See the [UBC English Language Institute](#) for further details.

<sup>3</sup> The Canadian English Language Proficiency Index Test - Academic (CELPIT-A) portion of this test satisfies the Language Proficiency Index (LPI) requirement for first-year English courses at UBC with a score of at least 5 on the essay



section.

<sup>4</sup> Administered by the University of Cambridge ESOL Examinations organization.

<sup>5</sup> **Undergraduate applicants who exceed admission requirements but who present an English language proficiency test score below the minimum required for direct entry to a degree program may be considered for the Conditional Admission Program through UBC's English Language Institute.** <<hot link "Conditional Admission Program" to the relevant Calendar page proposed herein>>

**URL from Web Calendar:** <http://www.students.ubc.ca/calendar/index.cfm?tree=2,19,0,0>

**Present Calendar Entry:**

**Homepage > Admissions > English Language Admission Standard**

As English is the language of instruction at UBC, all applicants, regardless of country of origin or of citizenship status, will be required to demonstrate competence in the English language prior to admission. Competence is expected in all four of the following skills: listening, reading, speaking, and writing.

[...]

### English Language Proficiency Tests

	Test	Competence Level <sup>1</sup>
CAE	Certificate in Advanced English <sup>4</sup>	B
CAEL	Canadian Academic English Language assessment	overall 70
	With the speaking sub-test	60
CEL	UBC Certificate in English Language <sup>2</sup>	600
CELP	Canadian English Language Proficiency Index Program <sup>3</sup>	
	CELPIT-A (Academic Reading and Writing) <sup>3</sup>	4L
	CELL (Listening)	4L
	CELTOP (Speaking)	4L



CPE	Certificate of Proficiency in English <sup>4</sup>	C
IELTS	International English Language Testing System (Academic)	6.5 with no part less than 6.0
MELAB	Michigan English Language Assessment Battery	85 final score, with 3 in the speaking test
TOEFL	Test of English as a Foreign Language	
	<b>Either</b> the Paper-based test	55
	With the TWE (Test of Written English)	4.0
	<b>Or</b> the Internet-based test	Overall Score: 90
		Reading: 22
		Listening: 22
		Writing: 21
		Speaking: 21

<sup>1</sup> Unless otherwise stated, the score is the minimum on each part of the examination. Minimum scores must be achieved in a single sitting of the test (i.e., scores across multiple instances of a test may not be used to satisfy minimum component requirements). Tests taken more than two years prior to application for admission will not be considered.

<sup>2</sup> See the [UBC English Language Institute](#) for further details.

<sup>3</sup> The Canadian English Language Proficiency Index Test - Academic (CELPIT-A) portion of this test satisfies the Language Proficiency Index (LPI) requirement for first-year English courses at UBC with a score of at least 5 on the essay section.

<sup>4</sup> Administered by the University of Cambridge ESOL Examinations organization.

[...]

#### Type of Actions:

1. Restructure the English Language Admission Standard (ELAS) section of the Calendar so that various sections are accessed via a sub-contents page.
2. Insert new Calendar language that describes the selection criteria for and successful completion of the Conditional Admissions Program that was approved by Senate in September 2007.

#### Rationale:

1. The ELAS section of the Calendar has grown over time and is now quite long, covering a number of ELAS-related topics. Splitting this entry into sub-sections would make it more readily navigable by prospective students. The proposed sub-section headings follow and would be linked to existing text that already appears in the Calendar.
2. The Conditional Admissions Program (CAP) that was approved by Senate in September 2007 did not include Calendar language. New language, under the sub-heading of "Conditional Admission Program" in the ELAS section of the Calendar is proposed herein. This language includes:



- A description of the program and eligibility criteria
- An amended table of English language proficiency tests with minimum language standards for entry to the CAP.
- A description of what successful completion of the program entails.

Some amendments to the original approved proposal approved by Senate in 2007 are recommended herein. These include:

- a. The criterion that an applicant must intend to apply for an undergraduate degree program at UBC has been removed. Stating this as a requirement, when this intention must be declared upon application to the CAP is unnecessary.
- b. Successful completion of the CAP no longer requires completion of the IAEP, which stood for Intensive Academic English Program. This term has effectively been supplanted by the Conditional Admission Program and so is now obsolete. Reference to the IAEP does not appear in the proposed Calendar text.
- c. The minimum standard for entry of applicants presenting the Certificate of Proficiency in English (CPE) would be submission of the Certificate of Advanced English (CAE) with a score of C. This is consistent with the requirement further up in the amended table of English language proficiency tests.
- d. The requirement that both the CAEL (Canadian Academic English Language) assessment *and* the English Language Institutes CEL (Certificate in English Language) has been amended so that only one of these standards, already approved for ELAS purposes, must be met by the student in order to enroll in the degree program. The original CAP proposal referred to “CAEL” but actually intended to say “CEL” when speaking of what was required to complete the program. This was a typographical error.



## UBC Admissions Proposal Form Change to Admission Requirements

<b>Faculty: Medicine</b> <b>Department: MD Undergraduate Admissions</b> <b>Faculty Approval Date: April 28, 2010</b> <b>Effective Session: 2010-2011</b> <b>Year for Change: 2010</b>	<b>Date: April 14, 2010</b> <b>Contact Person: Joan Munro</b> <b>Phone: 604-875-4111 ext 68933</b> <b>Email: jmunro@medd.med.ubc.ca</b>
<b>URL:</b> <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=12,209,374,340">http://www.students.ubc.ca/calendar/index.cfm?tree=12,209,374,340</a>  <u><a href="#">Homepage</a></u> > <u><a href="#">Faculties, Colleges, and Schools</a></u> > <u><a href="#">The Faculty of Medicine</a></u> > <u><a href="#">Doctor of Medicine</a></u> > Admission  <b>Proposed Calendar Entry:</b>  <b>Selection Process</b>  The entering class for this coming September is limited to 256 full-time students. The number of qualified applicants significantly exceeds the number of available positions. Therefore, not every qualified applicant will be offered admission. Admission is based on a selection process which strives to enroll the most highly qualified applicants who will be evaluated on the following criteria:  <ol style="list-style-type: none"><li>1. Three academic evaluations are calculated:<ol style="list-style-type: none"><li>a. overall academic average, based on all university-level courses attempted (including summer courses and graduate courses with grades, if applicable)</li><li>b. most recent 60 credits average (note: the number of credits used may vary for some applicants)</li><li>c. prerequisite average</li></ol></li><li>2. The evaluation of non-academic</li></ol>	<b>URL:</b> <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=12,209,374,340">http://www.students.ubc.ca/calendar/index.cfm?tree=12,209,374,340</a>  <u><a href="#">Homepage</a></u> > <u><a href="#">Faculties, Colleges, and Schools</a></u> > <u><a href="#">The Faculty of Medicine</a></u> > <u><a href="#">Doctor of Medicine</a></u> > Admission  <b>Present Calendar Entry:</b>  <b>Selection Process</b>  The entering class for this coming September is limited to 256 full-time students. The number of qualified applicants significantly exceeds the number of available positions. Therefore, not every qualified applicant will be offered admission. Admission is based on a selection process which strives to enroll the most highly qualified applicants who will be evaluated on the following criteria:  <ol style="list-style-type: none"><li>1. Three academic evaluations are calculated:<ol style="list-style-type: none"><li>a. overall academic average, based on all university-level courses attempted (including summer courses and graduate courses with grades, if applicable)</li><li>b. most recent 60 credits average (note: the number of credits used may vary for some applicants)</li><li>c. prerequisite average</li></ol></li><li>2. The evaluation of non-academic</li></ol>





<p>criteria is based on the following:</p> <ol style="list-style-type: none"><li>a list of extracurricular activities prepared by the applicant</li><li>a report of non-academic experiences and a rural interest statement</li><li>interview, if granted</li><li>three references, when requested</li><li>rural/remote suitability (if applicable)</li><li>essay by Aboriginal (First Nations, Métis, or Inuit) candidates who are applying to the Aboriginal stream</li></ol> <p>Please refer to <a href="#">M.D. Undergraduate Admissions Evaluation Criteria</a> for additional information.</p> <p>The interview is a critical component of the admission process. The interview process follows the Multiple Mini-Interview (MMI) model. Applicants selected for an interview will be contacted by the admissions office and will also be asked to submit their reference letters. The interview dates are usually scheduled from around the middle of February to the beginning of March.</p> <p>The selection of candidates for admission to the distributed M.D. undergraduate program is governed by guidelines established by the Admissions Policy Committee and approved by the Senate of UBC. The selection process reflects the values of the UBC Faculty of Medicine and all university partners in the UBC distributed M.D. undergraduate program. The process is designed to choose well-rounded students from a variety of backgrounds who meet the goals of the expanded, distributed program; who can be expected to perform well in the rigorous</p>	<p>criteria is based on the following:</p> <ol style="list-style-type: none"><li>a list of extracurricular activities prepared by the applicant</li><li>a report of non-academic experiences and a rural interest statement</li><li>interview, if granted</li><li>three references, when requested</li><li>rural/remote suitability (if applicable)</li><li>essay by Aboriginal (First Nations, Métis, or Inuit) candidates who are applying to the Aboriginal stream</li></ol> <p>Please refer to <a href="#">M.D. Undergraduate Admissions Evaluation Criteria</a> for additional information.</p> <p>The interview is a critical component of the admission process. The interview process follows the Multiple Mini-Interview (MMI) model. Applicants selected for an interview will be contacted by the admissions office and will also be asked to submit their reference letters. The interview dates are usually scheduled from around the middle of February to the beginning of March.</p> <p>The selection of candidates for admission to the distributed M.D. undergraduate program is governed by guidelines established by the Admissions Policy Committee and approved by the Senate of UBC. The selection process reflects the values of the UBC Faculty of Medicine and all university partners in the UBC distributed M.D. undergraduate program. The process is designed to choose well-rounded students from a variety of backgrounds who meet the goals of the expanded, distributed program; who can be expected to perform well in the rigorous</p>
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<p>curriculum and problem-based learning format; and who can balance and enrich their academic experience with strong non-academic skills and interests.</p> <p>The UBC Faculty of Medicine's Associate Dean of Equity oversees the selection process to ensure that all applicants are given careful consideration without regard to age, gender, race, religion, sexual orientation, marital, or economic status. The Admissions Selection Committee reviews and discusses all interviewed applicants. At present, admission is limited to Canadian citizens and permanent residents of Canada. <b>Preference is given to residents of British Columbia.</b> <b>Information on residency criteria can be found at <a href="#">BC Residency Requirements</a>.</b> A maximum of 10% of the total seats may be made available to out-of-province applicants in the medical program each year. In completing the online application, candidates will provide information to help determine their suitability for the Northern Medical Program.</p> <p>The applicant will have the opportunity to indicate their site preferences after getting an interview offer. Members of the Admissions Selection Committee are not aware of an applicant's site preference during the selection discussions. Following an admissions decision, successful applicants are allocated to sites based on their preferences. The first site choice is given priority, unless the available positions at that site have been filled, in which case he/she would be wait-listed for their preferred site if applicable.</p>	<p>curriculum and problem-based learning format; and who can balance and enrich their academic experience with strong non-academic skills and interests.</p> <p>The UBC Faculty of Medicine's Associate Dean of Equity oversees the selection process to ensure that all applicants are given careful consideration without regard to age, gender, race, religion, sexual orientation, marital, or economic status. The Admissions Selection Committee reviews and discusses all interviewed applicants. At present, admission is limited to Canadian citizens and permanent residents of Canada. A maximum of 10% of the total seats may be made available to out-of-province applicants in the medical program each year. In completing the online application, candidates will provide information to help determine their suitability for the Northern Medical Program.</p> <p>The applicant will have the opportunity to indicate their site preferences after getting an interview offer. Members of the Admissions Selection Committee are not aware of an applicant's site preference during the selection discussions. Following an admissions decision, successful applicants are allocated to sites based on their preferences. The first site choice is given priority, unless the available positions at that site have been filled, in which case he/she would be wait-listed for their preferred site if applicable.</p> <hr/> <p><b>Type of Action:</b> Add reference to BC Residency Requirements</p> <p><b>Rationale:</b> To clarify that the Faculty's current practice gives preference to applicants who are residents of British Columbia.</p>
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**UBC Admissions Proposal Form  
Change to Admission Requirements**

<b>Faculty:</b> Arts/Graduate Studies <b>Department:</b> Music <b>Faculty Approval Date:</b> April 15, 2010 <b>Effective Session:</b> 2010W <b>Year for Change:</b> 2010W	<b>Date:</b> 8 March 2010 <b>Contact Person:</b> David Metzger <b>Phone:</b> 2-2246 <b>Email:</b> david.metzger@ubc.ca
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URL: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,345,0>**Proposed Calendar Entry:****TOEFL and GRE Requirements****Internet-based TOEFL Scores**

Program	Reading	Writing	Listening	Speaking	Overall
Music (Ph.D., D.M.A., M.A.)					93
Music (M.Mus.)					80

**TOEFL and GRE Requirements**

Program	TOEFL (Paper)	GRE
Music (Ph.D., D.M.A., M.A.)	580	
Music (M.Mus.)	550	

URL: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,345,0>**Present Calendar Entry:****TOEFL and GRE Requirements****Internet-based TOEFL Scores**

Program	Reading	Writing	Listening	Speaking	Overall
Music					93

**TOEFL and GRE Requirements**

Program	TOEFL (Paper)	TOEFL (Computer)	GRE
Music (Ph.D., D.M.A., M.A.)	580	237	

**Type of Action:**

Change the minimum TOEFL scores (Paper/Internet) for admissions to the MMus (Master's in Music) programs from 580/93 to 550/80. The change would align the scores with the admissions minimum requirement set by FOGS.

**Rationale:**

Given the increase in applications by international students for the MMus programs, the faculty of the School of Music believes that the required TOEFL scores for MMus applicants should be lowered to the admissions minimum requirement set by FOGS. The change will allow for greater flexibility in considering the growing number of international applicants. We are confident that MMus students who meet the FOGS minimum TOEFL score will be able to handle the demands of the degree. We would like to keep our current required admissions minimum TOEFL scores for the PhD, DMA, and MA degrees. The TOEFL marks for these programs are higher than the minimum mark set by FOGS. The three programs involve a more intensive research and writing component than the MMus program.



Vancouver Senate Admissions Committee  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
Vancouver BC V6T 1Z1  
Tel : (604) 822-8141 | Fax : (604) 822-5945

30 April 2010

To: Vancouver Senate

From: Admissions Committee

Re: **Bachelor of Applied Science – Admission (approval)**

**UBC Admissions Student Declaration (approval)**

**Graduate Programs in Teaching English as a Second Language – TOEFL Requirement (approval)**

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**d) Bachelor of Applied Science – Admission (approval)(circulated)**

The Admissions Committee has reviewed and recommends to Senate for approval the proposed changes in admission requirements for post-secondary applicants to the Bachelor of Applied Science program as set out in the circulated proposal.

***Motion:*** *That Senate approve the changes in admission requirements for post-secondary applicants to the Bachelor of Applied Science program, effective for entry to the 2010 Winter Session and thereafter.*

**e) UBC Admissions Student Declaration (approval)(circulated)**

The Admissions Committee has reviewed and recommends to Senate for approval the revised calendar entry on UBC Admissions Student Declaration. The proposed changes remove reference to the Association of Universities and Colleges of Canada and clarify current language on disclosure of information on the UBC Application Form for Undergraduate Admission.

***Motion:*** *That Senate approve the revised calendar entry on UBC Admissions Student Declaration.*

**f) Graduate Programs in Teaching English as a Second Language (approval)(circulated)**

The Admissions Committee has reviewed and recommends to Senate for approval the proposed changes in admission requirements for applicants to graduate programs in Teaching English as a Second Language (Doctor of Philosophy, Master of Education and Master of Arts in Teaching English as a Second Language). Applicants must meet a minimum internet-based TOEFL score of 92, with a minimum score of 22 in each exam component, to be eligible for admission.

***Motion:*** *That Senate approve the changes in admission requirements for applicants to the Doctor of Philosophy in Teaching English as a Second Language, Master of Education in Teaching English as a Second Language and the Master of Arts in Teaching English as Second Language programs, effective for entry to the 2010 Winter Session and thereafter.*

Respectfully submitted,

Dr. David Fielding  
Chair, Admissions Committee





## UBC Admissions Proposal Form Change to Admission Requirements

<b>Faculty:</b> Applied Science <b>Department:</b> APSC <b>Faculty Approval Date:</b> March 11, 2010 <b>Effective Date:</b> September 2010 <b>Year for Change:</b> 2010	<b>Date:</b> April 28, 2010 (revised) <b>Contact Person:</b> Bruce Dunwoody <b>Phone:</b> 822-6556 <b>Email:</b> bruce.dunwoody@ubc.ca
<b>URL:</b> <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,272,28">http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,272,28</a>  <u><a href="#">Homepage</a></u> > <u><a href="#">Faculties, Colleges, and Schools</a></u> > <u><a href="#">The Faculty of Applied Science</a></u> > <u><a href="#">Bachelor of Applied Science</a></u> > Admission  <b>Proposed Calendar Entry:</b>  Admission from a Post-Secondary Institution  Applicants from another Faculty at UBC or another post-secondary institution may be considered for admission to the engineering program of the Faculty of Applied Science. An overall average of at least 65%, including any failed courses, is required. The overall average is calculated in accordance with the <u>general admission requirement for undergraduate applicants from a college or university</u> . <<link to general policy at <a href="http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,25,73,0">&gt;&gt;</a>  Applicants must also have an average of at least 70% in all chemistry, mathematics and physics courses which transfer to the first-year engineering program. Courses to be considered in this average of mathematics, chemistry and physics courses are not limited to the last 30 credits only. Where two courses, or one repeated course, have been taken which transfer to one of the	<b>URL:</b> <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,272,28">http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,272,28</a>  <u><a href="#">Homepage</a></u> > <u><a href="#">Faculties, Colleges, and Schools</a></u> > <u><a href="#">The Faculty of Applied Science</a></u> > <u><a href="#">Bachelor of Applied Science</a></u> > Admission  <b>Present Calendar Entry:</b>  <b>Admission from Science</b>  <del>Applicants who have taken first-year Science at UBC are eligible to be considered if they have achieved an overall average of at least 55% on all courses, including any failed courses, and at least 60% in each of chemistry, physics, and mathematics (60% average in MATH 100 and 101, minimum 60% in MATH 101). Applicants from a college or another university are eligible for consideration if they have achieved an overall grade point average of at least 2.5, including any failed courses, with a grade point average of at least 2.7 in mathematics, physics, and chemistry with no grade less than C in these subjects.</del>  <del>Applicants registered in Science who have taken 60 or more credits must normally have an average of at least 60% on all courses taken in their most recent 60 credits of study in science, including any failed courses.</del>  <del>Applicants from first year at an approved university or college should normally have taken the following 30 credits of prerequisite subjects: CHEM 121 and 123, ENGL 112 or another first-year English course, MATH 100 and 101 (or 120 and 121), PHYS 101 and 102</del>





courses of the first-year engineering program, only the grade of the latest course will be used in calculating this average.

Admission to the engineering program is competitive. Applicants who meet all of these criteria are not guaranteed admission.

Applicants with less than 24 transferable credits from a post-secondary institution are evaluated against both secondary and post-secondary admission criteria.

Applicants with more than 24 credits of transfer credit in first-year engineering may be eligible for second-year engineering. Advice on transfer credit is available from the Dean's Office, Engineering Student Services. Deficiencies from first-year must be completed prior to graduation.

Students admitted to second year must complete a Second Year Program Preference Form by June 15.

#### Exemptions for Applied Science

Course	Exemption
CHEM 121 and 123	CHEM 154
PHYS 101 and 102	PHYS 153

The following courses, which can be taken as electives in first-year Science, also give the exemptions indicated:

#### Exemptions for Science

Course	Exemption
MATH 221 or 223	MATH 152
PHYS 216	PHYS 170

(or 107 and 108), plus 9 credits of appropriate electives.

Students transferring into engineering with 6 credits of first-year Chemistry may substitute a 3-credit engineering graphics course for APSC 150.

Applicants who are deficient in one or more of these subjects should consult the Dean's Office, Engineering Student Services.

Applicants with more than 24 credits of transfer credit in first-year engineering may be eligible for second-year engineering, depending on the program which they wish to enter and the transfer credit received. Advice on transfer credit is available from the Applied Science Dean's Office. Applicants admitted to second year may be able to complete their engineering program in three years following first year Science, depending on the first year engineering courses that they lack and the arrangements that they can make for completing these courses. These applicants must complete a Second Year Program Preference Form by June 15.

#### Exemptions for Applied Science

Course	Exemption
CHEM 121 and 123	CHEM 154
PHYS 101 and 102	PHYS 153

The following courses, which can be taken as electives in first-year Science, also give the exemptions indicated:

#### Exemptions for Science

Course	Exemption
MATH 221 or 223	MATH 152
PHYS 216	PHYS 170

MATH 221, or equivalent, is required for



<p>MATH 221, or equivalent, is required for students wishing to enter the Departments of Electrical and Computer Engineering or Mechanical Engineering.</p> <p>Successful completion of UBC <a href="#">Science One</a> provides transfer credit for first-year engineering for CHEM 154, MATH 100, MATH 101, and PHYS 153.</p> <p>Applicants with less than 25 transfer credits in engineering will normally enter first-year engineering and take a program similar to the one described in the table, <a href="#">Typical Transfer Program Following First-Year Science</a>. They will normally require four years following first-year Science to complete their engineering programs.</p>	<p>students wishing to enter the Departments of Electrical and Computer Engineering or Mechanical Engineering.</p> <p>Successful completion of UBC <a href="#">Science One</a> provides transfer credit for first-year engineering for CHEM 154, MATH 100, MATH 101, and PHYS 153.</p> <p>Applicants with less than 25 transfer credits in engineering will normally enter first-year engineering and take a program similar to the one described in the table, <a href="#">Typical Transfer Program Following First-Year Science</a>. They will normally require four years following first-year Science to complete their engineering programs.</p> <p><b>Type of Action:</b> Reword information to align with current practices.</p> <p><b>Rationale:</b> The current wording is very old, but has been updated piecemeal since.</p>
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## UBC Admissions Proposal Form Change to Admission Requirements

<p><b>Effective Session:</b> 2011 Admission</p> <p><b>Year for Change:</b> To be posted to the calendar upon approval for the purpose of advising prospective students</p>	<p><b>Date:</b> April 28, 2010</p> <p><b>Contact Person:</b> Rosalie Vlaar Senior Policy Analyst Undergraduate Admissions 604-822-4240 <a href="mailto:rosalie.vlaar@ubc.ca">rosalie.vlaar@ubc.ca</a></p>
<p><b>URL:</b> <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=2,284,0,0">http://www.students.ubc.ca/calendar/index.cfm?tree=2,284,0,0</a></p> <p><b>Homepage &gt; Admissions &gt; UBC Admissions Student Declaration</b></p> <p><b>UBC Admissions Student Declaration</b></p> <p><b>Proposed Calendar Entry:</b></p> <p>The following Student Declaration appears on the UBC Application Form for Undergraduate Admission. The Admissions Office will not process an application unless the applicant has accepted the Student Declaration as part of completing the application form.</p> <ul style="list-style-type: none"><li>I agree that my secondary and post-secondary grades may be released to UBC. I will notify Undergraduate Admissions of any additional <b>secondary and/or</b> post-secondary studies taken subsequent to the date of this application.</li><li><b>I agree</b> that if I knowingly or carelessly provided untrue or incomplete information <b>with this application then UBC may in its sole discretion do any or all of the following: (a) withdraw any offer of admission, whether accepted or</b></li></ul>	<p><b>URL:</b> <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=2,284,0,0">http://www.students.ubc.ca/calendar/index.cfm?tree=2,284,0,0</a></p> <p><b>Homepage &gt; Admissions &gt; UBC Admissions Student Declaration</b></p> <p><b>UBC Admissions Student Declaration</b></p> <p><b>Present Calendar Entry:</b></p> <p>The following Student Declaration appears on the UBC Application Form for Undergraduate Admission. The Admissions Office will not process an application unless the applicant has accepted the Student Declaration as part of completing the application form.</p> <ul style="list-style-type: none"><li>I agree that my secondary and post-secondary grades may be released to UBC. I will notify Undergraduate Admissions of any additional post-secondary studies taken subsequent to the date of this application.</li><li><del>I accept that if, in reading and completing this application, I</del> knowingly or carelessly provided untrue or incomplete information; <del>(a) any offer of admission, whether accepted or not, may be withdrawn by UBC; (b) I may be required to</del></li></ul>



<p><b>not; (b) require me to withdraw from UBC; (c) subject me to academic discipline; (d) share the information I provided with other post-secondary institutions, law enforcement agencies, or other third parties.</b></p> <ul style="list-style-type: none"><li>• I agree that UBC may verify the information provided by contacting the relevant institution or any secondary or post-secondary institutions not listed in this application.</li><li>• I agree that my name may be released to my school or school district if I am a Scholarship recipient.</li><li>• I agree, if admitted to UBC, to comply with all rules and regulations of the University, present and future.</li></ul>	<p><del>withdraw from UBC; (e) I may be subject to academic discipline.</del></p> <ul style="list-style-type: none"><li>• I agree that UBC may verify the information provided by contacting the relevant institution or any secondary or post-secondary institutions not listed in this application.</li><li>• <del>I accept that information on falsified documents is shared with the Association of Universities and Colleges of Canada.</del></li><li>• I agree that my name may be released to my school or school district if I am a Scholarship recipient.</li><li>• I agree, if admitted to UBC, to comply with all rules and regulations of the University, present and future.</li></ul> <hr/> <p><b>Type of Action:</b></p> <ol style="list-style-type: none"><li>1) Remove reference to the Association of Universities and Colleges of Canada (AUCC) in the applicant declaration that appears both in the Calendar and in the application for undergraduate admission and replace with text recommended by the Office of the University Counsel.</li><li>2) Ensure that applicants provide the University with up-to-date information on the prior education, both secondary and post-secondary</li></ol> <p><b>Rationale:</b></p> <ol style="list-style-type: none"><li>1) The Association of Universities and Colleges of Canada (AUCC) has asked that all institutions remove reference to their association in the declaration that appears on applications for admission. The specific part of the declaration to be changed currently reads: "I accept that information on falsified documents is shared with the Association of Universities and Colleges of Canada". UBC shares this information with other Canadian post-secondary institutions through a "document alert" posting to the "DocAlert-L" listserv. The posting contains only the applicant name and date of birth.</li></ol>
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	<p>AUCC advises that "the purpose of DocAlert-L is to function as a closed, national electronic forum available only to regular member institutions of the Association. Its sole purpose is for the issuing of document alerts by regular member institutions in good standing when a member institution has received documents of questionable authenticity." They go on to say that "The document alert has no official status; it is simply a service to alert you to those cases where you may wish to pay particular attention to the application and its supporting documents."</p> <p>The proposed text, below, is recommended by the Office of the University Counsel as an acceptable alternative to the current text.</p> <p>2) Changes in both secondary and post-secondary education prior to admission are relevant to the selection of students, particularly in relation to the completion of necessary pre-requisite courses and the calculation of an admission average that accurately reflects prior academic performance.</p>
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THE UNIVERSITY OF BRITISH COLUMBIA  
**UBC Admissions Proposal Form**  
**Change to Admission Requirements**

<b>Faculty:</b> Education <b>Department:</b> LLED <b>Faculty Approval Date:</b> April 20, 2010 <b>Effective Session:</b> 2010 W Session Term 1 <b>Year for Change:</b> 2010	<b>Date:</b> April 20, 2010 <b>Contact Person:</b> Ling Shi <b>Phone:</b> 2-4335 <b>Email:</b> ling.shi@ubc.ca
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**URL:** <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,345,0>

**Proposed Calendar Entry:**

**TOEFL and GRE Requirements**

**Internet-based TOEFL Scores**

Program	Reading	Writing	Listening	Speaking	Overall
Teaching English as a Second Language	22	22	22	22	92

**URL:** <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,345,0>

**Present Calendar Entry:**

**TOEFL and GRE Requirements**

**Internet-based TOEFL Scores**

Program	Reading	Writing	Listening	Speaking	Overall
Teaching English as a Second Language					80

**Type of Action:**

Amend the Internet-based TOEFL scores for the Teaching English as a Second Language from 80 to 92 and indicate 22 as a part score for each component.

**Rationale:**

The change better reflects current admission practices and policies in the Department. Students with a TOEFL score of 80 or part scores of less than 22 have not been able to cope with the coursework in our graduate program.

Our graduate program serves local and international English language teaching professionals; we therefore expect high levels of English proficiency of current and future leaders in this area. In addition, the oral and written coursework, major paper, and thesis demands require a higher level of proficiency than represented by our earlier requirement. The previous scores were considered by TOEFL to represent "fair" or "intermediate" language proficiency (not "good" or "high" levels) and language assessment experts as well as peer programs nationally (e.g., OISE/U of T) and internationally recommend higher minimum scores for successful graduate study in English language education. According to ETS (TOEFL developer), part scores for Reading and Listening under 22 represent "intermediate" level proficiency; 22 and over is "high". For Speaking part scores, 18-25 is "Fair" and 26+ is "Good"; for Writing 17-23 is "Fair" and 24+ is "Good". Therefore, a score of 22 across each of the part scores represents only a modest increase in our admission requirements.





Vancouver Senate Secretariat  
Senate and Curriculum Services  
Enrolment Services  
2016-1874 East Mall  
Vancouver, BC V6T 1Z1

30 April 2010

To: Vancouver Senate

From: Agenda Committee

Subject: **Call for Submissions: Topics of Broad Academic Interest (information)**

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In 2009, the Agenda Committee of the Vancouver Senate issued its annual call for submissions of topics of broad academic interest to the University community. This annual canvassing of the community and scheduling of subsequent Senate discussions is undertaken to implement one of the recommendations from a 2005 review of the Vancouver Senate.

In response to the 2009 call, the Agenda Committee received the following topics:

- **Faculty Culture of Service:** Referred to the Nominating Committee, discussed at the 18 November 2009 Senate meeting.
- **Course Based Community Service Learning and Community Based Research:** Referred to the Teaching and Learning Committee, discussed at the 20 January 2010 Senate meeting.
- **Student Engagement in International Learning:** Referred to the Teaching and Learning Committee, discussed at the 31 March 2010 Senate meeting.
- **Gender-Neutral Degree Nomenclature:** Referred to the Academic Policy Committee.
- **Students' Health, Wellbeing, and Academic Success:** The Agenda Committee requested additional specifics from the proposers.
- **University Reliance on External Funding Sources and Academic Freedom:** On hold pending further Agenda Committee discussions.
- **Creating an Academic Sustainability Plan:** The Agenda Committee is consulting with the President's Advisory Committee on Sustainability and the vice-chair of the working group on academic sustainability.

### 2010 Call for Submissions

The Agenda Committee hereby renews its call for submissions of topics of broad academic interest for possible inclusion on a future Senate meeting agenda.

This call will also be circulated to Vice-Presidents, Associate Vice-Presidents, Deans, Associate Deans, and other selected academic administrators with the request that they

circulate further as they deem appropriate. It would be appreciated if Senators would also promote this opportunity within your units.

### **2010 Submission Requirements**

Submissions may be up to 300 words (approximately one page) in length and should include commentary about why the Senate in particular might find the topic worthy of discussion.

For submission under this category, topics are for information and discussion only. They must not include a motion or require an immediate decision by the Senate. Please use Senate's regular submission process for approval items.

Other criteria for consideration include:

- Cross-University topics that span multiple disciplines or areas of interest that are related in some way to Senate's role in the academic governance of the University.
- Emerging themes, trends, or issues that may inform future Senate involvement or policy development.

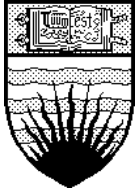
### **2010 Submission Deadline**

Please forward submissions to Ms. Ginette Vallée, Associate Academic Governance Officer, Senate & Curriculum Services, ([ginette.vallee@ubc.ca](mailto:ginette.vallee@ubc.ca)) no later than Friday, 16 July 2010.

The Agenda Committee will deliver a progress report to Senate at its September 2010 meeting.

Respectfully submitted,

Mary Anne Bobinski, Chair



April 28, 2010

**CURRICULUM COMMITTEE**  
**Vancouver Senate**  
2016 - 1874 East Mall  
Vancouver, B.C. Canada V6T 1Z1

To: Vancouver Senate

From: Senate Curriculum Committee

Re: May Curriculum Proposals (**approval**)

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The Senate Curriculum Committee has reviewed the material forwarded to it by the faculties, and encloses those proposals it deems as ready for approval.

As such, the following is recommended to Senate:

**Motion:** *That the new and changed courses and programs brought forward by the Faculties of Applied Science, Arts, Commerce and Business Administration, Graduate Studies (Arts, Commerce and Business Administration, Education, Medicine and Science), and Science be approved.*

Respectfully submitted,

Peter Marshall, Chair  
Senate Curriculum Committee

THE UNIVERSITY OF BRITISH COLUMBIA



Enrolment Services  
Senate and Curriculum Services  
2016–1874 East Mall  
Vancouver, BC V6T 1Z1  
lindsey.lipovsky@ubc.ca  
T: 604-822-9134; F: 604-822-5945

28 April 2010

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **CURRICULUM PROPOSALS FROM THE FACULTY OF APPLIED SCIENCE**

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Attached please find submitted category 1 curriculum proposals for your consideration.

**New Courses:**

CHBE 243 (1)

CHBE 244 (2)

EECE 424 (3)

MECH 423 (3)

MTRL 472 (3)

**Program Change:**

B.A.Sc. > Academic Regulations > Academic Performance Evaluation > modify criteria

<b>Faculty: Applied Science</b> <b>Department: Chemical &amp; Biological Engineering</b> <b>Faculty Approval Date: March 11, 2010</b> <b>Effective Session: September 2010</b>	<b>Date: January 20, 2010</b> <b>Contact Person: Mark Martinez</b> <b>Phone: 822-2693</b> <b>Email: martinez@chbe.ubc.ca</b>
<b>CHBE: Undergraduate New Course</b>	
<p><b>Proposed Calendar Entry:</b></p> <p><b>CHBE 243 (1) Introduction to Chemical and Biological Engineering Process Technology</b></p> <p>Processes used in chemical and biological industries, which emphasize underlying physical, chemical and biological principles. Prerequisite CHBE 241 [1-0-0]</p>	<p><b>URL:</b> Will be required</p> <p><b>Present Calendar Entry:</b> None</p> <p><b>Type of Action:</b> New Course</p> <p><b>Rationale:</b> CHBE 242 is being divided into two separate courses to reflect the material being currently taught.</p> <p><b>Category 1</b></p>

<b>Faculty: Applied Science</b> <b>Department: Chemical &amp; Biological Engineering</b> <b>Faculty Approval Date: March 11, 2010</b> <b>Effective Session: September 2010</b>	<b>Date: March 11, 2010</b> <b>Contact Person: Mark Martinez</b> <b>Phone: 822-2693</b> <b>Email: martinez@chbe.ubc.ca</b>
<b>CHBE: Undergraduate New Course</b>	
<b>Proposed Calendar Entry:</b>  <b>CHBE 244 (2) Chemical and Biological Engineering Thermodynamics I</b>  Energy and the first law; second law of thermodynamics; entropy; availability analysis; application of power systems, biological and electrochemical systems. Prerequisite CHBE 241 [2-0-2*]	<b>URL:</b> Will be required  <b>Present Calendar Entry:</b>  <b>Type of Action:</b> New Course  <b>Rationale:</b> CHBE 242 is being divided into two separate courses to reflect the material currently being taught.  <b>Category 1</b>

<b>Faculty: Applied Science</b> <b>Department: Electrical &amp; Computer Engineering</b> <b>Faculty Approval Date:</b> <b>Effective Session: September 2010</b>	<b>Date: February 16, 2010</b> <b>Contact Person: Nick Jaeger</b> <b>Phone: 822--5673</b> <b>Email: nickj@ece.ubc.ca</b>
<b>EECE: Undergraduate ~ New Course</b>	
<p><b>Proposed Calendar Entry:</b></p> <p>Proposed Calendar Entry:  <b>EECE 424 (3) BIOMECHATRONICS</b>  Design of mechatronic systems to measure and manipulate biological materials and processes; compliant structures; bioelectronic circuits; biomedical embedded systems and BioMEMS. Example applications from clinical medicine and biomedical research. Credit will be granted for only one of MECH 423 or EECE 424. [2-2-0]  <i>Prerequisite:</i> All of EECE 251, EECE 253, EECE 254, EECE 256, EECE 259, EECE 360 or all of EECE 201, EECE 202, EECE 360 or all of EECE 201, EECE 203, EECE 360.</p>	<p><b>URL:</b> will be required</p> <p><b>Present Calendar Entry:</b></p> <p><b>Type of Action:</b> New Course</p> <p><b>Rationale:</b> Mechatronics is a quickly evolving field, and Biomechatronics is becoming increasingly important at the core of the field.</p> <p>Course to be co-listed with MECH 423</p> <p><b>Category 1</b></p>

<b>Faculty: Applied Science</b> <b>Department: Mechanical Engineering</b> <b>Faculty Approval Date: March 11, 2010</b> <b>Effective Session: September 2010</b>	<b>Date: February 1, 2010</b> <b>Contact Person: Peter Ostafichuk</b> <b>Phone: 604-822-9614</b> <b>Email: ostafichuk@mech.ubc.ca</b>
<b>MECH: Undergraduate Course Change</b>	
<p><b>Proposed Calendar Entry:</b></p> <p><b>MECH 423 (3) BIOMECHATRONICS</b>  Design of mechatronic systems to measure and manipulate biological materials and processes; Compliant structures; bioelectronic circuits; biomedical embedded systems and BioMEMS. Example applications from clinical medicine and biomedical research. Credit will be granted for only one of MECH 423 or EECE 424.  [2-2-0]</p> <p><b>Prerequisite: All of EECE 363, MECH 366.</b>  <b>Corequisite: EECE 355.</b></p>	<p>URL: will be required</p> <p><b>Present Calendar Entry:</b> None</p> <p><b>Type of Action:</b> New Course</p> <p><b>Rationale:</b> Mechatronics is a quickly evolving field, and Biomechatronics (new course MECH 423) is becoming increasingly important at the core of the field.</p> <p>Course to be co-listed with EECE 424.</p> <p><b>Category 1</b></p>



<b>Faculty: Applied Science</b> <b>Department: Material Engineering</b> <b>Faculty Approval Date:</b> <b>Effective Session: September 2010</b>	<b>Date: January 15, 2010</b> <b>Contact Person: Goran Fernlund</b> <b>Phone: 822-3673</b> <b>Email: goran@composites.ubc.ca</b>
<b>MTRL: Undergraduate ~ New Course</b>	
<p><b>Proposed Calendar Entry:</b></p> <p><b>MTRL 472 (3) WELDING AND JOINING OF MATERIALS.</b> Case studies addressing temperature modelling in welding and joining, material selection for welds and joints, calculation of properties for welds and joints, mechanical analysis of joints and design of welding and joining procedures. [2-0-2]  Prerequisites: All of MTRL 365, MTRL 378.</p>	<p><b>URL:</b>  <a href="http://www.students.ubc.ca/calendar/courses.cfm?code=MTRL">http://www.students.ubc.ca/calendar/courses.cfm?code=MTRL</a></p> <p><b>Present Calendar Entry:</b> None</p> <p><b>Type of Action:</b> New Course</p> <p><b>Rationale:</b> There is significant demand from students and industry to obtain deeper knowledge of welding and joining of materials. Students will learn about welding and joining through three state-of-the-art case studies. Students will appreciate the significance of welding and joining in manufacturing and will be able to apply their prior physical/mechanical metallurgy knowledge in analysis and design of welds and joints.</p> <p><b>Category 1</b></p>

<b>Faculty: Applied Science</b> <b>Department: APSC</b> <b>Faculty Approval Date: March 11, 2010</b> <b>Effective Date: September 2010</b>	<b>Date: January 27, 2010</b> <b>Contact Person: Bruce Dunwoody</b> <b>Phone: 822-6556</b> <b>Email: bruce.dunwoody@ubc.ca</b>
<b>APSC: Undergraduate Program Change(s)</b>	
<p><b>Proposed Calendar Entry:</b></p> <p><b>Academic Performance Evaluation</b>  A student will be evaluated at the end of each winter session. The student must receive a credit-weighted average of at least 55% and must have passed at least 65% of the total credits taken over the winter session in order to pass the year. Courses taken during a summer session are not included. Students who do not meet this standard will be required to discontinue from the Faculty for at least one year. A student who fails the year a second time will be required to withdraw from the University and will not normally be readmitted.  For more information, please see Advancement Regulations  (<a href="http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,43,0,0">http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,43,0,0</a>).</p>	<p><b>URL:</b>  <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,272,29">http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,272,29</a></p> <p><b>Present Calendar Entry:</b></p> <p><b>Academic Performance Evaluation</b>  <del>A student will be evaluated for academic progress once he or she has completed at least 12 credits of coursework, excluding co-op courses, since last evaluated.</del>  <del>One of three academic standings is assigned as a result of an academic performance evaluation: in Good Standing, on Academic Probation, or Failed. All students are in Good Standing when first admitted to the Faculty.</del>  <del>A student in Good Standing who achieves a credit-weighted average of at least 55% over all courses taken since the last academic performance evaluation and who passes at least 65% of those credits will remain in Good Standing. A student in Good Standing who does not achieve at least a 55% average or who does not pass at least 65% of the credits taken will be placed on Academic Probation. A student on Academic Probation who achieves a credit-weighted average of at least 60% and passes all courses taken since the last academic performance evaluation will be placed in Good Standing. Otherwise, the student will be assigned a standing of Failed.</del>  <del>A student assigned an academic standing of Failed will be required to discontinue his or her studies for one year prior to an appeal for readmission. (Note: a student required to discontinue studies will be allowed to complete any courses already begun at the time of the requirement to discontinue studies.)</del>  <del>A student who is assigned an academic standing of Failed for a second time will be required to withdraw from the University and will not normally be readmitted.</del></p> <p><b>Type of Action:</b> Modify the criteria.</p>

	<p><b>Rationale:</b> The software support for the modified academic performance criteria is not available. Without this support, the new academic performance criteria are too labour-intensive so cannot be sustained. The older, simpler criteria are being reintroduced as a result.</p> <p><b>Category 1</b></p>
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# THE UNIVERSITY OF BRITISH COLUMBIA



Enrolment Services  
Senate and Curriculum Services  
2016–1874 East Mall  
Vancouver, BC V6T 1Z1  
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T: 604-822-9134; F: 604-822-5945

28 April 2010

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **CURRICULUM PROPOSALS FROM THE FACULTY OF ARTS**

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Attached please find submitted category 1 curriculum proposals for your consideration.

**New Minor:**

Minor in Environment and Society

**New and Changed Courses:**

VISA 241 (3)  
ANTH 215 (3)  
ANTH 228 (3)  
ANTH 301 (3)  
ANTH 405 (3)  
ANTH 414 (3)  
ANTH 425 (3)  
ASIA 361 (3)  
ASIA 363 (3)  
ASIA 365 (3)  
ASIA 389 (3)  
ASIA 399 (3)  
ASIA 451 (3)  
ASIA 456 (3)  
PUNJ 400 (6)  
ENGL 489 (3)  
FNSP 300 (3)  
FREN 280 (3)  
FREN 336 (3)  
FREN 484 (3/6)d  
ITST 245 (3)  
ITST 385 (3)  
RMST 234 (3)  
HIST 106 (3)  
HIST 273 (3)  
HIST 313 (3)  
HIST 419 (3)  
HIST 460 (3)  
HIST 487 (3)

HIST 488 (3/6)d  
FIST 445 (3)  
FIST 449 (6)



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Dean of Arts Office Faculty Approval Date:</p> <p>Effective Session ____ Term ____ Year ____ for Change</p>	<p>Date: Nov. 18, 2009 Contact Person: Kathryn Harrison Phone: 822-6701 Email: <a href="mailto:kathryn.harrison@ubc.ca">kathryn.harrison@ubc.ca</a></p>
<p><b>Proposed Calendar Entry:</b></p> <p>The Minor in Environment and Society allows students to complement their Major program of study with an interdisciplinary minor drawn from the large number of relevant courses offered by Arts, Science and other faculties. Students enrolled in faculties other than Arts who are interested in the Minor in Environment and Society should consult an advisor in their home faculty.</p> <p>The Minor in Environment and Society consists of 15 credits from List A and 6 credits from List B, specified below, at least 18 credits of which must be at the 300-level or above. All courses credited toward the Minor must be drawn from disciplines other than the concurrent Major or Honours degree. Courses taken outside the Faculty of Arts and Science will count toward the maximum of 18 such credits allowed for the Bachelor of Arts degree. Credits in List B may be used to satisfy the Faculty of Arts science requirement, though students should consult the relevant section of the calendar to confirm that particular courses qualify. Some courses listed below may not be offered every year. Moreover, many of the courses listed below have prerequisites. Students should therefore plan their courses of study in advance.</p> <p><b>A) Environment and Society (15 credits)</b>          ANTH 360          ANTH 461          ANTH 462          CONS 101          CONS 200          CONS 440          ECON 371          ECON 374          ECON 471          ECON 472          FRST 415          FRST 470</p>	<p><b>URL:</b></p> <p><b>Present Calendar Entry:</b> N/A</p> <p><b>Type of Action:</b> New Minor</p> <p><b>Rationale:</b>          The Faculty of Arts offers courses related to environment and sustainability in many departments, from Anthropology to Sociology. Students in Arts can currently complete a disciplinary major or minor in Geography with a focus on environment and sustainability, but there is no interdisciplinary program that invites students to combine related courses across the many disciplines in Arts. The proposed Minor in Environment and Society will provide such an opportunity. The curriculum draws entirely on existing courses, giving students maximum flexibility to combine courses of particular interest to them. The interdisciplinary minor will complement students' normally discipline-based major.</p>



GEOG 310  
GEOG 312  
GEOG 316  
GEOG 317  
GEOG 318  
GEOG 319  
GEOG 410  
GEOG 412  
GEOG 419  
GEOG 423  
HIST 106  
HIST 396  
PHIL 435  
POLI 351  
POLI 375  
PSYC 321  
SOCI 360  
SOCI 420

**B) Environmental Sciences (6 credits)**

APBI 244  
ASIC 200  
BIOL 121  
BIOL 304 or BIOL 230  
BIOL 343  
BIOL 345  
BIOL 346  
CONS 330  
ENVR 200  
EOSC 112  
EOSC 314  
EOSC 315  
FRST 303  
FRST 304  
GEOB 102  
GEOB 103  
GEOB 204  
GEOB 207  
GEOB 307  
MICB 300 or MICB 301

The Faculty of Science offers many other courses relevant to the environment that have significant prerequisites. Students with adequate prerequisites should consult the program Chair for permission to have these courses satisfy the list B requirement.



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Listed below are items to consider when completing the UBC Curriculum Proposal Form

UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Art History, Visual Art and Theory Faculty Approval Date:  Effective Session _W___ Term __1_ Year_2010_ for Change</p>	<p>Date: October 31<sup>st</sup>, 2009 Contact Person: Barrie Jones Phone: 604-822-1223 Email: barriej@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>VISA 241 (3) INTRODUCTION TO DIGITAL PHOTOGRAPHY</p> <p>Introduction to digital photography image creation in relation to contemporary art. Emphasis on digital camera use, file management and digital print production. Prerequisites: an average of at least 72% in VISA 180 or 182, VISA 183 and VISA 110. Only one of VISA 240 and VISA 241 may be used toward the program requirements of the BFA Visual Art and the BA Visual Art programs.</p>	<p>URL:</p> <p>Present Calendar Entry:</p> <p>Type of Action: Category One change to introduce a new, 200-level VISA course to meet the demand for an introduction to digital photography.</p> <p>Rationale: The Introduction to Digital Photography course is a necessary addition to our course offerings because digital technology is increasingly dominating all aspects of image and recording, storage, manipulation and print production in the field of photographic art. This course responds to a significant shift in technology and theory in the field of photography and the corresponding student demand.</p> <p>The Introduction to Digital Photography course will provide students with hands on training in digital camera use, necessary aspects of image storage, transfer and manipulation, and digital print production. This course will facilitate an enhanced learning experience and lead to an increased ability for the students to succeed at the 300 and 400 levels of VISA photography study that we offer.</p>





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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Anthropology Faculty Approval Date:</p> <p>Effective Session <u>winter</u> Term <u>1</u> Year <u>2010</u> for Change</p>	<p>Date: September 30, 2009 Contact Person: Bill McKellin Phone: 822-2756 Email: mcke@interchange.ubc.ca</p>
<p><b>Proposed Calendar Entry:</b> ANTH 215 (3) JAPANESE POPULAR CULTURE Television shows, dramas, movies, advertising, marketing, manga (Japanese style "comics"), anime (Japanese animation), theatrical forms, popular literature, popular music, fashion fads, tourism, toys, and sports.</p>	<p><b>Present Calendar Entry:</b> ANTH 215 (3/6) d Introduction to Japanese Society Survey of contemporary Japanese life, with a focus on social organization and cultural patterns. Topics may include family, kinship, rural and urban conditions, economic organization, class and other inequalities, ethnic relations, and introduction of Western culture and value systems. Equivalency: SOCI 215.</p> <p><b>Type of Action:</b></p> <ul style="list-style-type: none"> <li>• Change credit options to 3 from 3/6.</li> <li>• Change title</li> <li>• Rewrite description to better reflect course content</li> <li>• Delete sociology equivalency.</li> </ul> <p><b>Rationale:</b> The existing title and description do not differentiate the course adequately from ANTH 315. Neither do they represent current teaching practice. This course description has been reviewed by the department in the context of an overall program review resulting from the recent creation of Anthropology as a separate department. The deletion of the sociology equivalency reflects the separation of the former Dept. of Anthropology and Sociology.</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Anthropology Faculty Approval Date:</p> <p>Effective Session __Winter__ Term _1__ Year_2010__ for Change</p>	<p>Date: 4 November, 2009 Contact Person: Bill McKellin Phone: 2-2756 Email: mcke@interchange.ubc.ca</p>
<p>ANTH 228 (3) Forensic Anthropology</p> <p>Proposed Calendar Entry: The application of methods from biological anthropology and archaeology to the identification, recovery, and analysis of skeletal remains from crime scenes, mass disasters and unexplained deaths.</p>	<p>URL: N/a</p> <p>Present Calendar Entry: N/a</p> <p>Type of Action: New course</p> <p>Rationale: There is a need for a course in this rapidly expanding area of biological anthropology. Currently none of the existing courses covers this topic.</p>



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UBC Curriculum Proposal Form

Category (1)

Change to Course or Program

<p>Faculty: Arts Department: Anthropology Faculty Approval Date:  Effective Session: winter, term 1, 2010</p>	<p>Date: Contact Person: Phone: Email:</p>
<p>Proposed Calendar Entry: <b>ANTH 301(3) Ethnography of Eurasia</b> Eurasia, including the Russian Federation, Central Asia, and Mongolia, with an emphasis on issues of power, identities, and transnational mobility in the region.</p>	<p>Present Calendar Entry: N.A..</p> <p><b>Type of Action:</b> Create a new course number for a course that has been previously taught as a "special areas" course (ANTH 403).</p> <p><b>Rationale:</b> The ethnography of Eurasia is a growing area of research and teaching encompassing the region of the former Soviet Union and its bordering regions.</p> <p>This course will complement offerings in the Department of History, the Department of Sociology, and the Department of Asian Studies.</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Anthropology Faculty Approval Date:</p> <p>Effective Session _Winter_ Term _1__ Year_2010__ for Change</p>	<p>Date: 30/09/09 Contact Person: Bill McKellin Phone: 2-2756 Email: mcke@interchange.ubc.ca</p>
<p>ANTH 405 (3) Archaeological and Anthropological Mapping</p> <p>Proposed Calendar Entry: Current methods in mapping spatial information in archaeology and related subfields of anthropology.</p>	<p>URL:</p> <p>N/A - new course</p> <p>Present Calendar Entry:</p> <p>N/A - new course</p> <p>Type of Action: New course</p> <p>Rationale:</p> <p>This course covers emerging technologies and methods essential to archaeological and anthropological research.</p>



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UBC Curriculum Proposal Form

Category (1) Change to Course or Program

<p>Faculty: Arts Department: Anthropology Faculty Approval Date:  Effective Session: winter, term 1, 2010</p>	<p>Date: Contact Person: Bill McKellin Phone: 2-2756 Email: mcke@interchange.ubc.ca</p>
<p>Proposed Calendar Entry: <b>ANTH 414 (3) Anthropology of Globalization</b> Theories on the global flow of people, commodities, images, and ideas with critical ethnographic attention to the different ways people respond to globalization.</p>	<p>Present Calendar Entry: N.A.</p> <p><b>Type of Action:</b> Create a new course.</p> <p><b>Rationale:</b> This course has been previously taught as Anth470, "Topics in Contemporary Theory," for five of the past eight years. Anthropological attention to the study of globalization and the meaning it has for people is thriving, with its focus on "global cities," uneven access to globalized forms of power and mobility, and the role of nation-states in regulating migration.</p> <p>At least three of our current faculty could teach this course (Bloch, Gordillo, Menzies).</p> <p>This course complements offerings in the Department of Geography, Department of Sociology, and Department of Economics. It will also add to the list of courses that may satisfy requirements for the newly established undergraduate minor in Globalization and Migration Studies.</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: 1

<p>Faculty: Arts Department: Anthropology Faculty Approval Date:</p> <p>Effective Session _Winter_ Term _1__ Year_2010__ for Change</p>	<p>Date: 5 October 2009 Contact Person: Bill McKellin Phone: 2-2756 Email: mcke@interchange.ubc.ca</p>
<p><b>ANTH 425 (3) Nutritional Archaeology</b></p> <p><b>Proposed Calendar Entry:</b> The archaeological evidence for the change of human diets over time and the methods used to reconstruct past diets.</p>	<p><b>URL:</b> N/A - new course</p> <p><b>Present Calendar Entry:</b> N/A - new course</p> <p><b>Type of Action:</b> New course</p> <p><b>Rationale:</b>  There is a need for additional 4<sup>th</sup> year courses in the department that addresses the relationship between archaeology and biological anthropology. This course has a broad appeal across the sub-fields of anthropology, and has attracted students from other departments and faculties</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Asian Studies Faculty Approval Date: Oct 29, 2009</p> <p>Effective Session 2010W Term 1 Year 2010 for Change</p>	<p>Date: October 18, 2009 Contact Person: Lonnie Chase Phone: 604-822-9266 Email: lchase@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p><b>ASIA 361 (3) MODERN CHINESE FICTION IN TRANSLATION II</b> A thematic survey of modern Chinese fiction and film in translation.</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New course</p> <p>Rationale: UBC currently only has one course on the books for modern Chinese literature (MCL) in translation: ASIA 351: "Modern Chinese Fiction in Translation." This course proposal is intended to enhance UBC's curriculum so that interested students may take a two-semester course of study in MCL. (Currently, their own option is to repeat ASIA 351, which looks like the same course on their transcript even if the content is different.) In the future, ASIA 351 will be offered in the fall and ASIA 361 in the spring and have complementary thematic foci (e.g., "the city in literature"/"the rural imagination"), such that students may either take both courses as a two-part series or just one course a la carte. Student demand for MCL survey courses at this level is high, and ASIA351 is consistently oversubscribed.</p>



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Category: (1)

<p>Faculty: Arts Department: Asian Studies Faculty Approval Date: Oct 29, 2009</p> <p>Effective Session 2010W Term 1 Year 2010 for Change</p>	<p>Date: October 18, 2009 Contact Person: Lonnie Chase Phone: 604-822-9266 Email: lchase@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p><b>ASIA 363 (3) FICTION AND FILM FROM MODERN TAIWAN</b> A reading-intensive survey of literary and cinematic culture in Taiwan since the early 20th century: colonialism, the national divide, nativism, trauma, cosmopolitanism, and utopian imaginings. In English.</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New course</p> <p>Rationale: This new course will enhance UBC's course offerings on modern Asia with a focus on the outsized literary and cinematic accomplishments of the small island of Taiwan. It traces a literary, cinematic, and cultural history of Taiwan in the context of the island's modern history and links to other parts of Asia and the world by focusing on notable writers and filmmakers from the Japanese occupation period (1895-1945) to the post-martial law (post-1987) present. Student demand for such a course is strong, especially given the large population of UBC students with a family link to Taiwan. (Over forty students from a diversity of backgrounds enrolled in this course this term when it was advertised under the generic title "A Specific Asian Literature in Translation" (ASIA 360A) and subtitled "Fiction and Film from Modern Taiwan.") All readings will be in English translation, and all films will have English subtitles.</p>





THE UNIVERSITY OF BRITISH COLUMBIA

UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Asian Studies Faculty Approval Date: Oct 29, 2009 Effective Session 2010W Term 1 Year 2010 for Change</p>	<p>Date: November 1, 2009 Contact Person: Lonnie Chase Phone: 604-822-9266 Email: lchase@interchange.ubc.ca</p>
<p><b>Proposed Calendar Entry:</b> ASIA 365(3) Punjabi Cinema Punjabi culture, history, and social values through films. The class includes film viewings and seminar discussions. Films will be screened with English subtitles.</p>	<p><b>URL:</b> n/a <b>Present Calendar Entry:</b> n/a <b>Type of Action:</b> New course  <b>Rationale:</b> With the emergence of strong markets for Punjabi films in the diasporic Punjabi communities all over the world, the Punjabi film making has gained a powerful momentum in recent decades. On one hand, this momentum is increasing the number of Punjabi films made per year, on the other hand it is influencing the subject matter of Punjabi films. For example, in the beginning, most of the Punjabi films were made about classical Punjabi love stories such as Heer Ranjha, Sassi Pannu, Sohni Mehiwal etc., and now a days many Punjabi films deal with the lives of Punjabis living in western countries such as USA and Canada.  In addition to strong diasporic markets for Punjabi films, the thriving <i>Bhangra</i> music industry has greatly influenced the Punjabi films in recent decades. A number of Bhangra stars have entered the business of Punjabi films production. In some instances, the plots of Punjabi films have been woven around 5-6 six songs sung by a popular singer.  The students of this course will be able to gain a significant insight in to Punjabi, language, culture and history by viewing and analyzing Punjabi films made during different time periods (i.e. pre-partition, partition to early 1960s, 1970s to mid-1990s, and from mid-1990s to the present).</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Asian Studies Faculty Approval Date: October 29, 2009</p> <p>Effective Session 2010W Term 1 Year 2010 for Change</p>	<p>Date: October 25, 2009 Contact Person: Lonnie Chase Phone: 604-822-9266 Email: lchase@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p><b>ASIA 389 (3) Introduction to Classical Chinese I</b> The basics of classical Chinese grammar, with short illustrations from texts of the Warring States and early Han Period.</p> <p>Prerequisite: Students must have completed the equivalent of first-year modern Chinese, first-year modern Japanese or Korean 301, or otherwise demonstrate a basic knowledge of Chinese characters.</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New course</p> <p>Rationale: Classical Chinese has served as the literary lingua franca of East Asia for millennia, and a reading knowledge of this language is required for working with pre-modern materials from throughout East Asia. There is currently no course at UBC dedicated to providing students who are not advanced speakers of a modern Chinese dialect with an ability to work directly with classical Chinese materials—a serious impediment to the training of advanced undergraduate and graduate students.</p>



THE UNIVERSITY OF BRITISH COLUMBIA

UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Asian Studies Faculty Approval Date: October 29, 2009</p> <p>Effective Session 2010W Term 1 Year 2010 for Change</p>	<p>Date: October 25, 2009 Contact Person: Lonnie Chase Phone: 604-822-9266 Email: lchase@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p><b>ASIA 399 (3) Introduction to Classical Chinese II</b> Practice and expansion of the grammar skills learned in Asia 389; reading of additional and longer passages from the classical canon. Prerequisite: ASIA 389</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New course</p> <p>Rationale: Classical Chinese has served as the literary lingua franca of East Asia for millennia, and a reading knowledge of this language is required for working with pre-modern materials from throughout East Asia. There is currently no course at UBC dedicated to providing students who are not advanced speakers of a modern Chinese dialect with an ability to work directly with classical Chinese materials—a serious impediment to the training of advanced undergraduate and graduate students.</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: Asian Studies Faculty Approval Date: Oct 29, 2009</p> <p>Effective Session 2010W Term 1 Year 2010 for Change</p>	<p>Date: October 18, 2009 Contact Person: Lonnie Chase Phone: 604-822-9266 Email: lchase@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p><b>ASIA 451 (3) MODERN CHINESE AUTHORS IN TRANSLATION</b> One influential modern Chinese author, such as Lu Xun, Shen Congwen, Eileen Chang, Yu Hua, Mo Yan, or Wang Anyi. Prerequisite: ASIA 351, ASIA 361, or ASIA 363.</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New course</p> <p>Rationale: UBC currently offers no fourth-year-level course on modern Chinese literature (MCL) in English translation, despite high student demand. This course is designed for Asian Studies majors and minors, as well as for students with a strong interest in MCL who have already taken course offerings at the third-year level. Whereas existing (and proposed) third-year MCL courses offer a broad thematic survey of modern Chinese fiction, this fourth-year course will take an in-depth look at the corpus of a single author, focusing on such issues as: biography, literary influences and antecedents, historical and cultural milieu, aesthetics, politics, inclusion/exclusion from different literary canons, legacy and cultural impact. Enough modern Chinese writers have been translated into English as to make at least a dozen unique iterations of this course possible.</p>



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UBC Curriculum Proposal Form  
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Category: (1)

<p>Faculty: Arts Department: Asian Studies Faculty Approval Date: Oct 29, 2009</p> <p>Effective Session 2010W Term 1 Year 2010 for Change</p>	<p>Date: December 16, 2009 Contact Person: Lonnie Chase Phone: 604-822-9266 Email: lchase@interchange.ubc.ca</p>
<p>Proposed Calendar Entry: ASIA 456 (3) HISTORY AND CULTURE OF TAIWAN The major social, economic, political, and cultural changes in Taiwan since the seventeenth century; the post-World War II process of democratization and Taiwan's place in the contemporary world.</p>	<p>URL: n/a</p> <p>Present Calendar Entry: n/a</p> <p>Type of Action: New course</p> <p>Rationale: Taiwan (the Republic of China on Taiwan) is an increasingly important player in world economics, politics and culture with vital links to Canada, the U.S., Japan, and especially China. There is no such course in the Faculty of Arts. This course is being proposed in fulfillment of the agreement— Enhancing Taiwan Studies—reached in 2008 with the ROC Ministry of Education by the University, the Faculty of Arts and the Department of Asian Studies.</p>



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Category: (1)

<p>Faculty: Arts Department: Asian Studies Faculty Approval Date: October 29, 2009</p> <p>Effective Session 2010W Term 1 Year 2010 for Change</p>	<p>Date: October 27, 2009 Contact Person: Lonnie Chase Phone: 822-9266 Email: lchase@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>PUNJ 400 (6) The Punjabi Novel (Advanced Punjabi) Prerequisite: PUNJ 300</p>	<p>URL: n/a</p> <p>Present Calendar Entry: none</p> <p>Type of Action: New course</p> <p>Rationale: This course will aim to introduce students to the novel in modern Punjabi, building upon the knowledge acquired in the first, second, and third year courses in Punjabi and to develop students' reading and writing skills in modern Punjabi at an intermediate and advanced level.</p>



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Change to Course or Program

Category: (1)

<b>Faculty:</b> ARTS <b>Department:</b> English <b>Faculty Approval Date:</b>  <b>Effective Session_W__ Term 1____</b> <b>Year_2010__ for Change</b>	<b>Date:</b> November 2, 2009 <b>Contact Person:</b> Glenn Deer <b>Phone:</b> 2-4469 <b>Email:</b> gdeer@interchange.ubc.ca
<b>Proposed Calendar Entry:</b>  ENGL 489 (3) Language Majors Seminar Required of all Language Majors. See Department Website ( <a href="http://www.english.ubc.ca/ugrad/majors/compl_lan_g.htm">http://www.english.ubc.ca/ugrad/majors/compl_lan_g.htm</a> ) for options. This course may not be taken for Credit/D/Fail Standing.	<b>URL:</b> <a href="http://www.students.ubc.ca/calendar/courses.cfm?code=ENGL">http://www.students.ubc.ca/calendar/courses.cfm?code=ENGL</a>  <b>Present Calendar Entry:</b> none  <b>Type of Action:</b> New course  <b>Rationale:</b> ENGL 489 fulfills the recent Faculty of Arts "research experience" requirement with a specialized research course for Language Majors.



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: 1

<p>Faculty: Arts Department: First Nations Studies Program Faculty Approval Date:</p> <p>Effective Session: Winter Term 1; Year for Change: 2010-2011</p>	<p>Date: 11-26-2009 Contact Person: Dory Nason Phone: 604-827-5688 Email: dory.nason@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>FNSP 300 (3): Writing First Nations</p> <p>A writing-intensive course examining approaches to writing Indigenous research: Representation &amp; the Other; Indigenous critiques of research &amp; representation; Indigenous, feminist and cultural studies approaches to writing ethnography, oral history and related research methods.</p>	<p>URL:</p> <p>Present Calendar Entry:</p> <p>Type of Action: New Course</p> <p>Rationale: To augment current core course offerings with a writing-intensive course in order to provide a foundation for the high level of analysis and writing expected in the major's research practicum. The course is not duplicated elsewhere nor is it designed as a writing skills course. While the course subject is focused on issues of writing methods and related representational practices/issues for First Nations studies research, it is also highly relevant for students at UBC in traditional disciplines whose research focuses on Aboriginal peoples or students who are working within interdisciplinary programs which focus on difference.</p>





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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: FHIS (Fren Hisp &amp; Ital) Faculty Approval Date:</p> <p>Effective Session <u>W</u> Term <u>1</u> Year <u>10</u> for Change</p>	<p>Date: October 20, 2009 Contact Person: Prof. R. Hodgson Phone: 2-4007 E-mail: rhodgson@interchange.ubc.ca</p> <p>Proponent: R. Hodgson</p>
<p>Proposed Calendar Entry:</p> <p>FREN 280 (3) Introduction to Québécois Literature in Translation</p> <p>An overview of the novel and theatre of Quebec in the 1960s, 70s and 80s.</p>	<p>URL:</p> <p>Present Calendar Entry: None</p> <p>Type of Action: Introduce new course</p> <p>Rationale: This course will provide students with an overview of the novel and theatre of Quebec in the 1960s, 70s and 80s. Because the texts on the syllabus are studied with reference to their socio-cultural and historical contexts, this course should be of interest to students of Canadian history as well as of Canadian literature, and of course to students specializing in Canadian Studies. The 3 credits involved will help students satisfy the literature requirement of the Faculty of Arts. The course is aimed at students whose level of knowledge of French is insufficient to allow them to study the works involved in the original language.</p> <p>Pls. see the sample syllabus attached.</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: French, Hispanic and Italian Studies Faculty Approval Date:  Effective Session W Term 1 Year 2010</p>	<p>Date: November 29, 2009 Contact Person: Dr. Richard Hodgson Phone: 2 4007 Email: rhodgson@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p><b>FREN 336 (3) THE FRANCOPHONE WORLD IN IMAGES.</b> A socio-cultural study of francophone communities of Canada, the Caribbean, Europe and North and Sub-Saharan Africa as seen through their films.</p> <p>Prerequisite: FREN 223.</p>	<p>URL:<a href="http://www.students.ubc.ca/calendar/courses.cfm?code=FREN">http://www.students.ubc.ca/calendar/courses.cfm?code=FREN</a></p> <p>Present Calendar Entry: None</p> <p>Type of Action: Create New Course</p> <p>Rationale: This course is designed to provide students with the conceptual tools for discovering the world's most important francophone communities. Some emphasis will be put on basic analytical tools for understanding the visual language of film (narration, characterization, point of view, treatment of time, genre etc.) but since film trends are crucial to an understanding of a culture, the main objective of the course will be to focus on each selected film as a lens for exploring the socio-cultural context from which it emerged.</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: FHIS (Fren Hisp &amp; Ital) Faculty Approval Date:</p> <p>Effective Session <u>  W  </u> Term <u>  1  </u> Year <u> 10 </u> for Change</p>	<p>Date: October 20, 2009 Contact Person: Prof. R. Hodgson Phone: 2-4007 E-mail: rhodgson@interchange.ubc.ca</p> <p>Proponent: R. Hodgson</p>
<p>Proposed Calendar Entry:</p> <p><b>FREN 484 (3/6) d Studies in Book Culture: the Author, the Public and the Book</b></p> <p>A historical approach to the social transformations of the book trade in France.</p> <p>Prerequisite: One of FREN 320 or FREN 321 or FREN 330.</p>	<p>Present Calendar Entry: None</p> <p>Type of Action: Introduce new course</p> <p><b>Rationale:</b> This course fills a gap in our undergraduate programs in French by giving advanced students the opportunity to familiarize themselves with the role of institutions and social practices in literary activities in France. Topics will vary but may include questions like the professionalization of writers, transformations of the literary market and the institutionalization of criticism.</p>



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UBC Curriculum Proposal Form  
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Category: (1)

<p>Faculty: Arts Department: FHIS (Fren Hisp &amp; Ital) Faculty Approval Date:</p> <p>Effective Session <u>W</u> Term <u>1</u> Year <u>10</u> for Change</p>	<p>Date: November 12, 2009 Contact Person: Prof. R. Hodgson Phone: 2-4007 E-Mail: rhodgson@interchange.ubc.ca</p> <p>Proponent: Prof. C. Testa</p>
<p>Proposed Calendar Entry:</p> <p>ITST 245 (3) ITALIAN FASCISM IN INTERDISCIPLINARY PERSPECTIVE The cultural, literary, philosophical roots of Fascism and its evolution: its policies in literature, sports, cinema, architecture, racial legislation, and colonial adventures.</p>	<p>Present Calendar Entry: None</p> <p>Type of Action: Introduce new course</p> <p>Rationale: Italian Fascism (1919-1943 and then 1945) ushered in a tragic paradigm shift in the modern polity and fully matched its claim to have created the new, modern and (in Mussolini's own word) "totalitarian" society. This course explores the cultural, literary, philosophical, political roots of Fascism and its evolution, considering and discussing its policies in fields as diverse as literature, sports, cinema ("Cinema is the greatest weapon of all" - again Mussolini), architecture, after-work clubs for the masses, summer camps, racial (= racist) legislation, colonial adventures etc., until the fatal "Axis" alliance with Nazi Germany. The course has been tested and offered 3 times with increasing enrollments in a slightly more international form (as RMST 222, <i>Literatures and Cultures of the Romance World II: Modern to Post-Modern</i>) and, given its success, the Department now feels that it ought to have a specific label identifying it more precisely.</p>



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<p>Faculty: Arts Department: FHIS (Fren Hisp &amp; Ital) Faculty Approval Date:  Effective Session <u>  W  </u> Term <u>  1  </u> Year <u> 10 </u> for Change</p>	<p>Date: September 16, 2009 Contact Person: Prof. R. Hodgson Phone: 2-4007 E-mail: rhodgson@interchange.ubc.ca  Proponent: C. Testa</p>
<p>Proposed Calendar Entry: ITST 385 (3) ITALIAN CINEMA: NEOREALISM</p>	<p>URL:  Present Calendar Entry: None  Type of Action: Introduce new course  Rationale: Italian Neorealism was a worldwide <i>cause célèbre</i> — an artistic movement exemplary both in aesthetic achievements and ethical commitment. Over the decades it has had an enormous impact on filmmakers the world over: from young Kurosawa's Japan, to the United States, to countries (Brazil, India, Eastern Europe, Spanish America) previously known as "third world" who reached artistic maturity by absorbing and re-elaborating the great Neorealist masters' legacy.  The Italian program and FHIS wish to reach out to all students in Arts (not least in cooperation with the new FILM - FIST Audio-Visual Resource Centre in Lasserre 206), alternately offering this intermediate third-year course with the extant entry-level second-year survey ITST 234, "Intro to Italian Cinema."</p>



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UBC Curriculum Proposal Form  
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Category: (1)

<p>Faculty: Arts Department: FHIS (Fren Hisp &amp; Ital) Faculty Approval Date:</p> <p>Effective Session <u>W</u> Term <u>1</u> Year <u>10</u> for Change</p>	<p>Date: November13, 2009 Contact Person: Prof. R. Hodgson Phone: 2-4007 E-mail: rhodgson@interchange.ubc.ca</p> <p>Proponent: C. Testa</p>
<p>Proposed Calendar Entry:</p> <p>RMST 234 (3) INTRODUCTION TO ROMANCE LANGUAGE CINEMA</p>	<p>URL:</p> <p>Present Calendar Entry: None</p> <p>Type of Action: Introduce new course</p> <p>Rationale: This course presents students with a general introduction to comedy in the cinema of Romance Language nations. It explores the ways in which popular comic films for the masses — cinematic comedy, that is — has been able to continue a gloriously ancient theatrical genre aimed at playing a pedagogical role, up to and including an important pro-democratic one.</p> <p>By using the greatest diversity of sub-genres, settings, themes, characterization, comic devices etc., such comedies have harnessed laughter to the illustration of major social, economic, or political issues of their days / our day. In so doing, they have decisively contributed to fostering a better informed and more solid citizenry.</p> <p>This course is an expanded version of the extant entry-level second-year survey ITST 234, "Introduction to Italian Cinema," and it wishes to go beyond that in order to cater to the interests of all majors and minors in FHIS, actual or potential, as well as to the curiosity of the general public.</p>



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UBC Curriculum Proposal Form  
Change to Course or Program

Category: 1

<b>Faculty:</b> Arts <b>Department:</b> History <b>Faculty Approval Date:</b>  <b>Effective Session W; Term 1</b> <b>Year 2010 for Change</b>	<b>Date:</b> Thursday, 10 September 2009 <b>Contact Person:</b> Tina Loo <b>Phone:</b> 604 822-5173 <b>Email:</b> tina.loo@ubc.ca
<b>Proposed Calendar Entry:</b> HIST 106 (3) Global Environmental History  The impact humans have had on the environment, and the ways in which the physical environment has shaped human history: climate, agriculture, energy use and urbanization.	<b>Type of Action:</b> new course  <b>Rationale:</b> HIST 106 is a first year course designed to present contemporary environmental issues in historical perspective. In covering the issues of climate change, agriculture, energy, and urbanization, it will draw on examples from around the globe and across time, though it is largely focused on the nineteenth and twentieth centuries. Although it will provide the context for upper division courses in environmental history, it is also designed to appeal and be accessible to students from other disciplines and departments with an interest in environmental studies and sustainability, areas of university-wide focus and strength.



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UBC Curriculum Proposal Form  
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Category: 1

<p>Faculty: Arts Department: History Faculty Approval Date:</p> <p>Effective Session W; Term 1 Year 2010 for Change</p>	<p>Date: Wednesday, 16 September 2009 Contact Person: John Roosa Phone: 604 822-5175 Email: jroosa@interchange.ubc.ca</p>
<p>Proposed Calendar Entry: HIST 273 (3) Major Issues in South Asian History</p> <p>Some of the major debates in the political, economic, and military history of South Asia from ancient times to the present: state formation, commerce, empire, nationalism, and partition.</p>	<p>Type of Action: new course</p> <p>Rationale: This course is meant to be at the 200-level. As a regional survey, it is similar to current courses 237 (Major Themes in American History) and 250 (Major Issues in Latin American History). It is designed to attract 1st and 2nd year students. At present, both of the department's courses on South Asia are at the 300-level.</p> <p>As a one-term, 3-credit course, it will give the department more flexibility in scheduling South Asia courses. Now the department's only survey course on South Asia is 2-terms, six credits (Hist 385). We don't have the teaching person-hours to routinely offer Hist 385.</p> <p>As a course that includes material on ancient India, it expands the department's coverage. At present, we only cover the Mughal and modern periods.</p>





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<b>Faculty:</b> Arts <b>Department:</b> History <b>Faculty Approval Date:</b>  <b>Effective Session W; Term 1 Year 2010 for Change</b>	<b>Date:</b> Thursday, 17 September 2009 <b>Contact Person:</b> Jeffrey Byrne <b>Phone:</b> 604 822-5194 <b>Email:</b> jeffrey.byrne@ubc.ca
<b>Proposed Calendar Entry:</b> HIST 313 (3) Africa from Imperialism to Independence  The history of Africa in the 19th and 20th Centuries: the growth of Islam and Christianity, the impact of European colonialism, the development of nationalism, and the variety of different political and social outcomes after independence.	<b>Type of Action:</b> New Course  <b>Rationale:</b> The course would meet the need for an offering on modern African history. Additionally, the course would introduce students to several important themes in the history of imperialism and the developing world: colonialism as (at least) a bi-directional experience, the formation of national identities, and the question of elite formation. Gives global context to Africa.



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<b>Faculty:</b> Arts <b>Department:</b> History <b>Faculty Approval Date:</b>  <b>Effective Session W; Term 1</b> <b>Year 2010 for Change</b>	<b>Date:</b> Thursday, 17 September 2009 <b>Contact Person:</b> Tamara Myers <b>Phone:</b> 604 822-5161 <b>Email:</b> tamara.myers@ubc.ca
<b>Proposed Calendar Entry:</b> HIST 419 (3) Crime and Punishment in Canadian History  The relationship between law and society; the development of legal institutions and the evolving character of crime in Canada.	<b>Type of Action:</b> new course  <b>Rationale:</b> This course on legal history is intended to both expand the course offerings in the Canadian area and contribute to the new Law and Society Minor. It conforms to the thematic emphasis of the 400-level History courses.



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Category: 1

<p>Faculty: Arts Department: History Faculty Approval Date:</p> <p>Effective Session W; Term 2 Year 2010 for Change</p>	<p>Date: Friday, 18 September 2009 Contact Person: Jeffrey Byrne Phone: 604 822-5194 Email: jeffrey.byrne@ubc.ca</p>
<p><b>Proposed Calendar Entry:</b> HIST 460 (3) Revolution and Resistance in the Third World</p> <p>Revolutionary movements in the Third World during the second half of the twentieth century; the radicalisation of anticolonial nationalism; the impact of anticolonial radicalism in the developed world; the decline of Marxism as a revolutionary inspiration.</p>	<p><b>Type of Action:</b> New Course</p> <p><b>Rationale:</b> The course would complement existing international relations courses that focus on the great powers and the Northern Hemisphere, and also offers an important survey of the post-colonial era in the developing world. Particular attention is paid to Africa and to the Middle East, regions with relatively little coverage. Teaches students to connect different regions through theory.</p>



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**UBC Curriculum Proposal Form**  
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**Category: 1**

<b>Faculty:</b> Arts <b>Department:</b> History <b>Faculty Approval Date:</b>  <b>Effective Session W; Term 1</b> <b>Year 2010 for Change</b>	<b>Date:</b> Saturday, 12 September 2009 <b>Contact Person:</b> Carla Nappi <b>Phone:</b> 604 822-5176 <b>Email:</b> carla.nappi@ubc.ca
<b>Proposed Calendar Entry:</b> HIST 487 (3) Medicine and Healing in Chinese History  Health and healing in China's history; the modern re-imagining of a Chinese medical tradition in contemporary society.	<b>Type of Action:</b> new course  <b>Rationale:</b> This course is proposed as part of the Department's fourth-year curriculum offerings, which are largely historical treatments of specific temporal periods or thematic foci.



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UBC Curriculum Proposal Form  
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Category: 1

<b>Faculty:</b> Arts <b>Department:</b> History <b>Faculty Approval Date:</b>  <b>Effective Session W; Term 1</b> <b>Year 2010 for Change</b>	<b>Date:</b> Thursday, 17 September 2009 <b>Contact Person:</b> Carla Nappi <b>Phone:</b> 604 822-5176 <b>Email:</b> carla.nappi@ubc.ca
<b>Proposed Calendar Entry:</b> HIST 488 (3/6) D Special Topics in Asian History	<b>Type of Action:</b> new course  <b>Rationale:</b> Many postdoctoral fellows, new instructors, senior doctoral candidates, and visiting professors wish to teach Asian history courses in our department but cannot find a particular course extant in the calendar that describes the topic, theme, or period they wish to teach. We have topics courses in Canadian, U.S., and Latin American history; we should certainly have one in our signature field of Asian history.



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Category: (1)

<p>Faculty: Arts Department: Theatre and Film Faculty Approval Date:</p> <p>Effective Session _Winter___ Term __1_ Year_2010__ for Change</p>	<p>Date: November 10, 2009 Contact Person: Brian McIlroy Phone: 2-9194 Email: bmcilroy@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>FIST 445 (3) Majors and Honours Seminar</p>	<p>Present Calendar Entry: None</p> <p>Type of Action: New Course</p> <p>Rationale:</p> <p>This seminar will provide archive research experience for our majors and honours students. It will also satisfy the Faculty's research requirements.</p>



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Category: (1)

<p>Faculty: Arts Department: Theatre and Film Faculty Approval Date:</p> <p>Effective Session _Winter___ Term __1_ Year_2010__ for Change</p>	<p>Date: November 10, 2009 Contact Person: Brian McIlroy Phone: 2-9194 Email: bmcilroy@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>FIST 449 (6) Honours Essay</p> <p>A course allowing honours students to work with a faculty member on a major research paper.</p>	<p>Present Calendar Entry: None</p> <p>Type of Action: New Course</p> <p>Rationale:</p> <p>This course provides Honours students the opportunity of working with a faculty member on a significant research project.</p>

THE UNIVERSITY OF BRITISH COLUMBIA



Enrolment Services  
Senate and Curriculum Services  
2016–1874 East Mall  
Vancouver, BC V6T 1Z1  
lindsey.lipovsky@ubc.ca  
T: 604-822-9134; F: 604-822-5945

28 April 2010

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **CURRICULUM PROPOSALS FROM THE FACULTY OF COMMERCE AND  
BUSINESS ADMINISTRATION**

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Attached please find submitted category 1 curriculum proposals for your consideration.

**New Courses:**

COMM 101 (3)

COMM 285 (3)

COMM 390 (3)





## UBC Curriculum Proposal Form Change to Course or Program

**Category: (1)**

<b>Faculty:</b> Sauder School of Business <b>Department:</b> Undergraduate Office <b>Faculty Approval Date:</b> March 5, 2010  <b>Effective Session</b> 10W Term 1 <b>Year 2010 for Change</b>	<b>Date:</b> February 1, 2010 <b>Contact Person:</b> Pam Lim/ Paola Baca <b>Phone:</b> 604-822-9216/ 604-822-8447 <b>Email:</b> <b>Pam.lim@sauder.ubc.ca/paola.baca@sauder.ubc.ca</b>
<b>Proposed Calendar Entry:</b>  COMM 101 (3) <b>Business Fundamentals</b> The different disciplines of business and their combination in management planning and decision-making.  Cannot be taken for Credit/D/Fail	<b>URL:</b> <a href="http://www.students.ubc.ca/calendar/courses.cfm?code=COMM">http://www.students.ubc.ca/calendar/courses.cfm?code=COMM</a>  <b>Present Calendar Entry:</b> None  <b>Type of Action:</b> New course  <b>Rationale:</b> This course is intended to fulfill the following needs: <ul style="list-style-type: none"><li>a) Accreditation body requirements that the Bachelor of Commerce curriculum better reflect the stated values of the Sauder School of Business. This course is a first move towards meeting learning objectives established for the BCom program.</li><li>b) An integration of social and environmental sustainability, ethics and global citizenship in the curriculum;</li><li>c) A desire from students and Divisions that undergraduate students are exposed to all commerce disciplines from the start of their degree;</li><li>d) An integration of other Sauder School of Business priorities for undergraduates, including career centre guidance, and research skills that will outline a more complete roadmap of the Bachelor of Commerce experience.</li></ul> This course is currently being piloted as an elective from January to April 2010 as COMM 486G in response to the growing demands by undergraduate students for commerce-related curricula in their first year. The course outline is attached.

**UBC Curriculum Proposal Form  
Change to Course or Program****Category: (1)**

<b>Faculty:</b> Sauder School of Business <b>Department:</b> <b>Faculty Approval Date:</b> January 18, 2008  <b>Effective Session</b> 2010W Term1	<b>Date:</b> January 16, 2009 <b>Contact Person:</b> Pam Lim <b>Phone:</b> 2-8447 <b>Email:</b> <a href="mailto:pam.lim@sauder.ubc.ca">pam.lim@sauder.ubc.ca</a>
<b>Proposed Calendar Entry:</b>  COMM 285 (3) Ch'nook 2 Applied business problems. Business problems of concern to Aboriginal business. Particular attention will be given the identification and application of best practices in an Aboriginal context.	<b>URL:</b> NA  <b>Present Calendar Entry:</b>  NA  <b>Type of Action:</b> New Course  <b>Rationale:</b> To provide business education course for the Chinook Diploma Program.  The Chinook program was approved in 2004, but this course was not approved at that time. It has not been offered, but we would like to start offering it next year.



## UBC Curriculum Proposal Form Change to Course or Program

**Category: (1)**

<b>Faculty:</b> Sauder School of Business <b>Department:</b> Undergraduate Office <b>Faculty Approval Date:</b> March 5, 2010  <b>Effective Session 10W Term 1 Year 2010 for Change</b>	<b>Date:</b> February 1, 2009 <b>Contact Person:</b> Pam Lim <b>Phone:</b> 604-822-9216 <b>Email:</b> pam.lim@sauder.ubc.ca
<b>Proposed Calendar Entry:</b>  <b>COMM 390 (3) Business Writing</b> Principles of written communication in business and professional activities, and practice in the preparation of executive summaries, proposals, reports and correspondence for multiple audiences. Prerequisite: A minimum grade of 60% or 'C' in one of ENGL 112, ASTU 150, ENGL 100, Arts One, or a Coordinated Arts Program satisfying the 3-credit writing component of the Faculty of Arts Writing and Research Requirement.	<b>URL:</b> <a href="http://www.students.ubc.ca/calendar/courses.cfm?code=COMM">http://www.students.ubc.ca/calendar/courses.cfm?code=COMM</a>  <b>Present Calendar Entry:</b> None  <b>Type of Action:</b> New Course  <b>Rationale:</b> This is a required course to satisfy the Bachelor of Commerce English requirement. In order to satisfy the Faculty's English requirement students must obtain credit for English 112 (or equivalent) and COMM 390 with a minimum of 60% for each of the two required English courses.  This course was successfully piloted in classroom-based and wholly online formats in 08W and 09W as COMM 486W.

# THE UNIVERSITY OF BRITISH COLUMBIA



Enrolment Services  
Senate and Curriculum Services  
2016–1874 East Mall  
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28 April 2010

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **GRADUATE PROPOSALS**

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Attached please find submitted category 1 curriculum proposals for your consideration.

## **Arts**

### *New Courses*

ASIA 524 (3)

CNRS 535 (3)

## **Commerce and Business Administration**

### *New Option*

International Business Stream for Master of Management - Early Career Masters Students

### *New Course*

BA 550 (1.5)

## **Education**

### *Calendar Change*

Counselling Psychology > Ph.D. > Program Requirements > make number of credits of coursework variable

## **Medicine**

### *New Course*

SPPH 570 (6)

## **Science**

### *Changed Courses*

CHEM 534 (3)

CHEM 569 (3)

MATH 513 (3)

MATH 515 (3)

MATH 561 (3)

MATH 613 (2-15)d

*New Courses*

MATH 563 (3)

MATH 564 (3)

MATH 566 (3)

MATH 567 (3)

MATH 592 (2-15)d

MATH 614 (2-15)d

MATH 615 (2-15)d

MATH 616 (2-15)d

**UBC Curriculum Proposal Form**  
**Change to Course or Program****Category: (1)**

<b>Faculty:</b> Arts <b>Department:</b> Asian Studies <b>Faculty Approval Date:</b> Oct 29, 2009  <b>Effective Session 2010W Term 1 Year 2010 for Change</b>	<b>Date:</b> October 18, 2009 <b>Contact Person:</b> Lonnie Chase <b>Phone:</b> 604-822-9266 <b>Email:</b> lchase@interchange.ubc.ca
<b>Proposed Calendar Entry:</b> <b>ASIA 524 (3)</b> Japanese for Specialists of China and Korea. Reading seminar in Japanese scholarly material dealing with China and/or Korea for graduate students who have a reading knowledge of Chinese and/or Korean and some knowledge of Japanese.	<b>URL:</b> n/a  <b>Present Calendar Entry:</b> n/a  <b>Type of Action:</b> New course  <b>Rationale:</b> The aim of this course is to prepare students whose studies focus on areas other than Japan but who need to be able to read academic Japanese in order to conduct research or further their studies. Even four years of undergraduate language studies in Japanese is insufficient training for graduate students to be able to conduct research using Japanese scholarship, which is often vital to the success of their research. While undergraduate training focuses largely on the spoken language and everyday use of non-academic language (newspaper reading, fiction, etc.), students are inadequately prepared to tackle scholarly materials and incorporate them into their own research. This course aims to rectify this problem. Similar courses exist at our peer institutions. Course materials will largely be made up of academic articles and essays by Japanese scholars; the objectives are to teach students how to locate relevant articles; how to “navigate” their way through them; how to interpret them for an Anglophone audience; and how to improve reading comprehension and translation abilities of high-level academic Japanese (a task that requires in excess of 1200 hours of prior classroom instruction to undertake). Students will have to present on Japanese materials in their field in class and will prepare a final essay (20-30 pages) that combines translation and analysis of and research on this scholarship vis-à-vis their own projects, and which could very well become a part of a thesis and/or an article. In other words, while reading strategies are a primary focus, students will still be required to tie their course work to research that furthers their studies and exposes them to research in related fields as well.

UBC Curriculum Proposal Form  
Change to Course or Program

Category: (1)

<p>Faculty: Arts Department: CNERS Faculty Approval Date: 25 April 2008</p> <p>Effective Session 2010 S (if possible, otherwise 2010W)</p>	<p>Date: May 4, 2009 Contact Person: Thomas Hikade Phone: 2-4054 Email: thikade@interchange.ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>CNRS 535 (3) Practicum in Classical or Near Eastern Archaeology</p> <p>Training in excavation techniques and interpretation through participation in the excavation of a Greek, Roman, or Near Eastern site in Europe or the Middle East. The minimum length of the course is three weeks.</p>	<p>URL: none</p> <p>Present Calendar Entry: none</p> <p>Type of Action: new course</p> <p>Rationale:</p> <p>A graduate course in archaeological field work is desirable to ensure that our MA and PhD students wherever practicable have a basic competence in archaeological excavation techniques (including basic survey and photography), processing of finds (especially pottery), and interpretation of results.</p>



## UBC Curriculum Proposal Form Change to Course or Program

### Category: (1 )

<b>Faculty:</b> Commerce <b>Department:</b> Sauder School of Business <b>Faculty Approval Date:</b> March 5, 2010  <b>Effective Session</b> 2010W <b>Term</b> 1 <b>Year</b> 2010 <b>for Change</b>	<b>Date:</b> 22 December 2009 <b>Contact Person:</b> Alina Yukhymets / Brian Bemmels <b>Phone:</b> 2-8243 / 2-0156 <b>Email:</b> <a href="mailto:alina.yukhymets@sauder.ubc.ca">alina.yukhymets@sauder.ubc.ca</a> / <a href="mailto:brian.bemmels@sauder.ubc.ca">brian.bemmels@sauder.ubc.ca</a>
<b>Proposed Calendar Entry:</b>  <b>International Business Stream</b> The International Business Stream is available to any student on the Master of Management - Early Career Masters (ECM) Program. Students are required to take part in an international study experience, either an exchange program or a study tour, and pass two 1.5 credit international business modules.  Details of International Business modules are available from the MBA & ECM Programs Office.	<b>URL:</b> N/A  <b>Present Calendar Entry:</b> N/A  <b>Type of Action:</b>  Introduce International Business Stream for Master of Management - Early Career Masters (ECM) students.  <b>Rationale:</b>  Students in the Master of Management Program have a set curriculum; this Stream would be available to students who wish to take part in an international exchange program or a study tour in addition to their program requirements.  Twenty students out of the current class of 55 have expressed an interest in taking an International Business Stream if it were available. This proposal would enable students to have an international study experience noted on their transcript.  No credit is attached to the International Business Stream, but successful completion would be noted on students' transcripts.  This Stream is restricted to students in the Master of Management - Early Career Masters (ECM) Program.





	No other departments or faculties will be affected by this proposal.
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## UBC Curriculum Proposal Form Change to Course or Program

### Category: 1

<b>Faculty:</b> Sauder School of Business <b>Department:</b> MBA and ECM Programs <b>Office,</b> Robert H. Lee Graduate School <b>Faculty Approval Date:</b> 5 November 2009  <b>Effective Session:</b> Winter 2009 Term 2 <b>Year:</b> 2010 for Change	<b>Date:</b> 11 September 2009 <b>Contact Person:</b> Fran Hannabuss; Brian Bemmels <b>Phone:</b> 2-3426; 2-0156 <b>Email:</b> <a href="mailto:fran.hannabuss@sauder.ubc.ca">fran.hannabuss@sauder.ubc.ca</a> ; <a href="mailto:brian.bemmels@sauder.ubc.ca">brian.bemmels@sauder.ubc.ca</a>
<b>Proposed Calendar Entry:</b>  <b>BA 550 (1.5) Business Immersion</b> <ul style="list-style-type: none"><li>This course is restricted to students the MM Program.</li></ul>	<b>URL:</b> N/A  <b>Present Calendar Entry:</b> N/A  <b>Type of Action:</b> New course. Pass/fail grading.  <b>Rationale:</b> The Master of Management Early Career Masters Program will commence with BA 550 <i>Business Immersion</i> , which will serve as an introduction to integrated learning and working with business cases.  The Business Immersion Course was successfully piloted in September 2009 with the second cohort of MM ECM students. It was designed in response to feedback from the first cohort of students. The course outline and materials are attached.  Grading will be on a Pass/Fail basis.  This course is only available to students in the MM ECM program. No other departments or faculties will be affected by this proposal.



## UBC Curriculum Proposal Form Change to Course or Program

### Category: (1)

<b>Faculty: Education</b> <b>Department: ECPS</b> <b>Faculty Approval Date: March 23, 2010</b>  <b>Effective Session W Term 1 Year 2009 for change</b>	<b>Date: March 3, 2010</b> <b>Contact Person: Lynn Miller</b> <b>Phone: 822-8321</b> <b>Email: lynn.miller@ubc.ca</b>
<b>Proposed Calendar Entry:</b>  The 51 credit CNPS doctoral (PhD) program requires 4 years of full time study, including on campus courses, supervised training and pre-doctoral internship. The Ph.D. program is designed to educate counselling psychologists as researchers, practitioners, and educators. The focus of the program is on developing doctoral level competence in research, counselling theory and counselling skills. <b>In exceptional circumstances up to 15 credits of course work may be waived in recognition of previous course work.</b> The program involves completion of 36 to 51 credits of coursework, theory and specialty comprehensive examinations, a 1600 hour internship and a dissertation meeting the Faculty of Graduate Studies requirements. In order for students to meet deadlines for comprehensive examinations and candidacy, the department requires students to be engaged in full time study prior to advancement to candidacy.	<b>URL:</b>  <b>Present Calendar Entry:</b>  The Ph.D. program is designed to educate counselling psychologists as researchers, practitioners, and educators. The focus of the program is on developing doctoral level competence in research, counselling theory and counselling skills. The program involves completion of 51 credits of coursework, theory and specialty comprehensive examinations, a 1600 hour internship and a dissertation meeting the Faculty of Graduate Studies requirements. In order for students to meet deadlines for comprehensive examinations and candidacy, the department requires students to be engaged in full time study prior to advancement to candidacy.  <b>Type of Action:</b> The number of credits of course work will be made variable, from 36 to 51 credits. (Please note: The CNPS PhD program did not remove any courses).  <b>Rationale:</b> Students sometimes enter the doctoral program having completed equivalent course work prior to beginning the program. In exceptional circumstances up to 15 credits of course work may be waived in recognition of previous course work. Having variable credits will allow students to waive courses within a program that accreditation standards require to be considerably longer than the 30 credit minimum required by the university.

## UBC Curriculum Proposal Form Change to Course or Program

**Category: (1) New course / 6 credits**

<p>Faculty: Medicine Department: School of Population and Public Health Faculty Approval Date: 20 Oct 2009 Effective Session: Term 1, Year 2010/2011</p>	<p>Date: 05 January 2010 Contact Person: Monika Naus Phone: 604-707-2540 Email: monika.naus@bccdc.ca</p>
<p>Proposed Calendar Entry:</p> <p><b>SPPH 570 (6) Current Issues in Community Medicine and Public Health Practice</b></p>	<p>URL:</p> <p>Type of Action: New course, 6-credits, 500-level</p> <p>This course is directed towards assisting Community Medicine residents with meeting the learning objectives for speciality training in Community Medicine as outlined by the Royal College of Physicians and Surgeons of Canada. Its focus is on applying public health methods and principles in the real world practice of Community Medicine/ Public Health. Participation in the non-credit equivalent of this course (SPPH 710) is mandatory for all Community Medicine residents (except those in PGY-2/3 who are undergoing residency training in clinical or family medicine). However, residents may formally register in SPPH 570 if they wish to obtain academic credit as part of the MPH program. The course curriculum repeats on a two-year cycle, although residents who wish to receive academic credit for this course may only register in SPPH 570 for one year to obtain a maximum of 6 academic credits. Students or residents in other programs are welcome audit this course (or parts of this course) with the permission of the instructors. However, they are expected to perform the same amount of course work and participate in the seminar as fully as residents registered for credit. This course is intended to be complimentary to other courses offered as part of the MHSc or MPH programs at SPPH (see section on “other courses” below). The Students are expected to engage actively in this course to develop a broad working knowledge of applied community medicine practice.</p>

Contact: Dr. Bill Ramey Phone: 822-3300	Faculty Approval Date: Email: <a href="mailto:wramey@interchange.ubc.ca">wramey@interchange.ubc.ca</a>
<b>CHEMISTRY</b>	
<b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b>  CHEM 534 (3) <b>Principles of Chemical Separation</b>	<b>Present Calendar Entry:</b>  CHEM 534 (3) <del>Chromatography and Mass Spectrometry</del>  <del>Gas, liquid and supercritical fluid chromatography. Mass spectrometry: ionization processes, mass analyses, ion molecule reactions, fragmentation processes.</del>  <b>Action:</b> Change course title to better reflect content. Remove course description. <b>Rationale:</b> The course is being generalized to include separation techniques in addition to chromatography and mass spectrometry. The new title reflects this change. In keeping with the current protocol, the detailed course description for this graduate course has been eliminated.  <b>Supporting Documents:</b> SCI-09-2-CHEM 534
<b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b>  CHEM 569 (3) <b>Advanced Bioorganic Chemistry</b>  Credit will be given for only one of CHEM 569, CHEM 413, or BIOC 403.	<b>Present Calendar Entry:</b>  CHEM 569 (3) <del>Advanced Mechanistic Enzymology</del>  Credit will be given for only one of CHEM 569, CHEM 413, or BIOC 403.  <b>Action:</b> Change course title <b>Rationale:</b> The course is being updated with more modern content and the new title reflects this.  <b>Supporting Documents:</b> SCI-09-2-CHEM 569

## MATHEMATICS

**Effective Date for Change:** 10W T1

**Proposed Calendar Entry:**

MATH 513 (3) **Mathematical Classical Mechanics**

**Present Calendar Entry:**

MATH 513 (3) ~~Statistical Mechanics~~

**Action:** Delete current course.  
Add new course with current course number.

**Rationale:** “Statistical Mechanics” has not been taught for at least fourteen years.

“Mathematical Classical Mechanics” is a fundamental course that is essential background for all students planning to study Mathematical Physics. The subject of Mathematical Classical Mechanics is itself an active and beautiful research area with strong connections to Differential Geometry, Symplectic Geometry, Calculus of Variations, Dynamical Systems and Physics. In addition, this course provides its students with a number of techniques that must be in the toolboxes of all Mathematical Physicists, even those not working in the area. It has been offered reasonably regularly in the past as a topics course and has always attracted a substantial audience.

**Supporting Documents:** SCI-09-2-MATH 513

<p><b>Effective Date for Change:</b> 10W T1</p> <p><b>Proposed Calendar Entry:</b></p> <p>MATH 515 (3) <b>Partial Differential Equations of Fluid Mechanics</b></p>	<p><b>Present Calendar Entry:</b></p> <p>MATH 515 (3) <del>Ordinary Differential Equations II</del></p> <p><b>Action:</b> Delete current course. Add new course with current course number.</p> <p><b>Rationale:</b> “Ordinary Differential Equations II” has not been taught for at least fourteen years.</p> <p>Fluid mechanics is fundamental to science, and the analysis of the partial differential equations (PDE) arising there can verify the applicability of various models, and provide the groundwork for predictions and numerical computation. The study of such PDE has broad connections to the fields of mathematical physics and fluid mechanics, and has furnished much important machinery in the study of PDE more generally, such as the concepts of weak solutions and partial regularity. Students with interests in PDE, fluids, or mathematical physics, after taking a basic courses in PDE (such as MATH 516), should benefit from exposure to this fundamental area.</p> <p><b>Supporting Documents:</b> SCI-09-2-MATH 515</p>
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<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>MATH 561 (3) Mathematics of Infectious Diseases and Immunology</b></p> <p><b>Mathematical models for disease spread in populations. Within-host infectious disease dynamics. Models of the immune system and immune cells.</b></p>	<p><b>Present Calendar Entry:</b></p> <p>MATH 561 (3) <del>Mathematical Biology II</del></p> <p><del>Advanced techniques and models in mathematical biology, with applications.</del></p> <p><del>Prerequisite: MATH 560 and ordinary and partial differential equations.</del></p> <p><b>Action:</b> Delete current course. Add new course with current course number.</p> <p><b>Rationale:</b> This course is an essential part of the mathematical biology graduate curriculum. It is proposed to be taught every other year.</p> <p>The proposed MATH 561 was most recently offered under MATH 612 (Topics in Mathematical Biology) and attracted students from mathematics, statistics and physics departments. The proposed course will be taught in alternate years. Giving the course a dedicated course number and calendar entry will (i) potentially attract more students from outside mathematics; (ii) put the course title on student transcripts and (iii) make the calendar accurately reflect a regularly scheduled graduate course in mathematics.</p> <p><b>Supporting Documents:</b> SCI-09-2-MATH 561</p>
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<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p>MATH 613 (2-15) D Topics in Number Theory</p>	<p><b>Present Calendar Entry:</b></p> <p>MATH 613 (3) Topics in Number Theory</p> <p><b>Action:</b> Change credits.</p> <p><b>Rationale:</b> Through a past oversight, the credit listing is currently “(3)”. Our intention is that MATH 613 be the same as all the other MATH 600-level “Topics” courses; different instances of the course will cover distinct and separate topics, so that the course can be taken by students multiple times for credit. Changing the credits listing will put MATH 613 in line with the other “Topics” courses and reflect the true role of the course.</p> <p>It is impossible for any science student to learn everything a professional researcher needs to know in a small set of fixed fundamental courses. Many sciences have a substantial laboratory component, where students gain exposure and practice with the essential tools of research in their discipline. In mathematics, topics courses are our laboratories. They are where we expose our students to the current research frontier, and they are where students explore the research-level tools of their discipline in a guided setting. Consequently, advanced topics courses are both an important part of our course offerings and a natural result of the expansion of our graduate program.</p> <p>As in all sciences, the research frontier in mathematics is incredibly broad yet delicately interconnected. The majority of our department's research groups will regularly offer one topics course (sometimes even two) per year. All graduate students in the corresponding discipline would benefit from taking these courses at every opportunity, and it is standard for a student to be registered in the Ph.D. program for four or five years. Allowing students to enrol in these topics courses each time they are offered would allow the transcripts of these students to accurately reflect the amount of work they have invested in this key element of their research training.</p> <p>This course will be offered for 2 or 3 credits each time it is run, depending on the number of lecture hours each week.</p>
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<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>MATH 563 (3) Modeling of Cell-Scale Biology</b></p> <p><b>Concepts and techniques for modeling cellular and subcellular dynamics in biological systems. Topics may include complex biochemical systems, biopolymers in cell motility and division, continuum mechanics and membrane dynamics.</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Create a new course.</p> <p><b>Rationale:</b> This course is an essential part of the mathematical biology graduate curriculum. It is proposed to be taught every other year.</p> <p>The proposed MATH 563 was most recently offered under MATH 612 (Topics in Mathematical Biology) as a two-term course that attracted students from mathematics and physics departments. The proposed course will be taught in one term, in alternate years. Giving the course a dedicated course number and calendar entry will (i) potentially attract more students from outside mathematics; (ii) put the course title on student transcripts and (iii) make the calendar accurately reflect a regularly scheduled graduate course in mathematics.</p> <p><b>Supporting Documents: SCI-09-2-MATH 563</b></p>
<p><b>Effective Date for Change:</b> 10W T1 <b>Proposed Calendar Entry:</b></p> <p><b>MATH 564 (3) Evolutionary Dynamics</b></p> <p><b>Mathematical models of evolution and evolutionary game theory. Stochastic dynamics in finite populations, dynamics in spatially structured populations and adaptive dynamics. Applications include the origin of species and the problem of cooperation.</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None.</p> <p><b>Action:</b> Create a new course.</p> <p><b>Rationale:</b> This course is an essential part of the mathematical biology graduate curriculum. It is proposed to be taught every other year.</p> <p>The proposed MATH 564 is a new course that reflects closely the research interests and expertise of two faculty (Hauert and Doebeli) and will likely attract students from mathematics, zoology and economics. Having this course in the calendar rather than as a topics course will advertise it to non-mathematics students and put the course title on student transcripts.</p> <p><b>Supporting Documents: SCI-09-2-MATH 564</b></p>

<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>MATH 566 (3) Theory of Optimal Transportation</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None.</p> <p><b>Action:</b> Create a new course.</p> <p><b>Rationale:</b> The basic ideas in optimal transportation theory are rather simple, but its applications are powerful and it sometimes gives surprising connections between things that are not seemingly related. This is why more researchers in science in general are becoming interested in the subject, and it will be beneficial for students, especially those who are pursuing research in analysis, geometry and partial differential equations, to get used to some of the essential ideas in optimal transportation as their general backgrounds. The course material is suitable for first or second year graduate students and prepares them to do their own research in the subject and related fields.</p> <p><b>Supporting Documents:</b> SCI-09-2-MATH 566</p>
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>MATH 567 (3) Nonlinear Wave Equations</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None.</p> <p><b>Action:</b> Create a new course.</p> <p><b>Rationale:</b> The subject of nonlinear wave equations is a rapidly developing area in the field of partial differential equations, with broad connections to the fields of mathematical physics, harmonic analysis, geometric analysis, and applied mathematics. Students in the above- mentioned fields, after taking a basic courses in partial differential equations (such as MATH 516), should benefit from the exposure to new ideas, applications, mathematical tools, and possible research directions found in this course.</p> <p><b>Supporting Documents:</b> SCI-09-2-MATH 567</p>

<p><b>Effective Date for Change:</b> 2010W <b>Proposed Calendar Entry:</b></p> <p><b>MATH 592 (2-15) D Topics in Automorphic Forms</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None.</p> <p><b>Action:</b> Create a new course.</p> <p><b>Rationale:</b> Automorphic forms is a central field of modern number theory. Conducting research in this field requires a considerable background compared to many other fields. Merely defining the basic objects of study requires tools from algebraic number theory, the theory of algebraic groups, the structure theory of Lie groups and the theory of partial differential equations. Recently mathematical logic and ergodic theory have become essential tools in deriving new results.</p> <p>MATH 592 is designed to help students bridge the gaps in their backgrounds. It has run every semester save one for the past several years, using the generic course number MATH 620 (Directed Studies in Mathematics), and will continue to be offered every semester thanks to our active representation theory research group. The large number of different topics, which will change from one instance of the course to the next, indicates the appropriateness of taking MATH 592 multiple times for credit. Creating this course will allow the more accurate title to appear on student transcripts and in the official UBC calendar, appropriately signalling the department's strength in this area.</p> <p>It is impossible for any science student to learn everything a professional researcher needs to know in a small set of fixed fundamental courses. Many sciences have a substantial laboratory component, where students gain exposure and practice with the essential tools of research in their discipline. In mathematics, topics courses are our laboratories. They are where we expose our students to the current research frontier, and they are where students explore the research-level tools of their discipline in a guided setting. Consequently, advanced topics courses are both an important part of our course offerings and a natural result of the expansion of our graduate program.</p> <p>As in all sciences, the research frontier in mathematics is incredibly broad yet delicately interconnected. The</p>
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	<p>majority of our department's research groups will regularly offer one topics course (sometimes even two) per year. All graduate students in the corresponding discipline would benefit from taking these courses at every opportunity, and it is standard for a student to be registered in the Ph.D. program for four or five years. Allowing students to enrol in these topics courses each time they are offered would allow the transcripts of these students to accurately reflect the amount of work they have invested in this key element of their research training.</p> <p>This course will be offered for 2 or 3 credits each time it is run, depending on the number of lecture hours each week.</p> <p><b>Supporting Documents: SCI-09-2-MATH 592</b></p>
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<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>MATH 614 (2-15) D Topics in Mathematical Finance</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None.</p> <p><b>Action:</b> Create a new course.</p> <p><b>Rationale:</b> The successful Mathematical Finance program has taught topics courses for some time now, always with a substantial audience. Before now, these courses ran under the too-general MATH 605 (Topics in Applied Mathematics). The creation of MATH 614 will allow these topics courses to be easily distinguished from other topics courses in applied math; moreover, it will appropriately signal the ongoing presence of the Mathematical Finance program within the Mathematics Department.</p> <p>It is impossible for any science student to learn everything a professional researcher needs to know in a small set of fixed fundamental courses. Many sciences have a substantial laboratory component, where students gain exposure and practice with the essential tools of research in their discipline. In mathematics, topics courses are our laboratories. They are where we expose our students to the current research frontier, and they are where students explore the research-level tools of their discipline in a guided setting. Consequently, advanced topics courses are both an important part of our course offerings and a natural result of the expansion of our graduate program.</p> <p>As in all sciences, the research frontier in mathematics is incredibly broad yet delicately interconnected. The majority of our department's research groups will regularly offer one topics course (sometimes even two) per year. All graduate students in the corresponding discipline would benefit from taking these courses at every opportunity, and it is standard for a student to be registered in the Ph.D. program for four or five years. Allowing students to enrol in these topics courses each time they are offered would allow the transcripts of these students to accurately reflect the amount of work they have invested in this key element of their research training.</p> <p>This course will be offered for 2 or 3 credits each time it is run, depending on the number of lecture hours each week.</p>
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<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>MATH 615 (2-15) D Topics in Algebraic Geometry</b></p>	<p><b>Present Calendar Entry:</b> None.</p> <p><b>Action:</b> Create a new course.</p> <p><b>Rationale:</b> Algebraic geometry is a central field in mathematics. It has a long and distinguished history as an important field in its own right, and it is also becoming more and more relevant to other subjects both within mathematics (Number Theory, Topology, Discrete Mathematics), and outside, especially theoretical physics (String Theory).</p> <p>The research group in algebraic geometry at UBC is large and active, and has been teaching topics courses in algebraic geometry for many years under the guise of MATH 602 “Topics in Geometry”. This has resulted in severe overuse of the course number 602.</p> <p>It is impossible for any science student to learn everything a professional researcher needs to know in a small set of fixed fundamental courses. Many sciences have a substantial laboratory component, where students gain exposure and practice with the essential tools of research in their discipline. In mathematics, topics courses are our laboratories. They are where we expose our students to the current research frontier, and they are where students explore the research-level tools of their discipline in a guided setting. Consequently, advanced topics courses are both an important part of our course offerings and a natural result of the expansion of our graduate program.</p> <p>As in all sciences, the research frontier in mathematics is incredibly broad yet delicately interconnected. The majority of our department's research groups will regularly offer one topics course (sometimes even two) per year. All graduate students in the corresponding discipline would benefit from taking these courses at every opportunity, and it is standard for a student to be registered in the Ph.D. program for four or five years. Allowing students to enrol in these topics courses each time they are offered would allow the transcripts of these students to accurately reflect the amount of work they have invested in this key element of their research training.</p> <p>This course will be offered for 2 or 3 credits each time it is run, depending on the number of lecture hours each week.</p>
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<p><b>Effective Date for Change:</b> 2010W T1 <b>Proposed Calendar Entry:</b></p> <p><b>MATH 616 (2-15) D Topics in Discrete Mathematics</b></p>	<p><b>Present Calendar Entry:</b> None. <b>Action:</b> Create a new course.</p> <p><b>Rationale:</b> Topics courses in discrete mathematics have been offered regularly over the past several years, but always using the general course number MATH 610, Topics in Pure Mathematics. Over the same period, our discrete mathematics group has grown in size and activity. Creating MATH 616 would provide a dedicated course number for courses that are easily identifiable as discrete mathematics, as well as lighten the load on the course number MATH 610.</p> <p>It is impossible for any science student to learn everything a professional researcher needs to know in a small set of fixed fundamental courses. Many sciences have a substantial laboratory component, where students gain exposure and practice with the essential tools of research in their discipline. In mathematics, topics courses are our laboratories. They are where we expose our students to the current research frontier, and they are where students explore the research-level tools of their discipline in a guided setting. Consequently, advanced topics courses are both an important part of our course offerings and a natural result of the expansion of our graduate program.</p> <p>As in all sciences, the research frontier in mathematics is incredibly broad yet delicately interconnected. The majority of our department's research groups will regularly offer one topics course (sometimes even two) per year. All graduate students in the corresponding discipline would benefit from taking these courses at every opportunity, and it is standard for a student to be registered in the Ph.D. program for four or five years. Allowing students to enrol in these topics courses each time they are offered would allow the transcripts of these students to accurately reflect the amount of work they have invested in this key element of their research training.</p> <p>This course will be offered for 2 or 3 credits each time it is run, depending on the number of lecture hours each week.</p> <p><b>Supporting Documents:</b> SCI-09-2-MATH 616</p>
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# THE UNIVERSITY OF BRITISH COLUMBIA



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28 April 2010

To: Vancouver Senate

From: Senate Curriculum Committee

Re: **CURRICULUM PROPOSALS FROM THE FACULTY OF SCIENCE**

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Attached please find submitted category 1 curriculum proposals for your consideration.

## **Biology**

### *New Courses*

BIOL 230 (3)

BIOL 234 (3)

BIOL 260 (3)

BIOL 342 (2)

## **Chemistry**

### *New Courses*

CHEM 315 (1)

CHEM 325 (2)

CHEM 335 (1)

CHEM 341 (3)

CHEM 345 (2)

### *Changed Course*

CHEM 413 (3)

## **Earth & Ocean Sciences**

### *New Course*

EOSC 442 (1)

### *Changed Courses*

EOSC 424 (3)

EOSC 472 (3)

## **Math**

### *New Course*

MATH 305 (3)

## **Science**

### *New Courses*

SCIE 113 (3)

SCIE 300 (3)

**Program & Specialization Changes**

*Bachelor of Science, Honours in Biotechnology*  
Amendment to Degree Listing on Parchment

**Biology**

*New Major Specialization*

Biology Honours Specialization & Biology Major

**Combined Major in Science**

*New Combined Major Specialization*

Combined Major in Science

<b>Contact: Dr. Bill Ramey</b> <b>Phone: 822-3300</b>		<b>Faculty Approval Date: March 4, 2010</b> <b>Email: wramey@interchange.ubc.ca</b>	
<b>BIOLOGY</b>			
<b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b>  <b>BIOL 230 (3) Fundamentals of Ecology</b>  <b>Dynamics of plant and animal populations, structure of ecological communities and functioning of ecosystems. Interpretation of research results and application to environmental issues. Labs meet once a month. Please consult the Faculty of Science Credit Exclusion Lists: <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414">www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414</a>. [3-3*-0]</b>  <b>Prerequisite: One of BIOL 121 or SCIE 001.</b>		<b>Present Calendar Entry:</b>  none  <b>Action:</b> Add new course BIOL 230. <b>Rationale:</b> This new course will ultimately replace the existing course BIOL 304 (which has the same course description). This change is being made as part of an overall revision of the Biology curriculum. The existing course (BIOL 304) provides students with their first introduction to ecological fundamentals (beyond the 1 <sup>st</sup> year level) and is currently taught at a level accessible to 2 <sup>nd</sup> year students. The numbering of the course at the 3 <sup>rd</sup> year level was a necessity of the structure of the current (unrevised) program. The proposed new Biology Program makes it possible to allow students to take this course in their second year. This is important for students who are interested in ecology, who would not otherwise be able to take a course in their area of interest in 2 <sup>nd</sup> year. By offering this course in 2 <sup>nd</sup> year students interested in ecology will be encouraged to take this course earlier in their program, which should improve student satisfaction with the Biology program. It will also allow students with interests in this area additional time to take more courses in ecology from the wide variety of 3 <sup>rd</sup> and 4 <sup>th</sup> year ecology-related courses offered in the Biology program.  Staging plan: BIOL 230 will be first offered in 2011W to allow the first group of students entering the second year of the new specialization in 2011W to take this course. BIOL 304 will continue to be offered through 2012W to allow students in the existing specialization to graduate without hardship.	
<b>Supporting Documents: SCI-09-2-BIOL 230</b>			

<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>BIOL 234 (3) Fundamentals of Genetics</b></p> <p><b>Genotype and phenotype, mechanisms of inheritance, genetic analysis. Please consult the Faculty of Science Credit Exclusion Lists: <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414">www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414</a>. [3-0-2]</b></p> <p><b>Prerequisite: One of (a) all of BIOL 112, BIOL 121 or (b) SCIE 001 or (c) one of BIOL 112 or BIOL 121 and a corequisite of CHEM 203.</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course <b>Rationale:</b> BIOL 234 is a revised course in Genetics that will ultimately replace the existing course, BIOL 334 (which will be phased out in 2014). This new course is part of an overall revision of the Biology curriculum. The existing program includes an introductory Genetics course "BIOL 334" that provides students with their first introduction to the fundamentals of genetics (beyond the 1<sup>st</sup> year level). Because genetics has become increasingly fundamental to all areas of biology, students should be introduced to this topic early in their program, as is the case at most major universities. Revision of the UBC Biology Program now allows us to move the course in the fundamentals of genetics from third year to second year. The course title has been changed because, as part of the revision to the curriculum for the Biology Program, all core courses (required of all students in the program) will be renamed so as to include the phrase "Fundamentals of" in the course title. This change will more clearly distinguish core courses from other courses in the program and will make clear that the content and concepts developed in these courses are fundamental to the development of an understanding of the biological sciences. It also better reflects the level of the material which has been altered from an upper division treatment of genetics to a treatment that is more suitable for lower division students. The course description has been streamlined and edited for clarity relative to the existing description of BIOL 334. This new description better reflects the recently updated course objectives and syllabus developed by a committee of Genetics faculty.</p> <p><b>Staging plan:</b> BIOL 234 will be first offered in 2011W to allow</p>
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	<p>the first group of students entering the new Biology program (who will be in 1<sup>st</sup> year in 2010W) to take this course. BIOL 334 will continue to be offered through 2012W to allow students in the existing program to graduate without hardship.</p> <p><b>Supporting Documents: SCI-09-2-BIOL 234</b></p>
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<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>BIOL 260 (3) Fundamentals of Physiology</b></p> <p><b>Principles of cellular and organismal physiology illustrated with examples from unicellular organisms, plants and animals, focusing on transport processes, water balance, nutrient acquisition and communication. [3-0-0]</b></p> <p><b>Prerequisite: One of a) BIOL 112 and BIOL 121, or b) SCIE 001, or c) 7 credits of 1<sup>st</sup> year BIOL and 6 credits of 1<sup>st</sup> year chemistry</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course <b>Rationale:</b> This course is being added as part of a Biology Program curriculum revision. A key component of this new curriculum is a series of "Fundamentals" courses that are required of all students in the program. Each of these one-term courses represents one of the core areas of biology, as identified by the Biology Curriculum working group and approved by faculty in Botany and Zoology.</p> <p>This new course will serve to enhance and reinforce treatment of important physiological topics that are currently introduced in first year Biology courses (Biology 112 and 121). Many of these topics are also examined in depth in the context of particular taxonomic groups in the Organismal Diversity courses (Biology 204,205, 209, 210 and MICB 201), but students choose any two of these courses in their program, and thus it is possible for students to miss the reinforcement of one or more of these critical concepts simply through their particular selection of organismal/diversity courses. The proposed Biology 260 (Fundamentals of Physiology) course is therefore critical in the structure of the revised Biology curriculum in that it reinforces concepts introduced in Biology 112/121 (such as photosynthesis, evolution, and structure-function relationships), introduces new concepts of mechanistic physiology (such as control systems and homeostasis) and provides an over-arching conceptual framework in which the material provided in a student's selection of Organismal Diversity courses (Biology 204,205, 209, 210 and MICB 201) can be understood and placed in context. It will also serve as a foundation for subsequent study of physiology in later years. This proposed course, Fundamentals of Physiology will replace the current requirement for two terms of 3<sup>rd</sup> year physiology courses in the existing program.</p>
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	<p>This change is designed to deal with a number of identified problems with the current biology program.</p> <ol style="list-style-type: none"> <li>1) Physiology is currently the only core area of biology in which all students are required to take two courses (rather than one). Replacing the requirement for two courses with a requirement for a single more integrative course will improve flexibility for students and improve the symmetry of the program.</li> <li>2) In the current curriculum students must choose between taking two terms of animal physiology, two terms of plant physiology, or two terms of cell physiology. It is not possible to mix and match between these areas, and enrollment restrictions and the high number of required courses in the current curriculum preclude students from taking courses from more than one of these physiology streams. Thus, the current structure provides students with an in-depth but limited perspective on the physiology of organisms. Replacing the requirement for two courses with a requirement for a single more integrative course will allow students to develop a more balanced perspective on the functional diversity of life forms.</li> <li>3) In the current curriculum, students must choose between the three physiology streams (animal, plant or cell) without having any prior exposure to physiology at the university level, since this area is not currently covered to any great extent in the 1<sup>st</sup> year biology courses for majors. This makes it difficult for students to make informed decisions about their potential areas of specialty. By introducing a one-term course that integrates across a wider range of biological diversity, students will be better able to choose appropriate courses at the higher level.</li> </ol> <p><b>Supporting Documents: SCIE-09-BIOL 260</b></p>
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<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>BIOL 342 (2) Integrative Biology Laboratory</b></p> <p><b>Ecosystem based investigation of organisms using field and lab techniques. [1-3-0]</b></p> <p><b>Prerequisite: BIOL 121, BIOL 140, third year standing or higher in Combined Major in Science.</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course <b>Rationale:</b> This laboratory course is designed to serve students in the Combined Major in Science by providing a broad range of experiences within the context of an ecosystem. This course would be particularly appropriate for students who plan to enter high school or elementary teaching as a career.</p> <p><b>Supporting Documents: SCI-09-2-BIOL 342</b></p>
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<b>CHEMISTRY</b>	
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>CHEM 315 (1) Chemistry Integrated Laboratory I</b></p> <p><b>Principles and techniques of modern chemistry applied by integrating experiments chosen from organic, inorganic, physical and analytical chemistry. [0-4-0]</b></p> <p><b>Prerequisite: One of CHEM 201, CHEM 202, CHEM 203, CHEM 211, CHEM 235.</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course <b>Rationale:</b> This is one of a series of new courses designed to collect together all the laboratory components of third-year Chemistry and related specializations to deliver an integrated laboratory experience.</p> <p><b>Supporting Documents: SCI-09-2-CHEM 315</b></p>
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>CHEM 325 (2) Integrated Chemistry Laboratory I</b></p> <p><b>Principles and techniques of modern chemistry applied by integrating experiments chosen from organic, inorganic, physical and analytical chemistry. Open only to students in Chemistry Major and Honours specializations. [0-8-0]</b></p> <p><b>Prerequisite: All of CHEM 201, CHEM 202, CHEM 204, CHEM 211.</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course <b>Rationale:</b> This is one of a series of new courses designed to collect together all the laboratory components of third-year Chemistry and related specializations to deliver an integrated laboratory experience.</p> <p><b>Supporting Documents: SCI-09-2-CHEM 325</b></p>
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>CHEM 335 (1) Chemistry Integrated Laboratory II</b></p> <p><b>Further development of principles and techniques of modern chemistry applied by integrating experiments chosen from organic, inorganic, physical and analytical chemistry. [0-4-0]</b></p> <p><b>Prerequisite: CHEM 315</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course <b>Rationale:</b> This is one of a series of new courses designed to collect together all the laboratory components of third-year Chemistry and related specializations to deliver an integrated laboratory experience.</p> <p><b>Supporting Documents: SCI-09-2- CHEM 335</b></p>

<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>CHEM 341 (3) Global Challenges: A Chemical Perspective</b></p> <p><b>Importance of chemistry in society. Detailed case studies drawn from modern chemistry: human health, energy, commodity chemicals, materials, green chemistry, agriculture. [3-0-0]</b></p> <p><b>Prerequisite:</b> Either (a) all of CHEM 201, CHEM 203, CHEM 204 or (b) all of CHEM 205, CHEM 233.</p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course description <b>Rationale:</b> This course serves as the centerpiece of the Chemistry package within a structured undergraduate Combined Major for Science program. Students will be provided with a survey of societal challenges that professional chemists are addressing, and will subsequently examine a selection of these problems in a detailed manner.</p> <p><b>Supporting Documents:</b> SCI-09-2-CHEM 341</p>
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>CHEM 345 (2) Integrated Chemistry Laboratory II</b></p> <p><b>Further development of principles and techniques of modern chemistry applied by integrating experiments chosen from organic, inorganic, physical and analytical chemistry. Open only to students in Chemistry Major or Honours specializations. [0-8-0]</b></p> <p><b>Prerequisite:</b> CHEM 325</p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course <b>Rationale:</b> This is one of a series of new courses designed to collect together all the laboratory components of third year Chemistry and related specializations to deliver an integrated laboratory experience.</p> <p><b>Supporting Documents:</b> SCI-09-2-CHEM 345</p>

<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p>CHEM 413 (3) <b>Bioorganic Chemistry</b></p> <p><b>Enzyme catalysis; mechanistic enzymology; chemistry of cofactors; biosynthetic transformations; natural product biosynthesis; topics in chemical biology.</b> Credit will be granted for only one of CHEM 413, CHEM 569, or BIOC 403. [3-0-0]</p> <p>Prerequisite: One of CHEM 313, CHEM 330.</p>	<p><b>Present Calendar Entry:</b></p> <p>CHEM 413 (3) <del>Mechanistic Enzymology</del></p> <p><del>Chemistry of cofactors; biosynthetic transformations; molecular synthesis; transformation and degradation; natural product biosynthesis.</del> Credit will be given for only one of CHEM 413, CHEM 569, or BIOC 403. [3-0-0]</p> <p>Prerequisite: One of CHEM 313, CHEM 330.</p> <p><b>Action:</b> Change course title and description. <b>Rationale:</b> The course is being updated with more modern content and the new title and course description reflect this.</p> <p><b>Supporting Documents:</b> SCI-09-2-CHEM 413</p>
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<b>EARTH &amp; OCEAN SCIENCES</b>	
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>EOSC 442 (1) Climate Measurement and Analysis.</b></p> <p><b>Local climate time series collection and analysis. Retrieval and analysis of on-line climate data and model output. [0-3-0]</b></p> <p><b>Prerequisite:</b> All of a) EOSC 340 and b) one of CPSC 110, CPSC 111, CPSC 301, EOSC 211, MATH 210, PHYS 210 and c) one of STAT 200, STAT 241 or BIOL 300.</p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Add new course. <b>Rationale:</b> This combination computer laboratory/field observation course is designed for the Combined Major in Science to provide experiential learning and provide students with the opportunity to understand how research is done: in particular, how climate data sets are collected and analyzed.</p> <p><b>Supporting Documents:</b> SCI-09-2-EOSC 442</p>
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>EOSC 424 (3) Advanced Mineral Deposits.</b></p> <p><b>Advanced concepts in the processes that lead to the formation of mineral deposits. Introduction to the study of ore minerals using reflected light microscopy. [2-3-0]</b></p> <p><b>Prerequisite:</b> EOSC 331</p>	<p><b>Present Calendar Entry:</b></p> <p>EOSC 424 (3) Advanced Mineral Deposits and Ore Petrology.</p> <p>Metal solubility and transport, chemical activity diagrams, fluid inclusions, stable isotopes, radiogenic isotopes, geothermometry, geobarometry, alteration and metal zonation, and mineral exploration. Minerals of ore deposits studied using optical microscopy. [2-3-0]</p> <p>Corequisite: EOSC 331.</p> <p><b>Action:</b> Change title and description. Change co-requisite to prerequisite. <b>Rationale:</b> Update and refocus the course to reflect current practice in the field. Strengthen the prerequisite to reduce repetition between this course and EOSC 331. <b>Supporting Documents:</b> SCI-09-2-EOSC 424</p>

<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p>EOSC 472 (3) <b>Chemical Oceanography and Marine Geochemistry.</b></p> <p><b>Controls on chemical composition and elemental distributions in seawater and marine sediments (including nutrient elements, dissolved gases, the carbonate system, marine organic matter and trace metals);</b> solution chemistry of seawater; <b>isotopic tracers of rates and dates in marine systems;</b> geochemical balance in the oceans. [3-0-2*]</p> <p>Prerequisite: EOSC 373.</p>	<p><b>Present Calendar Entry:</b></p> <p>EOSC 472 (3) <del>Introduction to</del> Marine <del>Chemistry and</del> Geochemistry.</p> <p><del>Elemental abundance in seawater and marine sediments;</del> solution chemistry of seawater; <del>chemical and mineralogical composition of sediments; the carbonate system; organic matter in the sea; gases; the nutrient elements; heavy metals;</del> geochemical balance in the oceans. [3-0-2*]</p> <p>Prerequisites: <del>One of EOSC 370, EOSC 371, EOSC 373, CHEM 301.</del></p> <p><b>Action:</b> Change title, modify description and change prerequisites for course.</p> <p><b>Rationale:</b> With the restructuring of the 3<sup>rd</sup> year courses (creating EOSC 372 and 373 in place of EOSC 370 and 371), this fourth year course can now be taught at a more advanced level. All students will be required to take EOSC 373 (and therefore EOSC 372) prior to taking EOSC 472.</p> <p><b>Supporting Documents:</b> SCI-09-2-EOSC 472</p>
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<b>MATHEMATICS</b>	
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>MATH 305 (3) Applied Complex Analysis.</b></p> <p><b>Functions of a complex variable, Cauchy-Riemann equations, contour integration, Laurent series, residues, integrals of multi-valued functions, Fourier transforms. See Credit Exclusion List [link to <a href="http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414">http://www.students.ubc.ca/calendar/index.cfm?tree=12,215,410,414</a>]. [3-0-0]</b></p> <p><b>Prerequisites: One of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263 and one of MATH 215, MATH 255, MATH 256, MATH 265.</b></p> <p><b>Corequisites: One of MATH 256, MATH 257, MATH 316.</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None.</p> <p><b>Action:</b> New course. <b>Rationale:</b> This course is a consolidation of MATH 300 and parts of MATH 301, and is intended primarily for students in Engineering Physics for whom both are required courses. This will allow Engineering Physics students to replace MATH 301 with a more relevant mathematics course combining numerical methods and variational calculus. Such a course gives the students a better preparation for both industry and graduate school. The prerequisite is an amalgamation of those for MATH 300 and MATH 301.</p> <p><b>Supporting Documents: SCI-09-2-MATH 305</b></p>

SCIENCE	
<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>SCIE 113 (3) First-Year Seminar in Science</b></p> <p><b>Small-group experience where students study science in society, scientific process, and how to communicate scientific concepts. Enrollment limited to students with first-year standing in the B. Sc. program in Science. [3-0-0]</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> Create new course <b>Rationale:</b> Science is often seen as an elitist, fact-filled technological endeavor. In this course, new first-year students in the Faculty of Science will work closely with a faculty member to explore science as a way of knowing and science in society. The emphasis will be on the use of empirical evidence to build models and develop effective science communication. This course will act as an alternative to one first-year ENGL course and will, in part, satisfy the communication requirement (CR) for science students. Prerequisite: first-year standing in Science.</p> <p><b>Supporting Documents:</b> SCI-09-2-SCIE 113</p>

<p><b>Effective Date for Change:</b> 10W <b>Proposed Calendar Entry:</b></p> <p><b>SCIE 300 (3) Communicating Science</b></p> <p><b>Effective communication and presentation skills in science.</b> <b>[3-0-0]</b></p> <p><b>Prerequisite:</b> <b>Co-requisite: 3<sup>rd</sup> year or 4<sup>th</sup> year standing in Combined Major in Science. One of BIOL 300, STAT 200, STAT 241</b></p>	<p><b>Present Calendar Entry:</b></p> <p>None</p> <p><b>Action:</b> New course. <b>Rationale:</b> The ability to communicate scientific issues is essential for all graduates from the Faculty of Science. SCIE 300 is focused on developing reading, writing, and presentation skills for scientific content. It will be an integral part of the Combined Major in Science (CMS) specialization. Students in CMS will have a broad range of scientific interests, knowledge, and career goals. These students may ultimately pursue professions such as education, law, medicine, dentistry, journalism, and government. These types of vocations require communication skills to convey the essence of scientific issues. Graduates in CMS will be equipped to engage in scientific communication in a clear, accurate, and logical manner. SCIE 300 will count toward the Communication Requirement for the B.Sc.</p> <p><b>Supporting Documents: SCI-09-2-SCIE 300</b></p>
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<p>Contact: Dr. Bill Ramey Phone: 822-3300</p>	<p>Faculty Approval Date: March 4, 2010 Email: <a href="mailto:wramey@interchange.ubc.ca">wramey@interchange.ubc.ca</a></p>
<b>DEAN'S OFFICE</b>	
<p><b>Effective Date For Change:</b> 10W</p> <p><b>Proposed Calendar Entry:</b></p> <p>The parchment should read:</p> <p>"Bachelor of Science, <b>Honours</b> in Biotechnology"</p>	<p>URL: None</p> <p><b>Present Calendar Entry:</b></p> <p>This is a change to a degree parchment, which currently reads:</p> <p><del>"Honours</del>-Bachelor of Science in Biotechnology"</p> <p><b>Action:</b> Amend the degree listing on the parchment.</p> <p><b>Rationale:</b> The B.Sc. Honours in Biotechnology is a joint degree between UBC and BCIT, but the degree is recorded in slightly different forms at the two institutions and at neither does the name conform to the standard approved by Senate for B.Sc. degrees.</p> <p>The name for all the other B.Sc. Honours degrees in the Faculty of Science is "Bachelor of Science, Honours in XXX". "Biotechnology" is a specialization like all others we offer. The UBC parchment listing, "Honours Bachelor of Science in Biotechnology", implies that a new degree (BSc in Biotechnology) exists, distinct from other BSc degrees. The program website at BCIT campus lists the degree as "Bachelor of Science Honours in Biotechnology" without the needed comma. We would like to officially change the degree name for Biotechnology so it conforms to all the other B.Sc. degree names in Science at UBC and so that the name used at the two institutions is the same. A parallel process is underway at BCIT.</p> <p><b>Supporting Documents:</b> SCI-09-2-BIOT</p>

## BIOLOGY

<p><b>Effective Date for Change:</b> 2010W</p> <p><b>Proposed Calendar Entry:</b></p> <p>Biology Honours <b>Specialization</b></p> <p>Students wishing to enter a biology honours <b>specialization</b> must have a 75% average in courses taken during the previous Winter Session.</p> <p>First year requirements</p> <p><b>Major (XXXX): Biology (BIOL)</b></p> <p><b>Students may enter the Biology Major beginning in their second year or third year. Second year students will first be admitted to this Major for 2011W. Third Year Students will first be admitted to this Major for 2012W.</b></p> <table border="0"> <tr><td><b>First Year</b></td><td></td></tr> <tr><td><b>ENGL 100-level or SCIE 113<sup>1</sup></b></td><td><b>3</b></td></tr> <tr><td><b>BIOL 112</b></td><td><b>3</b></td></tr> <tr><td><b>BIOL 121</b></td><td><b>3</b></td></tr> <tr><td><b>BIOL 140</b></td><td><b>2</b></td></tr> <tr><td><b>CHEM 121, 123 (or 111, 113)</b></td><td><b>8</b></td></tr> <tr><td><b>MATH 100 or 102 or 104</b></td><td></td></tr> <tr><td><b>(or 120 or 180 or 184)<sup>2</sup></b></td><td><b>3</b></td></tr> <tr><td><b>MATH 101 or 103 or 105 (or 121)<sup>2</sup></b></td><td><b>3</b></td></tr> <tr><td><b>PHYS 101<sup>2</sup> (107)</b></td><td><b>3</b></td></tr> <tr><td><b>Electives<sup>1,2,6</sup></b></td><td><b>3</b></td></tr> <tr><td><b>Total Credits</b></td><td><b>31</b></td></tr> <tr><td><b>Second Year</b></td><td></td></tr> <tr><td><b>ENGL 100-level or SCIE 113<sup>1</sup></b></td><td><b>3</b></td></tr> <tr><td><b>BIOL 200, 230, 234, 260<sup>4</sup></b></td><td><b>12</b></td></tr> <tr><td><b>Two of BIOL 203, 204, 205, 209, 210, or MICB 201<sup>5,7</sup></b></td><td><b>7(8)</b></td></tr> <tr><td><b>CHEM 233, 235</b></td><td><b>4</b></td></tr> <tr><td><b>Electives<sup>1,2,4,5,6,7</sup></b></td><td><b>4(3)</b></td></tr> <tr><td><b>Total Credits</b></td><td><b>30</b></td></tr> <tr><td><b>Third and Fourth Years</b></td><td></td></tr> <tr><td><b>BIOL 300<sup>8</sup></b></td><td><b>3</b></td></tr> <tr><td><b>BIOL 336</b></td><td><b>3</b></td></tr> <tr><td><b>Biology Laboratory selections<sup>8</sup></b></td><td><b>4(6)</b></td></tr> </table>	<b>First Year</b>		<b>ENGL 100-level or SCIE 113<sup>1</sup></b>	<b>3</b>	<b>BIOL 112</b>	<b>3</b>	<b>BIOL 121</b>	<b>3</b>	<b>BIOL 140</b>	<b>2</b>	<b>CHEM 121, 123 (or 111, 113)</b>	<b>8</b>	<b>MATH 100 or 102 or 104</b>		<b>(or 120 or 180 or 184)<sup>2</sup></b>	<b>3</b>	<b>MATH 101 or 103 or 105 (or 121)<sup>2</sup></b>	<b>3</b>	<b>PHYS 101<sup>2</sup> (107)</b>	<b>3</b>	<b>Electives<sup>1,2,6</sup></b>	<b>3</b>	<b>Total Credits</b>	<b>31</b>	<b>Second Year</b>		<b>ENGL 100-level or SCIE 113<sup>1</sup></b>	<b>3</b>	<b>BIOL 200, 230, 234, 260<sup>4</sup></b>	<b>12</b>	<b>Two of BIOL 203, 204, 205, 209, 210, or MICB 201<sup>5,7</sup></b>	<b>7(8)</b>	<b>CHEM 233, 235</b>	<b>4</b>	<b>Electives<sup>1,2,4,5,6,7</sup></b>	<b>4(3)</b>	<b>Total Credits</b>	<b>30</b>	<b>Third and Fourth Years</b>		<b>BIOL 300<sup>8</sup></b>	<b>3</b>	<b>BIOL 336</b>	<b>3</b>	<b>Biology Laboratory selections<sup>8</sup></b>	<b>4(6)</b>	<p><a href="http://www.students.ubc.ca/calendar/index.cfm?tre e=12,215,410,418">http://www.students.ubc.ca/calendar/index.cfm?tre e=12,215,410,418</a></p> <p><b>Present Calendar Entry:</b></p> <p>Biology Honours <del>Programs</del></p> <p>Students wishing to enter a biology honours <del>program</del> must have a 75% average in courses taken during the previous Winter Session.</p> <p>First year requirements</p> <p>...</p> <p><b>Action:</b> Insert a new majors specialization (provide with specialization code) immediately before the line reading First-Year requirements in the current calendar entry.</p> <p><b>Rationale:</b> We propose to replace the large variety of existing Majors Program Options within Biology with a single Biology Major to increase flexibility for students, improve program organization, and (consistent with the mandate from the Faculty of Science) reduce the total number of credits required in the Biology Major to 120 credits from the current 127-129 credits. The revised Major increases flexibility and allows students to better customize the Biology Major to their interests by:</p> <ol style="list-style-type: none"> <li>1) Allowing students to fulfill their Biology laboratory requirement by choosing two terms of 3<sup>rd</sup> and 4<sup>th</sup> year laboratory courses from a list of selections drawn from a variety of biological disciplines, rather than requiring that all students take two terms of 3<sup>rd</sup> year physiology laboratory.</li> <li>2) Allowing students to fulfill their 3<sup>rd</sup> and 4<sup>th</sup> year Biology requirements by choosing from a large panel of Life Sciences selections (Biology and other approved Life Science Courses) rather than selecting from a series of sublists across different Biology Program Options.</li> <li>3) Maintaining available electives, despite the decrease in total credits required for the Major.</li> </ol>
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Life Science selections <sup>9</sup>	20(18)	<p>The revised Major establishes a core of 2<sup>nd</sup> and 3<sup>rd</sup> year Biology courses that are required of all students. These courses provide the fundamental knowledge required of all Biologists. This change will ensure that all individuals who graduate from UBC with a degree in Biology have a core competency in critical areas of modern biology by eliminating some important coverage gaps within current program options. The total number of required courses in the new Major is slightly smaller than that required in even the most flexible of the current Biology Program Options, thus greatly increasing flexibility to choose elective courses for many students.</p> <p>The revised Major establishes a clearer organizational structure. Courses have been reorganized into "Introductory Courses" (1<sup>st</sup> year), "Fundamentals Courses" (Biology core courses to be taken by all students – labeled as such in the course title), "Organismal Diversity courses" and "Life Science and Laboratory Selections" (3<sup>rd</sup> and 4<sup>th</sup> year elective Life Science courses). This reorganization will improve mapping of learning objectives and help students undergo a clear progression in their mastery of important biological concepts. In addition, this clearer organizational structure will facilitate the progress of students through the Major and should streamline advising.</p> <p>Staging plan: This curriculum revision is part of a general overhaul of offerings in the Biology Major, including Biology Honours Specializations and Combined Majors and Honours Specializations. We are currently beginning the revision of these other specializations, and anticipate that revised specializations will be submitted to the curriculum committee by September 2010.</p> <p>Students will first be accepted into the new Major as 2<sup>nd</sup> year students for the 2011W session, and as 3<sup>rd</sup> year students for 2012W session. New 2<sup>nd</sup> year courses will be available in 2011W. Existing students who wish to graduate under the rules of the new Major will be allowed to substitute suitable existing courses for courses required in the new Major that were not available to them because of timing or credit exclusion problems.</p> <p><b>Supporting Documents: SCI-09-2-BIOL Major</b></p>
Electives <sup>1,2,6,7</sup>	29	
Total Credits	59	
Minimum credits for Degree	120	
<p><b>1. A total of six credits of course work is required to meet the communication requirement. ENGL 112 is recommended. Qualified students are encouraged to consider ENGL 120 and/or ENGL 121. For full list of acceptable courses see [link-to Communication Requirements section]. Note that SCIE 113 can be used toward the Communication Requirement but does not count towards the degree requirement of 18 credits from the Faculty of Arts. The Communications Requirement can be completed in the first year by decreasing first year electives by 3 credits and increasing second year electives by three credits.</b></p> <p><b>2. MATH 110 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 3 credits. Students may substitute 4-credit MATH courses (MATH 120, MATH 121, 180, 184) as appropriate by decreasing the electives.</b></p> <p><b>3. Students without credit for Physics 12 will be required to take PHYS 100 prior to PHYS 101. PHYS 100 will count as the elective.</b></p> <p><b>4. Up to three credits of BIOL 200, 230, 234, and 260 may be deferred until third year to allow space for additional electives.</b></p> <p><b>5. Up to four credits of BIOL 203, 204, 205, 209, 210 or MICB 201 may be deferred to third year to allow space for additional electives. BIOL 201 and CHEM 205 are recommended electives.</b></p> <p><b>6. Electives must be selected to ensure that all Faculty of Science requirements are met: a) At least 18 credits must be from the Faculty of Arts, which may include credits used to satisfy the Faculty of Science Communications requirement b) An additional 9 credits must be from Arts or Science outside of the field of the</b></p>		

major to satisfy the [link-to Breadth requirement]. c) 18 credits may be from any faculty but students must ensure that they have at least 48 upper-level credits, including at least 30 upper level credits from the Faculty of Science.

<sup>7</sup>. Students who take 8 credits of organismal diversity courses (BIOL 203, 204, 205, 209, 210, or MICB 201) should take 3 credits of electives. Students who take 7 credits of organismal diversity courses should take 4 credits of electives. Surplus elective credit taken in first or second year can be applied to third or fourth year as elective credit.

<sup>8</sup>. STAT 200 can replace BIOL 300.

<sup>9</sup>. See below for the list of accepted Biology Laboratory and Life Science selections. Students taking 4 credits of Laboratory selections must take at least 20 credits of Life Science selections. Students taking 6 credits of Laboratory Selections must take at least 18 credits of Life Science selections. At least 12 credits of Life Science selections must be taken from BIOL courses. See the Biology Program Guide (<http://www.biology.ubc.ca/>) for advice about choosing appropriate Life Science and Laboratory selections.

#### Biology Laboratory selections

Students must take at least two of the following courses.

BIOL 326, BIOL 337, BIOL 340, BIOL 341, BIOL 351, BIOL 352, BIOL 360, BIOL 363, BIOL 404, BIOL 409, BIOL 437, BIOL 444

#### Note:

BIOL 351 counts as either 2 credits of laboratory selection and 2 credits of Life Science selection or 4 credits of Life Science selection

BIOL 352 counts as either 2 credits of laboratory selection and 1 credit of Life Science selection or 3 credits of Life Science selection

#### Life Science Selections

The list of Life Science selections below is divided into two groups: a) science courses that count towards the science credit requirement for the BSc and b) non-science courses that do not count towards the science credit requirement for the BSc. Students must take a minimum of 72 credits of science courses for their degree. The Biology Major provides 70-72 of these credits (depending on the selection of organismal diversity and laboratory courses). Students must also ensure that they have at least 30 upper-level credits from the Faculty of Science courses. The Biology Major provides 22-24 of these credits (depending on the selection of 3<sup>rd</sup> and 4<sup>th</sup> year laboratory courses). The remaining credits must be taken either as Life Science selections or electives. Note that Science students are only permitted to count up to 18 credits of courses from faculties other than Arts or Science (i.e. AGRO, ANAT, APBI, CONS and FRST courses).

Note that careful prior planning is essential because:

- Enrollment in many Life Science Selections is limited
- Admission to the Biology Major does not guarantee admission to these courses.
- Some of these courses carry additional prerequisites.

**a) Life science selections that count towards the Science credit requirement**

Any 3rd or 4th year course in BIOC, BIOL, MICB, MRNE or PHYL that is open to Life Science majors plus  
 ANAT 390, ANAT 391  
 EOSC 371, EOSC 470, EOSC 471, EOSC 474, EOSC 475, EOSC 476, EOSC 478  
 GEOB 307, GEOB 407  
 FNH 350, 351 and 451  
 MATH 462  
 MEDG 410, 419, 420 and 421  
 PCTH 305

**b) Life science selections that do not count towards the Science credit requirement**  
 APBI 311, APBI 312, APBI 314, APBI 315,

<p><b>APBI 318, APBI 342, APBI 401, APBI 411, APBI 418, APBI 419, APBI 444 CONS 330, CONS 440, CONS 486 FRST 302, FRST 310,FRST 385, FRST 386, FRST 395, FRST 399, FRST 420, FRST 444, FRST 485, FRST 495</b></p>	
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## COMBINED MAJOR IN SCIENCE

**Effective Date for Change:** 10S

**Proposed Calendar Entry:**

### COMBINED MAJOR IN SCIENCE

The Combined Major in Science (CMS) is a structured curriculum that provides breadth by offering foundational packages in three discipline areas of science as well as an introduction in a fourth discipline. Lab and field experiences will promote experiential learning, providing students the opportunity to understand how research is done and application of the scientific method. A statistics requirement will give students an understanding of basic statistics and statistical modeling. A computing requirement will provide students with a basic ability in computation and data manipulation as well as develop problem-solving skills using computers. SCIE 300 (Communicating Science) will help students develop skills in critical evaluation and communication of scientific issues.

All degree requirements must be fulfilled in accordance with Faculty of Science requirements. Students may, with the approval of the Science Information Centre [link to [www.science.ubc.ca/students/advising/office](http://www.science.ubc.ca/students/advising/office)], undertake an optional Minor program in Arts, Commerce, Human Kinetics, or Land and Food Systems in conjunction with the Combined Major in Science. See Minor Options [link to new location of this entry in the B.Sc. chapter]. Combined Major in Science students are not eligible to pursue other types of specializations.

Courses selected must be acceptable for major or honours programs in the specific areas of concentration packages. At most a total of 6 credits of directed studies and 6 credits of student directed seminar courses (3 credits as a participant and 3 credits as a leader) may be counted toward a Combined Major in Science degree, but they may not be

**URL:**

**Present Calendar Entry:**

None.

**Action:** Create a new combined major specialization.

**Rationale:** The Combined Major in Science (CMS) will gradually replace the General Science Program (GSP) as it is phased out over the next few years as current students in GSP graduate. The GSP has grown into a large, unstructured program in which students are often limited in the courses they can take because of prerequisite requirements and course availability. The courses they take are often a random assortment lacking in cohesion and students do not feel like they belong to a learning community. The new program will meet the needs of students looking for a degree that provides them with a broad-based foundation in science and new CMS-specific courses will help develop program identity. The CMS provides a structured curriculum that develops breadth by offering foundations in three discipline areas of science as well as an introduction in a fourth (generalist requirement). Lab and field experiences through newly developed lab courses will promote experiential learning, and provide students the opportunity to understand how research is done and apply the scientific method. A statistics requirement will familiarize them with basic statistics and statistical modeling. A computing requirement will provide students with a basic ability in computation and data manipulation as well as develop problem-solving skills using computers. SCIE 300 (Communicating Science) will help students develop skills in critical evaluation and communication of

counted as part of a package or other CMS specialization requirements.  
More information is available at the Combined Major in Science Advising website [link to [www.cms.science.ubc.ca](http://www.cms.science.ubc.ca)].

### Cooperative Education

This option integrates academic study and supervised work experience. Enrolment is limited. Second-year standing in the Combined Major in Science is prerequisite for admission. Detailed information is available from the Co-operative Education Program Office, Room 270, Chemistry/Physics Building, University of British Columbia, 6221 University Boulevard, Vancouver, BC. Information is also available through the Co-op website [link to [www.sciencecoop.ubc.ca](http://www.sciencecoop.ubc.ca)].

### Program

#### Combined Major (XXXX): Science

#### First Year<sup>1</sup>: Credits

MATH 100 (or 102, 104, 120, 180, 184)<sup>2</sup> 3 (4)

MATH 101 (or 103, 105, 121) 3 (4)

Prerequisites for CMS Packages<sup>2,4,5,10</sup> 10-18

English 100-level 3

Arts Elective 3

Electives<sup>3</sup> 8-0

Total Credits 30

#### Second Year: Credits

STAT 200<sup>6</sup> 3

Prerequisites for CMS Packages<sup>5,10</sup> 6-19

Arts Electives 6

Computing Requirement<sup>7</sup> 3

Generalist Requirement<sup>8</sup> 3

Electives<sup>9</sup> 9-2

Total Credits 30

scientific issues.

The structure of the new specialization will ensure that students can follow the program requirements in a timely fashion. It will target students not likely to pursue research careers, rather, its goal is to equip students with the background to understand and evaluate scientific issues from a number of scientific disciplines. It will be particularly appealing for students preparing for professional schools such as education, law, medicine.

### Supporting Documents:SCI-09-CMS Program



Third and Fourth Years:	Credits	
SCIE 300	3	
First CMS Package <sup>10</sup>	9	
Second CMS Package <sup>10</sup>	9	
Third CMS Package <sup>10</sup>	9	
Two of: BIOL 342, EOSC 442, PHYS 309, CHEM 315	2-5	
Arts Elective	6	
Electives <sup>9</sup>	18-12	
Total 3 <sup>rd</sup> /4 <sup>th</sup> Year Credits	60	
Credits for degree	120	
<p><sup>1</sup>SCIE 001 fulfills first-year science prerequisites for most CMS packages except for the Mathematical Sciences packages. Some Mathematical Sciences packages require CPSC 110 (or 111) and CPSC 121 as additional requirements.</p>		
<p><sup>2</sup> MATH 110 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 3 credits.</p>		
<p><sup>3</sup> Electives must be taken to ensure that all Faculty of Science requirements are met: a) At least 18 credits must be from the Faculty of Arts b) 18 credits may be from any faculty but students must ensure that they have at least 48 upper-level credits, including at least 30 upper level credits from the Faculty of Science.</p>		
<p><sup>4</sup>Students take CHEM 111 if credit was not obtained for Chemistry 12 and 3 credits of 100-level PHYS (normally PHYS 100) if credit was not obtained for Physics 12. All students take at least 6 credits of CHEM and/or PHYS lecture courses at the 100-level beyond CHEM 111 and PHYS 100. Note to students interested in applying to Medical School: Content in PHYS 101,102 or 107, 108 are tested on the MCAT.</p>		
<p><sup>5</sup>CMS Packages are in five subject areas: Chemistry; Earth and Environmental Science; Life Science; Mathematical Sciences: Computer Science, Mathematics, and Statistics; and Physics &amp; Astronomy. Students must complete courses in three packages to complete specialization requirements. The range of disciplines provides sufficient breadth to meet the faculty of Science requirement for 9 credits of</p>		

breadth courses.

<sup>6</sup>STAT 200 can be replaced with STAT 241 or BIOL 300.

<sup>7</sup>Computing Requirement (can be taken in third or fourth year by substituting electives in second year) - select one of the following courses: CPSC 110 (or 111), CPSC 301, EOSC 211, MATH 210, PHYS 210.

<sup>8</sup>Generalist Requirement (can be taken in third or fourth year): one course from a discipline not represented in a student's three packages is selected from the list: Chemistry: CHEM 200-level; Earth and Environmental Science: EOSC 340, 326, 477, 453, 354, 329, GEOB 400; Life Science: BIOL 121, 343, 345, 346, 438; Mathematical Sciences: MATH 200-level, MATH 300-level; Physics and Astronomy: PHYS 305, 313.

<sup>9</sup>Students must have a minimum of 72 credits in Science and 48 Upper-Level credits

<sup>10</sup>Select three of the following five CMS packages:

#### Chemistry CMS Package

Prerequisites: CHEM 121, 123 (or 111, 113), CHEM 233, 235, 205 (or CHEM 201, 203, 204)

Package courses:

3 credits of CHEM 341

6 credits CHEM from 300 and higher

#### Earth and Environmental Science CMS Package

Prerequisites: Prerequisites: one of CHEM 111, CHEM 121; one of PHYS 101, PHYS 107; one of (a) EOSC 110 and EOSC 111 or (b) one of ATSC 201, BIOL 111, BIOL 112, BIOL 121, GEOB 103 or GEOB 200

Package courses:

3 credits of EOSC 340

3 credits from EOSC 326, EOSC 355, EOSC 372

3 credits from Earth and Environmental

Science courses: ATSC, ENVR, GEOB (except for GEOB 307, 407), EOSC (except for EOSC 310, 311, 312, 314, 315, 371, 470, 471, 474, 475, 478)

**Recommended courses: EOSC 326, 355, 372 or EOSC 324, 329, 330, 373 or GEOB 300**

**Life Science CMS Package**

**Prerequisites: BIOL 112, 121, BIOL 140, BIOL 200, (BIOL 201 recommended), CHEM 121 (or 111), CHEM 123 (or 113)**

**Additional specific prerequisites are needed for some choices of upper-level courses.**

**Package courses: 9 credits of Life Science courses numbered 300 or higher: ANAT 390, 391, BIOC, BIOL (except BIOL 300), GEOB 307, 407, MRNE, MEDG, MICB, PHAR, PHYL, PSYC 360-368, PSYC 460-462, and EOSC 470, 471, 474, 475, 478**

**Mathematical Science CMS Package – Select one of the following options:**

***1. Computer Science Option***

**Prerequisites: CPSC 110 (or 111), 121, 210 (or 211), (CPSC 213 recommended)**

**Package Courses: 4 credits of CPSC 221; 6 credits chosen from 300 and 400 level CPSC courses**

**Recommended: CPSC 302, 303, 304, 312, 314, 320, 322, 340, 402, 406, 420, 421, 422, 430, 445**

**Students choosing this package may need additional upper-level science credits to meet the requirement for a minimum of 30 upper-level science credits.**

***2. Mathematics Option***

**Prerequisites: MATH 200, 221, (MATH 215 recommended)**

**Package Courses: 9 credits chosen from 300 and 400 level MATH**

**Highly Recommended: MATH 302, 307, 317, 340.**

**Recommended: MATH 303, 316, 345, 361, 441, 442, 445**

***3. Statistics Option***

**Prerequisites: One of MATH 152, MATH 221, MATH 223 and one of STAT 200, STAT 241, STAT 251, BIOL 300.**

**Package Courses: 3 credits of STAT 306; 6 credits from STAT 307, 308, 335, 344, 442**

**4. Interface A Option**

**Prerequisites:** CPSC 110 (111), MATH 200, 221

**Package Courses:** 6 credits of: MATH/STAT 302, MATH 303, STAT 305; 3 credits of CPSC 302, CPSC 303

**5. Interface B Option**

**Prerequisites:** MATH 200, 221

**Package Courses:** 9 credits of MATH/STAT 302, MATH 303, STAT 305

**6. Interface C Option**

**Prerequisites:** 9 credits of CPSC 110 (111), MATH 200, 221

**Package Courses:** 9 credits of CPSC 340, STAT 300, STAT 406

**7. Interface D Option**

**Prerequisites:** 9 credits of CPSC 110 (111), MATH 200, 221

**Package Courses:** CPSC 302, CPSC 402, MATH 307

**Physics and Astronomy CMS Package**

**1. Physics Option**

**Prerequisites:** MATH 200, PHYS 101 (or 107) and PHYS 102 (or 108), (PHYS 200, 209 recommended) MATH 215 recommended

**Package Courses:** 3 credits of PHYS 301, 304, 313 and 6 credits PHYS or ASTR courses numbered 300 or higher

**Recommended Courses:** PHYS 301, 304, 305, 309, 312, 313, 314, 315, 318, 319, 404, 405, 420

**2. Astronomy Option**

**Prerequisites:** MATH 200, PHYS 101 (or 107) and PHYS 102 (or 108), PHYS 200, and one of PHYS 206 or 216. MATH 215 recommended

**Package Courses:** 3 credits of PHYS 301 and 6 credits ASTR 303, 402

# THE UNIVERSITY OF BRITISH COLUMBIA



Vancouver Library Committee  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
Vancouver BC V6T 1Z1

27 April 2010

To: Vancouver Senate

From: Library Committee

Re: Report of the Senate Library Committee

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## Report of the Senate Library Committee

After a period in abeyance the Senate Library Committee was reconstituted in January 2010 and has resumed its monthly meetings. In accordance with its mandate, the Committee will continue to advise and assist the University Librarian on all academic matters affecting the Library, keep the academic community informed about the Library, and report to Senate on matters of policy under discussion by the Committee.

The Committee understands that, under current conditions, “academic matters affecting the Library” will include a wide range of issues in scholarly communication, publishing and archiving.

### *Committee Membership*

In its previous incarnation the Committee had an ex officio voting position for the Vice-President (Academic and Student Services), a portfolio that no longer exists. After consultation with the present Vice-President (Students) and with the Provost, the Committee asked the Nominating Committee to propose to Senate the replacement of that post with an ex officio voting position for the Vice-Provost (Information Technology). A motion to that effect was put and carried at the March 2010 meeting of Senate.

### *Senate Referral: Recommendation on Policy for Library Closures*

Responding to a referral made by Senate at its January 2008 meeting, the Committee recommended to the University Librarian that, if library closures are considered in future, consultations be carried out in good time with the Senate Library Committee, the appropriate Library Advisory Committee(s), the Alma Mater Society, and the Graduate Students' Society.

### *Library Strategic Plan*

The Committee was able to assist in the final stages of the drafting of the Library's new Strategic Plan for 2010-15, which has now been launched and can be consulted at

<http://www.library.ubc.ca/strategicplan/>



Vancouver Senate Nominating Committee  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
Vancouver BC V6T 1Z1  
Tel : (604) 822-8141 | Fax : (604) 822-5945

30 April 2010

To: Vancouver Senate

From: Nominating Committee

Re: **Adjustment to Committee Composition – Academic Building Needs (approval)**

**Appointment of Student Senators to Committees of Senate and Committees of the Council of Senates (approval)**

**Election of Student Senators to the Council of Senates (approval)**

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**a) Adjustment to Committee Composition – Academic Building Needs (approval)**

Upon the recommendation of the Academic Building Needs Committee, the Nominating Committee requests that Senate adjust the composition of the Academic Building Needs Committee to include three additional Senators, one of whom shall be a student member.

***Motion:** That the composition of the Vancouver Senate Academic Building Needs Committee be adjusted to include three additional Senators, one of whom must be a student member.*

**b) Appointment of Student Senators to Committees of Senate and Committees of the Council of Senates (approval)**

***Motion:** That Senate appoint student senators to the Committees of Senate as follows, for term ending March 31, 2011 and thereafter until replaced.*

**1. Academic Building Needs**

Alyssa Koehn  
Erik Hilmer  
Joël Mertens<sup>1</sup>

**2. Academic Policy**

Lin Watt  
Spencer Rasmussen

**3. Admissions**

Cisco Grajales  
Kristian Arciaga

**4. Agenda**

Joël Mertens  
AJ Hajir Hajian

**5. Appeals on Academic Standing**

Joseph Scafe  
Cheryle Colombe  
Angus Cheung

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<sup>1</sup> Appointment conditional upon approval of the motion to adjust the composition of the Committee

**6. Curriculum**

Angus Cheung  
Chad Embree  
AJ Hajir Hajian  
Justin Yang  
Johannes Rebane

**7. Library**

Khatereh Aminoltejari  
Lin Watt  
Erik Hilmer  
Cisco Grajales

**8. Student Appeals on Academic Discipline**

Joseph Scafe  
Dipen Thakrar  
Cheryle Colombe

**9. Student Awards**

Daniel Heejae Kim  
Kristian Arciaga

**10. Teaching and Learning**

Spencer Rasmussen  
Justin Yang  
Johannes Rebane

**11. Tributes**

Alyssa Koehn  
Dipen Thakrar

**12. Elections Committee of the Council of Senates**

AJ Hajir Hajian

**13. Budget Committee of the Council of Senates**

Joël Mertens  
Lin Watt

**14. Council of Senates Vancouver Representative Committee Four**

Dipen Thakrar

**c) Election of Student Senators to the Council of Senates (approval)**

As per section 38.1(e) of the University Act, the Vancouver Senate must elect four (4) representatives to the Council of Senates and Senate has determined that two (2) such representatives be students. The Nominating Committee recommends to Senate the nomination of Chad Embree and Alyssa Koehn for election to the Council of Senates.

**Motion:** *That Senate elect Mr. Chad Embree and Ms. Alyssa Koehn to the Council of Senates.*

Respectfully Submitted,

Dr. Rhodri Windsor-Liscombe  
Chair, Senate Nominating Committee



Vancouver Senate Student Awards Committee  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
Vancouver BC V6T 1Z1

April 29, 2010

To: Vancouver Senate

From: Vancouver Senate Student Awards Committee

RE: New Awards May 2010

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The Student Awards Committee recommends:

*That Senate accept the awards as listed and forward them to the Board of Governors for approval; and that letters of thanks be sent to the donors.*

**Air LIQUIDE Scholarship in Chemical and Mechanical Engineering:** Two scholarships of \$2,500 each are offered by Air Liquide to undergraduate students entering their third year of study and who are majoring in chemical and mechanical engineering. In the event that there are more than two equal candidates for this scholarship financial need may be taken into consideration. Recommendations are made by the Faculty. (First award available for the 2010/11 Winter Session)

**John CAMPBELL Bursary in Chemical Engineering:** Bursaries totalling \$1,000 are offered to undergraduate students in the Department of Chemical Engineering by the family of John Campbell in his loving memory. John graduated from the University of BC Department of Chemical Engineering in 1949. The bursaries are offered to students on the basis of academic standing and financial need. The awards are made on the recommendation of the Office of Student Financial Assistance and Awards. (First award available 2010-11 Winter session).

**Sheldon CHERRY Scholarship in Civil Engineering** - A \$1,000 scholarship has been endowed to honour Dr. Sheldon Cherry's fifty years of service to The University of British Columbia as a Professor and Professor Emeritus with the Department of Civil Engineering. The award is made on the recommendation of the Department to an undergraduate student in Civil Engineering. (First award available for the 2011/12 Winter Session)

**Dennis H. CHITTY Memorial Graduate Scholarship in Ecology:** Scholarships totalling \$1,000 are offered by friends and family in memory of Dr. Dennis Hubert Chitty to recognize graduate work in the field of ecology. The awards are made on the recommendation of the Department of Zoology and in consultation with the Faculty of Graduate Studies. (First award available 2010-11 Winter session).



**Frederick Charles DUNLOP M.D. Bursary:** Bursaries totalling \$5,800 have been endowed through a bequest by Elizabeth Margaret Dunlop in memory of her father, Dr. Frederick Charles Dunlop, to provide financial assistance to undergraduate and graduate medical students who demonstrate financial need. Recommendations are made by the Office of Student Financial Assistance and Awards. (First Available 2010/11 Winter Session).

**FAST + EPP Scholarship:** A \$1,500 scholarship is offered by Fast + Epp on a rotating basis for graduate architecture students and undergraduate civil engineering students, with the scholarship being awarded to architecture students in even years and civil engineering students in odd years. For architecture, preference is given to students demonstrating interest and knowledge in structural design; and for civil engineering students with a demonstrated interest and knowledge in architectural structures. Awards are made on the recommendation of the School of Architecture and Landscape Architecture or the Department of Civil Engineering and, in the case of graduate students, in consultation with the Faculty of Graduate Studies. (First award available 2010-11 Winter session).

**William M. GALLACHER Scholarship in Engineering:** Scholarships totalling \$1,000 have been endowed in recognition of William M. Gallacher and his many contributions to the oil and gas community for students in second, third or fourth year of chemical and biological engineering who demonstrate community involvement on or off campus and who show an interest in oil and gas. Recommendations are made by the Department of Chemical and Biological Engineering. (First Award Available in the 2010-11 Winter Session).

**William M. GALLACHER Thunderbird Scholarship in Hockey:** Scholarships totalling \$1,000 have been endowed for male or female student hockey athletes in recognition of William M. Gallacher and his passion and support for the sport and its athletes. Recommendations are made by the President's Athletic Awards Committee. (First Award Available in the 2010-11 Winter Session).

**Nini M. HARRIS-LOWE Memorial Prize in Nursing:** Prizes totalling \$1,000 have been endowed by Rick Lowe (B.Sc. '82) in memory of his spouse Nini M. Harris-Lowe for undergraduate or graduate students in the School of Nursing, with a strong preference for students who have demonstrated excellence in clinical innovation or in the development of improved methods of care and treatment for patients in the community who suffer from debilitating chronic illness or debilitating chronic pain. Recommendations are made by the School. (First award available in the 2010/11 Winter Session)

**Robert Alan KENNEDY Service Award in Dentistry:** A \$1,000 service award is offered by Mr. Robert Alan Kennedy to a dental or dental hygiene student, in any year of study who demonstrates excellence in community service, student leadership, or volunteerism and is recognized by peers as having demonstrated a high level of

professionalism, compassion, humanism, while modelling a patient-centred approach to care. Nomination of candidates is to be submitted to the selection committee by students in the DMD and Dental Hygiene programs. Recipient recommendation is made by the Selection Committee in the Faculty of Dentistry. (First award available 2010-11 Winter session).

**Robert Bruce KNIGHT Memorial Scholarship in Civil Engineering:** The family of Bruce Knight and Knight Piésold Ltd., Consulting Engineers, has endowed a scholarship of \$1,400 for an undergraduate civil engineering student who demonstrates enthusiasm in pursuit of civil or geotechnical engineering studies. Recommendation is made by the Faculty of Applied Science. (First award available 2010-11 Winter session).

**NEALANDERS International Award in Food Science and Nutrition:** Awards totalling \$1,500 are available for third or fourth year students majoring in food science-nutrition double major or food science. The awards are intended for students with demonstrated excellence in fields such as community service, student leadership and volunteerism. Nealanders International is a leading source of ingredients and blends to the Canadian food industry and is pleased to support students in the Food, Nutrition and Health Program. The awards are made on the recommendation of the Faculty of Land and Food Systems. (First award available 2010-11 Winter session).

**Peter A. NIBLOCK Memorial Award in Electrical Engineering:** An \$840 award has been endowed by friends and family in memory of Peter A. Niblock (B.A.Sc., in Electrical Engineering 1949, M.A.Sc. in Electrical Engineering 1952) for students in Electrical Engineering with preference given to a female student. The award is made on the recommendation of the Department of Electrical and Computer Engineering. (First award available 2010-11 Winter session).

**Sandy Kyo-Hyun PARK Scholarship in Cancer Research:** A \$5,000 scholarship is offered by Michelle and Edward Burt in loving memory of Michelle's sister, Sandy Park, who passed away too young to colon cancer. The scholarship is awarded to a graduate student in the Faculty of Medicine who is engaged in cancer research. Preference will be given to a doctoral student researching cancers of the colon or liver. The awards are made on the recommendation of the Faculty of Medicine in consultation with the Faculty of Graduate Studies. (First award available 2010-11 Winter session)

**Warren George POVEY Award in Global Health:** Awards totalling \$1,000 have been endowed to graduate students in any discipline who are dedicated to working on global health issues in honour of Dr. Warren George Povey and his contributions in teaching that span over 50 years on every continent and at every level of education from Traditional Birth Attendants in Mozambique to Midwives, Nurses and Physicians and in recent year's graduate students from many disciplines working on global health issues. Dr. Povey is a pioneering scholar in global health and is passionate about addressing the social, political and economic determinants of health and gender equity in the interest of promoting social justice around the world. He pioneered the International Health course at UBC and has also taught global health at University of Washington. The awards are

made in consultation with the School of Population and Public Health and on the recommendation of College for Interdisciplinary Studies and Student Financial Assistance and Awards. (First award available 2010-11 Winter session)

**Roy SWORDER First Nations Bursary:** Bursaries totalling \$1,000 have been endowed by Eileen Sworder in memory of her late husband, Roy Sworder, for First Nations students in the Faculty of Forestry. The awards are made available to undergraduate students in any year of study. (First award available 2010-11 Winter session)

**TD Canada Trust Service Award in Dentistry:** A \$1,500 service award is offered by TD Canada Trust to a dental student any year of study who demonstrates excellence in community service, student leadership, or volunteerism. Recommendation is made by the Faculty of Dentistry. (First award available 2010-11 Winter session).

**UBC Library Innovative Dissemination of Research Award:** A \$2,000 award and framed certificate are offered by the Library to UBC faculty, staff and students who are expanding the boundaries of research through the creative use of new tools and technologies that enhance the research findings being disseminated. To be considered, UBC employees and students may nominate themselves or others as candidates for the Library Innovative Dissemination of Research Award by filling out the PDF application and submitting to the University Librarian, Collections, Licenses and Digital Scholarship at Woodward Library. Recommendation is made by the Library Scholarly Communications Steering Committee. (First Available 2009/10 Academic Session)  
*Please Note: the UBC Library Innovative Dissemination of Research Award will not be centrally administered and is included in this summary as an FYI*

#### **Previously-Approved Awards With Changes in Terms or Funding Source:**

**B.C. Dietitians' and Nutritionists' Association Prize in Dietetics:** A \$200 prize has been endowed by the British Columbia Dietitians' and Nutritionists' Association, which was the professional association for dietitians in B.C. from 1956 to 1997. Dietitians of Canada assumed the role of promoting and supporting the profession in 1997, while the BCDNA focused on the regulation of the profession until 2004, when these duties were transferred to the College of Dietitians of B.C. and the BCDNA was dissolved. The prize is awarded to a student in the graduating year that has taken a dietetics major, has high academic standing, and has shown potential for success. Candidates should indicate an intention of continued practice in the field of dietetics. The award is made on the recommendation of the Faculty of Land and Food Systems.

How amended: *name change request to Dietitians of Canada Prize in Dietetics. The original sponsoring organization, B.C. Dietitians and Nutritionists Association, closed several years ago. Dietitians of Canada (a national professional organization with regional offices) is now the only professional organization for dietitians in Canada. The Dietitians of Canada, BC Region, is the contact for this award.*

**Norman BASCO Prize in Atmospheric Chemistry:** A \$100 prize has been endowed by family, friends and colleagues in honour of Dr. Norman Basco. The prize is awarded to the student obtaining the highest standing in CHEM 302 (Atmospheric Environmental Chemistry) and is made on the recommendation of the Department of Chemistry.

How amended: *changed from a book prize to a \$100 prize*



Vancouver Senate Tributes Committee  
c/o  
Enrolment Services | Senate & Curriculum Services  
Brock Hall 2016 – 1874 East Mall  
Vancouver BC V6T 1Z1  
Tel: (604) 822-8141 | Fax: (604) 822-5945

30 April 2010

To: Vancouver Senate

From: Tributes Committee

Re: **Candidates for Emerita/Emeritus Status (approval)**

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The Tributes Committee recommends approval of the following motion:

***Motion:*** *That the attached list of individuals for emerita or emeritus status be approved and that, pursuant to section 9(2) of the University Act, all persons with the ranks of Professors Emeriti, Associate Professors Emeriti, Assistant Professors Emeriti, Senior Instructors Emeriti, Instructors II Emeriti, Instructors I Emeriti, General Librarians Emeriti and Administrative Librarians Emeriti be added to the Roll of Convocation.*

Respectfully submitted,

Dr. Sally Thorne  
Chair, Tributes Committee

<b>Faculty Members Eligible for Emeritus Status</b>				
<b>Retirements or Resignations December 31, 2009 to August 31, 2010</b>				
<b>Last Name</b>	<b>First Name</b>	<b>Rank</b>	<b>Faculty</b>	<b>Department</b>
Aldrich	John	Clinical Professor	Medicine	Clinical Professor Emeritus of Radiology
Berger	James D.	Professor	Science	Professor Emeritus of Zoology
Campbell	Edwin Colin	Professor	Arts	Professor Emeritus of Political Science
Chessex	Philippe	Professor	Medicine	Professor Emeritus of Paediatrics
Crawford	Terry	Senior Instructor	Science	Senior Instructor Emerita of Botany
Dunbar	Linda	General Librarian	Library	General Librarian Emerita
Hsieh	William	Professor	Science	Professor Emeritus of Earth and Ocean Sciences
Joachim	Gloria L.	Associate Professor	Applied Science	Associate Professor Emerita of Nursing
Patkau	Patricia	Professor	Applied Science	Professor Emerita of Architecture and Landscape Architecture
Rosenberg	Ellen	Senior Instructor	Science	Senior Instructor Emerita of Botany
Saunders	Roy	Clinical Associate Professor	Medicine	Clinical Associate Professor Emeritus of Paediatrics
Stokes	Richard	Associate Professor	Medicine	Associate Professor Emeritus of Paediatrics
Tognazzini	Paula	Senior Instructor	Applied Science	Senior Instructor Emerita of Nursing
Unger	Richard W.	Professor	Arts	Professor Emeritus of History
Wieland	Norma	Senior Instructor	Arts	Senior Instructor Emerita of Central, Eastern and Northern European Studies

# THE UNIVERSITY OF BRITISH COLUMBIA



Vancouver Senate Tributes Committee  
c/o  
Enrolment Services | Senate & Curriculum Services  
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Tel : (604) 822-8141 | Fax : (604) 822-5945

30 April 2010

To: Vancouver Senate  
From: Tributes Committee  
Subject: Memorial Minutes

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The Tributes Committee has prepared memorial minutes for the following individual:

*Dr. Ian McTaggart-Cowan*

***Motion:*** *That Senate approve the Memorial Minutes for Dr. Ian McTaggart-Cowan, that they be entered into the Minutes of Senate and a copy be sent to the family of the deceased.*

Respectfully submitted,

Dr. Sally Thorne, Chair  
Senate Tributes Committee

## **Dr. Ian McTaggart-Cowan**

A scholar and early activist for wildlife conservation, Ian McTaggart-Cowan informed generations of British Columbians about the natural wonders around them.

He began his studies at the University of British Columbia, spending his summers in the field, studying Rocky Mountain fauna in national parks. After graduating in 1932, he began work on a doctorate at the University of California, Berkeley. He then joined the staff of the Provincial Museum (now the Royal B.C. Museum) in Victoria as a biologist, helping to revive the institution through field work and expansion of its collections.

In 1940, he joined UBC Department of Zoology, becoming department head in 1953. He served as Dean of the Faculty of Graduate Studies from 1964 until retiring from UBC in 1975. Upon retirement from the University, he served one term as the Chancellor of the University of Victoria.

Dr. McTaggart-Cowan had an extensive list of public service contributions, including seven years with the National Research Council of Canada as the first chairman of an advisory committee on wildlife research. He also served on the Board of Governors of the Arctic Institute of North America and as Chairman of the Canadian Environmental Advisory Council.

An eminent zoologist, he produced hundreds of papers, pamphlets and books. He is recognized as a pioneer in the use of television as a medium to educate the public about conservation. In 1955, he hosted a television show called *Fur and Feathers*. Filmed live, he taught children about animals while encouraging them to appreciate the natural world.

He later served as host of two other documentary series for CBC television. *The Living Sea* was shown in British Columbia in 1957 and then nationally in 1962. This was followed by *The Web of Life*, an 11-part series of half-hour episodes that aired in 1963.

Dr. McTaggart-Cowan was invested as an officer of the Order of Canada in 1971 for his contributions to zoology and as a conservationist and named to the Order of British Columbia in 1991. He was also awarded several honorary degrees, including Doctor of Science from the University of Victoria, Doctor of Laws from University of Alberta and Simon Fraser University and Doctor of Environmental Studies from the University of Waterloo.

In 2005, the provincial government contributed \$500,000 to establish a professorship in his name at the University of Victoria's School of Environmental Studies. His name graces the Cowan Vertebrate Museum on the UBC campus, which boasts 17,000 mammal and 15,200 bird specimens.





**Provost and Vice President Academic**

6328 Memorial Road  
Vancouver, BC Canada V6T 1Z2

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MEMORANDUM

April 28, 2010

To: Senate, Vancouver  
c/o Lisa Collins, Associate Registrar, Senate and Curriculum Services

From: David H. Farrar  
Provost and Vice President Academic

Re: **The Institute for the Scholarship of Teaching and Learning**

**Recommendation:**

**That the Senate receive for information the Report to Senate on the Institute for the Scholarship of Teaching and Learning, May 2009 – May 2010**

The Institute was established by the Senate in May, 2004. The report is provided by Dr. Alice Cassidy, Leader of the Institute and Associate Director of the Centre for Teaching and Learning (formerly Centre for Teaching and Academic Growth).

Attachment: The Institute for the Scholarship of Teaching and Learning: Report to Senate, May 2009 – May 2010

## The Institute for the Scholarship of Teaching and Learning: Report to Senate May 2009 — May 2010

### Vision Statement

The Institute for the Scholarship of Teaching and Learning (ISoTL) supports research and reflection on teaching and learning. ISoTL aims to inform and enhance practice, locally and internationally. The Institute continues to be responsive to the needs of UBC's teaching and learning community, and advocates for an effective reciprocity between research and practice.

### The Mandate of the Institute

- Provide **support** for research on teaching and learning at UBC, **bringing together teams** of faculty from across campus, experts in educational research, graduate students, and pedagogical experts from the Centre for Teaching and Academic Growth (TAG);
- **Develop a network** of those interested in higher education research and using this research to improve teaching and learning;
- **Disseminate** research findings in ways that inform and enhance educational practice at UBC and beyond. This would include both publishing in the academic literature and producing working papers and other local documents. It would also involve the organizing of events designed for dissemination.
- To be an **international leader**, not only by example, but also by facilitating the development of SoTL initiatives in other institutions.

### Institute Web Site URL

<http://tag.ubc.ca/isotl/>

### Joint Councils Advisory Board

The Councils, who meet and work together twice per year, provide invaluable advice and insight regarding the current and future work and direction of the Institute for the Scholarship of Teaching and Learning. The Councils are comprised of colleagues from a wide variety of disciplines and units on campus. Most have had first-hand connection to the work of ISoTL through participation in events, facilitation of sessions, and involvement in research projects. The mandate and make-up of the Joint Councils can be seen at <http://tag.ubc.ca/isotl/isotl-background/isotl-advisory-councils/>

### New Roles

Alice Cassidy has accepted the role of Associate Director responsible for ISoTL. Dr. Cassidy has been very involved in the Institute since its inception, establishing and maintaining the Institute Network and organizing events such as Research in Progress, Learning with the Literature, and Practice in Progress. As Associate Director of TAG, Alice has been a leader in the building of numerous Communities of Practice. Her new role allows her to apply these considerable skills to developing the Institute, most notably through the Teaching Scholars Program.

As of July 1, 2009, Gary Poole became the President-Elect for the International Society for the Scholarship of Teaching and Learning (ISSOTL). In July, 2010, he will become President of ISSOTL.

## **The Teaching Scholars Program: A Major New Initiative in ISoTL**

In December 2009, we introduced an exciting new program for members of the UBC teaching community in charge of credit courses designed to support the development of scholarly work in teaching and learning. The Teaching Scholars Program, under the direction of Alice Cassidy, is a collaboration between the ISoTL and the UBC-Community Learning Initiative. The Program provides financial, educational, and research support for a cohort of individuals interested in developing their research skills in the scholarship of teaching and learning. The February 1, 2010 Call for Applications drew much interest. Ten spaces were filled, through a review process, and the first-ever Teaching Scholars cohort meets in April, 2010 for three full-day skills sessions, over the summer in three half-day sessions, then, monthly until November, 2011. For more information on the Program, visit <http://tag.ubc.ca/isotl/isotl-programs/teaching-scholars-program/>

## **Affiliations**

To fulfill the ISoTL mandate of disseminating research findings, building collaborations and networks, and be recognized as an international leader in teaching and learning, the Institute participates as an active member of a number of international and national affiliations.

The Institute was a Leadership Member of the Carnegie Academy for the Scholarship of Teaching and Learning (CASTL). For three years, from September 2006 to August 2009, we were part of an affiliation of major North American universities working under the theme: Expanding the SOTL Commons. The UBC team members include: (alphabetically): Alice Cassidy, Lee Gass, Rita Irwin, Gary Poole, and Carl Wieman. Representatives from our CASTL group of universities met face-to-face in Bloomington, Indiana in October, 2007 and October 2009. These meetings were augmented by monthly teleconferences and a face-to-face meeting of our group at the ISSOTL conference in Edmonton, Alberta in October, 2008. The group's main project involved the creation of an online, searchable data base of resources and peer-reviewed articles on the scholarship of teaching and learning. Work on this project continues, though the CASTL program has been completed.

A number of members of the UBC teaching and learning community belong to the ISSOTL. At the 2008 ISSOTL conference, 39 UBC participants attended and presented papers. This represents the largest number of participants from a single institution, including the host university (The University of Alberta).

## **Campus Events and Programs**

A series of invited seminars are offered to promote research and dissemination of current national and international work regarding the SoTL. The Visiting Scholar in residence and Post Doctoral research programs contribute to the establishment of research networks between international and UBC colleagues and the recognition of the Institute as a national leader in the SoTL.

### **The Invited Scholars Seminar Series**

The Invited Scholars Seminar Series brings to UBC some of the world's most active and prominent thinkers in the scholarship of teaching and learning. It is an opportunity to work with experienced scholars and engaging workshop facilitators to pursue important issues and hone research skills. The 2009/2010 event was:

March 15, 2010 ISoTL Invited Scholar Susan Shaw: "This Course Changed My Life" and "They Never Taught Me This in Graduate School"

Susan Shaw is Professor and Director of Women Studies and the Difference, Power, and Discrimination (DPD) Program at Oregon State University. As an Invited Scholar Dr. Shaw shared her work on diversity education with the UBC teaching and learning community. Susan spoke about the theoretical framework for the DPD faculty program and assessing the impact of

diversity education. Susan's visit included two morning workshops and an small-group lunch to continue the dialogue from her morning sessions.

### Visiting Scholars in Residence

In July, 2010, we welcomed Dr. Lesley Treleaven from the University of Sydney, Faculty of Economics and Business, Office of Learning and Teaching. Dr. Treleaven worked with TAG staff and with colleagues from the Sauder School of Business to write two grant proposals for collaborative research related to teaching and learning. Both grant applications were successful. In October, 2010, Dr. Treleaven returned to UBC to present a well-received session at our UBC Learning Conference. The session presented a model for curriculum renewal and buy-in.

### Post-Doctoral Fellows

Dr. Shane Dawson was the Institute's first post-doctoral fellow. While working in the Institute, Dr. Dawson received an Australian Higher Education grant to further explore the capacity for information communication technology (ICT) data mining to inform teaching practice. Upon completion of his Post-Doctoral Fellowship, Dr. Dawson accepted a position in the Faculty of Medicine, University of Wollongong. Most recently, Dr. Dawson has joined our own Faculty of Arts as Director of Arts Instructional Support and Information Technology (ISIT).

During his post-doc, Dr. Dawson worked on the following project, which continues today within the Faculty of Science, championed by colleagues in Skylight, the Science Centre for Learning and Teaching, a research-focused unit engaged in the scholarship of teaching and learning in the Faculty of Science:

*Project Title: Investigating the application of ICT generated data as an indicator of teaching performance.*

This ISOTL project aimed to assess the capacity for currently captured institutional Learning Management System (LMS) data to inform and measure teaching practice. To date, the project has succeeded in extracting data related to online user behaviour, from BlackBoard Vista. This data has been used to benchmark current UBC activity in terms of Faculty, School, course, instructor and student use. The findings from this initial environmental scan were used to engage faculty in order to further identify and clarify areas of interest. Several Faculties and units are now actively engaged and participating in the project and are using the data to identify potential differences in School, course and instructor usage [e.g. Science, Skylight, Land and Food Systems, and the Office of Learning Technology (OLT)]. The Carl Wieman Science Education Initiative (CWSEI) has noted a particular vested interest in using the data to identify specific teaching practices that lead to greater student engagement in course content. Consequently the project team is working collaboratively with CWSEI staff to assist in evaluating student engagement using institutional captured ICT data.

The scholarly work undertaken thus far to investigate and theorise the application of ICT data for informing teaching practice has resulted in the following international presentations and publications (including forthcoming):

- Dawson, S., Heathcote, E. & Poole, G. (2010). Harnessing ICT potential: The adoption and analysis of ICT systems for enhancing the student learning experience. *International Journal of Educational Management*, 24(2), 116-128.
- Dawson, S. (2008). A study of the relationship between social networks and sense of community. *Educational Technology & Society*, 11(3), 224-238.
- Dawson, S. (2008). *Looking through a different lens: The analysis of ICT data to inform teaching practice*. Canadian E-Learning Conference, Calgary June 17-20.
- Dawson, S., McWilliam, E. and Poole, G. (2008). *Monitoring Student Creative Capacity: Using network visualisation to evaluate pedagogical practice*. Creating Value, Centre for Creative Industries, QLD, Australia June 22-25

- Dawson, S. (2007). *Evaluating behind closed doors: The application of student online user behaviour to inform and guide teaching practice*. Invited keynote – TLT Speaker series, University of British Columbia, Vancouver, Canada. 15 November 2007

### **The Institute's Network**

As of April, 2010, the Network has 248 members. Regular email messages go out to the Network, informing them of Institute events and other news and opportunities associated with SoTL.

### **SoTL Articles in *Tapestry*: The newsletter of TAG**

A regular column appears in the newsletter and is entitled What's the evidence: Shares, news from ISoTL and related research on teaching. The hard copy issue of the newsletter is mailed to colleagues at UBC, teaching and learning centres across Canada and others internationally (and as distant as Australia, the UK, Romania and the West Indies). It is also available online <http://tag.ubc.ca/publications/tapestry/> We have recently archived all 24 years of the newsletter and have begun creation of a Table of Contents for all 52 issues. The Scholarship of Teaching and Learning (SoTL) is one of six main headings. The *Tapestry* publication helps to promote SoTL across UBC and beyond, and to share current findings, as well as opinion pieces around scholarly teaching and SoTL.

Recent articles with a SoTL angle include:

Focus on Engagement: What does NSSE tell us about UBC students. Walter Sudmant, PAIR, UBC

Inspirational teaching at university. Does it exist? James Derounian, University of Cheltenham, UK

Inclusive teaching and non-traditional student success. Julian Hermida, Algoma College

Measuring the impact of higher education: How does the workforce inform the process? Gary Poole, TAG/ISoTL; Vivien Smith, 3M Company, St. Paul; Lorne Whitehead, Leader of Educational Innovation, UBC and Carl Wieman, UBC

Course Profile: Problem-Oriented Learning. Elizabeth Jordan and Marion Porath, Dept. of Educational and Counselling Psychology, Faculty of Education, UBC

Social Networking. Shane Dawson, Post-doctoral Fellow, TAG and ISoTL.

### **Learning with the Literature Events**

Learning with the Literature sessions involve a brief presentation of a published paper and a moderated discussion of the implications for the scholarship of teaching and learning. It is an opportunity to: discuss compelling ideas from the literature, share perspectives on the scholarship of teaching and learning, prompt new insights into one's own research and practice/praxis, and network with ISoTL colleagues.

March 11, 2008 - Alice Macpherson, Kwantlen University College **Kwantlen University College's New eJournal: Transformative Dialogues: Teaching and Learning Journal**

## **“In Progress” Events**

At In Progress events (Research in Progress – RIP; Learning in Progress – LIP and Practice in Progress – PIP) guests outline their current research, then raise a specific question, issue or point for group discussion. Sessions are moderated by Alice Cassidy. This series aims to support SoTL through dissemination, discussion, feedback, collaboration and the establishment of networks internal and external to the UBC. In the recent past, we have offered sessions led by colleagues at UBC, from other post-secondary institutions in BC, and from other countries as well.

### *Research in Progress*

June 11, 2010 Kathryn Sutherland, of Victoria University in Wellington, New Zealand. **An international study of successful early career faculty, conducted at 12 different institutions in three different countries (Canada, New Zealand, and Sweden).**

April 12, 2010 Roselynn Verwoord, Instructor, Family and Community Counselling Diploma Program at Native Education College (NEC). **Structuring and presenting data from a SoTL research project conducted at Native Education College (NEC) involving graduates of a course to provide input on a medicine-wheel approach to course objectives and assignments.**

September 23, 2009 Alan Ovens, Principal Lecturer and Deputy Head of School (Academic), Critical Studies in Education, Faculty of Education, University of Auckland and Tony Clarke, Associate Professor, Curriculum Studies, University of British Columbia. **Navigating the complexity of professional development: What has reflection and context got to do with it? How context mediates learning, particularly in teacher education, and reflections on complexity science.**

March 12, 2009 (during UBC's Celebrate Research Week) Leah Macfadyen, Skylight, Faculty of Science. **Using Course Management System Data as a Force for Good? Applying Academic Analytics to Teaching and Learning. UBC's new course management system ('Vista') collects and compiles detailed data on student online activity. Do these correlate with student success? Can we identify trends to identify 'at risk students' early, and strategically intervene? Join us to hear results of a research study and help identify future directions.**

January 22, 2009 Jocelyn Lymburner, Faculty, Department of Psychology, Kwantlen Polytechnic University. **Beliefs of students and instructors about 'course rules' and leniency behaviours.**

### *Learning in Progress*

October 27, 2009 Dawn Garbett, Associate Dean, Teaching and Learning and Principal Lecturer in the School of Science, Mathematics & Technology, Faculty of Education University of Auckland. **Teaching isn't as difficult as you make it out to be! Sharing experiences and insights on efforts to learn new skills is connected to learning to become proficient in learning about teaching.**

### *Practice in Progress*

January 7, 2010 Alice Cassidy, Associate Director, TAG/Network Coordinator, ISoTL; Gary Poole, Director, TAG/ Founding Director, ISoTL; Lydia Jones, Resource Room Coordinator, TAG; Harry Hubball, Associate Professor, Curriculum and Pedagogy, Faculty of Education and Alice MacPherson, PLA Coordinator, Kwantlen Polytechnic University. **We shared our learning from 2009 conference of International Society for the Scholarship of Teaching and Learning (ISSoTL) and talked about SoTL more generally.**

## National and International Work

From 2006-2010, Alice Cassidy has been the Vice-chair, Professional Development for the national Educational Developers Caucus. In this role, Alice has championed SoTL during annual conferences and built it into the general and annual general meetings' professional development sessions. Strong networks have been built across the country during this time. As one example, Alice is part of a multi-year research project, involving seven post-secondary institutions: Mapping the Canadian Educational Developer (ED) Landscape: Demographics and Practices of Post-Secondary Educational Development Centres. Peer-reviewed presentations on this work have been made at conferences of the Society for Teaching and Learning in Higher Education at the University of New Brunswick in June, 2009, and at the Educational Developers Caucus at Thompson Rivers University in February, 2010.

In 2009/2010, Gary Poole made a number of national international invited presentations. In doing so, he has developed stronger international linkages, disseminated UBC research in SoTL and promoted the Institute as a leader in teaching and learning research.

*The Pursuit of the Scholarship of Teaching and Learning in Canada: Good, But Not Good Enough.* Special Presentation to the Congress of the Humanities and Social Sciences. Ottawa, Ontario. May 26, 2009.

*Designing and Using Learning Spaces Well.* Presentation to the University of Portsmouth. May 14, 2009.

*From Learning Spaces to Learning Homes.* Presentation to the Leeds Metropolitan University. May 13, 2009.

*The Promise of the Scholarship of Teaching and Learning: Fulfilled or Unfulfilled?* Opening **Keynote**. Opportunities and New Directions Conference. University of Waterloo, May 6, 2009.

An important international venue for ISoTL-supported work is the annual meeting of the ISSOTL. Recent conference presentations by members of the UBC teaching community include the following:

### **Expectations and Assessment of Online Participation: An Opportunity for Learner Input**

*Mary Clark, UBC, Sue Stanton, UBC*

### **A Digital Divide in Higher Education**

*Karen Gardner, UBC*

### **A Scholarly Approach Towards Developing Academic Leadership**

*Luisa Canuto, UBC, Gary Poole, UBC*

### **Practising What We Preach: Applying Evidence-Based Guidelines to Conference Pedagogy**

*Gary Poole, UBC, Adrian Lee, University of New South Wales, Australia; Gregory Light, Northwestern University, Alice Cassidy, UBC*

### **Evaluating a Model for the Distance Supervision of Research Projects**

*Sue Stanton, UBC*

### **Focused, Short-Term, Interdisciplinary Research Teams: Implications for our Practice**

*Alice Cassidy, UBC, Gary Poole, UBC, Wes Schreiber, UBC, Marina Milner-Bolotin, Ryerson University, Niamh Kelly, UBC, Karen Gardner, UBC, Donna Drynan, UBC, Joanne Nakonechny, UBC, Marion Clauson, UBC, Carol Pollock, UBC; Jackie Stewart, UBC, Kathy Nomme, UBC*

### **Using CMS Data as a Force for Good? Applying Academic Analytics to Teaching and Learning**

*Leah Macfadyen, UBC, Shane Dawson, Queensland University of Technology, Australia*

### **Development of a SoTL Project on the Assessment of Student Attitudes Towards Biological Sciences in a Non-majors First Year Biology Course**

*Kathy Nomme, UBC, Gulnur Birol, UBC, Jennifer Klenz, UBC, Sandra Keerthisinghe, UBC*

**The Scholarship of Undergraduate Degree Program Reform: Learning-centred Approaches to Curriculum Practice in Diverse University Settings**

*Harry Hubball, UBC*

**The Evaluation of Teaching Practice through the Monitoring and Analysis of e-Indicators**

*Shane Dawson, Queensland University of Technology, Australia, Michelle Lamberson, UBC, Gary Poole, UBC*

**How do Cell Biology Students Learn Effectively?**

*Gulnur Birol, UBC, Ellen Rosenberg, UBC, Joanne Nakonechny, UBC, Lacey Samuels, UBC*

**Findings of the Impact of a Non-majors First Year Biology Course on Students' Attitudes Towards Biological Sciences**

*Gulnur Birol, UBC, Kathy Nomme, UBC, Sandra Keerthisinghe, UBC, Jennifer Klenz, UBC*

**Implementation of a First Year Biology Learning Group Pilot Study**

*Tamara Kelly, UBC, Karen Smith, UBC, Gulnur Birol, UBC, George Spiegelman, UBC*

**Does Homework Improve Conceptual Understanding and Writing Ability of First Year Biology Students?**

*Tamara Kelly, UBC, Rosemary Redfield, UBC*

**Will Students Avail of a Peer Feedback System to tell Each Other if they have Concerns about Professionalism?**

*Niamh Kelly, UBC*

**Navigating from the Local to the Cosmopolitan: Expanding the SOTL Commons**

*George Rehrey, Indiana University, Dan Bernstein, University of Kansas, Crisca Bierwert, University of Michigan, Tom Carey, Merlot Cooperative, Alice Cassidy, UBC, Jane Cirillo, Houston Community College, Snnah McGowan, Georgetown University, Gary Poole, UBC, Kristie Roberts, Clark Atlanta University, Paul Savory, University of Nebraska - Lincoln, Cammy Shay, Houston Community College, Jennifer Meta Robinson, Indiana University, Amy Burnett, University of Nebraska - Lincoln, Amy Goodburn, University of Nebraska - Lincoln,*

**Test Construction Issues in Post Secondary Organic Chemistry**

*Jaclyn Stewart, UBC*

**"Geer" to Global Citizen, Learner to Teacher: The Role of Community in Professional and Curricular Development**

*Annette Berndt, UBC, Carla Paterson, UBC*

**Closing Keynote: SoTL – Past, Present and Future**

*Pat Hutchings, Carnegie Foundation for the Advancement of Teaching, Gary Poole, UBC, Carolyn Kreber, University of Edinburgh, UK*

**The Research Collaboration Program Completed**

From 2004 to 2009, the Research Collaboration Program offered four rounds of funding. Each of 15 projects received \$10,000 of funding to hire a graduate research assistant. Examples of publications and presentations stemming from these projects include:

- Aman, C., Poole, G., Dunbar, S., Maijer, D., Hall, R., Taghipour, F., & Berube, P. (2007). Student learning teams: viewpoints of team members, teachers and an observer. *Engineering Education Journal of the Higher Education Academy*, 2(1), 2-12.
- Butler, D.L., Pollock, C., Nomme, K., & Nakonechny, J. (2006). Promoting authentic inquiry in the sciences: Avoiding and overcoming students' nonscientific epistemology. In B. M. Shore, M. W. Aulls & M. A. B. Delcourt (Eds.), *Inquiry in education: Where ideas come from and where they lead*. Mahwah, NJ: Erlbaum. (41 pages).
- Milner-Bolotin, M., A. Kotlicki, et al. (2007). "Can Students Learn from Lecture Demonstrations: The Role and Place of Interactive Lecture Experiments in Large Introductory Science Courses." *Journal of College Science Teaching* January-February: 45-49.
- Milner-Bolotin, M. and R. Moll (2008). Physics Exam Problems Reconsidered: Using Logger Pro to Evaluate Student Understanding of Physics. *The Physics Teacher*. 46(8), 494-500.



- Milner-Bolotin, M., R. Moll, et al. (2007). The Impact of Interactive Lecture Experiments on Student Academic Achievement, Motivation and Attitudes towards Science. Winter 2007 Meeting of the American Association of Physics Teachers, Seattle, WA, AAPT.
- Milner-Bolotin, M. and D. Phelps (2006). Inquiry-based activities for teaching electro-magnetism. High Energy Physics - BC Professional Development Day for Science Teachers, TRIUMF, Vancouver, BC APT.
- Schreiber WE, Busser JR, Huebsch S. (2008). A portable laboratory test reference for handheld computers: Evaluation on an internal medicine clerkship. *American Journal of Clinical Pathology*, 129, 439-44.
- Schreiber WE, Busser JR, Huebsch S. (2008). Which laboratory tests do students on an internal medicine clerkship need to learn about?. *American Journal of Clinical Pathology*, 130(5), 696-701.

## Summary

For those working in the scholarship of teaching and learning, effective support and dissemination continue to be key challenges. Given the University's substantial investment in pedagogical research, bolstered considerably by the CWSEI, the need to support this growing community of scholars and to help the University reap the most benefit from this work is more pressing than ever.

Research is showing that SoTL thrives when it is owned by the disciplines (Trigwell, 2008). At the same time, SoTL research is inherently interdisciplinary in nature, as demonstrated by our successful Research Collaboration Program and the new Teaching Scholars Program. This paradox is best managed by the provision of support, network building, and dissemination from a central unit such as the Institute for the Scholarship of Teaching and Learning. For the future, the challenges for the Institute remain clear: continue to provide this support, enhance the culture for SoTL, and help maximize its benefit to the University.

## References

- Trigwell, K. (2008). *The relational view of teaching-learning relations*. Keynote presentation to Taking Stock: Symposium on Teaching and Learning Research in Higher Education. Higher Education Quality Council of Ontario, Guelph, Ontario, April 26, 2008.

# THE UNIVERSITY OF BRITISH COLUMBIA



Vancouver Senate Secretariat  
Senate and Curriculum Services  
Enrolment Services  
2016-1874 East Mall  
Vancouver, BC V6T 1Z1

30 April 2010

To: Vancouver Senate

From: Agenda Committee

**Subject: Annual Reporting Requirement for the Institute for the Scholarship of Teaching & Learning**

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When Senate approved the establishment of the Institute for the Scholarship of Teaching & Learning (ISoTL) in May 2004, the Provost was directed to make an annual report to Senate on the activities and operations of the new Institute. Since that time, the Agenda Committee has been pleased to receive these annual reports and place them on the Senate agenda for your information.

Given that six years have passed since the establishment of ISoTL, and that annual reporting is not required of other institutes, the Agenda Committee suggests that an annual report from the Provost directly to the Senate is no longer necessary.

Because of the relevance of ISoTL's activities to the work of the Senate Teaching & Learning Committee, the Agenda Committee recommends that the annual report be submitted to the Teaching & Learning Committee. The Committee would then report to Senate as necessary. On behalf of the Teaching & Learning Committee, the Chair has indicated willingness to undertake this role if so assigned by the Senate.

The Agenda Committee therefore recommends as follows:

***Motion:*** That Senate amend its May 19, 2004 requirement for an annual report on the activities and operations of the Institute for the Scholarship of Teaching and Learning to direct that the report be submitted to the Senate Teaching & Learning Committee in lieu of the Senate.



**Provost and Vice President Academic**

6328 Memorial Road  
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Tel: 604-822-4948

Fax: 604-822-3134

**MEMORANDUM**

April 8, 2010

To: Senate, Vancouver  
c/o Lisa Collins, Associate Registrar, Senate and Curriculum Services

From: David H. Farrar  
Provost and Vice President Academic

A handwritten signature in dark ink, appearing to read 'DAF', followed by a horizontal line.

Re: **Establishment of the Quantum Matter Institute within the Faculty of Science**

**Recommendation:**

I recommend that Senate approve the establishment of the Quantum Matter Institute, within the Faculty of Science, effective May 1, 2010.

**Background:**

The Quantum Matter Institute will be a single-Faculty academic research facility, within the Faculty of Science, part of an emerging vision for UBC to house a world-renowned centre for quantum matter research. Building on the international reputation of leading research in correlated electron systems and especially transition metal oxides (TMO), George Sawatzky (Physics and Astronomy/Chemistry) and Douglas Bonn (Physics and Astronomy) are leading current initiatives in the new field of transition metal oxide (TMO) interfaces and heterostructures. This is being done in consultation with members of the Advanced Materials Process Engineering Laboratory (AMPEL) as well as the Pacific Institute for Theoretical Physics (PITP) at UBC. The University's strength in the area of quantum matter research is built on a decade of theoretical and experimental work by internationally recognized leaders and rising stars, now ideally placed to establish a core research facility of international renown. The goal is to take this research to the next level of preparing new classes of materials and devices based on physical atom-by-atom preparation methods and theoretical insight into the properties of TMO materials and their interfaces. These engineered TMO films and heterostructures are expected to transcend the current limitations of today's nanostructured sensors, memory devices, solar cells and other electronics-based devices.

Attachment: Quantum Matter Institute – Executive Summary, by Drs. George Sawatzky and Douglas Bonn, March, 2010.

## **Quantum Matter Institute – Executive Summary**

**Mission:** The Quantum Matter Institute will provide a platform for development of new materials and devices, based mainly on the huge diversity of properties of strongly correlated electron systems evolving from quantum mechanical concepts. The specific intent of the Quantum Matter Institute (QMI) is to facilitate translation of the theoretical and experimental understanding of these systems to enhanced technological capabilities in nanostructure quantum material devices. In this wide range of new materials, the transition metal oxides (TMO) and transition metal oxide interfaces and heterostructures play a special role. The first step towards this goal is to improve our knowledge of these TMO systems such that they can be prepared with predictable and high-quality interfaces that exhibit unique properties. Establishment of QMI is an essential mechanism for building UBC's research capacity and leading the way into a new era of materials research with applications in the electronics and information fields, the automotive industry, the health care sector and sustainable energy systems.

**Rationale:** The University has demonstrated strategic commitment to materials research and has already created a solid base of researchers, facilities and infrastructure in support of the QMI; for example, through the allocation of CRCs. On a global scale, the QMI will ensure that UBC and Canada play a leading role in major materials research discoveries and resulting strategic enabling technologies. This will enhance Canadian innovation and competitiveness, and generate social and economic benefits to improve Canadians' standard of living and quality of life.

The Quantum Matter Institute will build on the success of an existing quantum materials research focus, established in the Department of Physics & Astronomy at UBC, and physically located in the Advanced Materials Process and Engineering Laboratory (AMPEL), founded in 1996. AMPEL includes a range of globally-renowned theoretical and experimental physicists, chemists, and engineers, with shared infrastructure dedicated to materials and device development. AMPEL has extensive facilities for preparing, characterizing and researching new materials and structures, measuring their properties, and modelling new devices from them. QMI will bring together the new facilities for atom-by-atom growth of new materials, new methods for atomic imaging, and the theoretical expertise of Pacific Institute of Theoretical Physics (PITP) participants. QMI will also have the unique advantage of ready access to facilities, such as synchrotron-based spectroscopic beamlines at the Canadian Light Source (developed by some QMI researchers), and the TRIUMF-based facilities for condensed matter physics research, in close proximity. The outstanding opportunity to provide a focus for the existing and new facilities will put UBC in the best position to successfully recruit additional world-class investigators, to attract additional donor funding and to propel UBC and Canada to the leading edge of quantum matter research.

**Research Background:** A central goal of modern materials research and nanoscience is the control of materials and prediction of properties of materials and their interfaces all the way down to the atomic dimensions. In the search for ever-higher functionality in solid-state devices, transition metal oxides are fascinating and particularly promising systems. In addition to the more conventional semiconducting, dielectric, metallic, and magnetic properties, which can be tuned by varying the materials' composition, transition metal oxides display a vast array of unique phenomena. These include high temperature (and unconventional) superconductivity, 'colossal' magnetoresistance, all forms of magnetism and ferroelectricity, as well as (quantum) phase transitions and couplings between these states.

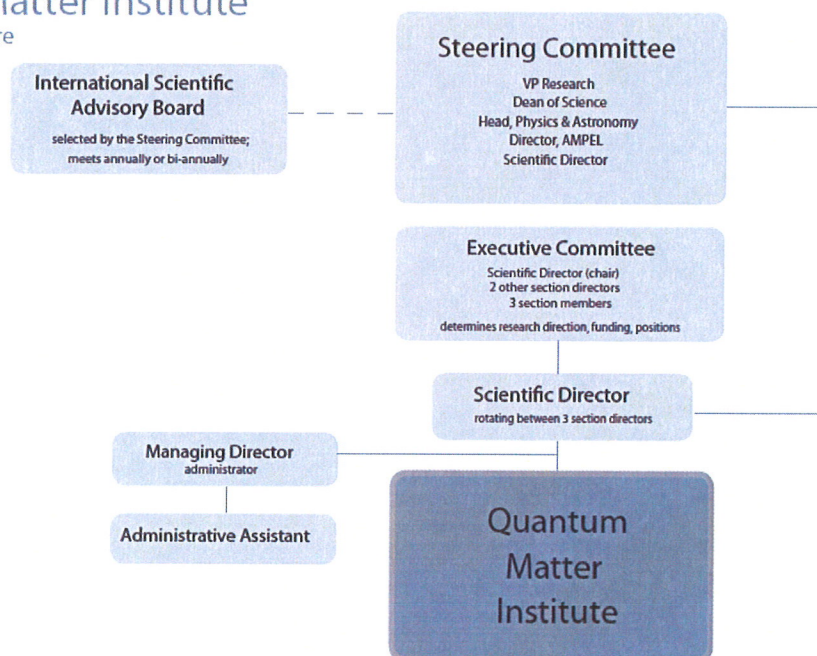
Our new focus is to develop the science and technology arising at the physical interface between different quantum materials. Using novel techniques we have developed for constructing thin film oxide heterostructures with atomic precision, new states of matter can be created at these interfaces. Between two nonmagnetic insulators, for example, metallic, superconducting, and magnetic states can be induced and actively controlled by external stimuli. In analogy to the rich physics and commercial devices that emerged from the development of semiconductor heterostructures, we will create novel low-dimensional

states inaccessible in bulk oxides, accessing the full versatility enabled by these strongly correlated quantum mechanics-based electron systems. The objectives include the development of new multifunctional interface systems, their fundamental understanding and control, and their application in device geometries.

There are profound strengths at UBC in the study of quantum materials by theory, bulk synthesis, microwave response, soft x-ray scattering, photoemission spectroscopy, muon spin resonance and beta nuclear magnetic resonance, and mesoscopic physics. Establishment of QMI will put UBC in an excellent position to attract world-class talent in related fields, thus bridging fundamental studies and applications of these novel materials, and to facilitate donor funding initiatives. Together with the existing expertise, formal establishment of the Quantum Matter Institute will provide a unique focal point in the science and technology of quantum materials at UBC, and Canada will be in an excellent position to play a leading role in this paradigm-shifting field of science and technology.

### *Governance Structure:*

#### Quantum Matter Institute Governance structure

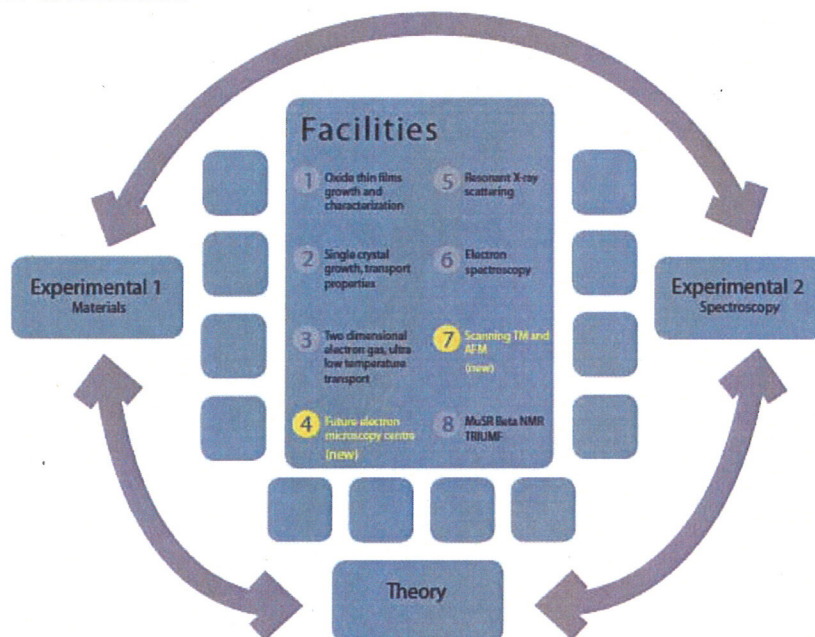


### *Funding Details:*

The QMI budget (Budget Details Table, below) is based on the proposed structure of the QMI (See Scheme, below). The management part includes a managing director and an administrative assistant, in addition to already present committee members and faculty members. The research part of the QMI consists basically of 8 experimental research groups and 4 theoretical research groups, and a total of 8 central service groups as in the proposed structure in the figure below.



## Quantum Matter Institute



The experimental groups will on average have 4 PhD students, 1 research associate, and 2 post doctoral fellows each. Each experimental research group will also be responsible for one of the central service groups utilizing the expertise of the research associates. The central service groups and the research associates will be aided by a total of 5 technical support staff.

The theoretical research groups will on average have 2 graduate students each and 2 post doctoral fellows.

The resulting costs of each of these categories are listed in the budget details table, below. The graduate students' income is rather low in that table because only the research part and not the teaching assistant part of their total income is considered as a cost to the QMI.

The management office costs are based on office supplies and the costs of the international scientific advisory committee meetings once every two years.

The expected income is based on 4 sources. Individual grants from Tri-council (mainly NSERC) and other Canadian funding agencies, donor funding, scholarships and international exchange agreements, and internal sources (consisting of combined Faculty of Science, Physics Department and VPRI office of UBC contributions). We do not include the equipment funds or the renovation costs here, as we are concentrating only on the operational costs.

The Canadian funding agencies support is estimated based on the current funding of 12 research groups in condensed matter physics at UBC. We expect this funding to increase considerably with the hiring of several new faculty members at the CRC level, with at least one at the full professor level.

The donor funding, shown as \$1,590,000 yearly, is a portion of a total \$13 million commitment that is available for the QMI.

## Budget Details

	position/expense	number	yearly cost
<b>QMI general costs</b>	Manging director	1	80,000
	Administrative assistant	1	35,000
	Central QMI costs		30,000
<b>Experimental personnel (8 groups)</b>	Research associate (1x8)	8	720,000
	Technician (5 shared)	5	350,000
	Postdoctoral fellow (2x8)	16	1,040,000
	Graduate student (4x8)	32	480,000
<b>Experimental operating budget (8 groups)</b>	Consumables (He, solvents, etc.); travel, conferences, field work; publication costs: 8x80,000	8	640,000
<b>Theory personnel (4 groups)</b>	Research associate	0	0
	Technician	0	0
	Postdoctoral fellow (2x4)	8	520,000
	Graduate student (2x4)	8	120,000
<b>Theory operating budget (4 groups)</b>	Travel, conferences: publication costs: 4x10,000	4	40,000
<b>TOTAL</b>			<b>4,055,000</b>

YEARLY FUNDING		
<b>Grants</b>	NSERC	1,749,558
<b>Donor</b>	see table	1,590,000
<b>Graduate scholarship</b>	12	180,000
<b>PD scholarship</b>	6	390,000
<b>Internal sources</b>	QMI general	145,000
<b>TOTAL</b>		<b>4,054,558</b>

Personnel yearly salary	
Position	yearly cost
Manging director	80,000
Administrative assistant	35,000
Research associate	90,000
Technician	70,000
Postdoctoral fellow	65,000
Graduate student	15,000
Exp operating budget	80,000
Theory operating budget	10,000

DONOR funding	
\$2,160,000	
6 @ \$90,000/yr x 4 yrs	
\$2,080,000	
8 @ 65,000/yr x 4 yrs	
\$720,000	
12 @ \$15,000/yr x 4 yrs	
\$1,400,000	
5 @ \$70,000/yr x 4 yrs	
<b>1,590,000</b>	

**Provost and Vice President Academic**6328 Memorial Road  
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**MEMORANDUM**

April 13, 2010

To: Senate, Vancouver  
c/o Lisa Collins, Associate Registrar, Senate and Curriculum Services

From: David H. Farrar  
Provost and Vice President Academic

A handwritten signature in dark ink, appearing to read 'DH Farrar', followed by a horizontal line.

Re: **Disestablishment of the Centre for International Health**

**Recommendation:**

I recommend that Senate approve the disestablishment of the Centre for International Health, effective July 1, 2010

**Background:**

The proposal to establish the Centre for International Health in the Office of the Coordinator of Health Sciences (now named the College of Health Disciplines) was approved by Senate on May 20, 1998. The Centre's mission was to support linkages between faculties, departments and other organizations concerned with international issues in the health sector, stimulating interdisciplinary educational, experiential and research opportunities for students and faculty, and serving as a focus for scholarly development within the academic community on the complex and challenging issues associated with global health strategies.

The work in international/global health undertaken in the Centre for International Health now takes place within the theme on vulnerable populations and global health in the School of Population and Public Health, Faculty of Medicine, thus maximizing capacity and resources.

Disestablishment of the Centre for International Health has the support of Dr. Louise Nasmith, Principal, College of Health Disciplines and Dr. Gavin Stuart, Vice Provost and Dean, Faculty of Medicine.