

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

Vancouver Senate

AGENDA

THE FOURTH REGULAR MEETING OF THE VANCOUVER SENATE FOR THE 2010/2011 ACADEMIC YEAR

WEDNESDAY, DECEMBER 15, 2010

7:00 P.M.

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

1. **Senate Membership -- Mr. James Ridge**
New Member: Elected by the Faculty of Medicine - Dr. Peter Leung (information)
2. **Minutes of the Meeting of November 17, 2010 -- Prof. Stephen J. Toope**
(approval) (circulated)
3. **Business Arising from the Minutes**
4. **Remarks from the Chair and Related Questions -- Prof. Stephen J. Toope**
 - a. Report on President's Activities - 16 August to 31 October 2010 (information) (circulated)
5. **Discussion Paper: International Strategy¹**
The Agenda Committee recommends recognition of guest presenter Dr. John Hepburn, Vice-President, Research & International and Ms. Helen Pennant, Executive Director, International (information) (circulated)
6. **Academic Policy -- Dr. Paul Harrison**
Doctoral Students deemed "Full-Time with Reduced Workload" - Faculty of Graduate Studies (approval) (circulated)
7. **Admissions Committee -- Dr. Richard Anstee**
(approval) (circulated)
 - a. Bachelor of Education - Changes in Admission Requirements
 - b. English Language Proficiency Standards and GRE Requirements - Faculty of Graduate Studies
 - c. Doctoral Degrees: English Language Proficiency Requirement - Faculty of Graduate Studies
 - d. Applicants Following the BC/Yukon Secondary School Curriculum - English 11 First Peoples
 - e. Minimum Academic Standard for Secondary School Applicants

.../continued

1. Suggested time limit of 30 minutes.

8. **Curriculum Committee -- Dr. Peter Marshall**
Curriculum Proposals from the Faculties of Applied Science, Arts, and Forestry (approval) (circulated)
9. **Joint Admissions and Curriculum Committees -- Dr. Peter Marshall**
New Program Proposals for a Master of Engineering in Engineering and Public Policy, and for New Combined Programs of Doctor of Philosophy in Craniofacial Science with Diplomas in Endodontics and Periodontics (approval) (circulated)
10. **Nominating Committee -- Dr. Rhodri Windsor-Liscombe**
Adjustment to Committee Membership (approval) (circulated)
11. **Student Awards Committee -- Dr. Brian Cairns**
New Awards (approval) (circulated)
12. **Tributes Committee -- Dr. Sally Thorne**
Candidates for Emeritus Status (approval) (circulated)
13. **Proposed Agenda Items**
14. **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

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

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MINUTES OF NOVEMBER 17, 2010

Attendance

Present: Mr. S. Haffey (Vice-Chair of Senate, Meeting Chair), Mr. J. Ridge (Secretary), Dr. R. Anstee, Mr. K. Arciaga, Dean G. Averill, Dr. K. Baimbridge, Dean M. A. Bobinski, Dr. J. Brander, Dr. B. Cairns, Ms. B. Craig, Mr. G. Dew, Ms. A. Dulay, Dr. W. Dunford, Mr. A. C. Embree, Dr. D. Farrar (Provost & Vice-President, Academic), Rev. Dr. S. Farris, Dr. D. Fielding, Ms. M. Friesen, Mr. C. Gorman, Mr. A. J. H. Hajian, Dr. W. Hall, Dr. P. G. Harrison, Mr. E. Hilmer, Dean M. Isman, Dr. A. Ivanov, Mr. D. H. Kim, Ms. A. Koehn, Dr. B. S. Lalli, Dr. B. Larson, Dr. D. Lehman, Dr. P. Loewen, Dr. P. L. Marshall, Dr. W. McKee, Mr. W. McNulty, Mr. J. Mertens, Mr. C. Meyers, Mr. M. Murray, Principal L. Nasmith, Dr. G. Öberg, Dr. C. Orvig, Dr. K. Patterson, Dean S. Peacock, Mr. B. Perrin, Dr. J. Plessis, Mr. S. Rasmussen, Mr. J. Rebane, Dr. A. Riseman, Dr. T. Ross, Mr. J. Scafe, Dr. S. Singh, Ms. R. Sneath, Dr. R. Sparks, Dr. J. Stapleton, Dr. B. Stelck, Dr. S. Thorne, Dr. M. Vessey, Ms. L. Watt, Dr. R. Windsor-Liscombe, Mr. J. Yang, Dr. R. A. Yaworsky.

Guests: Mr. M. Bluhm, Mr. I. Burgess, Ms. S. Crampton, Mr. A. Dhesi, Dr. A. Kindler, Dr. N. Knight, Ms. S. Nakata, Mr. P. Ouillet, Mr. A. Parr, Dr. W. Pue.

Regrets: Dean T. Aboulnasr, Ms. K. Aminoltejari, Principal M. Burgess, Ms. C. Colombe, Dean B. Evans, Mr. R. Gardiner, Mr. F. Grajales, Dean J. Innes, Dr. S. B. Knight, Mr. D. Leung, Mr. B. MacDougall, Ms. S. Morgan-Silvester (Chancellor), Dean D. Muzyka, Ms. I. Parent, Dr. L. Rucker, Ms. E. Segal, Dean *pro tem* J. Shapiro, Dean C. Shuler, Dean R. Sindelar, Dean G. Stuart, Mr. D. Thakrar, Prof. S. J. Toope (President and Chair), Dr. M. Upadhyaya, Mr. D. Verma, Dr. R. Wilson.

Recording Secretary: Ms. L. M. Collins.

Call to Order

In the absence of the President, Vice-Chair Mr. Haffey called to order the third regular meeting of the 2010/2011 academic year.

Senate Membership

The Secretary announced the recent election of two Student Senators:

Mr. Matt Murray (Faculty of Forestry); and

Ms. Robyn Sneath (Faculty of Education).

Minutes of the Previous Meeting

<i>Dr. Windsor- Liscombe Dr. McKee</i>	<i>}</i>	<i>That the minutes of the meeting of September 15, 2010 be adopted as circulated.</i>
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Carried.

Candidates for Degrees and Diplomas

<i>Dr. Loewen Mr. Mertens</i>	<i>}</i>	<i>That the candidates for degrees and diplomas, as recommended by the Faculties, be granted the degree or diploma for which they were recommended, effective November 2010, and that a committee comprised of the Registrar, the appropriate dean, and the Chair of the Vancouver Senate be empowered to make any necessary adjustments.</i>
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Carried by the
required two-
thirds majority.

Financial Statements 2009/2010 and Budget Outlook

The assembly recognized guest presenters Mr. Pierre Ouillet, Vice-President, Finance, Resources & Operations, and Mr. Ian Burgess, Comptroller.

FINANCIAL STATEMENTS 2009/2010

Pursuant to Section 32(2) of the *University Act*, the Vice-President, Finance, Resources and Operations had submitted to the Secretary the Consolidated Financial Statements for the fiscal year ending 31 March 2010. The Statements were available at

Financial Statements, continued

www.finance.ubc.ca under 'Financial Reports'. Mr. Burgess gave an overview of the Statements, summarized as follows:

- March 31, 2010 Consolidated Financial Statements had been approved by UBC's Board of Governors on June 3, 2010. KPMG had returned an Unqualified Audit Opinion.
- Total revenue: \$1 964 m, up 33 percent over the previous year.
- Sources of total revenue included: 37 percent from the Province of British Columbia, 18 percent from student fees, and 12 percent from the Government of Canada.
- Total assets: \$3 898 m, up seven percent.
- Endowment market value: \$969 m, up 12 percent over the previous year, with returns in the amount of 13.9 percent in 2009/2010.
- Total expenses: \$1 829 m.
- UBC's long-term debt ratings: Standard & Poor AA+, Moody's Investors Service Aa1.

DISCUSSION

In response to a question from Mr. Gorman, Mr. Burgess stated that the majority of the Financial Statements (and his presentation) referred to the University system rather than to the Vancouver campus.

BUDGET OUTLOOK

Dr. Farrar delivered a report on the 2011/2012 budget model and process, summarized as follows:

A new budget model had been implemented for 2010/2011, with the goal of producing a transparent and sustainable budget. 2010/2011 actuals to date were aligned with the first budget to be produced under this model. Faculty and administrative-unit reviews had been linked to the budget process.

No across-the-board cuts would be required to produce a balanced operating budget for 2011/2012. Meeting obligations on salary progression (particularly with fewer people

Budget Outlook, continued

retiring) and building operating costs within the current budget would be challenging. Provincial government support remained strong, with no cuts expected to the operating grant and strong support evident for several new academic buildings. The near-elimination of the Annual Capital Allowance added budgetary pressure.

Endowment spend-rate reductions had been managed and the spend rate was to remain at 3.5 percent.

Unlike many other institutions, UBC had no pension liability related to the 2008 financial crisis due to pension-plan structures for faculty and staff.

Enrolment management remained critical to managing the budget. For the Vancouver campus:

- Undergraduate enrolment would be reduced slightly to meet the government-funded target, with national enrolment planned to grow to 20 percent of total annual intake over the following years.
- Target international undergraduate enrolment would be increased to 15 percent of the total undergraduate population.
- Transfer-student enrolment targets would be gradually decreased.
- The ultimate target for graduate student enrolment was 25 percent of the student population, although this goal could not be reached without additional government funding.

Three-year and 10-year budget plans had been developed to maximize budgetary stability and manage areas of stress, e.g., building operating costs, need for IT systems renewal. Major risks for the University included provincial government funding stability, international student enrolment numbers, the degree to which the University was permitted to incur debt to fund student housing and other projects, and factors related to the implementation of the Campus Plan.

Budget Outlook, continued

DISCUSSION

Mr. Hajian asked whether recruiting additional international graduate students would help increase revenue. Dr. Farrar explained that, although international students were desirable for other reasons, there was no revenue to be gained in this way due to the provincial student funding model.

In response to a question from Mr. Rebane, there was discussion about management of the University endowment. Dr. Farrar and Mr. Ouillet stated that the Board of Governors, working with the wholly owned subsidiary UBC Investment Management Trust (IMANT), set a risk profile for investments. The goal was to earn 6.5 percent per year to cover the spend rate, management costs, and inflationary costs. Mr. Ouillet noted the need to balance protecting the endowment against market losses while also growing the university's investments.

In response to a question from Mr. Rasmussen about the effect of salary increases on the budget, Dr. Farrar noted that the provincial government had effectively frozen salary increases for two consecutive years. Mr. Burgess indicated that approximately one percent was built into the budget for salary increases after the second year.

Dr. Singh asked about the relative stability of provincial funding commitments in the current fiscal climate. Dr. Farrar stated that the University had entered into a three-year agreement with the provincial government. Although governments had changed these plans in the past, recent indications were relatively positive. Because 49 percent of the University's operating budget was derived from government funding, however, this was acknowledged as the University's single most significant risk.

Academic Building Needs Committee

Committee Chair Dr. Sparks presented the reports.

REPORT ON COMMITTEE ACTIVITIES

The Committee had circulated for information a report on Committee activities for the 2009/2010 year, including an overview of the Committee's role, its 2009/2010 work plan, and a list of meetings. The following is an excerpt from the report:

Overview

For 2009/2010, the Committee agreed to follow the priorities set out during the first year of its triennium (May 13, 2009 Oral Report to Senate), namely to fulfill its advisory role on the Property and Planning Advisory Committee (PPAC), but also to interpret its terms of reference broadly, and to identify and engage academic issues in campus planning and development through consultation with faculty and professional staff, as well as with the administration and peer committees on the Board of Governors and Okanagan Senate.

...

Comments

- One of the questions the Committee has wrestled with during its first two years is how to contribute to effective consultation and advisement in University facility and land use without overstepping its terms of reference as a policy and governance body. The dual concerns of campus sustainability and accessibility have proven a useful context in which to work through these issues as well as to contribute to positive change.
- In addition to participating as voting members on PPAC, the Committee has elected to fulfill its consultative and advisory roles through consultations with planning groups on campus, as noted above. During 2009/2010, the Committee also consulted with Andrew Irvine, Chair, BOG Property and Planning Committee and Daniel Keyes, Chair, UBC Okanagan Senate Academic Building and Resources Committee, about the potential for a system-wide policy on accessibility.
- A priority for the Committee in the coming year will be to re-examine, in consultation with professional staff, the facility and land use planning processes at UBC with an eye to enhancing timely consultation and information flows and better use of faculty members and students as resources both within and outside of SABNC and PPAC.

Academic Building Needs Committee, continued

- The Committee will seek to encourage better and more timely information flows about building projects for Senate as well, potentially, as for the broader campus community.
- In the interim, this report constitutes a first step in making the activities of SABNC and PPAC more transparent to Senate. SABNC reports in the recent past were given orally which did not provide a sufficient level of detail to identify individual consultations and building projects.
- The Committee would be pleased to receive comments and suggestions.

DISCUSSION

Dr. Windsor-Liscombe was supportive of the Committee taking a proactive approach toward long-term academic planning. He emphasized the need for a conduit for thinking about fundamental academic space needs for future. Dr. Sparks agreed, noting that extensive consultation had been conducted on the Campus Plan, and that the Committee had provided input. Dr. Farrar confirmed that long-term planning was underway and noted that a 20-year capital plan had recently presented to the Committee of Deans.

Dr. Windsor-Liscombe asked whether a heritage conservation plan had been established. In particular, he noted the need for clear criteria for heritage designation. The meeting recognized Ms. Knight, who responded that the Campus Plan included a heritage plan.

STUDENT HOUSING DEMAND SURVEY AND CAMPUS HUBS

At the request of Dr. Sparks, the assembly recognized guest presenters Ms. Nancy Knight, Associate Vice-President, Campus & Community Planning and Mr. Andrew Parr, Managing Director, Student Housing and Hospitality Services.

The following is a summary of their presentation:

The purpose of the Student Housing Demand study was to determine the need/demand for future on-campus student housing, to address requests from UBC student societies for more research, and to input the results and findings into the Vancouver Campus Plan. The

Student Housing Demand Study, continued

study was conducted by independent consultants McClanaghan & Associates from February to December 2009. 5684 on- and off-campus students had participated.

Key findings were as follows:

- Students reap strong academic rewards from living on campus.
- Housing need is growing in the city of Vancouver.
- Affordability of the Vancouver housing market is a key concern.
- Transportation options are an important housing choice driver.
- Shops and services are important to both on- and off-campus students.
- High degree of satisfaction with on-campus housing.
- UBC should plan for more student housing over the next 20 years.

In order to meet the demand, the University planned to increase housing capacity by 50 percent by 2030, and to provide a greater variety of housing. 2 500 new student beds would be provided over the following five years, which would result in on-campus housing capacity for 36 percent of the student body.

The “Hub Concept” involved creating five multi-purpose, vibrant precincts around the Vancouver campus. Year-round contracts would be required, and the focus was on upper-year undergraduate students, graduate students, and international students. Mr. Parr gave a brief overview of each of the planned Ponderosa, Brock, Old Armoury, Orchard, and Health Sciences hubs.

DISCUSSION

Mr. Dew noted that students living on campus reported an improved experience, and asked about data on academic performance for this same group. Dr. Farrar stated that data from other universities showed a positive correlation between academic performance and living in on-campus housing, but also noted challenge of determining exact causality.

Student Housing Demand Study, continued

In response to a question from Mr. Mertens about demand for year-round housing in the hub precincts, Mr. Parr noted that, while some students would undoubtedly continue to prefer eight-month housing contracts, year-round occupancy was important to both creating vibrancy on campus during the summer months and to meet mortgage obligations on the new properties. Dr. Farrar suggested that enhanced academic programming and increased employment opportunities during the summer would attract more students to stay on campus year-round.

In response to a question from the Rev. Dr. Farris, Mr. Parr provided additional detail about the planned footprint for the hubs. Mr. Perrin expressed concern that year-round student housing contracts in hubs would limit opportunities for summer employment, internship, or exchange experiences for students. Referring to the proposed Brock Hub, he was concerned about additional density and changes to the landscape. Mr. Parr stated that, while planning formulae were based on a certain level of year-round occupancy, some decrease in occupancy over the summer months was expected. Ms. Knight stated that there would be opportunities to consult on individual hub projects as planning progressed. She stated that concentrating activity on a site would have the effect of creating small neighbourhoods with childcare and fitness facilities and informal social space. She expressed the opinion that the University would not achieve all of its objectives while maintaining low-density buildings. Dean Bobinski noted many beneficial aspects of the hubs, and was pleased to hear that consultation opportunities would be forthcoming.

Dr. Vessey asked about industry standards for combining academic and high-rise living. Dr. Farrar drew attention to UBC's two graduate residential colleges, and stated that undergraduate colleges had been explored at other institutions. Mr. Parr expressed support for exploring residential learning communities and thematic residences.

Student Housing Demand Study, continued

Dr. Ross noted that, even with an expansion to the Totem Park residence, there would still be a shortage of space for first-year students. Mr. Parr agreed, noting that the goal was to be able to offer an unconditional housing guarantee for first-year students, with most of those students to be accommodated in Totem Park and Place Vanier residences.

In response to a question from Mr. Hajian, Mr. Parr noted that (pending Board of Governors approval) a new childcare facility was planned for the University Services Building. In addition, at least 24 childcare spaces were planned for each hub.

In response to a question from Mr. Yang about a demographic shift potentially leading to lower future enrolments, Dr. Farrar explained that UBC was not expected to be affected to the same extent as institutions in other provinces.

Admissions Committee

Committee Chair Dr. Fielding presented the report.

BACHELOR OF EDUCATION: SECONDARY TEACHER EDUCATION

The Admissions Committee recommended for approval a revised calendar entry on admission requirements for applicants to the Bachelor of Education program. The circulated report outlined a number of editorial changes and a reduction in the number of subject areas that required a second area of specialization for admission.

*Dr. Fielding
Dr. Windsor-
Liscombe*

*} That Senate approve the changes in
admission requirements for applicants to the
Bachelor of Education program, effective
for admission to the 2011 Winter Session
and thereafter.*

Admissions Committee, continued

AMENDMENT

Dr. Fielding noted the following correction to the proposal:

p. 5, c. 1: Remove the “C” (Concentration) designation for Career Preparation (CHEF Education).

The assembly
accepted the
amendment by
unanimous
consent.

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

Agenda Committee

Committee Chair Dean Bobinski presented the report.

SENATE MEETING START TIME

The following is an excerpt from the Committee’s report:

As Senate is aware, the Agenda Committee recently directed the Secretary to canvas members of Senate for their opinion on moving the regular meeting time of Senate from 7:00 p.m. to 6:00 p.m. In the course of that review, the Committee noted that the current rule for the timing and location of Senate meetings is very prescriptive. The Committee is of the opinion that consistency in meeting times is advantageous for scheduling but that the setting of time and place in the formal

Agenda Committee, continued

rules of Senate is unnecessary.

*Dean Bobinski
Mr. Hajian*

} *That the Rules and Procedures of the
Vancouver Senate be amended to
adjust Section 16 (a) as follows:*

~~The Senate shall schedule nine (9) regular
Wednesday evening meetings each academic
session, from September through May. Such
meetings shall normally be convened in room
102, George F Curtis Building, and called to
order at 7 pm unless another location, day, or
time is determined by the Agenda Committee for
a specific meeting, and at least seven (7) days
notice of such a change is given to Senators.~~

The Senate shall be scheduled to meet monthly
from September through May at a location,
date, and time as specified by the Agenda
Committee before the start of each Academic
Year. Should a change be made to the location,
date, or time specified for any meeting, at least
seven (7) days' notice of such a change shall be
given to Senators.

DISCUSSION

Dr. Hall noted that seven days' notice of a meeting change might not be sufficient and might therefore affect meeting attendance. Dean Bobinski noted her appreciation for this comment, noted that this provision existed in the current Rules, and added that email would likely be used to notify Senators as quickly as possible so that they might adjust their schedules.

Dr. Windsor-Liscombe expressed hope that a specific space for Senate and Board of Governors' meetings would be identified in the new Alumni Centre in the University Town precinct.

The motion was
put and carried by
the required two-
thirds majority.

Agenda Committee, continued

The following is an excerpt from the Committee's report:

The Agenda Committee is committed to maintaining the established pattern of Wednesday evening meetings; however, based upon the consultation referenced above, a clear majority of Senators would prefer an earlier start (and thus end) time for meetings.

<i>Dean Bobinski</i>	}	<i>That the Senate endorse moving the start time for regular meetings of Senate from 7:00 p.m. to 6:00 p.m., effective with the regular meeting of Senate in September 2011.</i>
<i>Dr. Marshall</i>		

Carried.

EMAIL CONSIDERATION OF ROUTINE SENATE BUSINESS

The following is an excerpt from the Committee's report:

At present, the Senate must meet in person to conduct any business. With the cancellation of monthly Senate meetings on occasion due to lack of sufficient business, this presents a problem for routine but time sensitive matters that are then unduly delayed. The Agenda Committee is of the opinion that for some routine matters, approval by email – provided no concerns are raised by any Senators within a reasonable period of time – should be adopted. The Committee is also cognizant that on occasion, extraordinary matters arise between meetings of the Senate that would benefit from expedited approval should Senators not consider them controversial.

As such, the Committee recommends that the Senate amend its rules to allow for email consideration of matters in these circumstances. The proposed new rule is as follows:

23: In the event of a regularly scheduled Senate meeting being cancelled, or if an extraordinary need for Senate approval exists between regularly scheduled meetings, the Agenda Committee may elect to have business it considers to be routine but time-sensitive to be considered via email under the procedures set out in this section.

- a. The motion in question shall be sent via email by the Secretary to every Senator.*
- b. The email sent under Section 23 (a) shall specify the text of the motion to be considered for approval and include any necessary supporting documentation.*

Agenda Committee, continued

- c. A matter sent out via email is approved if no objections are sent to the Secretary within seven (7) days of the email being sent.*
- d. If an objection is raised by any Senator under Section 23 (c) the matter is not approved and shall be considered at the next meeting of the Senate as a normal item of business but shall not be considered a motion to reconsider the question or a renewal of the motion.*
- e. A motion approved under this section shall be reported by the Secretary at the next meeting of Senate under Reports from the Registrar.*
- f. All Senators shall specify one or more email address(es) for the purposes of email consideration of matters and shall apprise the Secretary of any changes to those addresses in a timely manner.*
- g. A change to or suspension of the Rules and Procedures of the Vancouver Senate shall not be considered under this section.*

*Dean Bobinski
Mr. McNulty*

*} That the Rules and Procedures of the
Vancouver Senate be amended to include the
new Section 23 as set out above; and*

*That the Rules and Procedures of the
Vancouver Senate be renumbered
accordingly for all sections that follow and
any references thereto.*

DISCUSSION

There was some discussion about a matter being approved if no Senator raised an objection within the prescribed time period. Dr. Anstee expressed a preference for language that would require an explicit approval. Dr. Harrison expressed support for the rule as written, stating that it was intended to be used for routine business only. Dr. Yaworsky also spoke in favour of the rule as written, pointing out that a similar rule had been in place for the Council of Senates for several years and that it had been working well.

Dr. McKee asked about the difference between a negative vote and an objection. Mr. Eaton explained that, should an objection be raised, the matter would come before Senate at a meeting for a vote.

Agenda Committee, continued

Mr. Dew asked about retroactive consideration of a matter approved by email. Mr. Eaton explained that, like any other matter approved by Senate, it could be reconsidered by Senate under the applicable rules.

AMENDMENT BY CONSENT

In response to questions raised by Student Senators, the assembly directed the Secretariat to change the rule to specify that, if the matter under consideration by email was not in camera, it would be posted on the Senate website in addition to being forwarded to Senators by email.

The motion to approve the amendment of the Rules, as further amended, 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 courses brought forward by the Faculty of Graduate Studies (Applied Science, Arts, College for Interdisciplinary Studies, Education, Land & Food Systems, Medicine and Pharmaceutical Sciences) be approved.</i>
<i>Dr. Loewen</i>		

Carried.

Nominating Committee

Committee Chair Dr. Windsor-Liscombe presented the reports.

COMMITTEE APPOINTMENTS AND COMPOSITION CHANGES

*Dr. Windsor-
Liscombe
Dr. Marshall*

} That Senate appoint Dr. Kenneth Baimbridge to serve on the President's Advisory Committee on the Extension of Appointment, Vice-President Research & International; and

That Senate appoint Dr. Santokh Singh to serve on the President's Advisory Committee on the Selection of an Associate Vice-President Research & International; and

That the composition of the Vancouver Senate Library Committee be adjusted to replace the "Vice-Provost, Information Technology" with the "Vice-Provost and Associate Vice-President, Academic Resources" as an ex-officio, voting member; and

That Senate approve the following revision to the membership of Committees of Senate:

Senate Curriculum Committee: Ms. Robyn Sneath to replace Mr. Angus Cheung

Senate Committee on Appeals on Academic Standing: Mr. Matt Murray to replace Mr. Angus Cheung

Senate Library Committee: Mr. Gavin Dew to fill vacancy.

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. Mertens</i>		

DISCUSSION

Dr. Vessey expressed concern about a lack of meaning in the second sentence in the award terms for the Jean Barman Prize in Aboriginal Education. After some discussion, the assembly agreed to vote on the award terms as listed, with the understanding that the Secretary would refer the terms for this award to the Development Office for potential revision.

Carried.

Tributes Committee

Committee Chair Dr. Thorne presented the report.

MEMORIAL MINUTE FOR MS. BEVERLY FIELD

The following memorial minute for a former Senator who had passed away had been circulated:

Tributes Committee, continued

Ms. Beverly Field

After completing her studies at UBC, Beverly Field taught in the Department of Chemistry for six years. Her life-long passion for education, however, truly came to fruition in her exceptional service to the University as president of the Alumni Association and as a member of both the Senate and the Board of Governors.

Over two terms on the Senate from 1972 to 1978, she was instrumental in persuading the provincial government to amend the *University Act* to increase student representation in the Senate. She served on the Senate Curriculum Committee and also volunteered with other campus functions such as the Cecil H. and Ida Green Visiting Professorships Program and the Walter Koerner Master Teaching Awards.

Beyond UBC, there are countless beneficiaries of her 71 years of public service. She had a long-standing commitment with the Junior League of Vancouver, an organization she initially became involved with in 1952. Other organizations to have benefited from her enthusiastic engagement include the Vancouver Foundation, the Vancouver Art Gallery, where she was a docent under the direction of Doris Shadbolt, the Vancouver Aquarium, the YWCA, Vancouver Museum, the United Way, and the BC Medical Foundation Board. Beverly was also a life member of the University Women's Club, West Vancouver. Her many awards and recognitions include the Elsje Armstrong Award for Volunteerism in 1985, the United Way Volunteer Recognition Award in 1990, and Queen's Golden Jubilee Medal for service in 2002.

<i>Dr. Thorne</i>	}	<i>That Senate approve the Memorial Minute for Ms. Beverly Field, that it be entered into the Minutes of Senate and a copy be sent to the family of the deceased.</i>
<i>Dr. Anstee</i>		

Carried.

From the Faculty of Medicine

Dr. Baimbridge presented the report in the absence of Dean Stuart.

CHANGE IN VOTING MEMBERSHIP IN THE FACULTY OF MEDICINE

The Faculty of Medicine had circulated a proposal to add Partner Faculty Members at the ranks of Professor, Associate Professor, and Assistant Professor to the voting membership

from the Faculty of Medicine, continued

of the Faculty.

<i>Dr. Baimbridge</i>	}	<i>That Senate approve the proposed changes to the Voting Membership of the Faculty of Medicine.</i>
<i>Dr. Cairns</i>		

Carried.

Motion to Extend Meeting Time

<i>Mr. Gorman</i>	}	<i>That the meeting end time be extended to not later than 9:45 p.m.</i>
<i>Mr. Mertens</i>		

Carried.

Tributes Committee - in camera

HONORARY DEGREES

In closed session, the Senate considered recommendations from the Tributes Committee with respect to the granting of honorary degrees in 2011.

Adjournment

There being no further business, the meeting was adjourned. The following regular meeting of the Senate was scheduled for Wednesday, December 15, 2010 at 7:00 p.m.

APPENDIX A: CURRICULUM SUMMARY

Graduate Studies

NEW COURSES

APPLIED SCIENCE

NURS 548 (3)

NURS 549 (3)

NURS 556 (3)

ARTS

POLI 571 (3)

COLLEGE FOR INTERDISCIPLINARY STUDIES

IAR 516 (3)

EDUCATION

EDCP 571 (3)

EDST 527 (3)

LLED 577 (3)

LAND & FOOD SYSTEMS

FOOD 529 (3)

SOIL 520 (3)

MEDICINE

RHSC 585 (3)

RSPT 511 (2)

RSPT 521 (2)

RSPT 531 (2)

PHARMACEUTICAL SCIENCES

PHAR 515 (3)

APPENDIX B: NEW AWARDS

Jean BARMAN Prize in Aboriginal Education: Prizes totalling \$1,000 are offered to students of Aboriginal ancestry pursuing a graduate or teacher education degree based on a project related to aboriginal history. The award is named in honour of Dr. Jean Barman, an outstanding professor whose life is dedicated to historical implications on society. The award is made on the recommendation of the Department of Educational Studies and, in the case of graduate students, in consultation with the Faculty of Graduate Studies. (First available in the 2010W Academic Session)

FILM Production Program 40th Anniversary Scholarship: A \$1,000 scholarship has been endowed by the Film Production Alumni Association (FPAA) in partnership with the Faculty of Arts Office of the Dean in celebration of the 40th Anniversary of the Film Production Program in the Department of Theatre and Film. The award is made to a student in film pursuing a B.F.A. degree or a Diploma in Film Production and is made on the recommendation of the UBC Film Production Program. (First available in the 2011W Academic Session)

Kerry and Sarah MORRISSEY (Telford) Memorial Award: Awards totalling \$1,000 have been endowed to offset overseas travel expenses for medical residents in the Faculty of Medicine Global Health program. The program requires residents to pursue an overseas placement as a physician for several months as part of their training. The award is named in memory of Dr. Kerry Telford Morrissey and her daughter Sarah Morrissey, who died in a float plane accident near Saturna Island, BC in 2009. The awards are made on the recommendation of the Faculty of Medicine. (First available in the 2011W Academic Session)

Agnes PHILIPPS Scholarship in Education: Scholarships totalling \$2,000 have been endowed by the Estate of Agnes Philipps for students in the Faculty of Education who have completed or are enrolled in the Visual and Performing Arts in Education Diploma program and have identified Visual Art as a teaching area. Recommendations are made by the Faculty of Education. (First available in the 2011W Academic Session)

Dr. Gary RANDHAWA Memorial Scholarship in Medicine: Scholarships totalling \$1,000 have been endowed by the B.C. Medical Association and the B.C. Medical Foundation for students in any year who are enrolled in the Southern Medical Program at The University of British Columbia Okanagan Campus. Preference will be given to students with a record of community service in health care. The awards are established in honour of Dr. Gary Randhawa and his lifelong work and vision in furthering health education and health promotion in local communities. The awards are made on the recommendation of the Faculty of Medicine (First available in the 2011W Academic Session)

Nis SCHMIDT History of Surgery Prize: Two prizes totalling \$1,000 have been endowed by Dr. Nis Schmidt to stimulate interest and documentation in the history of surgery. Prizes will be awarded to students with a publishable grade paper on a topic of historical surgical interest based on a recommendation from the Department of Surgery. Papers will

Appendix B: New Awards, continued

be prepared for oral presentation at the annual Dr. Nis Schmidt Surgical update in December or at the Surgical History Club. The paper can address a topic of local, national or international interest in any field of surgery - biographical, developmental, clinical, technical, educational and ethical and is open to undergraduate medical students and residents in any surgical discipline. Recommendation is made by the Department of Surgery. (First available in the 2010W Academic Session)

Andrew SEAL Award in the Arts and Humanities in Medicine: Awards totalling \$1,000 have been endowed to provide one or more awards to fourth year graduating students in the MD Program who have made significant contributions during their undergraduate medical training in the arts and humanities. Recommendation is made in the spring by the Faculty. (First award available in the 2011/12 academic session)

PREVIOUSLY-APPROVED AWARDS WITH CHANGES IN TERMS OR FUNDING SOURCE:

Roman BABICKI Fellowship: Two \$20,000 fellowships have been endowed by Roman M. Babicki. The awards are to support doctoral candidates in any academic department, provided that their supervisor has a primary appointment in the Faculty of Medicine. Candidates must be undertaking cancer research. No individual or project will receive support from this fund for more than two years. The awards are made on the recommendation of the Faculty of Medicine in consultation with the Faculty of Graduate Studies.

Reason for change: removed “consecutive” from the description as per the donor’s request. He does not want any student to receive fellowship funding for more than two years regardless of whether the years are consecutive.

Jessie MACCARTHY Scholarship in Nursing - A scholarship of \$700 has been made available by family, friends, and colleagues of the late Jessie MacCarthy, to recognize her leadership in community health nursing, epidemiology, nursing education and research. The award is made on the recommendation of the School of Nursing to a student enrolled in the B.S.N. program. The candidate will combine academic ability with a satisfactory employment record. In making the award, financial need is a consideration. (Revision to commence in the 2012/13 academic year)

Reason for change: The RN program is being discontinued by the 2011/12 academic year and as such the School of Nursing would not be able to assign the scholarship in 12W.

Marion RICKER Memorial Scholarship in Nursing - A scholarship of \$450 has been endowed by Dr. W. E. Ricker in memory of his wife Marion T. Ricker, R.N., B.A.Sc. 1931. The award is made on the recommendation of the Director of the School of Nursing, to a student who is entering or continuing a program leading to the degree of B.S.N. (Revision to commence in the 2012/13 academic year)

Reason for change: The RN program is being discontinued by the 2011/12 academic year and as such the School of Nursing would not be able to assign the scholarship in 12W.

Dr. and Mrs. S. SCHAFFER Memorial Scholarship: A \$1,000 scholarship is given to a postgraduate or undergraduate student attending the Medical School of the University of

Appendix B: New Awards, continued

British Columbia. Nomination of this scholar is on the recommendation of the Faculty of Medicine.

Reason for change: Removed the requirement to consult Dr. Dwight Irving Peretz during the nomination process as he is now retired from the Faculty of Medicine and UBC. This award was last given out in 2008 and the wording of the description has made it impossible to assign it.

Maxine SEVACK Memorial Scholarship: A scholarship of \$1,000 has been endowed by the Maxine Sevak Memorial Foundation. Maxine Sevak was a student in the Department of Creative Writing. Following graduation, she established herself as a successful magazine journalist. She died in a plane crash in Guatemala in her 28th year. The award is made on the recommendation of the Department of Creative Writing to a student who has completed at least one year of study and shows promise in writing. In making the award, the candidate's financial circumstances may be considered. (First available in the 2011W Academic Session)

Reason for change: Donor has increased funding from \$1,000/year to a \$30,000 endowment so that the scholarship is given out in perpetuity.

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

External Group

August 16	David McLean, Chairman, Canadian National Railway Company, Chairman and CEO, McLean Group of Companies
August 16	Paul Davidson, President and CEO, and Pari Johnston, Director, International Relations, Secretary, Association of Universities and Colleges of Canada (AUCC)
August 16	Djavad Mowafaghian, Founder and Honourary President, Vahid Eshghi, Director, and Margaret Thomson, Treasurer and Trustee, djavad mowafaghian foundation
August 16	Marjorie-Anne Sauder, Donor, UBC
August 17	Jay L. Bruns III, Vice President, Public Policy, The Hartford
August 17	Lisa Kershaw, Partner, Odgers Berndtson
August 17	Kevin Layden, President and CEO, Wesbild Holdings Ltd.
August 18	Robert Ho, Founder, Robert H.N. Ho Family Foundation and President, The Tung Lin Kok Yuen Canada Foundation
August 18	Matthew Carter, President, Greater Northern Way Campus (GNWC)
August 18	Lee Malleau, Acting CEO, Vancouver Economic Development Commission, Saeed Amidi, President and CEO, Gord Breese, Vice President, Business Management Software Solutions Applications and Services (SAP), JoJo Flores, Co-Founder and VP Operations, Plug and Play Inc., Sandhu Johnston, Deputy City Manager, City of Vancouver, and Linda Oglov, Consultant to the City of Vancouver
August 19	UBC Properties Trust (UBCPT) Board Meeting
August 19	Arvind Gupta, CEO and Scientific Director, Mathematics of Information Technology and Complex Systems (MITACS)
August 19	Robert Lee, Founder & Chairman, Prospero International Realty Inc.
August 19	David H. Turpin, President and Vice-Chancellor, University of Victoria
August 20	Michael Naufal, Managing Partner, Odgers Berndtson

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

August 23	Yuen Pau Woo, President and CEO, Asia Pacific Foundation of Canada, and Evaleen Jaager Roy, Vice President, Human Resources, Global Publishing & Community, Electronic Arts
August 23	Dr. Harold Kalke, Trustee, and Mr. John Horning, Trustee, David Spencer Endowment Encouragement Foundation (Music/Arts)
August 24	Randy Findlay, Donor and Alumnus, UBC
August 25	Jason Snider, Associate Director, Strategy, OMD/DDB, Marty Yaskowich, Managing Director, Lauren Rowe, Account Supervisor and Digital Strategist, DDB
August 26	Chris Eaton, Executive Director, World University Service of Canada
August 26-27	Indira Samarasekera, President and Vice-Chancellor, University of Alberta, and David Naylor, President, University of Toronto
August 30	Chad Gaffield, President, Social Sciences and Humanities Research Council
August 30	Robert J. Birgeneau, Chancellor, University of California, Berkeley
August 31	Ed Greenspon, Chair and Project Co-Director, GPS Project, Canadian International Council
August 31	Jeffrey (Jeff) Francis, Professional Baseball Player and Former UBC Student
August 31	Robert Lee, Founder & Chairman, Prospero International Realty Inc.
August 31	Bing Gordon, Partner, Kleiner Perkins Caufield & Byers (KPCB), San Francisco, CA
August 31	Henry Yang, Chair, ARPU Steering Committee and Chancellor, University of California, Santa Barbara
September 1	Robert (Bob) Peirce, Senior VP, Government Affairs, Abraxis BioScience Inc.
September 1	Robin Ciceri, President, The Research Universities' Council of British Columbia (RUCBC)
September 2	Robert Lee, Founder & Chairman, Prospero International Realty Inc.

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

September 2	Stephen Davis, Executive Director, Academics for Higher Education & Development (AHED), and Professor Emeritus, Philosophy, Simon Fraser University (SFU) and Carleton University, and Nancy More, Chair
September 2	Great Northern Way Campus (GNWC) Board of Directors and Presidents
September 2	Research Universities' Council of British Columbia (RUCBC) Meeting Regarding Government Reporting Entity (GRE)
September 3	Heather Munroe-Blum, President, Vice-Chancellor and Senior Officer, McGill University, Indira Samarasekera, President and Vice-Chancellor, University of Alberta, and David Naylor, President, University of Toronto
September 7	David Aisenstat, President and CEO, Keg Restaurants Ltd.
September 8	Research Universities' Council of British Columbia (RUCBC) Meeting Regarding Government Reporting Entity (GRE)
September 13	Association of Universities and Colleges of Canada (AUCC) Meeting Regarding Academic Freedom
September 13	Paul Davidson, President and CEO, Christine Tausig-Ford, Corporate Secretary and Pari Johnston, Director, International Relations, Secretary, Association of Universities and Colleges of Canada (AUCC)
September 14	Association of Universities and Colleges of Canada (AUCC) Standing Advisory Committee on International Relations (SACIR)
September 16	The 4 th G-8 University Council Meeting
September 17	Research Universities' Council of British Columbia (RUCBC) Meeting Regarding Government Reporting Entity (GRE)
September 17	Rani Dhaliwal, Treasurer, World University Service of Canada (WUSC)
September 17	Michael E. J. Phelps, Chairman and Founder, Dornoch Capital Inc.
September 17	World University Service of Canada (WUSC) Executive Committee
September 17	John McArthur, Chairman, and Yuen Pau Woo, President and CEO, Asia Pacific Foundation of Canada
September 17	Amit Chakma, President and Vice-Chancellor, The University of Western Ontario

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

September 17	James Turk, Executive Director, Canadian Association of University Teachers (CAUT) and Nancy Langton, President, UBC Faculty Association
September 17	Irving K. (Ike) Barber, Donor, UBC
September 21	Jean Teillet, Partner, Pape Salter Teillet Barristers & Solicitors
September 21	Robin Ciceri, President, Research Universities' Council of British Columbia (RUCBC)
September 21	United Way of the Lower Mainland Campaign Cabinet Planning Session
September 22	Research Universities' Council of British Columbia (RUCBC) Meeting
September 22	Peter Wall, Founder, Wall Financial Corporation
September 23	Eric L. Engstrom, President and Executive Consultant, Keeling & Associates
September 23	Association of Universities and Colleges of Canada (AUCC) Meeting Regarding AUCC Mission to India
September 23	James (Jim) Maynard, President, Wavefront Wireless Innovation Society of British Columbia (Wavefront)
September 23	Blair Littler, Vice-President, Research Universities' Council of British Columbia (RUCBC)
September 23	Charles Jago, Former President, University of Northern British Columbia (UNBC)
September 24	Matthew Carter, President, and Jamie Bruce, Board Chair, Great Northern Way Campus (GNWC)
September 24	Paul I.A. Moen, Director, International Corporate Affairs, Amgen
September 24	Robert Lee, Founder & Chairman, Prospero International Realty Inc.
September 28	Samsung Economic Research Institute (SERI)
September 29	Yoh Suk-Kee, Chairman, and Dong Hyun Lee, CEO, International Communication Foundation, Seoul

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

September 29	Wan Kyoo Cho, Chairman, the Board of the Committee and Special Advisory to the Director, International Vaccine Institute and Chun Sang Moon, Program Office and International Relations, North Korea, The Asia Foundation, Seoul
September 29	Pan Jung Lee, CEO, Neptia, Seoul
September 29	Kenny Park, Chairman and CEO, Simone Ltd., Seoul
September 30	Myoung-Kyun Kim, Fellow and Vice-President, Corporate Strategy, POSCO, Seoul
October 1	Matthew Lechtzier, Senior Vice-President, Ivanhoe Capital Corporation UK Ltd., London
October 1	Ted Bianco, Director, Technology Transfer, Wellcome Trust, London
October 1	Colin S. Russel, Founder and Managing Director, Emerging Markets Advisory Services Ltd., London
October 1	Ian Kydd, Trustee, UBC UK Foundation, and Senior Advisor, UK, Rainmaker Global Business Development, London
October 4	Patrick Dewilde, Director, Institute for Advanced Study, Technical University of Munich (TUM-IAS)
October 4	Peter Gruss, President, Max Planck Society, Munich
October 6	William B.P. Robson, President and CEO, C.D. Howe Institute, Toronto
October 6	Michael M. Koerner, Donor, UBC, and President, Canadian Overseas Investments Ltd. and Sonja N. Koerner, Donor, UBC, Toronto
October 6	Sriram H. Iyer, President and CEO, ICICI Bank Canada, Toronto
October 6	James Crossland, Senior Vice-President, Government Relations and Corporate Affairs, and Edward Ortiz, Vice-President, Corporate Responsibility, Kinross Gold Corporation, Toronto
October 6	Stewart Blusson, President, Archon Minerals Ltd.
October 7	Harvey Weingarten, President and CEO, Higher Education Quality Council of Ontario

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

October 7	Ed Clark, President and CEO, TD Bank Financial Group, Toronto
October 8	World University Service of Canada (WUSC) Meeting Regarding 2010 Lewis Perinbam Award in International Development
October 8	Research Universities' Council of British Columbia (RUCBC) Meeting Regarding Government Reporting Entity (GRE) with Charles Jago, Former President, University of Northern British Columbia (UNBC)
October 8	Lap-Chee Tsui, President and Vice-Chancellor, S. P. Chow, Pro-Vice-Chancellor and Vice-President, and Bernadette Tsui, Director, Development & Alumni Affairs, Hong Kong University (HKU)
October 13	Gilles Patry, President and CEO, Canada Foundation for Innovation
October 13	Arvind Gupta, CEO and Scientific Director, Mathematics of Information Technology and Complex Systems (MITACS)
October 14	United Way of the Lower Mainland Campaign Cabinet Meeting
October 14	Sonya Wall, Vice-President, Communications, Wall Financial Corporation
October 14	Research Universities' Council of British Columbia (RUCBC) Meeting Regarding Government Reporting Entity (GRE)
October 18	Hyo Maier, President & CEO, and Doug Patrick, Vice-President, Finance and Administration, Aurum Ceramic Dental Labs Ltd., Calgary
October 18	Doug H. Mitchell, Donor and Alumnus, UBC, and National Co-Chair and Counsel, Borden Ladner Gervais, and Lois Mitchell, Donor, UBC and President, Amherst Consultants Ltd., Calgary
October 19	Indira Samarasekera, President and Vice-Chancellor, University of Alberta, and David Naylor, President, University of Toronto
October 19	Michael Williams, President, CEO and Director, Walking Horse Energy, Calgary
October 19	Chris Eaton, Executive Director, World University Service of Canada (WUSC)
October 19	Phil Swift, Founder and Co-Chairman, ARC Financial Corp., Calgary
October 19	Pommashea Noel-Bentley, Vice-President, Resource Development, United Way of the Lower Mainland

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

October 20	Robert Y.C. Ho, Chairman of the Board, The Robert H.N. Ho Family Foundation
October 20	Bruno Wall, President, Treasurer and Director, Wall Financial Corporation
October 20	Arvind Gupta, CEO and Scientific Director, Mathematics of Information Technology and Complex Systems (MITACS)
October 21	Research Universities' Council of British Columbia (RUCBC) Meeting Regarding Government Reporting Entity (GRE) with Charles Jago, Former President, University of Northern British Columbia (UNBC)
October 21	Robert Lee, Founder & Chairman, Prospero International Realty Inc.
October 22	World University Service of Canada (WUSC) Executive Committee
October 22	Pommashea Noel-Bentley, Vice-President, Resource Development, United Way of the Lower Mainland
October 25	Don Drummond, Former Senior Vice-President and Chief Economist, TD Bank Financial Group
October 25	Robin Ciceri, President, The Research Universities' Council of British Columbia
October 25	Sonya Wall, Vice-President, Communications, Wall Financial Corporation
October 27	Arvind Gupta, CEO and Scientific Director, Mathematics of Information Technology and Complex Systems (MITACS)

Government

August 17	Ashok Das, Consul General, Consulate General of India in Vancouver
August 18	Allan Seckel, Deputy Minister to the Premier and Cabinet Secretary, Province of B.C.
August 19	Roundtable on Innovation & Commercialization with Tony Clement, Minister of Industry, Government of Canada
August 20	Moirra Stilwell, Minister, Ministry of Advanced Education and Labour Market Development, Province of British Columbia

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

August 30	Campaign Leadership Dinner Hosted by Stewart Beck, Consul General of Canada in San Francisco
August 31	Mark Luz, Counsel, Trade Law Bureau (JLT), Foreign Affairs and International Trade Canada, Government of Canada
September 13	Margaret Biggs, President, Canadian International Development Agency (CIDA)
September 13	Simon Kennedy, Senior Associate Deputy Minister, Industry Canada, Government of Canada
September 13	Michael Horgan, Deputy Minister, Department of Finance, Government of Canada
September 13	Wayne Wouters, Clerk, Privy Council Office and Secretary, Cabinet, Government of Canada
September 14	Graham Whitmarsh, Deputy Minister, Finance; Philip Steenkamp, Deputy Minister, Ministry of Advanced Education and Labour Market Development (ALMD), Province of B.C.; and Tom Vincent, Vice-President, Public Sector Employers' Council Secretariat (PSEC)
September 14	Iain Black, Minister, Ministry of Small Business, Technology and Economic Development, Province of B.C.
September 14	Dinner in Honour of Anthony Cary, British High Commissioner, British High Commission, and Alex Budden, Consul General, British Consulate-General in Vancouver
September 15	Eric Jordan, President, Premier's Technology Council, Province of B.C.
September 20	Yeon-ho Choi, Consul General, Consulate General of the Republic of Korea in Vancouver
September 22	Hon. Lance Finch, Chief Justice, British Columbia and Yukon Territory, Andrew Wilkinson, Partner, McCarthy Tetrault, and Frank Kraemer, Executive Director and Senior Counsel, Judicial Administration, Province of B.C.
September 24	Moiria Stilwell, Minister, Ministry of Advanced Education and Labour Market Development, Province of B.C.
September 29	Ted Lipman, Ambassador to the Republic of Korea, Government of Canada

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

October 7	Ben Stewart, Minister, Ministry of Community and Rural Development, Province of B.C.
October 13	Research Dinner at Norman MacKenzie House with Moira Stilwell, Minister, Ministry of Advanced Education and Labour Market Development, Province of B.C.
October 15	Keith Martin, Member of Parliament, Esquimalt, Juan de Fuca
October 15	Phil Calvert, Director General, Foreign Affairs and International Trade Canada, Director General, North Asia, Government of Canada
October 25	Louis Levesque, Deputy Minister, International Trade, Department of Foreign Affairs and International Trade, Government of Canada
October 25	David Sweet, Chair, Standing Committee on Industry, Science and Technology, Government of Canada, and Member of Parliament, Ancaster-Dundas-Flamborough-Westdale
October 25	Michael Chong, Chair, Heritage Committee, Government of Canada, and Member of Parliament, Wellington-Halton Hills
October 25	Tim Sargent, Assistant Secretary, Cabinet, Privy Council Office, Economic and Regional Development Policy, Government of Canada
October 25	Richard Dicter, Deputy Minister, Industry Canada, Government of Canada
October 25	Gary Goodyear, Minister, Ministry of State for Science and Technology, Government of Canada

Travel

August 24-25	Kelowna, BC—Development Meetings, Campaign Leadership Dinner, and UBC Okanagan Meetings
August 26-27	Toronto, ON—Meeting with Indira Samarasekera and David Naylor
August 30-31	San Francisco, CA—Campaign Leadership Dinner, Development and International Meetings
September 1	Los Angeles, CA—Development Meeting
September 7	Kelowna, BC—UBC Okanagan Create: Kickoff Event

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

September 10	Kelowna, BC—President's Town Hall and External Community Advisory Council (ECAC) Meetings
September 13	Ottawa, ON—Government and Association of Universities and Colleges of Canada (AUCC) Meetings
September 24-30	Seoul, Korea—Development Meetings and Korea-Canada Forum 8: Toward an Enhanced G-20 Partnership
September 30-October 1	London, England—Development Meetings and UBC Dialogues Event: London
October 4	Munich, Germany—Meetings with Technical University of Munich's Institute for Advanced Study and Max-Planck Society
October 5-7	Toronto, ON—Development Meetings, UBC Dialogues Event: Toronto, and Campaign Leadership Dinner
October 12-13	Kelowna, BC—DVC Senior Executive Retreat and Major Entrance Scholarship (MES) Reception
October 18-19	Calgary, AB—Development Meetings and Campaign Leadership Dinner
October 24-27	Ottawa, ON—Association of Universities and Colleges of Canada (AUCC) Board of Directors and Membership Meetings, and Government Meetings
October 28-30	Toronto, ON—Book Launch, Gairdner Foundation Annual Gala Awards Dinner, U-13 Executive Heads Meeting

Speeches / Events

August 16	Videotaping: UBC Student Recruitment & Advising
August 18	Videotaping: United Way of the Lower Mainland Law Sector Managing Partner Cultivation Event
August 18	UBC Jump Start Opening Ceremony
August 24	Campaign Leadership Dinner Hosted by Theresa Arsenault, Co-Chair, Okanagan Partnership, and Member, UBC Board of Governors

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

August 31	Plug and Play Tech Centre: <ul style="list-style-type: none"> • Entrepreneurship Panel Discussion and Q&A • UBC Student Company Pitch Session • Alumni and Friends Networking Reception
September 3	Videotaping: UBC Imagine Online Video
September 3	Videotaping: Tribute for Lindsay Gordon, President & CEO, HSBC Bank of Canada
September 7	UBC Okanagan Create: Kickoff Event
September 7	Imagine UBC Pep Rally
September 10	UBC Okanagan: President's Town Hall
September 13	Centres of Excellence for Commercialization and Research (CECR) Expert Panel Review: Presentation Support for Wavefront Wireless Innovation Society of British Columbia (Wavefront)
September 15	The Vancouver Board of Trade – Go Global with UBC: Make Your 'Local' University Your International Business Partner
September 15	Videotaping: UBC Vancouver Town Hall Invitation
September 15	Reception in Honour of UBC's Major Entrance Scholars (MES) Recipients
September 17	"Welcome Back" Lunch for the Deans
September 20	4 th Annual UBC United Way of the Lower Mainland Leadership Breakfast
September 20	UBC Vancouver: President's Town Hall
September 20	Philosophizing Social Justice in Nursing: The 14 th International Philosophy of Nursing Conference
September 20	Dinner in Honour of Jacob (Jack) Austin, P.C., O.B.C., and Joseph Caron, Honorary Professors, Institute of Asian Research
September 21	United Way of the Lower Mainland Kick-Off Event
September 21	President's Staff Awards
September 22	Chor Leoni Gala Event at Norman MacKenzie House

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

September 23	Videotaping: UBC Internal Conference on Aboriginal Student Services
September 23	Senior Appointments Committee Welcome/Thank You Luncheon
September 23	Book Launch: <i>Legitimacy and Legality in International Law</i> (Authors: Prof. Stephen J. Toope and Prof. Jutta Brunnee) at the Liu Institute for Global Issues, UBC
September 23	Campaign Leadership Dinner Hosted by Sarah Morgan-Silvester, Chancellor, UBC
September 26	Korea-Canada Forum 8 Informal Dinner & Reception Hosted by Ted Lipman, Ambassador to the Republic of Korea, Government of Canada
September 27	Opening Remarks for Korea-Canada Forum 8
October 1	UBC Dialogues Event: London
October 4	MOU Signing Ceremony with Max Planck Society
October 6	Campaign Leadership Dinner Hosted by Philip Lind, Donor, UBC and Vice-Chairman and Director, Rogers Communication Inc.
October 8	Grand Opening of the Simon K.Y. Lee HKU-UBC House
October 8	7 th International Workshop on Higher Education Reform
October 8	Videotaping: Retrospective for Dr. Julio Montaner
October 12	Re-Opening of the Old Auditorium – A UBC Renew Project
October 12	Major Entrance Scholarship (MES) Reception, UBC Okanagan
October 14	Videotaping: Tribute for Robert Lee for his Retirement as Chairman, UBC Properties Trust
October 15	Life Sciences B.C. Breakfast Event
October 15	Canada India Village Aid (CIVA) Dinner
October 17	UBC Hillel House Opening
October 18	UBC Botanical Garden: Apple Festival – Garden Tour with Donors

Record of President's Activities

Period of: 16 August 2010 to 31 October 2010

October 18	Campaign Leadership Dinner Hosted by Doug H. Mitchell, Donor and Alumnus, UBC, and National Co-Chair and Counsel, Borden Ladner Gervais, and Lois Mitchell, Donor, UBC and President, Amherst Consultants Ltd.
October 19	UBC Okanagan Breakfast Hosted by Randy Findlay, Alumnus, UBC
October 19	Business Roundtable Lunch Hosted by Doug H. Mitchell, Donor and Alumnus, UBC, and National Co-Chair and Counsel, Borden Ladner Gervais, and Lois Mitchell, Donor, UBC and President, Amherst Consultants Ltd.
October 20	United Way of the Lower Mainland Pathfinders' Dinner
October 21	2010/2011 Opening Session of the Academic Leadership Development Program
October 21	Recognition Event in Honour of Dr. Djavad Mowafaghian and the djavad mowafaghian foundation
October 21	15 th Annual Quarter Century Club Dinner
October 26	UBC Alumni Dinner – International Relations
October 28	Book Launch: <i>Legitimacy and Legality in International Law</i> (Authors: Prof. Stephen J. Toope and Prof. Jutta Brunnee) at Munk School of Global Affairs, University of Toronto

Student Events/Meetings

August 18	Gerardo J. Munarriz, PhD Student, Faculty of Law, UBC
August 18	Bijan Ahmadian, President, Alma Mater Society (AMS), UBC
August 25	Grayson Lepp, Services Coordinator, and Kirk Chavarie, Director at Large, UBC Students' Union Okanagan
September 2	2010 Graduate Student Orientation
October 14	All Presidents Dinner
September 15	Breakfast with the President—Student Leaders
September 16	Board of Governors Reception and Dinner with Alma Mater Society (AMS) Executive and Council, and Graduate Student Society (GSS) Executive

<p align="center">Record of President's Activities Period of: 16 August 2010 to 31 October 2010</p>
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September 21	Connor Flaherty Levy, Student, UBC
October 22	Bijan Ahmadian, President, Alma Mater Society (AMS), UBC
October 22	Breakfast with the President—Students

Media Interviews

August 20	Early Edition, CBC/Radio-Canada
September 2	John Vigna, Writer, Trek UBC Alumni Magazine
September 3	Ajit Jain, Managing Editor, India Abroad Magazine
September 16	Caroline Alphonso, Reporter, Globe and Mail
October 1	Sarah Cunnane, Reporter, Times Higher Education
October 15	Kate Lunau, Assistant Editor and Staff Reporter, Maclean's Magazine
October 19	Stephanie Findlay, Writer, Maclean's Magazine
October 25	Mike de Souza, Managing Editor, Canwest News Service, Canwest Global Communications Corporation



a place of mind

Vancouver Senate 15 Dec 2010
Item 5 p.1

Office of the Vice President

Research & International

Draft International Strategy: Discussion paper

Discussion Document: International Strategy:
Office of the Vice President Research & International

Presented by: John Hepburn and Helen Pennant

V1 December 6, 2010

Office of the Vice President Research & International
The University of British Columbia
Room 606 -1871 West Mall
Vancouver, B.C. V6T 1Z2



Draft International Strategy: Discussion Document

How was the draft developed?

In August 2009, Stephen J. Toope, President and Vice-Chancellor, presented his vision of international engagement, *International Engagement and Global Influence: How Ambitious is the University of British Columbia?* In it, he put forward the idea of having an advisory council to consider the way forward for UBC's international engagement. In November 2009, John Hepburn, Vice-President Research and International, convened the International Advisory Committee to assist in developing strategy for UBC's international engagement.

The Advisory Committee has met regularly since that time. In addition, having made a decision early in 2010 that the international strategic plan would designate areas of geographic focus, three working groups were formed. Each working group was made up of members of the Advisory Council as well as other faculty members working in the area. Each working group met three times to discuss the regional elements of the plan. Various other consultative meetings were held, for example with administrators responsible for the implementation of international programs for students, and faculty representatives.

Draft International Strategy

Highlights of the Strategy

- Aim to be Canada's leader in international engagement within five years
- Three areas of regional focus: China, India and Europe
- Three to five year time frame
- List of special actions reflecting burgeoning interest in Africa
- Goal of 30% of students to have an international experience as part of their UBC degree
- Aim to significantly increase international graduate student recruitment
- Aim to establish significant new strategic research partnerships in each of the regions of focus



I. Introduction

The UBC strategic plan, *Place and Promise*, was published in December 2009. *Place and Promise* makes a clear commitment to UBC's international engagement, and sets two goals:

1. Increase the capacity of UBC students, faculty, staff, and alumni to engage internationally.
2. Strengthen UBC's presence as a globally influential university.

This strategy focuses on international engagement and how the University should expand its global reach and strengthen its international partnerships.

Why a focus on international engagement?

In an increasingly inter-connected world, international engagement is a necessity as well as a consequence of UBC's research, teaching and community engagement commitments. There is hardly any aspect of UBC's activity that does not have an international dimension. The University has a responsibility to educate students with internationally grounded perspectives and critical capacities. This is the essence of global citizenship. In addition, as a world leading university, UBC has a responsibility to advance knowledge in areas of vital global concern such as sustainability. This includes, of course, advancing research and scholarship, but also extends to disseminating this knowledge globally and to educating students from around the world.

The University is already deeply engaged internationally in many different ways. There is a strong international presence at UBC: there are students from more than 140 countries pursuing degrees on the UBC Vancouver campus, and students from 65 countries pursuing degrees on the UBC Okanagan campus. This multicultural student population reflects UBC's diverse local community; British Columbia is home to significant populations with roots in China and Southeast Asia. For more than twenty years, UBC has been building strong academic ties with universities around the world, beginning with our first formal partnership with Shanghai Jiao Tong University. Since then, we have broadened our global reach, building on a foundation of strong research collaboration and active student mobility.

Despite all of this, we aspire to more. That is why international engagement is part of the Place and Promise plan.

Why have a plan?

UBC is at a turning point in terms of its international engagement. While the scale and scope of our engagement in some areas puts us in a leading position – for example we have the largest student exchange program in Canada – we have not effectively harnessed that to assert UBC as an international leader. A plan for international engagement will enable us to engage in ways that are not simply reactive and build positively on our achievements to date. A plan will help us to raise the bar in particular areas by setting goals and striving to meet them. We do not have infinite resources, so planning allows us to make strategic choices. This enhances our capacity to take on leadership roles within and beyond Canada. Securing our leadership



position will in turn enhance the capacity of our students, faculty and staff to engage internationally at all levels. Finally, planning allows us to consider the risks and opportunities on the international plane at present.

In addition, as with the *Place and Promise* Plan, the International Strategic Plan is a way for UBC to articulate its values. To this end, ***one of the goals of the first year of this plan is to develop a statement of ethics for international projects, and to audit our ethics procedural guidelines against this statement.***

While both UBC's Vancouver and Okanagan campuses are engaged internationally, each has distinct characteristics. The campuses are engaged in different ways and to differing extents in different regions of the world. For example, while Chinese students at UBC Vancouver make up a very significant portion of the international student body, they are not an especially large group at UBC Okanagan. Collaborative partnerships also follow a different pattern at UBC Vancouver as compared to UBC Okanagan. Although the starting point for international engagement is different in Vancouver as compared to Okanagan, the principles and overall directions for international engagement set out in this plan hold true for both campuses. The specific recommendations for action in the next three to five years relate primarily to UBC Vancouver. UBC Okanagan may choose to follow some of those recommendations in that time frame, but through its own planning process may adopt a different time frame or choose different priorities within the next three to five years.

The fact that UBC has two different campuses is an advantage for international engagement in that it broadens our offer and our scope of interest, enabling us to link to a wider range of international partners and communities.

II. Strategic Partnerships

Definition:

The *Place and Promise* plan sets the goal of strengthening UBC's presence as a globally influential university and refers to increasing the number of "substantial strategic" partnerships as a way of achieving this goal. Such partnerships are an important asset because they bring significant, on-going collaborations across several disciplines and include a number of research groups and academic departments. These partnerships support strong collaborative research endeavours and may include jointly developed courses and joint supervision of graduate students. They also feature well-developed mobility programs for both graduate and undergraduate students.

We have three aims in the area of partnerships:

- 1. Improve communication about existing partnerships;***
- 2. Experiment with developing short-term, issues-based partnerships, for example in the area of sustainability research; and***
- 3. Develop new substantial partnerships in each of our areas of geographic focus.***



Principles for partnership:

Despite the wide range of UBC's international partnerships, there are some core principles that hold for all of them.

Truly sustainable partnerships bring value for both parties. In building new partnerships and maintaining existing ones, we need constantly to assess the value brought to UBC and also to the partner by the relationship. This is foundation of all our links. When we partner with peer institutions with similar interests and areas of expertise the partnerships can bring similar advantages to each party. However, some of our partnerships involve working with different organizations (e.g. non-governmental organizations for service learning programs or industry for co-op placements) and also with universities in countries in which higher education and research is at a very different stage of development than in Canada. In those cases partnerships can be made which result in mutual benefits but those benefits may be different for each party. For example, we may partner with organizations with a capacity building objective in the development context. Our new partnership with Canada India Village Aid creates valuable connections for UBC researchers in India while responding to the need for greater economic sustainability in the region.

We have also engaged successfully with multiple partners around a single project. For example, we have an on-going "three-way" partnership with the National University of Singapore and the Lee Foundation that provides an extended range of opportunities for student mobility between UBC and NUS.

UBC has both well-established and emerging partnerships. For example, UBC has had a partnership with the University of Hong Kong since 1991. Over the years, we have built up activities at many levels: research collaboration, joint academic programs, student mobility and an international student residence and cultural centre on the UBC campus. A new partnership formed in 2010 with the Max Planck Society in Germany will establish the "Max Planck – UBC Centre for Quantum Materials" on the UBC campus, allowing us to strengthen and expand the existing research collaboration begun by our Department of Physics.

Building on existing partnerships:

UBC has dozens of active agreements with international partners and hundreds of historic and informal linkages. Many of the active agreements already feature all or most of the elements of a substantial strategic partnership and for those all that is needed is a re-commitment to engage and a stepping up of contact so as not to lose the momentum of the partnership. Other active linkages are strong in some areas e.g. student mobility but have not been fully exploited for research collaboration. We need to identify those agreements and consider whether they offer an opportunity for more in-depth collaboration or an expanded range of activities.



For the past ten years, UBC has been a member of two international university associations: Universitas 21 (U21) and the Association of Pacific Rim Universities (APRU)¹. Both these memberships offer potential for extending and deepening our existing range of partnerships but should not be considered as limiting our strategic connections. Both associations offer opportunities for exchange of best practice and multi-lateral activities such as undergraduate summer schools, which bring together students from across the network. But there are costs associated with participation, and activities undertaken through the network should be evaluated on their own merits. There are also other international networks that might be kept in mind as useful for engagement.

There are also international partnerships that we form in collaboration with partners in British Columbia or elsewhere in Canada. It is important to maintain provincial or national networks to support our international endeavours.

In seeking to refocus our partnerships we need to map our current affiliations more systematically. This will serve the purpose both of showing us where we are and also in facilitating the strengthening of our existing connections or creation of new ones. Often external partners are more aware of our international connections and profile than internal stakeholders.

III. International Strategy and Research

International partnerships are an important feature of research excellence and research collaborations are an important feature of any international strategy. Much of UBC's existing research has an international component, as would be expected in a research intensive university with a significant international profile. Some research by its very nature necessitates an element of international collaboration; for other areas the international component is incidental – researchers are working internationally simply as a means of finding collaborators with complementary expertise or resources. International collaboration must always be driven by the research endeavour it is supporting, or the partnership will not be sustainable.

While international partnerships are valuable to research and within its three to five year timeframe this Plan prioritizes links in certain areas of the world, researchers are of course free to engage or not according to their intellectual priorities. Scholars at all leading universities pursue international connections throughout the whole world. Scholarly endeavour is the driver for such connections and it is not appropriate to constrain those for political, social or religious reasons. The only proper limitations relate to matters such as the safety of staff or

¹ Universitas 21 (U21) is a network of 24 Universities: University of Melbourne, University of Hong Kong, the University of Delhi, University College Dublin, Waseda University, Tecnológico de Monterrey, University of Amsterdam, University of Auckland, National University of Singapore, Korea University, Lund University, University of Birmingham, University of Edinburgh, University of Glasgow, University of Nottingham, University of Connecticut, University of Virginia. APRU is a network of 42 universities around the Pacific Rim.



students, ethical practice of partners where that conflicts with rules applying in Canada, conflict of interest and secrecy.

International collaborations for research must be driven by the interests of researchers themselves. A strategy which is purely “top down” is not sustainable. We need to help stimulate connections at the level of individual researchers or research groups. However, aggregating our resources is one means of achieving critical mass.

ACTIONS

Much can be achieved by facilitating connections. We aim to:

- Make it easier for researchers to connect to their counterparts in other countries by virtual means by improving access to technology across both campuses;
- Enable connections to be built on existing linkages by providing better information about current partnerships;
- Lobby governments to provide more support funding for international collaboration and seek philanthropic or foundation support for international partnerships; and
- Increase the mobility of graduate students through increased funding support (1/3 + 1/3 + 1/3 idea to be elaborated) so that they can further their research by gaining exposure to differing points of view and cultural contexts, and access to data and facilities not easily available in Canada.

Accessing information is vital to any research endeavour. UBC’s libraries provide a gateway to much of that information, and international collaboration between libraries is a critical component of successful research collaborations. We already have active linkages between our library and libraries around the world, such as the National Library of China. These linkages might be increased in line with strengthening our international research collaboration.

IV. International Strategy and Students

Students occupy a special place in UBC’s international engagement. UBC students bring with them diverse origins, languages and experiences, which naturally give an international dimension to the student body, and it is often students who are the most energetic drivers for UBC’s international engagement. They are also especially important as influencers in the future shape of international engagement. Students graduating from UBC go on to do internationally recognized research, establish international companies and are generally called on to operate at international level in their professional lives and communities. The internationally diverse nature of UBC’s student body is itself a factor in attracting more international students. UBC can provide a gateway to other cultures and languages simply by offering students an opportunity to meet, study and live with people from other places.



The international strategy relating to students has many elements. This plan offers some strategic direction on those elements most closely related to international partnership development and research excellence on a global scale, and these strategies have obvious implications for student mobility and research placements.

With regard to students we aim to:

- 1. Increase student participation in mobility programs so that 30% of all undergraduates at both campuses have an international experience by the time they graduate, and establish a mobility participation goal specific to graduate students;***
- 2. Ensure the availability of funding for international mobility programs from a variety of sources;***
- 3. Establish a system that enables Faculties and Go Global to communicate easily to students how an international experience can be incorporated in their degree;***
- 4. Increase the number of international undergraduate students on each campus to 15% of the student body; and***
- 5. Make a significant increase in the number of international graduate students (specific target is under discussion).***

UBC offers a wide range of options for students to gain international experience during their studies. Our dedicated student mobility office, Go Global, develops and supports a range of options for both undergraduate and graduate students, including study abroad, research abroad and international service learning. Go Global supports the international learning of students involved in those placements, administers and sources funding for student mobility and manages partnerships that enable student mobility. Through these programs, students at UBC have a high level of mobility: UBC has the largest student exchange program in Canada and one of the largest in the world. Undergraduate mobility is strong at both UBC Vancouver and UBC Okanagan. About 14% of undergraduates at UBC Vancouver and 22% of undergraduates at UBC Okanagan will have had an international experience by the time they graduate, compared to the national average of 3%.

International experiences offered at UBC are deliberately varied; the university aims to offer every student an international experience and recognizes that a one size fits all approach will not work for our large student body with its diverse interests and experiences. Current options include opportunities to go outside Canada or participate in a 'virtual' mobility program or other home-based international experience.

Virtual mobility options include the "U21 Global issues Programme", a multi-disciplinary program offered by the Universitas 21 network to the students of the Universities of British



Columbia and other partners in the network. The program includes 70 subjects, including 15 offered online.

Many of these options are open to both graduate and undergraduate students but graduate students often have a different motivation, and access to different resources for engaging internationally. International experiences sought by graduate students are generally linked to a research endeavour rather than a learning experience. They need to travel outside Canada to conduct field research or work in partnership with another research group.

Challenges and strategies:

With an enrollment target of 30,000 full-time domestic undergraduate students, we currently have 3600 international students. The goal is to raise this number so that 15% of UBC's undergraduate student body is international students. Currently, UBC Vancouver has a higher proportion of international students than UBC Okanagan, but the rate at UBC Okanagan is growing rapidly, and the 15% target applies to each campus.

UBC aims to increase its proportion of graduate students to 25% of the student body and this will require a significant increase in the number of international graduate students. This growth target is probably not achievable within the three to five year time frame of this plan, but we do envision taking significant steps in this direction. *The precise target is under consideration for the moment, and might be something like increasing the number of international research students by 800 students.*

The goal of greater international diversity in recruitment brings a series of challenges as well as potential benefits. We need not only to recruit more international students to UBC, but also to ensure they have a rich and fulfilling experience while they are here. We already have a good record in providing practical support for students new to Canada, but more can be done. Issues of capacity in classrooms and living accommodation will also need to be addressed.

Despite UBC's excellent record on student mobility there remain a number of barriers and these need to be addressed in order to meet the targets of increased mobility. Student surveys show that the cost of travel and recognition of their academic achievements abroad are significant disincentives to going abroad. Students who incorporate an international experience within their degree should not extend the length of time it takes to complete their degree because of it.

We also need to develop tailored approaches for the differing needs and interests at different academic career stages. Even if we significantly raise the number of students who actually go abroad, they will still be in the minority and so we also need to increase opportunities for international engagement "at home" e.g. through virtual channels which allow for linking up with counterparts outside Canada and opportunities to build understanding of international perspectives during their course of study.



Language skills are highly relevant to enabling UBC students to participate in international learning experiences. We need to consider how language learning can be more effectively promoted so that all our students graduate with an ability to communicate (even at the most basic level) in a language other than English.

V. Areas of Geographic Focus: China, India and Europe

Over the next three to five years, UBC will have three areas of geographic focus for strategic engagement: China, India and Europe.

Although the existing pattern of UBC's linkages is different in each region, and the regions themselves vary greatly from each other, in each case, stepped up engagement at this point in time would be critical to ensuring on-going linkages of real value to UBC in the long term.

UBC's engagement in each of these regions has a different starting point. While there are some similarities in our forward plan for engagement in each region, there are important differences in our approach. For example, there is a need to increase UBC's profile and make better use of existing expertise and connections at UBC for all three areas, but the vehicle for doing this is different in each case. There will be synergies across our approach in each region, but strategies are presented separately to emphasize the need to respond to different starting points and different local conditions in each region.

The landscape of higher education and research in both China and India is in a state of rapid change. Both governments are investing heavily in these areas and universities and research institutions are themselves in a state of flux. This means that in both those countries, UBC's existing and potential partners are also changing. We need to step up our efforts in order to keep up with the opportunities offered in both these highly dynamic environments. It is imperative to engage now.

UBC's history of engagement in China differs from its involvement in India. Our links in China have been built over many years of engagement, resulting in very strong base of partnership and academic exchange. Chinese students are one of the largest groups of international students at UBC. Many of UBC's China scholars are world authorities in their areas of interest.

In contrast, our engagement with India is much less developed. Compared with our links in China, we have few partnerships in India and international student enrollment is low. Although the starting points in China and India are different, both regions represent a huge source of potential engagement for UBC.

In Europe, the picture is different again. Europe is a particularly important region for research collaboration, second only to the US, and we are now beginning to take advantage of these strong links to form strategic partnerships, such as our new agreement with the Max Planck Society. We have much to learn from Europe's highly developed programs for student mobility and research collaboration. New opportunities are opening up in Europe as European partners recognize the need to work outside of Europe to maintain research excellence. For example



the Sauder School of Business is building a partnership with the Copenhagen Business School and the Peter Wall Institute has a mobility program for faculty with the College de France which could be expanded. We need to respond actively to this trend in order to strengthen our own research collaborations. Student mobility with European partners is already well developed but could be increased to strengthen research partnerships in particular.

In each of the three areas of focus, the aim of this strategic plan is to concentrate efforts in order to make 'game changing' moves with visible impact. We would anticipate that the subsequent plan would not have the same regional areas of focus, because significant shifts will already have been made.

VI. 1 China

Challenges and opportunities:

Connections with China were at the origin of UBC's international engagement (our first formal international linkage was with Shanghai Jiao Tong University). We have significant expertise in China and many important connections, but we lack coherence in our endeavors, influence or recognition.

UBC has a wealth of expertise on China. We have a considerable body of scholarship related to China and the Institute for Asian Research's recent census has shown that the numbers of faculty from wider disciplines with significant Chinese involvement is high.

Our libraries contain a large volume of works in Chinese and about China. The Asian Library at UBC is home to a world-class collection, including the 45,000-volume Puban collection, which helped establish the Asian Library in 1949. The Puban contains books dating back more than 1,000 years, and includes a volume from the Yuan Dynasty. Holdings such as these have established the Asian Library's collection as the most historically significant collection housed outside of Asia. Researchers from around the world come to UBC to study items in these collections.

Chinese students are a strong presence in our student body, there are currently more than 1200 Chinese students pursuing degrees on the UBC campus. In addition, many domestic students have Chinese heritage; China continues to be the number one source country of immigrants to BC. UBC is home to one of the largest Chinese language programs outside China, with nearly 2,500 registrations catering to both traditional and heritage learners and offering four years of instruction.

Recruitment of Chinese graduate students is strong. This is supported by our links with the China Scholarship Council (CSC)². UBC has signed special agreements with five leading Chinese

² The CSC is a government agency in China that provides scholarships to students for doctoral and postdoctoral studies abroad.



Universities as a “preferred destination” for their CSC winners. In 2009-10, there were 100 CSC-funded PhD students from Chinese universities at UBC.

UBC has agreements with 16 universities in China, 4 in Hong Kong and 5 in Taiwan. However, there are gaps and some linkages are out of date; either they have expired or not kept up with emerging universities.

UBC has a strong alumni base in Hong Kong and many of those alumni have extensive connections in China. We also have a growing number of alumni in mainland China.

In the past ten years, China has made a huge investment in its higher education system, but many Chinese institutions are still in transition, especially when it comes to building research excellence. This makes the present time a critical stage at which to refocus our efforts in China. There is a real sense at UBC that we have lost the initiative in China: we are still in the game but we are in a responsive posture. This gives an added sense of the immediacy to the need to look at links in China.

Defining China:

UBC is engaged in Taiwan, Hong Kong and Macau as well as mainland China and the strategies outlined in this plan will be relevant for all those areas. However, our linkages with mainland China are less developed and more critical to the overall success of our engagement in China as defined more widely.

Goal for engagement in China:

Re-establish UBC as the pre-eminent Canadian university in China by regaining a top-level public reputation for expertise on China, revitalizing research connections and expanding into wider range of disciplines and maintaining strong level of undergraduate and graduate student recruitment.

Strategies for engagement in China:

We need to consider how to **focus expertise on China**. One way of doing this might be by creating a “China Forum” at UBC that supports researchers, faculty, students and staff who are working with Chinese partners. The Forum could be the public face of UBC’s engagement with China. It could function as a central point of contact and information on UBC’s China connections and provide a channel into UBC for visitors from China. It would be a resource for anyone internally or externally with questions on China.

We need to take stock of existing partnerships with a view to **increasing the intensity of our connections with top Chinese universities**. We should explore opportunities for funding those connections through resources in China. This would enable us to increase our opportunities for research collaboration with Chinese universities. Although we have many active student mobility agreements in China we have not reached our potential and should aim to increase the mobility of our students in both directions. Increasing participation of UBC students in summer



programs and workshops may be a way to do this. Several partners are prepared to offer these programs which create alternate pathways for our students to go to China – especially as most summer programs do not require knowledge of Mandarin. Internships offer another means of creating pathways to China and of creating opportunities for Chinese students to come to UBC. We might consider replicating aspects of the Globalink program operated by MITACS³ in India with Chinese partners.

Although our alumni links in Hong Kong are strong, more could be done to **increase and strengthen alumni links** by building a more systematic engagement of alumni in mainland China. Alumni should include those who have been visiting scholars and faculty as well as students. UBC's Asia Pacific Regional Office in Hong Kong could play a leading role in this.

Visits to UBC by high level delegations from China are an important means of raising our profile and making valuable connections. These visitors place high importance on protocol and generally require a degree of formality to conclude agreements. Multi-delegate visits to UBC, often involving consular or government representatives, are part of this process. Such visits need to be welcomed appropriately with the right facilities and engagement from appropriately senior UBC representatives. While we have protocols in place for receiving visitors, these might be strengthened so as to ensure that Chinese visitors are received in a correct manner, which respects their expectations and provides the opportunity to showcase UBC's strengths as a partner.

Although student enrollment from China is healthy, we need to work to **maintain our recruitment strengths** especially as Chinese universities grow. We need to work with the China Scholarship Council to gain a top competitive position as a destination of choice for Chinese graduate students who wish to pursue a degree abroad; **we aim to increase the number of CSC students on the UBC campus**. We must also ensure UBC is gaining access to the full range of scholarships available for UBC students going to China. We could consider establishing an informal network of faculty members prepared to work for the wider UBC purpose of graduate recruitment in China. This would involve creating an inventory of people who could be ambassadors for UBC in China to raise awareness of UBC and to interview potential candidates for graduate programs.

V1.2 India

Challenges and opportunities:

Compared with many other areas of international engagement, UBC has few formal connections in India; at present there are five agreements linking us to Indian universities and institutions. Student mobility is strong where it exists; for example, UBC and IIT Delhi have just renewed a link that has been in place for ten years, but this arrangement is very limited in

³ MITACS is a federally and provincially funded research network that is hosted by UBC.



terms of the number of students currently involved. On that basis, it is an obvious place to work on building.

India represents huge potential, but also risk. The distance of India from Vancouver, the sheer scale of the country and the fact that UBC has fewer established connections than its peers from other countries such as the US and Australia mean that future engagement needs to be done in a strategic way with a view to using resources effectively.

India represents an immense pool of talented students and research interest. Despite the lack of formal links (we have only a handful of formal linkages with India out of a total of approximately 300 international agreements and memoranda of understanding), UBC has a great deal of informal relationships and natural points of convergence: English is the main language of instruction in India, Vancouver has a substantial population with close ties to India and an established body of South Asian expertise and content in its research and academic programs. Student numbers are low; there are 255 graduate and undergraduate students from India pursuing degrees at UBC, compared to 1,284 students from China. However, UBC has a good number of faculty members with close ties to India.

It is important to step up engagement in India now because India itself is in a rapid state of change. The Indian government is investing in education and there is a clear recognition that the post-secondary sector in India is simply not able to meet the needs of the emerging economy. An important element of India's strategy in building up its own system is to look internationally for partnerships to help it do this. Canada has a comparatively weak brand in India; if we don't do something different in the immediate future, we risk losing what footholds we may have at present. This risk is increased by the fact that we are competing with other international partners who have a wider and deeper range of existing links and better funded government support for extending those. Interest in India at UBC is high amongst students and faculty and we are well positioned to be a leader among Canadian institutions.

UBC students and researchers will benefit directly from greater collaboration with Indian institutions and partners. In establishing partnerships and building connections with Indian educational institutions, government agencies, NGOs and industry, we aim to create a balanced exchange of students and opportunities for research collaboration between both countries.

While engagement in India has many potential benefits to UBC, it is particularly important to build our connections with a view to mutual benefits, rather than self-interest. India is at a stage of development in its higher education and research. Our objectives need to take into account Indian partners' capacity-building objectives as well as our own desire to partner. This approach is not only fair, it is the only way to create a sustainable foothold for UBC in India.

Goal for engagement in India:

- Raise UBC's profile in India so that we become known as a destination of choice for study, research and international partnership.



Strategies for engagement in India:

UBC should **assert a position of leadership** among Canadian universities seeking to engage in India. We should work with AUCC to connect with colleagues and share best practice and act as a coordinator for activities aimed at increasing the profile of Canadian universities in India and building links between Canadian universities and their Indian counterparts. We should speak on behalf of Canadian universities when engaging with government either in India or in Canada.

We can **raise UBC's profile as a key player in India through the media**. We should seek to engage media in India, internationally and in Canada for this purpose and exploit all opportunities to highlight UBC's activities in India and linkages with Indian institutions. We can also act as a spokes person for Canadian universities engagement in India in our position as a national leader.

We should **seek advice from local experts** by creating an India Advisory Committee composed of leaders from academia, local community, private sector and government to provide ongoing advice and direction to present and future engagement activities of UBC in India. UBC needs assistance and access to intelligence to better position itself in India. India is a vast and complex country, with cultural, religious and business nuances that are sure to impact UBC's engagement there. India is also full of opportunities, not all of them apparent at first glance. An Advisory Committee would provide input and advice on how better to reach our goals there. Vancouver, and the lower BC mainland, has one of the largest South-Asian Diasporas in North America. UBC could potentially leverage its knowledge of India, as well as its relationships, to gain a competitive advantage in that market.

Many institutions around the world have chosen to set up **a presence in India** to facilitate the day-to-day contact needed to make headway in such a complex country. The BC government has, for example, a business development office in Bangalore, and it plans to expand into Mumbai. Many of our peer universities around the world also have offices located in large Indian cities. We should explore whether a physical presence for UBC in India would help further our objectives for engagement, considering possibilities such as an office in India or a joint research institute based in India in partnership with other Canadian entities, for example MITACS. As mentioned above, investment in India is costly and establishing physical presence would represent a significant allocation of resources. Such a presence would therefore need to have a defined focus and be accountable for specific outcomes.

Although UBC has few existing **partnerships in India** when compared to other regions of the world in which we are engaged, we do have some valuable links - either formal or informal - and these should be taken stock of and built on where possible. For example we have had a student mobility partnership with IIT Delhi for more than ten years, giving us an excellent basis for building links with this prestigious institution. The Institute of Asian Research has recently conducted a census of faculty members across all disciplines with a professional or academic connection to six Asian regions, including India. This has highlighted a large number of linkages at the level of individual faculty members, opening up a wider range of partners than is evident



from UBC's formal agreements and memoranda of understanding. Inventories of existing partnerships will allow us to identify key institutions in India with which to interact and as places to which UBC students and researchers can go. Building links with Indian institutions will raise the profile of UBC in India and will go a long way to build capacity in India's higher education system.

UBC's global linkages open up the possibility for us to **learn from other international partners**. For example, German universities have successfully built up a presence in India and Japanese universities have a successful program of student mobility in India. We could use our links with German and Japanese universities to obtain best practice for building our own presence in India.

As mentioned above, **partnerships with India** institutions are an important building block for UBC in developing a presence in India. All successful partnerships **give benefits to both sides** and, given that Indian universities have a very different structure to UBC and are at a different stage of development, we will need to pay particular attention to how mutual benefit is derived from our partnerships in India. Our partnerships with Indian universities will need to be constructed creatively with a view to the long term. Our partnership with IIT Delhi is one such arrangement as it allows for a stipend to be paid to in-coming students from the IIT and balance for UBC is achieved by opening up opportunities for study or research which would not otherwise be available. We also need to engage beyond universities as universities lack infrastructure to support some forms of partnership – research is largely conducted in other government funded entities. Other innovative ways to engage with India include working more closely with India's private sector companies and NGOs. Private companies in India are keen to do more research and to build their research capacity. UBC could be a leader in these interactions through, for example, offering UBC students and researchers the chance to work in one of these large Indian companies.

Recruitment of undergraduate and graduate students from India is an important element in our strategy for engagement; we aim to double the number of Indian students at UBC. There are about 200,000 Indian students going abroad to study in university. The vast majority attend Australian or US institutions. Not only do Indian students represent a huge pool of talent, we need to build links through establishing an alumni base in India. To increase our recruitment we need to look at our existing systems to make sure they are as transparent and accessible as possible for Indian students (e.g. review TOEFL requirements for Indian students who have been schooled in English). We need to build recruitment strategies with a view to long term engagement. We should consider working collaboratively with Indian high schools to build lasting partnerships which bring direct benefits to schools as well as raising UBC's profile.

Student mobility programs are a fundamental element to UBC's engagement in India for many reasons. Not only do they open up opportunities for enriched learning and research to our students, they can be a very effective means of raising UBC profile - students themselves can be our best ambassadors for international engagement - and can also lead directly to recruitment



especially of graduate students. Globalink is a program which supports Indian undergraduates at IITs to come to Canada for research internships at partner universities and in industry. UBC was one of the founding partners of this program, which is run by MITACS from its Vancouver Campus. This program could be broadened to include the social sciences and outgoing UBC students.

Maintaining strong bonds with UBC alumni in India will be especially valuable to our engagements. When they return to India, alumni create bridges between UBC and Indian-based universities, private sector companies, government and NGOs. We should consider that our alumni base includes not only former full time students but those who have been visiting students, visiting scholars, or visiting faculty. We might also leverage Globalink alumni to increase awareness of UBC in India.

VI. 3 Europe

Challenges and opportunities:

Europe has a large number of world leading institutions and offers research excellence and a great capacity for expanding student mobility. UBC's current levels of engagement in Europe are good. UBC has 55 current agreements and memoranda of understanding with European institutions for the purposes of collaborative research and student mobility. Europe is our strongest regional centre for student exchange and levels of student mobility are healthy and balanced. International student enrollment is also at a good level.

We have some notable research collaborations with European partners that bring in substantial additional funding and prestige. For example,

Centre

National de la Recherche Scientifique (CNRS), an honour shared by only three other international research centres. This partnership brings direct funding benefits and creates valuable opportunities for exchange between French researchers and UBC scholars.

We have also had some successful engagement with European Union programs to support research such as the 7th Framework Program, which places strong emphasis on the value of including partners from outside Europe in consortia. We have received several fully-funded post- doctoral fellows from the Marie Curie program and UBC faculty members act as peer reviewers for the selection of collaborative research projects funded under the program.

However, we are still not reaching our potential for engagement in Europe. The university landscape in many European countries is changing with changes in policy about how central government funding is allocated and we risk being left behind. Some of our partnerships have not kept in step with university reforms in Europe and they are also unevenly distributed across the region (our highest concentration of partnerships is in France, Germany and the UK) and across disciplines. As a result of these inconsistencies, UBC is at risk of being excluded from the very significant research cooperation mechanisms that exist in Europe.



Defining Europe:

Some of our collaborations are necessarily limited to the countries of the European Union but the full range of our connections go beyond those countries and when considering our strategy for engagement in Europe it is appropriate to look as widely as possible for potential partners.

Goals for engagement in Europe:

Raise UBC's status in Europe as a partner of choice for research collaboration, ensure that we have a full enough and strong enough network of partners to support that and maintain a strong program of student mobility and recruitment in Europe.

Increase funding available to support collaborative research with European partners by gaining access to substantial funding from European programs support research and mobility of researchers and explore further sources of funding available from national governments in Europe with a view to establishing one substantial new partnership to support research on the scale of the existing Max Plank Centre

Strategies for engagement in Europe:

UBC has a strong level of expertise on Europe. Many of our faculty have links with European counterparts and have also received funding from European sources. We will establish an **Advisory Committee** to mobilize UBC's expertise on Europe.

We need to **review the current pattern of linkages in Europe** (including a survey of faculty engagement) and identify gaps and underrepresented regions or disciplines.

We need to **provide better information** to researchers wishing to engage in Europe about partnership and sources of funding that can support their endeavours.

Student mobility with European partners is strong but we have not fully exploited **the potential of mobility to support research collaboration**. The graduate student mobility program started two years ago to promote this has had some success and this could be built on in future. UBC's new policy to allow joint PhD supervision should be actively promoted to prospective candidates and partner institutions in Europe. We might also consider offering more incentives for students to pursue jointly supervised PhDs or undertake research placements at a European university or research institute.

Increase our connections with national governments with a view to sourcing funding for research collaboration and mobility of researchers – our two most successful examples of research collaboration with European partners are, after all, products of national, rather than European Union engagement.

Step up UBC's connections and influence with EU and other multi-level institutions (eg the Council of Europe). This could be done by making more use of the Canadian mission to the EU or working with Brussels-based partners such as the Université Libre de Bruxelles (ULB). We might also consider whether a decided UBC presence on the ground – in Brussels or elsewhere



in Europe - would bring value. Increasing contacts between UBC's senior executive with senior European officials and engaging more of our faculty in peer reviews for EU programs are two direct ways of building a stronger profile for UBC in Europe. We should consider lobbying both EU and Canadian authorities to establish funding mechanisms for joint European-Canadian activities, e.g., by Canada obtaining status as an Associated Country for the purposes of EU programs.

VII. What About the Rest of the World?

This is the question the jumps to everyone's mind at this point. A focus on three areas does not begin to cover the range of current engagement, nor the range of aspirations, by current faculty and students at UBC. The two most important examples in this regard are the United States and Africa.

Let's take the United States first. It is our largest research partner, the source of substantial research funding, the location of many significant interactions, and the home of a great number of international students. We want all of that activity to continue to flourish. But these relationships are currently in good health. Over the next three to five years, we do not see a pressing need to make game-changing moves with regard to the United States. Indeed, this is a good example of how the time frame and the areas of regional focus might interact: we aspire to be in a position five years from now where our relationship with China might be re-invigorated so that it could assume a similar position.

As for Africa, it is a vital area of interest for many students and a growing number of faculty members. We recognize energy on both of our campuses for engagement with Africa at the present. But our current engagement with the many regions of Africa is not yet "at the starting block" so to speak. Over the next three to five years, we aim to build our understanding of Africa so that we can consider whether we ought to make it a focus of the subsequent plan. To that end our goals with regard to Africa are:

- To set up an Africa focus committee to identify where current strengths and linkages lie at UBC
- To increase the number of entrance awards for international students from Africa
- To double the number of students engaged in international service learning in Africa
- To double the number of research graduate students from Africa
- To investigate the feasibility of Masters' program in international development
- To complete a study of potential partner universities in Africa

UBC does have a wealth of scholars in health disciplines, engineering, sciences, law, economics, international relations and elsewhere who are working on projects related to Africa. These are the areas poised for growth in the medium term.



VIII. The Purpose of this Plan

This plan will guide international engagement activities at UBC. It aims to identify things that can be achieved within the next three to five years and sets out measurable goals and specific strategies. International engagement spans both our campuses and includes every Faculty, College and Institute. This plan indicates a broad strategic framework that will advance UBC's international engagement, but it does not seek to specify partners or activities or research projects on which to engage. It promotes information sharing, networking and transparency within UBC. It pays particular attention to those areas in which central resources can make a difference, while recognizing that the most vital international connections are made and sustained at the level of individuals and small groups: researchers, faculty, students, staff, and alumni.

International engagement is essential to any university in the twenty-first century. For a major, research-intensive university such as UBC, international engagement is both a measure of, and means to, success. But international engagement must go further than that. It must demonstrate an ethics and a politics that reflect the core values of the university. This means, for example, that our commitment to academic freedom must, in the international realm, guide our engagement with partners in countries with regimes or governments that may not share Canadian democratic commitments. This means that individual scholars make their own decisions about which states to engage with or to critique. A university is uniquely placed to build connections that states may find politically unpalatable.

Our commitment to valuing and sharing knowledge means that UBC is inherently committed to capacity building and public interest around the globe. This means that the university has a role in international development, including a role in analyzing and understanding that development is complex and carries with it the imprint of inequality. It means that UBC's work in less prosperous states is about learning as much as it is about sharing knowledge. It means that our international engagement cannot always be about 'us'. Underpinned by mutual respect, and our commitment to be a global citizen and to educate global citizens, international engagement means striving to make a contribution in the world without falling into the traps of hubris and self importance. This plan also has strong connections and overlaps with the research strategic plan, the aboriginal strategic plan, the intercultural understanding plan, the sustainability plan, and the transformative learning agenda.

This plan has connections to the research strategic plan, the aboriginal strategic plan, the intercultural understanding plan, the sustainability plan, and student learning commitments. These strategic overlaps need to be identified and explored as part of a collaborative exercise by the units concerned.



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

2 December 2010

To: Vancouver Senate

From: Senate Academic Policy Committee

RE: Doctoral Students deemed “Full-Time with Reduced Workload” - Faculty of
Graduate Studies

The Faculty of Graduate Studies has brought forward a proposal to allow doctoral students with permanent disabilities (as identified by UBC Access & Diversity) to complete their programs with extended times to completion and under alternative fee payment schedules. Under the proposed changes to Classification for Doctoral Students, students may be granted this accommodation by the Dean of the Faculty of Graduate Studies in consultation with the Registrar.

The Senate Academic Policy Committee has reviewed this proposal and is please to recommend the following to Senate:

Motion: *“That the new classification for doctoral students entitled ‘Full-Time with Reduced Workload’ and its associated administrative procedures be approved as set out in the attached proposal.”*



UBC Proposal Form Senate Academic Policy Committee

Faculty: Faculty of Graduate Studies Faculty approval date: May 6, 2010 Effective Session W Term 1 Year 2010 for Change	Date: November 30, 2010 Contact Person: Jenny Phelps Phone: 2-2934 Email: jenny.phelps@ubc.ca
Proposed Calendar Statement: Doctoral students with disabilities who are deemed as “full-time with reduced workload” <p>An alternative tuition schedule may be established by the Dean of Graduate Studies in consultation with the University Registrar for doctoral students who have been assessed by the UBC Access & Diversity Office as having permanent disabilities requiring a reduced level of academic engagement. The alternative tuition schedule is structured to reflect a reduced academic engagement over a longer period of time.</p> <p>For doctoral students designated as “full-time with reduced workload”, the maximum time in the program is normally 8 years. Such students are deemed to be equivalent to “full-time” for all purposes.</p> Administrative procedure: Doctoral students pursuing registration as “full-time with reduced workload” must register with and be assessed by Access & Diversity to determine eligibility and recommended academic accommodation. If determined to be eligible by Access & Diversity, the student must agree to have this information released to the Faculty of Graduate Studies. The Faculty will establish an alternative tuition schedule based on academic accommodations recommended by Access & Diversity and liaise with the University Registrar to implement the schedule.	URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,341,187 Present Calendar Entry: N/A Type of Action: <ul style="list-style-type: none">• Publish the availability of an alternative tuition schedule for doctoral students with disabilities who are deemed as “full-time with reduced workload”.• Add entry under new sub-heading in “The Faculty of Graduate Studies > Classification of Students > Doctoral Student” section of the Calendar. Consultation: While reviewing an initial proposal to develop a standard alternative tuition schedule for doctoral students with disabilities who are deemed as “full-time with reduced workload”, it was determined by the Faculty of Graduate Studies and Provost’s Office that the small number of affected students made a new tuition schedule unnecessary. It was determined that the Dean of Graduate Studies and the University Registrar hold discretionary authority to adjust tuition schedules when individual student situations warrant such action. The initial proposal to establish an alternative tuition schedule was approved by Graduate Council Academic Policy Committee on April 27, 2010 and subsequently approved on May 6, 2010 by a joint meeting of Graduate Council and the Faculty of Graduate Studies



permission to convert retroactively to an alternative tuition schedule will not normally be granted.

to which all members of the Faculty were invited. The revised approach reflected in the currently proposed Calendar statement was reported to the Graduate Council on November 10, 2010, without dissent.

Rationale:

- This policy is intended to provide reasonable accommodation for students who enter with or acquire a permanent disability likely to slow their progress toward completion of doctoral studies.
- Likewise, an extension to the maximum time allowed to complete the degree (to 8 years, rather than the standard 6) is appropriate.



UBC Proposal Form Senate Academic Policy Committee

Faculty: Faculty of Graduate Studies Faculty approval date: May 6, 2010 Effective Session W Term 1 Year 2010 for Change	Date: November 30, 2010 Contact Person: Jenny Phelps Phone: 2-2934 Email: jenny.phelps@ubc.ca
Proposed Calendar Statement: Duration of Program Doctoral Students Students admitted to a doctoral program...of leave is not counted toward time to completion. For doctoral students designated as “<u>full-time with reduced workload</u>” (link to http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,341,187), the maximum time in the program is normally 8 years.	URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,342,616 Present Calendar Statement: Duration of Program Doctoral Students Students admitted to a doctoral program... ...of leave is not counted toward time to completion. Type of Action: Add ‘pointer’ to the “Classification of Students > Doctoral Students” Calendar entry from “The Faculty of Graduate Studies > Academic Regulations > Duration of Program > Doctoral Students” Calendar entry. Rationale: <ul style="list-style-type: none">• Update appropriate sections of the Calendar in light of new “full-time with reduced workload” Calendar entry.



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

3 December 2010

To: Vancouver Senate

From: Admissions Committee

Re: **Bachelor of Education – Changes in Admission Requirements (approval)**
English Proficiency Standards and GRE Requirements – Faculty of Graduate Studies (approval)
Doctoral Degrees: English Language Proficiency Requirement – Faculty of Graduate Studies (approval)

a) Bachelor of Education – Changes in Admission Requirements (approval)(circulated)

The Admissions Committee has reviewed and recommends for approval the revised calendar entry on admission requirements for applicants to the Bachelor of Education program. The circulated document outlines a reduction in the number of UBC equivalent credits required for admission to the 12-month Elementary Teacher Education option and additional information on secondary teaching field requirements for French and Modern Languages education.

Motion: *That Senate approve the changes in admission requirements for applicants to the Bachelor of Education program, effective for admission to the 2011 Winter Session and thereafter.*

b) English Proficiency Standards and GRE Requirements – Faculty of Graduate Studies (approval)(circulated)

The Admissions Committee has reviewed and recommends for approval the revised calendar entry on English proficiency standards and GRE admission requirements for applicants to the Faculty of Graduate Studies. The circulated document outlines a number of editorial changes, including deletion programs no longer offered, up-to-date information for current programs and more test options for applicants to satisfy admission requirements.

Motion: *That Senate approve the revised calendar entry on English proficiency standards and GRE admission requirements for applicants to the Faculty of Graduate Studies, effective for entry to the 2012 Summer Session and thereafter.*

c) Doctoral Degrees: English Language Proficiency Requirement – Faculty of Graduate Studies (approval)(circulated)

The Admissions Committee has reviewed and recommends for approval the revised calendar entry on the English language proficiency requirement for applicants to doctoral programs in the Faculty of Graduate Studies. The circulated document outlines a number of editorial changes and additional test options for applicants to satisfy the English language proficiency requirement for admission.

Motion: *That Senate approve the revised calendar entry on English language proficiency requirement for applicants to doctoral programs in the Faculty of Graduate Studies, effective for entry to the 2012 Summer Session and thereafter.*

Respectfully submitted,

Dr. David Fielding
Chair, Admissions Committee

UBC Admission Proposal Form

<p>Faculty: Education Department: Teacher Education Office Effective Session: 2011 Winter Session</p>	<p>Date: October 15, 2010 Contact Person: Sydney Craig Phone: 2-4568 Email: Sydney.craig@ubc.ca</p>
<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,202,320,157</p> <p><u>Homepage</u> > <u>Faculties, Colleges, and Schools</u> > <u>The Faculty of Education</u> > <u>Bachelor of Education</u> > Admission</p> <p>Proposed Calendar Entry:</p> <p>Elementary Teacher Education</p> <p>The Elementary Teacher Education option prepares students to teach Kindergarten to Grade 7. While it is recommended that applicants have a bachelor's degree, candidates are eligible for admission to the two-year option with a minimum of 90 UBC-equivalent credits acceptable to the Faculty of Education. Applicants to the 12-month option must have completed a four-year degree including a minimum of 75 UBC equivalent credits acceptable to the Faculty of Education. Both options require full-time study.</p> <p>...</p> <p>Part III</p> <ol style="list-style-type: none"> 1. Applicants to the two-year elementary option are required to have completed at least 90 UBC equivalent credits acceptable to the Faculty of Education. 	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,202,320,157</p> <p><u>Homepage</u> > <u>Faculties, Colleges, and Schools</u> > <u>The Faculty of Education</u> > <u>Bachelor of Education</u> > Admission</p> <p>Present Calendar Entry:</p> <p>Elementary Teacher Education</p> <p>The Elementary Teacher Education option prepares students to teach Kindergarten to Grade 7. While it is recommended that applicants have a bachelor's degree, candidates are eligible for admission to the two-year option with a minimum of 90 UBC-equivalent credits acceptable to the Faculty of Education. Applicants to the 12-month option must have completed a four-year degree (120 UBC equivalent credits), including a minimum of 90 UBC equivalent credits acceptable to the Faculty of Education. Both options require full-time study.</p> <p>UBC equivalent credits may be in the following areas: humanities, social sciences, visual and performing arts, sciences, human kinetics and physical education, or music.</p> <p>...</p> <p>Part III</p> <ol style="list-style-type: none"> 1. Applicants to both the 12-month and the two-year elementary options are required to have completed at least 90 credits (including the above) from the humanities,

<p>2. Applicants to the 12-month elementary option are required to have completed a four-year (120 credits) degree, or equivalent, of which at least 75 UBC equivalent credits are acceptable to the Faculty of Education.</p> <p>.....</p> <p>Secondary Teaching Field Requirements</p> <p>.....</p> <p><u>French Education: Concentration and Major</u></p> <p>Applicants will be required to demonstrate oral and written proficiency in French either prior to admission or early in the program. All applicants for a French program (except FLAGS, French language and global studies) must take the French Language Appraisal (FLA) for Placement of Teacher Candidates or present their results on an equivalent French proficiency test.</p> <p>For the Concentration in French, students must take first- and second-year courses in both the language and the literature of French; 18 credits in French at the third- and fourth-year level, at least 6 of which must be French grammar and French composition and must be completed with second class or higher standing. There are some possible exemptions for students who achieve at the highest level in the French Language Appraisal (FLA).</p> <p>For the Major in French, students must take an additional 12 credits of French at the third- and fourth-year level.</p> <p><u>Modern Languages Education (other than French) Concentration</u></p> <p>Languages include Mandarin Chinese, German, Italian, Japanese, Korean, Punjabi, Russian, and Spanish. Applicants will be required to demonstrate oral and written proficiency in their selected language(s) either prior to admission or early in the program. However, there is no</p>	<p>social sciences, sciences, visual and performing arts, art history, theatre, dance, human kinetics, physical education, or music.</p> <p>2. Applicants to the 12-month option are required to have completed a four-year (120 credits) degree, or equivalent.</p> <p>.....</p> <p>Secondary Teaching Field Requirements</p> <p>Modern Languages Concentration and Major</p> <p>Languages include Chinese, French, German, Italian, Japanese, Korean, Punjabi, Russian, and Spanish. Students will be required to demonstrate oral and written proficiency in their selected language(s) either prior to admission or early in the program.</p>
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<p>proficiency test required for these languages.</p> <p>For the Concentrations, students must take first- and second-year courses in both the language and the literature of the selected language; 18 credits in the selected language at the third- and fourth-year level, at least 6 of which must be language study and must be completed with second class or higher standing. Applicants who present a language other than French as one teaching field must present a second teaching field which is not one of the languages listed above; French and one such language is an acceptable combination as is English and one such language.</p>	<p>For the Concentrations, students must take first- and second-year courses in both the language and the literature of the selected language; 18 credits in the selected language at the third- and fourth-year level, at least 6 of which must be language study (French grammar and French composition for those presenting French) and must be completed with second class or higher standing. Applicants who present a language other than French as one teaching field must present a second teaching field which is not one of these languages; French and one such language is an acceptable combination as is English and one such language.</p> <p>For the Major in French, students must take an additional 12 credits of French at the third- and fourth-year level.</p> <p>Type of Action:</p> <ol style="list-style-type: none"> 1. Reduction in minimum number of UBC equivalent credits required for admission to the elementary 12-month program. Elimination of specific list of subject areas considered for equivalent credit. 2. Change in the description of concentration and major (divide one entry into two) <p>Rationale for Proposed Change:</p> <ol style="list-style-type: none"> 1. Applicants to the 12-month teacher education program often include areas of study such as early childhood or social work in their four year degrees. Currently, these areas of study are not included in the list of courses appropriate for equivalent UBC credit. However, such areas are appropriate background for the study of education. Elimination of the restrictive list will in the future allow for relevant course work to be considered for purposes of admission. 2. Under the new “secondary school teaching field requirements,” students can choose a modern language other than French only as a concentration, whereas they can continue to choose French as either a major or a concentration. French major or concentration requires a proficiency test at the time of application and has a course-work exemptions for those proficient in French, whereas these policies are not applicable to the concentration in other modern languages.
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UBC Admissions Proposal Form Change to Admission Requirements

Faculty: Graduate Studies
Department: Office of the Dean
Effective Session: 2012 Summer Session
Year for Change: 2010

Date: Nov. 20, 2010
Contact Person: Dr. Philip Loewen
Phone: 7-5546
Email: philip.loewen@ubc.ca
Joyce.tom@ubc.ca

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

Proposed Calendar Entry:

Faculties, Colleges, and Schools

[Homepage](#) > [Faculties, Colleges, and Schools](#) > [The Faculty of Graduate Studies](#) > [English Language Proficiency Standards and GRE Requirements](#)

English Language Proficiency Standards and GRE Requirements

Note: An internet-based version of the TOEFL is now available. It is intended to replace both the paper and computer versions. As of 2006, the computer version is no longer available. Paper or internet-based test results will be valid for two years after the date the test is taken.

The minimum total score on the Internet-based TOEFL for all applicants to the Faculty of Graduate Studies is 80. The minimum total score for the paper-based test is 550. **Acceptable alternatives to the TOEFL include CAEL, CELPIP, IELTS, MELAB and PTE.**

Individual graduate programs **may** require higher **English language proficiency** scores, and may require minimum scores on individual components of the test. **Translations between the TOEFL scores shown below and results from other tests will be made by the graduate programs concerned, taking guidance from the tables provided by the respective testing agencies: [CAEL](#), [CELPIP](#), [IELTS](#), [MELAB](#) and [PTE](#).**

Note: the table below receives regular updates throughout the year and outlines the minimum component score

TOEFL and GRE Requirements

Program	Reading/Writing/ Listening/Speaking – Component Scores for Internet-based TOEFL	Internet -based TOEFL overall	TOEFL (paper)	GRE
Adult Education		100		



Adult Learning and Global Change		100		
Agricultural Economics		90		
Anatomy and Cellular Biology		80		Yes
Ancient Culture, Religion and Ethnicity		100	600	
Animal Science		90	577	
Anthropology	25/25/22/22	100	600	
Architecture (M.A.S.A.)		100	600	Yes ¹
Architecture (M.Arch.)		100	600	Yes ¹
Archival Studies (M.A.S. and M.A.S./M.L.I.S.)		100	600	
Art Education	22/22/22/22	92	580	
Art History		100	600	
Asia-Pacific Policy Studies		100	600	Yes ¹
Asian Studies		89	570	
Astronomy		80	550	
Atmospheric Science	-/-/-/24	100	600	Yes ¹
Audiology and Speech Sciences		100	600	
Biochemistry and Molecular Biology		106	625	Yes
Bioinformatics		100	600	
Botany		80	550	
Cell and Molecular Biology		100	600	
Chemical and Biological Engineering		80	550	
Chemistry		92	580	Yes
Children's Literature		100	600	
Civil Engineering ⁶		100	600	
Classics and		100	600	



Classical Archaeology				
Commerce and Business Admin. (M.Sc. [Bus. Admin. M.Sc.B.] Ph.D.)		100	600	Yes ²
Comparative Literature		107	625	
Computer Science		100	600	Yes
Counseling Psychology		82	553	Yes
Creative Writing		80	550	
Critical and Curatorial Studies		100	600	
Cross-Faculty Inquiry in Education		86	567	
Curriculum Studies	22/22/22/22	92	580	
Dental Science Craniofacial Science		92	580	Yes
Economics		80	550	Yes
Educational Administration		100	600	
Educational Leadership and Policy		100	600	
Educational Psychology		82	553	Yes ³
Educational Studies		100	600	
Educational Technology	20/20/-/-	80	550	
Electrical and Computer Engineering		100	600	
English		104	615	
European Studies		92	580	
Experimental Medicine	22/22/22/22	96	590	
Family Studies		575		
Film Production (M.F.A.)		100	600	
Film Studies (M.A.)		100	600	



and Ph.D.)				
Food Science		90	577	
Forestry		80	550	
French Studies		80	550	
Genetic Counseling		100	600	
Genome Science and Technology		100	600	
Geography		100	600	
Geological Engineering	-/-/-/24	100	600	
Geological Science	-/-/-/24	100	600	
Geophysics	-/-/-/24	100	600	
Germanic Studies		80	550	
Health Administration		625		
Health Science		625		
Higher Education		100	600	
Hispanic Studies		80	550	
History		89	570	Yes ⁴
History of Education		92	600	
Home Economics Education	22/22/22/22	92	580	
Human Kinetics	23/23/23/21	90	577	
Human Nutrition		90	577	
Integrated Studies in Land and Food Systems		90	577	
Interdisciplinary Studies		80	550	
Italian Studies		550		
Journalism		100	600	
Landscape Architecture		90	577	
Language and Literacy Education	22/22/22/22	92	550	
Law ⁴		100	600	
Library, Archival and Information Studies		100	600	Yes ³



Linguistics		80	550	
Materials Engineering		83	560	
Mathematics		100	600	
Mathematics Education	22/22/22/22	92	580	
Measurement, Evaluation and Research Methodology	21/20/21/20	82	553	
Mechanical Engineering ⁵		93	580	Yes ¹
Medical Genetics		100	600	
Medicine M.D./Ph.D. (Combined Program Dual Program)		80	550	
Microbiology and Immunology		100	600	Yes ⁷
Mining Engineering		80	550	
Modern Language Education			550	
Music		93	580	
Music Education	22/22/22/22	92		
Neuroscience		100	600	Yes ⁷
Nursing		100	600	Yes
Occupational and Environmental Hygiene		100	600	Yes
Occupational Therapy		100	600	
Oceanography		100	600	
Interdisciplinary Oncology	22/24/22/22	100	600	
Oral Biology		580		
Pathology and Laboratory Medicine		90	577	Yes ⁷
Pharmaceutical Sciences	22/22/22/22	100	600	
Pharmacology and Therapeutics		100	600	
Philosophy		100	600	



Philosophy of Education		100	600	
Physical Education	22/22/22/22	92	580	
Physical Therapy		100	600	
Physics		80	550	
Physiology		550		
Planning		100	600	Yes ¹
Plant Science		90	577	
Political Science ⁶	22/25/22/23	92	580	Yes ⁸
Health Care and Epidemiology (M.H.A.) Population and Public Health		107	625	Yes ²
Psychology		88	550	Yes
Rehabilitation Sciences (MSc, PhD)		100	600	Yes ⁷
Rehabilitation Sciences (M.R.Sc.)		108	627	
Religious Studies		100	600	
Reproductive and Developmental Science		80	580	
Resource Management and Environmental Studies		100	600	
School Psychology	21/20/21/20	82	553	Yes
Science Education	22/22/22/22	92	580	
Social Studies Education	22/22/22/22	92	580	
Social Work		93	580	
Society, Culture and Politics in Education		100	600	
Sociology	25/25/22/22	100	600	
Software Systems		100	600	
Soil Science		90	577	
Special Education	21/20/21/20	82	553	Yes³
Statistics		100	600	



Surgery		80	550	
Teacher Librarianship		80	550	
Teaching English as a Second Language		80	550	
Technology Studies Education	22/22/22/22	92	580	
Theatre (M.F.A.)		80	550	
Theatre (M.A. and Ph.D.)		100	600	
Visual Art		100	600	
Vocational Rehabilitation Counselling	21/20/21/20	82	553	
Women's Studies and Gender Relations Studies		97	590	
Zoology		89	570	

¹ Not mandatory, but strongly recommended.

² Or GMAT.

³ Ph.D. program only.

⁴ TWE: 5.5.

⁵ TSE: 40; TWE: 4.0.

⁶ TSE: 55, TWE: 5.0

⁷ Applicants from outside North America only.

⁸ General and subject tests required

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

Present Calendar Entry:

[Homepage](#) > [Faculties, Colleges, and Schools](#) > [The Faculty of Graduate Studies](#) > ~~TOEFL and GRE Requirements~~

~~TOEFL and GRE Requirements~~



Note: A new, internet-based version of the TOEFL is now available. It is intended to replace both the paper and computer versions. Paper or computer test results will still be valid for two years after the date the test is taken. The minimum total score for all applicants to the Faculty of Graduate Studies is 550 for paper-based TOEFL and 213 for computer-based TOEFL.

The minimum total score on the new Internet-based TOEFL for all applicants to the Faculty of Graduate Studies is 80.

Many graduate programs will require higher minimum total scores, and may require minimum scores on individual components of the test. **Note:** the table below receives regular updates throughout the year.

Internet-based TOEFL Scores

Program	Reading	Writing	Listening	Speaking	Overall
Adult Education					100

.....

TOEFL and GRE Requirements

Program	TOEFL (Paper)	TOEFL (Computer)	GRE
Adult Education	600	250	

.....

Type of Action:

- Combine current 2 tables on 'Internet-based TOEFL Scores' and 'TOEFL and GRE Requirements' into one table. Remove reference to Computer-based TOEFL. Edit to remove references to programs no longer offered and add those that are offered but do not appear in the table.
- Change page title
- Add more test options for applicants
- Add links to various test score translations and descriptions.

Rationale:

- The Faculty of Graduate Studies now has more English language proficiency test options for applicants and would like to indicate that in the Calendar.
- Edits for accuracy and reformatting of table for ease of reference.

UBC Admission Proposal Form Change to Admission Requirement

<p>Faculty: Graduate Studies Department: Office of the Dean Faculty Approval Date: Nov 10, 2010 Effective Session: 2012 Summer Session Year for Change: 2010</p>	<p>Contact Person: Philip Loewen Jenny Phelps Email: loew@math.ubc.ca jenny.phelps@ubc.ca</p>
<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,340,181</p> <p><u>Homepage</u> > <u>Faculties, Colleges, and Schools</u> > <u>The Faculty of Graduate Studies</u> > <u>Admission</u> > <u>Doctoral Degrees</u></p> <p>Proposed Calendar Entry:</p> <p>English Language Proficiency Requirement</p> <p>Applicants from a university outside Canada in which English is not the primary language of instruction must present evidence of competency to pursue studies in the English language prior to being extended an unconditional offer of admission. Minimum acceptable English language proficiency scores for applicants to Graduate Studies are:</p> <ul style="list-style-type: none"> • TOEFL (Test of English as a Foreign Language): minimum overall score of 550 (paper version); 80 (internet version) • IELTS (International English Language Testing Service): minimum overall band score of 6.5 with no other component score less than 6.0 • MELAB (Michigan English Language Assessment Battery): minimum overall score of 81 • PTE (Pearson Test of English—Academic): minimum overall score of 59 • CELP (Canadian English Language Proficiency Index Program): minimum scores; 4L/4L/4L 	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,204,340,181</p> <p><u>Homepage</u> > <u>Faculties, Colleges, and Schools</u> > <u>The Faculty of Graduate Studies</u> > <u>Admission</u> > <u>Doctoral Degrees</u></p> <p>Present Calendar Entry:</p> <p>English Language Proficiency Requirement</p> <p>Applicants from a university outside Canada in which English is not the primary language of instruction must present evidence of competency to pursue studies in the English language prior to being extended an unconditional offer of admission. Minimum acceptable English language proficiency scores for applicants to graduate studies are:</p> <ul style="list-style-type: none"> • TOEFL (Test of English as a Foreign Language): minimum score of 550 (paper version); 213 (computer version); 80 (internet version) • IELTS (International English Language Testing Service): minimum overall band score of 6.5 with no other component score less than 6.0 • MELAB (Michigan English Language Assessment Battery): minimum overall score of 81 <p>Graduate programs may set higher English language proficiency scores than those listed above. See TOEFL and GRE Requirements.</p>

<ul style="list-style-type: none"> • CAEL (Canadian Academic English Language Assessment): minimum overall score of 60 <p>Individual graduate programs may require higher English language proficiency scores than those listed above. See English Language Proficiency Standards and GRE Requirements.</p>	<hr/> <p>Type of Action:</p> <ul style="list-style-type: none"> • Add Pearson test of English to the list of English language proficiency tests to satisfy the English language admission requirement for the Faculty of Graduate Studies • Add CELPIP • Add CAEL • Minor editorial changes <p>Rationale:</p> <p>The Faculty of Graduate Studies would like to make available more English language proficiency test options for applicants. In September 2010, Senate approved the use of the Pearson Test of English (PTE) Academic. The PTE Academic evaluates all of the specific English language skills considered important by UBC (reading, writing, listening and speaking). The test has more test centres available and its results are highly reliable. The cost to test takers is about the same as TOEFL and IELTS, \$200 CDN or \$170 USD. Results of the tests are available to the test takers and can be distributed to institutions in a much shorter time frame than TOEFL or IELTS. Also the security measures are among the most rigorous in the field.</p> <p>CELPIP is an English Proficiency Test developed by UBC. It is one of two tests accepted by Citizenship and Immigration Canada. The CELPIP (Academic) version is currently used by Undergraduate Admission and it assesses academic reading, writing, listening and speaking skills of the test takers. 4L represents “Level 4L (CLB 7) – Adequate Proficiency Demonstrates adequate performance with moderately complex expression and comprehension. Uses more intricate phrasing with clarifying detail to effect efficient communication although some errors in diction and grammar are evident. Moderate to satisfactory fluency but still has some awkward expressions. Some difficulty in organization and structure.”</p> <p>CAEL is one of the common English language assessment tools used by most Canadian universities as well as used by the UBC Undergraduate Admission. A score of 60 indicates “Competent User: Demonstrates satisfactory competency in using academic English but fluency, accuracy and flexibility are somewhat limited in the academic setting”. A score of 60 is equivalent to a TOEFL score of 550.</p>
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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

3 December 2010

To: Vancouver Senate

From: Admissions Committee

Re: **Applicants Following the BC/Yukon Secondary School Curriculum: English 11 First Peoples (approval)**

Minimum Academic Standard for Secondary School Applicants (approval)

d. Applicants Following the BC/Yukon Secondary School Curriculum: English 11 First Peoples (approval)(circulated)

The Admissions Committee has reviewed and recommends for approval changes in admission requirements for applicants following the BC/Yukon secondary school curriculum. For admission to an undergraduate degree program, applicants may satisfy the English 11 admission requirement by completion of English 11 First Peoples.

Motion: *That Senate approve changes in admission requirements for applicants following the BC/Yukon secondary school curriculum, effective for admission to the 2011 Winter Session and thereafter.*

e. Minimum Academic Standard for Secondary School Applicants (approval)(circulated)

The Admissions Committee has reviewed and recommends for approval the proposed increase to the University's minimum admission average for applicants from secondary school to first-year undergraduate programs from 67% to 70% and the associated Calendar changes.

Motion: *That Senate approve the increase in the University minimum admission average for applicants from secondary school to the first year of all direct-entry undergraduate programs from 67% to 70%, effective for admission to the 2012 Winter Session and thereafter.*

Respectfully submitted,

Dr. David Fielding
Chair, Admissions Committee



UBC Undergraduate Admissions Proposal Form Change to Admission Requirements

<p>Effective Session: 2011 Admission Year for Change: To be posted to the calendar upon approval for the purpose of advising prospective students.</p>	<p>Date: October 13, 2010 Contact Persons: Graeme Joseph, Coordinator Strategic Aboriginal Initiatives Office of the VP, Students 604 822-4041 graeme.joseph@ubc.ca</p>																								
<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,22,63,0</p> <p>Proposed Calendar Entry:</p> <p><u>Homepage</u> > <u>Admissions</u> > <u>Applicants Following the BC/Yukon Secondary School Curriculum</u> > Admission Requirements</p> <p>Admission Requirements</p> <p>The minimum academic qualification for admission is secondary school graduation from a recognized secondary school, including the following Grade 11 and 12 courses:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 15%;">Grade</th> <th style="width: 85%;">Required Courses¹</th> </tr> </thead> <tbody> <tr> <td>Grade 12</td> <td>English 12 or English 12 First Peoples</td> </tr> <tr> <td></td> <td>Three additional approved examinable Grade 12 courses^{1,2}</td> </tr> <tr> <td>Grade 11</td> <td>English 11 <u>or English 11 First Peoples</u></td> </tr> <tr> <td></td> <td>Principles of Mathematics 11, Pre-Calculus 11, or Foundations of Mathematics 12</td> </tr> <tr> <td></td> <td>Civic Studies 11 or Social</td> </tr> </tbody> </table>	Grade	Required Courses ¹	Grade 12	English 12 or English 12 First Peoples		Three additional approved examinable Grade 12 courses ^{1,2}	Grade 11	English 11 <u>or English 11 First Peoples</u>		Principles of Mathematics 11, Pre-Calculus 11, or Foundations of Mathematics 12		Civic Studies 11 or Social	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,22,63,0</p> <p>Present Calendar Entry:</p> <p><u>Homepage</u> > <u>Admissions</u> > <u>Applicants Following the BC/Yukon Secondary School Curriculum</u> > Admission Requirements</p> <p>Admission Requirements</p> <p>The minimum academic qualification for admission is secondary school graduation from a recognized secondary school, including the following Grade 11 and 12 courses:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 15%;">Grade</th> <th style="width: 85%;">Required Courses¹</th> </tr> </thead> <tbody> <tr> <td>Grade 12</td> <td>English 12 or English 12 First Peoples</td> </tr> <tr> <td></td> <td>Three additional approved examinable Grade 12 courses^{1,2}</td> </tr> <tr> <td>Grade 11</td> <td>English 11</td> </tr> <tr> <td></td> <td>Principles of Mathematics 11, Pre-Calculus 11, or Foundations of Mathematics 12</td> </tr> <tr> <td></td> <td>Civic Studies 11 or Social Studies 11²</td> </tr> </tbody> </table>	Grade	Required Courses ¹	Grade 12	English 12 or English 12 First Peoples		Three additional approved examinable Grade 12 courses ^{1,2}	Grade 11	English 11		Principles of Mathematics 11, Pre-Calculus 11, or Foundations of Mathematics 12		Civic Studies 11 or Social Studies 11 ²
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<p>Studies 11²</p> <p>At least one approved Science 11³</p> <p>An approved Language 11⁴</p> <p>¹ Or approved equivalent International Baccalaureate, Advanced Placement, or Post-secondary course. See the table Specific Program Requirements for Applicants Following the BC/Yukon Secondary School Curriculum and the sections titled Advanced Placement and International Baccalaureate Courses Approved to Satisfy Pre-requisites and Post-Secondary Course Credits that Count Toward High School Graduation.</p> <p>² First Nations Studies 12 may be used either to satisfy the Civic/Social Studies 11 requirement or as an approved Grade 12 course for your admission average, but may not be used to satisfy both of these admission criteria.</p> <p>³ See the table Specific Program Requirements for Applicants following the BC/Yukon Secondary School Curriculum for programs requiring two Science courses at the Grade 11 level.</p> <p>⁴ A beginner's Language 11 does not satisfy this requirement.</p> <p>[...]</p>	<p>At least one approved Science 11³</p> <p>An approved Language 11⁴</p> <p>¹ Or approved equivalent International Baccalaureate, Advanced Placement, or Post-secondary course. See the table Specific Program Requirements for Applicants Following the BC/Yukon Secondary School Curriculum and the sections titled Advanced Placement and International Baccalaureate Courses Approved to Satisfy Pre-requisites and Post-Secondary Course Credits that Count Toward High School Graduation.</p> <p>² First Nations Studies 12 may be used either to satisfy the Civic/Social Studies 11 requirement or as an approved Grade 12 course for your admission average, but may not be used to satisfy both of these admission criteria.</p> <p>³ See the table Specific Program Requirements for Applicants following the BC/Yukon Secondary School Curriculum for programs requiring two Science courses at the Grade 11 level.</p> <p>⁴ A beginner's Language 11 does not satisfy this requirement.</p> <p>[...]</p>
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Type of Action: Reflect English 11 First Peoples, equivalent to English 11, in the BC/Yukon secondary school requirements for undergraduate admission to UBC.

Rationale: Effective September 2010 the BC Ministry of Education launched two new English courses, English 10 and 11 First Peoples.
An official announcement from the Ministry states that:

English First Peoples is intended for both Aboriginal and non-Aboriginal teachers and students. These courses represent an invitation to all learners to explore and discover First Peoples worldviews through the study of literary, informational and media text with local, Canadian and international First Peoples' content. The courses focus on texts that present authentic First Peoples voices (i.e., historical or contemporary texts created by or with First Peoples).

English 10 and 11 First Peoples are the academic equivalent of English 10 and 11. Students will develop the English language and literacy skills and capacities they must have in order to meet British Columbia's graduation requirements.



On the basis that the Ministry deems these courses equivalent to English 10 and 11, it is recommended that associated UBC admission requirements for English 11 also accept English 11 First Peoples. The proposed Calendar entry reflects this recommendation.

More details on these courses are available online at www.fnesc.ca/efp/efp10_11.php and www.bced.gov.bc.ca/irp/course.php?course=English%2010%20and%202011%20First%20Peoples&year=2010&lang=en&subject=English%20Language%20Arts.



UBC Undergraduate Admissions Proposal Form Change to Admission Requirements

Effective Session: 2012 Admission Year for Change: To be posted to the calendar upon approval for the purpose of advising prospective students.	Date: August 31, 2010 Contact Person: Dr. Peter Marshall 604 822-4918 peter.marshall@ubc.ca
http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,0,0,0 Proposed Calendar Entry: <u>Homepage > Admissions > Minimum Academic Standard for Secondary School Applicants</u> <i>Minimum Academic Standard for Secondary School Applicants</i> <u>A minimum admission average of 70% or equivalent on a 50% pass scale is required for admission to all undergraduate programs.</u> <u>Due to receipt of many more qualified applicants than there are spaces available in most programs, a higher average is often required.</u>	http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,0,0,0 Present Calendar Entry: None
URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,22,63,0 Proposed Calendar Entry: <u>Homepage > Admissions > Applicants Following the BC/Yukon Secondary School Curriculum > Admission Requirements</u>	URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,22,63,0 Present Calendar Entry: <u>Homepage > Admissions > Applicants Following the BC/Yukon Secondary School Curriculum > Admission Requirements</u>

**Admission Requirements**

The minimum academic qualification for admission is secondary school graduation from a recognized secondary school, including the following Grade 11 and 12 courses:

Grade	Required Courses ¹
Grade 12	English 12 or English 12 First Peoples
	Three additional approved examinable Grade 12 courses ^{1,2}
Grade 11	English 11
	Principles of Mathematics 11, Pre-Calculus 11, or Foundations of Mathematics 12
	Civic Studies 11 or Social Studies 11 ²
	At least one approved Science 11 ³
	An approved Language 11 ⁴

¹ Or approved equivalent International Baccalaureate, Advanced Placement, or Post-secondary course. See the table [Specific Program Requirements for Applicants Following the BC/Yukon Secondary School Curriculum](#) and the sections titled [Advanced Placement and International Baccalaureate Courses Approved to Satisfy Pre-requisites](#) and [Post-Secondary Course Credits that Count Toward High School Graduation](#).

² First Nations Studies 12 may be used either to satisfy the Civic/Social Studies 11 requirement or as an approved Grade 12 course for your admission average, but may not be used to satisfy both of these

Admission Requirements

The minimum academic qualification for admission is secondary school graduation from a recognized secondary school, including the following Grade 11 and 12 courses:

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	Civic Studies 11 or Social Studies 11 ²
	At least one approved Science 11 ³
	An approved Language 11 ⁴

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² First Nations Studies 12 may be used either to satisfy the Civic/Social Studies 11 requirement or as an approved Grade 12 course for your admission average, but may not be used to satisfy both of these



<p>admission criteria.</p> <p>³ See the table Specific Program Requirements for Applicants following the BC/Yukon Secondary School Curriculum for programs requiring two Science courses at the Grade 11 level.</p> <p>⁴ A beginner's Language 11 does not satisfy this requirement.</p> <p>The admission average will be calculated on English 12, or English 12 First Peoples, and the three additional approved examinable Grade 12 courses, or the equivalent.</p> <p><u>Applicants must present an admission average that meets or exceeds the minimum academic standard for secondary school applicants.</u> <<hotlink to url with new text, above>></p> <p>Applicants who, because of administrative difficulties in their school or because they have a physical, sensory, or specific learning disability, cannot present the courses as required, may be excused a specific admissions course requirement. Supporting documentation sent by the principal of the school concerned is required.</p> <p>A minimum final grade of 70% in either English 11 or English 12 (or equivalent) is required for all programs.</p> <p>[...]</p>	<p>admission criteria.</p> <p>³ See the table Specific Program Requirements for Applicants following the BC/Yukon Secondary School Curriculum for programs requiring two Science courses at the Grade 11 level.</p> <p>⁴ A beginner's Language 11 does not satisfy this requirement.</p> <p>The admission average will be calculated on English 12, or English 12 First Peoples, and the three additional approved examinable Grade 12 courses, or the equivalent.</p> <p>A minimum average of 67% is required for admission to all programs. However, due to limited enrolment, a higher average is required in most programs.</p> <p>Applicants who, because of administrative difficulties in their school or because they have a physical, sensory, or specific learning disability, cannot present the courses as required, may be excused a specific admissions course requirement. Supporting documentation sent by the principal of the school concerned is required.</p> <p>A minimum final grade of 70% in either English 11 or English 12 (or equivalent) is required for all programs.</p> <p>[...]</p>
<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,23,69,0</p> <p>Proposed Calendar Entry:</p> <p><u>Homepage > Admissions > Applicants Following Secondary School Curricula</u></p>	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=2,23,69,0</p> <p>Present Calendar Entry:</p> <p><u>Homepage > Admissions > Applicants Following Secondary School Curricula</u></p>



in Canada, outside of BC/Yukon >
Introduction

Introduction

Applicants who have followed an academic program leading to university entrance will be considered for admission. Graduation from a recognized secondary school is required.

Applicants must present English to the senior year level and a minimum final grade of 70% (or equivalent) in either English 11 or English 12. All prescribed subjects for the university studies sought, including a minimum standing in some courses, are required. (see the table [Specific Program Requirements](#)).

Applicants must present an admission average that meets or exceeds the minimum academic standard for secondary school applicants. <<hotlink to url with new text, above>>

[...]

in Canada, outside of BC/Yukon >
Introduction

Introduction

~~Applicants who have followed an academic program leading to university entrance will be considered for admission to UBC. Students will be required to present English to the senior year level and all prescribed subjects for the university studies sought (see the table [Specific Program Requirements](#)).~~

~~Completion of secondary school graduation from a recognized secondary school is mandatory and a minimum average of 67% or equivalent is required.~~

~~Because of enrolment limitations, the academic standing required for admission to most programs is higher than 67%. Admission to some programs requires a minimum standing in specific courses.~~

~~A minimum final grade of 70% (or equivalent) in either English 11 or English 12 (or equivalent) is required for all programs.~~

[...]

Type of Action: Raise the university minimum admission average for applicants from secondary school to First Year undergraduate programs to 70%.

Rationale: Students admitted to undergraduate programs delivered on the UBC Vancouver campus typically present admission averages that are much higher than the current university minimum of 67%. Cut-offs for entry to most programs in 2010 lay in the 80%+ range, with some in the 90%+ range. Even programs that can physically accommodate students with averages below 75% have largely held to 75% as a standard for admission on interim grades because students with anything less typically struggle.

Despite high competitive admission cut-offs, the minimum academic standard of 67% is not a dormant measure. Admission offers made on competitive interim grades are retained so long as final grades remain above the university minimum. There are students at UBC because, when their



interim grades collapsed, they did not fall below 67%. There are also students at UBC in programs which consider criteria other than purely academic ones. In these programs, 67% establishes the limit for such consideration.

Analysis of data on the performance of students admitted with averages close to or at the university minimum from 2005-2008 reveals generally poor academic performance, particularly for those admitted with averages <70%. A total of 45% failed or were on academic probation after their first year of study, with 100% failure in a number of programs. Only a few programs were able to admit students to the current minimum and see those students succeed, including Human Kinetics and Music. In these programs the admission average, as currently structured, is not a good indicator of potential success in the program and other factors and aptitudes come into play.

Analysis of the data also revealed that students with admission averages <70% are at a much higher risk of withdrawing from the University. Thirty-one percent dropped out after first year, another 15% dropped out after year 2 and a further 5% dropped out in year 3. This represents a total retention rate of only 50% for the group. Compare this with the retention rates for UBC Vancouver undergraduate students from 2000-2006 which ranged between 88.8-91.3% for progression to 2nd year and 81.9-86.5% for progression to 3rd year.

The Senate Admissions Committee believes that the current minimum admission average of 67%, approved by Senate in 1963, no longer serves the original stated purpose to “exclude from the First Year such students as experience has shown might not be capable of completing successfully the work that year” and does not reflect UBC’s status in 2010 as one of the top universities in the world. It recommends that the minimum be raised to 70% (C+) or the equivalent in education systems outside of British Columbia.

A higher minimum admission average is anticipated to have the following benefits:

- Reduce the number and proportion of students who fail or are placed on academic probation in first year
- Increase student retention and persistence to degree completion
- Reduce demand on support systems for students who are the least academically prepared to succeed at UBC, thereby permitting greater allocation of academic support resources to other students
- Establish a more realistic academic minimum for consideration of students on special criteria

Consultation with various groups that may be impacted by the change to the minimum has been conducted. This included the International Student Initiative, Athletics, Aboriginal Coordinators, and programs that admit students to the university minimum. It is believed that the proposed higher minimum takes the well-being of the students in these various groups into consideration and that mechanisms to address individual cases where other factors may be relevant are available.

THE UNIVERSITY OF BRITISH COLUMBIA

Vancouver Senate 15 Dec 2010
Item 8 p.1



Vancouver Senate Curriculum Committee

c/o

Enrolment Services | Senate & Curriculum Services

Brock Hall 2016 – 1874 East Mall | Vancouver BC | V6T 1Z1
ubc.curriculum@ubc.ca | PH 604.822.0140 | FX 604.822.5945

3 December 2010

To: Vancouver Senate
From: Senate Curriculum Committee
RE: December Curriculum Proposals (approval)

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, Forestry, and Science be approved.*

Respectfully submitted,

Dr. Peter Marshall, Chair
Senate Curriculum Committee



Enrolment Services
Senate and Curriculum Services
2016 – 1874 East Mall
Vancouver, BC V6T 1Z1
ginette.vallee@ubc.ca
T: 604.822.0140 F: 604.822.5945

3 December 2010

To: Senate

From: Senate Curriculum Committee

Re: **CURRICULUM PROPOSALS FROM THE APPLIED FACULTIES**

Attached please find submitted Category 1 undergraduate curriculum proposals from the Faculties of Applied Science and Forestry for your consideration.

Applied Science

The following **new course**:

MECH 358 (3)

The following **new subject code**:

IGEN

Forestry

The following **new courses**:

CONS 210 (3)

CONS 350 (3)

CONS351 (3)

CONS 352 (3)

CONS 353 (3)

CONS 354 (3)

The following **program statement**:

Haida Gwaii Semester

Faculty of Applied Science

Undergrad Engineering Curriculum Report ~ Category 1 ~ Fall 2010

Faculty: Applied Science Department: Mechanical Engineering Faculty Approval Date: 3 November 2010 Effective Session: September 2011	Date: September 15, 2010 Contact Person: Gary Schajer Phone: 604-822-6004 Email: schajer@mech.ubc.ca
MECH: Undergraduate Course Change	
<p>Proposed Calendar Entry:</p> <p>MECH 358 (3) ENGINEERING ANALYSIS Fourier series; auto- and cross-correlation; power spectra; discrete Fourier transform; boundary-value problems; numerical methods; partial differential equations; heat, wave, Laplace, Poisson, and wave equations. Applications to mechanical engineering and practical computing emphasized. [3-2*-0] <i>Credit will be granted for only one of MECH 358 and MATH 358.</i></p> <p>Prerequisite: All of MECH 224, MECH 225.</p>	<p>Present Calendar Entry: None</p> <p>Type of Action: New Course.</p> <p>Rationale: A review within the Mechanical Engineering Department at UBC has found students suffer in senior Mechanical Engineering courses as a result of not being previously introduced to advanced topics in mathematics. A recent survey comparing curricula from Mechanical Engineering at UBC to other Canadian departments of Mechanical Engineering has shown that UBC covers the same basic math courses (generally taken in first and second year), but lacks an advanced math course (generally taken in the third or fourth year).</p> <p>This course is intended primarily for Mechanical Engineering students, with some limited access also for students outside of Mechanical Engineering who need a partial differential equations course. The course will be co-listed as MATH 358, according to an agreement between MATH and MECH, with teaching support provided by both MATH and MECH.</p> <p>Category 1</p> <p>■ <i>Not available for Cr/D/F grading.</i> <i>(Check the box if the course is NOT eligible for Cr/D/F grading. Note: Not applicable to graduate-level courses.)</i></p> <p><input type="checkbox"/> <i>Pass/Fail or</i> <input type="checkbox"/> <i>Honours/Pass/Fail grading</i> <i>(Check one of the above boxes if the course will be graded on a P/F or H/P/F basis. Default grading is percentage.)</i></p>

Faculty of Applied Science

Undergrad Engineering Curriculum Report ~ Category 1 ~ Fall 2010

Faculty: Applied Science Department: IGEN Faculty Approval Date: 3 November 2010 Effective Session: September 2011	Date: Monday, October 7, 2010 Contact Person: William Dunford Phone: 822-6660 Email: wgd@ece.ubc.ca
IGEN: Create New Course Codes	
Proposed Calendar Entry: IGEN – Integrated Engineering Faculty of Applied Science	Present Calendar Entry: None Type of Action: Create new course code IGEN. Rationale: The Integrated Engineering program includes courses from many different departments, including APSC. However, there are some courses that are taken exclusively by Integrated Engineering students. The Board of Study has recommended that all such courses be re-coded to IGEN to better reflect the program's individual status, provide better visibility to IGEN course contents in student's transcripts and to address registration issues. Courses that will be coded IGEN are the integrating components -- the glue that will hold the program together. This program takes disparate components and shows how they are mutually complementary. Having one unifying course code will help reinforce the cohesive nature of the program. Category 1

UBC Curriculum Proposal Form Change to Courses

Category 1

<p>Faculty: Forestry Department: Dean's Office Faculty Approval Date: May 12, 2010 Effective Session for Change: 2011W</p>	<p>Date: May 6, 2010 Contact Person: Peter Marshall Phone: (604) 822-4454 Email: peter.marshall@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>CONS 210 (3) Visualizing Climate Change Exploration of different future scenarios that provide an overview of the science of climate change and potential solutions.</p>	<p>URL: Present Calendar Entry: None</p> <p>Type of Action: New course.</p> <p>Rationale: This course is being developed to address an important aspect of climate change – what impact it might have on broad landscape systems. This course uses visual media such as 3D visualization and other interactive learning tools to bring into focus possible futures with climate change, and stimulate thinking by students about the pros and cons of societal choices. It explores different future scenarios that provide an overview of the science of climate change by integrating not just the impacts of climate change but also its causes and solutions. This course has no pre-requisites and is intended primarily for students who wish to improve both their science literacy on climate change and their understanding of socio-cultural issues around climate change solutions. It is open to all students with a general interest in climate change and visual media for communicating science. There is no similar course available at UBC.</p> <p>Documentation: Forestry-2010-1</p>

<p>Faculty: Forestry Department: Dean's Office Faculty Approval Date: May 12, 2010</p> <p>Effective Session for Change: 2010W, Term 2</p>	<p>Date: May 6, 2010 Contact Person: Peter Marshall Phone: (604) 822-4454 Email: peter.marshall@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>CONS 350 (3) Case Studies in Haida Gwaii. Integration of concepts of history, politics, First Nations, rural development, and forest ecology in natural resources management in Haida Gwaii. A core element of the <i>Haida Gwaii Semester</i>. Co-requisites: CONS 351, 352, 353, 354.</p>	<p>URL: Present Calendar Entry: None</p> <p>Type of Action: New course.</p> <p>Rationale: This course is one of five 3-credit courses designed to be completed as a package during a one-term residential experience in Haida Gwaii.</p> <p>Documentation: Forestry-2010-2</p>
<p>Proposed Calendar Entry:</p> <p>CONS 351 (3) History and Politics of Resource Management. Historical examination of resource management in Canada and conflicts arising therefrom, with emphasis on forests. A core element of the <i>Haida Gwaii Semester</i>. Co-requisites: CONS 350, 352, 353, 354.</p>	<p>URL: Present Calendar Entry: None</p> <p>Type of Action: New course.</p> <p>Rationale: This course is one of five 3-credit courses designed to be completed as a package during a one-term residential experience in Haida Gwaii.</p> <p>Documentation: Forestry-2010-3</p>
<p>Proposed Calendar Entry:</p> <p>CONS 352 (3) First Nations and Natural Resources. Overview of the relationship of First Nations with natural resources, with emphasis on First Nations involvement in forest management, past and present. A core element of the <i>Haida Gwaii Semester</i>.</p>	<p>URL: Present Calendar Entry: None</p> <p>Type of Action: New course.</p> <p>Rationale: This course is one of five 3-credit courses designed to be completed as a package during a one-term residential experience in</p>

Co-requisites: CONS 350, 351, 353, 354.	Haida Gwaii. Documentation: Forestry-2010-4
Proposed Calendar Entry: CONS 353 (3) Rainforest Ecology and Management Ecology of the temperate rainforests of Haida Gwaii. A core element of the <i>Haida Gwaii Semester</i> . Co-requisites: CONS 350, 351, 352, 354.	URL: Present Calendar Entry: None Type of Action: New course. Rationale: This course is one of five 3-credit courses designed to be completed as a package during a one-term residential experience in Haida Gwaii. Documentation: Forestry-2010-5
Proposed Calendar Entry: CONS 354 (3) Diversifying Resource-Dependent Communities. Examination of the forces that restructure local economies, both historically and contemporarily; link between rural economic development and the legacy of resource development in Aboriginal communities across British Columbia. A core element of the <i>Haida Gwaii Semester</i> . Co-requisites: CONS 350, 351, 352, 353.	URL: Present Calendar Entry: None Type of Action: New course. Rationale: This course is one of five 3-credit courses designed to be completed as a package during a one-term residential experience in Haida Gwaii. Documentation: Forestry-2010-6

UBC Curriculum Proposal Form Change to Calendar Statement

Category 1

<p>Faculty: Forestry Department: Dean's Office Faculty Approval Date: May 12, 2010 Effective Session for Change: 2010W, Term 2</p>	<p>Date: May 6, 2010 Contact Person: Peter Marshall Phone: (604) 822-4454 Email: peter.marshall@ubc.ca</p>
<p>Proposed Calendar Entry: (Add after the section of Program Approval and Advising)</p> <p>Haida Gwaii Semester</p> <p>This term-long educational opportunity is offered by the Haida Gwaii Higher Education Society. It comprises five courses (CONS 350 through CONS 354) taken on-site in Haida Gwaii from January through April in any given year. More details on the Haida Gwaii Semester and its constituent courses are available on the Faculty of Forestry website: www.forestry.ubc.ca.</p>	<p>URL: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,203,327,0 Present Calendar Entry: None</p> <p>Type of Action: New statement</p> <p>Rationale: The Haida Gwaii semester is a unique opportunity for students to participate in an academically rigorous, community-based experience delivered on Haida Gwaii. The course material is designed so that it will be of benefit to university students with approximately two years of post-secondary experience, coming from a variety of academic backgrounds, with interests in ecology, resource-dependent communities, and aboriginal cultures. Classroom facilities are housed in the Kaii Cultural Centre located just outside of the community of Skidegate. The intent is to deliver the program to 15-20 students from a variety of universities and programs.</p> <p>The program is set up so that CONS 351 through CONS 354 will run as a series of four 2-3 week modules, with the case studies course (CONS 350) running throughout the period from January to mid-April. UBC Faculty of Forestry will approve instructors, conduct and assess teaching evaluations, and deal with any academic logistical issues. The Haida Gwaii Higher Education Society will cover</p>

	<p>instructor's expenses and provide stipends.</p> <p>This semester was offered as a pilot project last year with academic credit provided via directed studies courses. It was taken by 8 students, 7 from outside UBC, and was very well-received by the students, the instructors, and the community. We are intending on building on this success through formalizing arrangements. At least 15 students have already committed to attending the semester starting in January.</p>
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3 December 2010

To: Senate

From: Senate Curriculum Committee

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

Attached please find the submitted Category 1 undergraduate curriculum proposals from the Faculty of Arts for your consideration.

New courses

LING 222 (3)
SOWK 450 (3)
FIPR 269 (3/6) D

Changed courses

FIPR 338 (3)

Arts Parchment

Co-operative Education Program

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

Faculty: ARTS Department: LINGUISTICS Faculty Approval Date: 12 October 2010 Effective Session WINTER Term 2_ Year 2010 for Change	Date: 20 June 2010 Contact Person: Eric Vatikiotis-Bateson Phone: 604 827 5468 Email: evb@interchange.ubc.ca
Proposed Calendar Entry: LING 222 (3): Language Acquisition Audition and speech perception, phonological organization, word learning, syntax, and pragmatics.	URL: N/A Present Calendar Entry: N/A Type of Action: NEW COURSE Rationale: Language acquisition is a topic of broad appeal and is particularly relevant to students of language, psychology, and early education. Within the Linguistics Department curriculum, LING 222 provides a strong foundation for the upper-level courses in the acquisition of phonology and syntax, LING 451 and 452, respectively. LING 222 completes the reorganization of the Linguistics Department undergraduate curriculum mandated by the UIF grant awarded in 2008. The course complements the Clinical Topics course, LING 209, and coincides nicely with the arrival in the Department of Carla Hudson Cam, a Tier 2 Canada Research Chair in Language Acquisition.
Faculty: Arts Department: Social Work Faculty Approval Date: 12 October 2010 Effective Session 2010 - 11__ Term __2_ Year_2010__ for Change	Date: May 25, 2010 Contact Person: Elizabeth Jones Phone: 604-822-6220/604-738 0506 Email: elizabethjones@telus.net
Proposed Calendar Entry:	URL: N/A



<p>SOWK 450 (3) Social Work Practice in Community Mental Health</p> <p>On-line course providing overview of social work services to persons with a mental illness.</p> <p>Prerequisite: 4th year standing in SOWK</p>	<p>Present Calendar Entry: N/A</p> <p>Type of Action: New Course</p> <p>Rationale: This course was previously offered as a 'Topics in ...' course. We hope to offer it in the future as a regular on-line course.</p> <p><input checked="" type="checkbox"/> Not available for Cr/D/F grading. (Check the box if the course is NOT eligible for Cr/D/F grading. Note: Not applicable to graduate-level courses.)</p>
<p>Faculty: Arts Department: Theatre and Film Faculty Approval Date: 12 October 2010</p> <p>Effective Session W Term 1 Year 2010 for Change</p>	<p>Date: April 25, 2010 Contact Person: Sharon McGowan Phone: 604-720-9629 Email: sharon.mcgowan@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>FIPR 269 (3/6) D Special Topics in Film Production</p> <p>A topic of current interest in film production. Topic will change from year to year.</p>	<p>URL: Not applicable – new course</p> <p>Present Calendar Entry: Not applicable – new course</p> <p>Type of Action: New Course</p> <p>Rationale: There are many topics in the field of film production that are of interest to an increasingly wider range of UBC students and that could be taught in a large lecture format by our current full time and adjunct faculty. At present, the Film Production Program only has a Special Topics course set at the 400 level. The creation of a Special Topics at the 200 level would enable us to serve a wider range of students in the first years of their degree at UBC.</p> <p>A sample outline for a course that could be offered under this number, entitled, The Art and Craft of a Television Series Director, is</p>



	<p>attached to this proposal. A more complex version of this course was developed by Adjunct Professor Bobby Roth, an expert in the field, and was offered as a lecture course under our FIPR 469 Special Topics number in summer 2009 and was very successful. The material translates very well to a lower level course and would be of great interest to many newer students at UBC. Other courses could be developed for this FIPR 269 Special Topics number and offered on a year by year basis, depending on availability of faculty and budget.</p>
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<p>Faculty: Arts Department: Theatre and Film Faculty Approval Date: 12 October 2010 Effective Session W Term 1 2011 for Change</p>	<p>Date: April 25, 2010 Contact Person: Sharon McGowan Phone: 604-720-9629 Email: sharon.mcgowan@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>FIPR 338 (3) Motion Picture Sound</p> <p>An introduction to the technique and aesthetics of creating production and post-production sound for film and video.</p>	<p>URL: FIPR</p> <p>Present Calendar Entry:</p> <p>FIPR 338 (3) Sound Recording for Film and Video</p> <p>An introduction to the technique and aesthetics of recording sound for motion pictures.</p> <p>Type of Action: Change of course name and broadening of description and content.</p> <p>Rationale: The current name and description of this course is too narrow for optimum teaching and learning in the discipline. The current course focuses exclusively on the recording of sound during production. The revised course will provide for recording sound</p>



both during production and post-production as well as editing the sound that has been recorded. The principles of creating quality sound for film and video are similar at each phase so this change will allow for broader application and exploration of the central concepts as well as provide students with a wider range of essential technical skills.

**MEMORANDUM****Forwarded to:** Senate Curriculum Committee

To: Gernot Weiland, Chair, Arts Curriculum Committee Date: August 27, 2010

From: Julie Walchli, Director

Re: Approval to add Co-op designation to Arts parchment

CC:

Request to Curriculum Committee:

The Arts Co-operative Education program would like to have “Co-operative Education Program” added as a designation on line 3 of the parchment of graduates from the Arts Co-operative Education Program at UBC-V. This addition to parchments of Arts Co-operative Education Program graduates will make the Arts parchment consistent with those of co-op graduates from the other co-op faculties at UBC-V: Applied Science, Forestry, Science, and Human Kinetics. We request that the Arts Curriculum Committee support this request and forward it to Chris Eaton, Academic Governance Officer, in Enrolment Services, for approval and implementation in advance of the November 2010 convocation if possible.

Background and Rationale:

Chris Eaton has confirmed that currently the parchment for the B.A. degree uses only two lines (of the three lines available) to describe the degree (line 1) and denote an Honours program where appropriate (line 2). There is currently nothing indicated on line 3.

Students in Arts have expressed, through the Arts Co-op Students' Association, their desire to see completion of requirements for the Arts Co-op Program recognized on their parchments. The Arts Co-operative Education Program was approved by Senate in 1999; it is open to students in the Bachelor of Arts, Bachelor of Fine Arts, and Bachelor of Music undergraduate programs. Students complete a minimum of 3 and up to 6 co-operative education work terms each of which is 4 months in length—along with pre-employment training prior to their first work term—to fulfill the requirements for the co-op program. Thus, co-op graduates add between 12 and 24 months to their degree programs.

Each co-op work term is indicated on their transcripts as an Arts Studies course (ASTU 310, 311, 410, 411, 412, 413). Approximately 50-80 Arts co-op students graduate each year; this number will increase as the program is in a growth phase.



In the past 3 years, most other UBC-V faculties with co-op programs have changed their parchments to add “Co-operative Education Program.” Over 1500 students participate in Applied Science co-op terms each year, and approximately 1200 students participate in Science co-op programs. Further, when the Senate approved the newest UBC-V co-op program in Human Kinetics in 2009, the approval included recognition of co-op completion on the parchment as part of the overall program approval. Arts students are keen to have their commitment to the most substantive experiential learning program in the Faculty of Arts similarly recognized, bringing their parchments in line with those of other co-op faculties.

Additional Documentation:

Included with this request is an email from Rella Ng, Manager, Registration Services, confirming that there is room on the Arts parchment for this addition. I can provide documentation the other faculties put forward to Senate if you require it.

Further Information:

Please feel free to contact me if you require any further information or have questions. I can be reached at 7.5194 or julie.walchli@ubc.ca.

We appreciate the Curriculum Committee’s timely attention to this request.



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3 December 2010

To: Senate

From: Senate Curriculum Committee

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

Attached please find the submitted Category 1 graduate curriculum proposals from the Faculty of Applied Science for your consideration.

New courses:

CEEN 580 (1-6) C

CEEN 590 (1-6) D



THE UNIVERSITY OF BRITISH COLUMBIA
FACULTY OF APPLIED SCIENCE (Engineering)

Vancouver Senate 15 Dec 2010
Item 8 p.18

Category: (1)

Faculty: Applied Science Department: CERC Faculty Approval Date: March 11, 2010 Effective Session 2010 Winter (Term 1) Year for Change: 2010	Date: January 7, 2010 Contact Person: Deb Feduik Phone: 604-822-8386 Email: deb.feduik@ubc.ca
Proposed Calendar Entry: CEEN 580 (1-6) c Directed Studies in Clean Energy Engineering Work not related to project or thesis.	URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CEEN Present Calendar Entry: None Action: New course Rationale: CEEN 580 will be used as a variable credit course for directed studies on topics in support of student projects, or to examine special topics of interest for a small group of students. Document ID#: G 11mar10 - 3
Proposed Calendar Entry: CEEN 590 (1-6) d Topics in Clean Energy Engineering	URL: http://www.students.ubc.ca/calendar/courses.cfm?code=CEEN Present Calendar Entry: None Action: New course Rationale: CEEN 590 will be used as a variable credit course for pilot courses on new or emerging topics, or to develop new courses on topics of growing importance as CEEN's educational objectives evolve. Document ID#: G 11mar10 - 3

THE UNIVERSITY OF BRITISH COLUMBIA



Vancouver Senate Curriculum Committee
c/o

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3 December 2010

To: Senate
From: Senate Curriculum Committee
RE: Faculty of Science

Attached please find proposals for new and changed courses and program changes from the Faculty of Science for your consideration.

New and Changed Courses

CHEM 213 (3)
CHEM 245 (1)
CHEM 304 (3)
CHEM 305 (3)
CHEM 307 (3)
CHEM 309 (3)
CHEM 310 (3)
CHEM 311 (3)
CHEM 445 (3)
MATH 264 (1)
MATH 358 (3)
MATH 360 (3)
MICB 424 (3)
PHYS 333 (3)
ENPH 253 (3)
ENPH 257 (2)
ENPH 259 (2)
ENPH 270 (2)
ENPH 352 (2)

New Subject Code

ENPH – Engineering Physics

New and Changed Programs and Specializations

Bachelor of Science > Biology > Combined Honours
Bachelor of Science > Chemistry > Combined Honours > Chemical Biology
Bachelor of Science > Earth and Ocean Sciences > Combined Major > Oceanography
and Biology
Bachelor of Science > Earth and Ocean Sciences > Combined Major > Oceanography
and Physics
Bachelor of Science > Earth and Ocean Sciences > Minor > Oceanography

Contact: Dr. Bill Ramey Phone: 822-3300		Faculty Approval Date: November 2, 2010 Email: wramey@interchange.ubc.ca	
CHEMISTRY			
Effective Date for Change: 11W Proposed Calendar Entry: CHEM 213 (3) Organic Chemistry Spectroscopy of organic compounds. Mechanistic analysis of chemical reactivity of common functional groups with a focus on carbon-carbon bond formation; functional group interconversion. Preference will be given to students in Chemistry or Biochemistry specializations. [3-0-0] Prerequisite: CHEM 203 or a score of 76% or higher in CHEM 233.		Present Calendar Entry: Type of Action: Add new course Rationale: The lecture and laboratory components of CHEM 204 are being separated to form a standalone laboratory course, CHEM 245, and a standalone lecture course, CHEM 213. This separation increases flexibility by allowing the Department to offer organic chemistry in a lecture setting without incurring a concomitant increase in laboratory enrolment (labs have stringent resource needs that limit enrolment). Allowing the prerequisite of CHEM 233 provides an additional path by which students can enter Chemistry or Biochemistry specializations (currently CHEM 233 is a terminal course for these specializations). It also opens the possibility for non-Chemistry students, such as those in Combined Major in Science, to access the organic chemistry stream through to upper year courses. The course number is consistent with the numeric identifier used for other organic courses (CHEM 203, 233, 313, 330, etc.). CHEM 204 will be delisted when appropriate. Supporting Documents: SCI-10-1-CHEM 213	

<p>Effective Date for Change: 11W Proposed Calendar Entry:</p> <p>CHEM 245 (1) Intermediate Organic Chemistry Laboratory</p> <p>Techniques in organic chemistry. Open only to students in Chemistry or Biochemistry specializations. [0-3-0]</p> <p>Prerequisite: CHEM 203 or all of CHEM 233, CHEM 235.</p> <p>Corequisite: CHEM 213</p>	<p>Present Calendar Entry:</p> <p>Type of Action: Add new course Rationale: The lecture and laboratory components of CHEM 204 are being separated to form a standalone laboratory course, CHEM 245, and a standalone lecture course, CHEM 213. This separation increases flexibility by allowing the Department to offer organic chemistry in a lecture setting without incurring a concomitant increase in laboratory enrolment (labs have stringent resource needs that limit enrolment). Adding the prerequisite of CHEM 233 and 235 provides an additional path by which students can enter Chemistry and Biochemistry specializations (currently CHEM 233 and 235 are terminal courses for these specializations).</p> <p>Supporting Documents: SCI-10-1-CHEM 425</p>
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<p>Effective Date for Change: 11W</p> <p>Proposed Calendar Entry:</p> <p>CHEM 304 (3) Fundamentals of Physical Chemistry</p> <p>Review of thermodynamics concepts; introduction to statistical mechanics; solution thermodynamics; phase equilibria; electrochemistry. [3-0-0]</p> <p>Prerequisites: CHEM 201 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263.</p>	<p>Present Calendar Entry:</p> <p>CHEM 304 (3) Fundamentals of Physical Chemistry</p> <p>Review of thermodynamics concepts; introduction to statistical mechanics; solution thermodynamics; phase equilibria; electrochemistry. [2-4*-1]</p> <p>Prerequisites: CHEM 201 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263.</p> <p>Type of Action: Change contact vector. Rationale: The laboratory component of this course is being removed to allow for introduction of integrated third-year laboratory courses. The course number is being preserved because this course has a long history and is widely referenced by number even by colleagues from other universities in Canada. Careful adjudication for the next few years will ensure the old and new versions of the course are distinguished appropriately. The tutorial is being removed and the contact vector changed to [3-0-0] to allow for more in-depth coverage of the course content.</p> <p>Supporting Documents: SCI-10-1-CHEM 304</p>
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<p>Effective Date for Change: 11W Proposed Calendar Entry:</p> <p>CHEM 305 (3) BIOPHYSICAL CHEMISTRY</p> <p>Diffusion and transport phenomena; interaction of radiation and matter. Methods for determining molecular weight, size and shape of molecules in solution. [3-0-0]</p> <p>Prerequisite: One of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263 and either (a) CHEM 201 or (b) a score of 76% or higher in CHEM 205.</p>	<p>Present Calendar Entry:</p> <p>CHEM 305 (3) BIOPHYSICAL CHEMISTRY</p> <p>Diffusion and transport phenomena; interaction of radiation and matter. Methods for determining molecular weight, size and shape of molecules in solution. [2-4*-11]</p> <p>Prerequisite: CHEM 304 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263.</p> <p>Type of Action: Rearrange and broaden prerequisites. Change contact vector. Rationale: The laboratory component of this course is being removed to allow for introduction of integrated third-year laboratory courses. The course number is being preserved because this course has a long history and is referenced by number even by colleagues from other universities in Canada. The prerequisites have been changed to allow access for students with sufficient standing in CHEM 205. This opens a path for non-Chemistry students, especially those in the Combined Major in Science specialization. The tutorial is being removed and the contact vector changed to [3-0-0] to allow for more in-depth coverage of the course content. CHEM 304 was previously a prerequisite based partially on the need for laboratory continuity between the two courses. With the separation of the laboratory from CHEM 304 and CHEM 305, this constraint is no longer in effect and CHEM 305 may thus be entered directly with appropriate calculus and second-year physical chemistry backgrounds.</p> <p>Supporting Documents: SCI-10-1-CHEM 305</p>
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<p>Effective Date for Change: 11W</p> <p>Proposed Calendar Entry:</p> <p>CHEM 307 (3) Surface Chemistry and Surface Analysis</p> <p>Introduction to surfaces and phenomena occurring at surfaces and interfaces: adsorption, thermodynamic treatments, technological applications. Methods for characterization and modification of surfaces. Dynamic electrochemistry and its application to understanding fuel cells. [3-0-0]</p> <p>Prerequisite: CHEM 304 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263.</p>	<p>Present Calendar Entry:</p> <p>CHEM 307 (3) Introduction to Surface Chemistry and Surface Analysis</p> <p>Phenomena at surfaces and interfaces: adsorption, thermodynamic treatments, technological applications. Methods for characterization and modification of surfaces. Electrochemistry and fuel cells. [2-4*-1]</p> <p>Prerequisite: CHEM 304 and one of MATH 200, MATH 217, MATH 226, MATH 253, MATH 263.</p> <p>Type of Action: Change contact vector, and update course description.</p> <p>Rationale: The laboratory component is being removed to introduce integrated third-year laboratory courses. The course number is being preserved because it has a long history and is widely referenced, even by colleagues from other Canadian universities. The course description is being updated to better reflect the course content. The tutorial is being removed and the contact vector changed to [3-0-0] to allow for more in-depth coverage of the course content.</p> <p>Supporting Documents: SCI-10-1-CHEM 307</p>
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<p>Effective Date for Change: 11W Proposed Calendar Entry:</p> <p>CHEM 309 (3) s- and p-Block Elements: Chemistry and Applications</p> <p>Synthesis, structures, bonding and characterization of compounds of the s- and p-block elements. Industrial uses discussed include: hydrogen-based fuels, materials and high performance polymers. [3-0-0]</p> <p>Prerequisite: CHEM 202.</p>	<p>Present Calendar Entry:</p> <p>CHEM 309 (3) Foundations of Inorganic Chemistry</p> <p>Molecular structure and bonding in compounds of main-group and transition elements. Solid state chemistry. Acid-base chemistry; inorganic chemistry in non-aqueous media. [2-4*-1]</p> <p>Prerequisite: CHEM 202.</p> <p>Type of Action: Change course title, description, and contact vector. Rationale: The laboratory component of this course is being removed to allow for introduction of integrated third-year laboratory courses. The course number is being preserved because this course has a long history and is widely referenced by number even by colleagues from other universities. The title and description are being modified to better reflect the content in the course which concerns mainly s- and p-block chemistry. The tutorial is being removed and the contact vector changed to [3-0-0] to allow for more in-depth coverage of the course content. The course description is being updated to reflect current teaching practice, i.e. discussion of the chemistry of s- and p-block elements in this course and the chemistry of d- and f-block elements in the continuation of this course (CHEM 310).</p> <p>Supporting Documents: SCI-10-1-CHEM 309</p>
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<p>Effective Date for Change: 11W Proposed Calendar Entry:</p> <p>CHEM 310 (3) d- and f-Block Elements: Chemistry and Applications</p> <p>Representative chemistry of d- and f-block elements interpreted in terms of structure, mechanisms and theoretical principles. Applications discussed include: organometallic catalysis, bioinorganic chemistry and materials. [3-0-0]</p> <p>Prerequisite: CHEM 309.</p>	<p>Present Calendar Entry:</p> <p>CHEM 310 (3) Chemistry of the Elements</p> <p>Representative chemistry of s-, p-, d-, and f- block elements interpreted in terms of structure, mechanisms, and theoretical principles. [2-4*-1]</p> <p>Prerequisite: CHEM 309.</p> <p>Type of Action: Change course title, description, and contact vector. Rationale: The laboratory component of this course is being removed to allow for introduction of integrated third-year laboratory courses. The course number is being preserved because this course has a long history and is widely referenced by number even by colleagues from other universities. Careful adjudication for the next few years will ensure the old and new versions of the course are distinguished appropriately. The title and description are being modified to better reflect the content in the course which concerns mainly of d- and f- block chemistry. The tutorial is being removed and the contact vector changed to [3-0-0] to allow for more in-depth coverage of the course content. The course description is being updated to reflect current teaching practice, i.e. discussion of the chemistry of d- and f- block elements in this course and the chemistry of s- and p-block elements in the prerequisite of this course (CHEM 309).</p> <p>Supporting Documents: SCI-10-1-CHEM 310</p>
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<p>Effective Date for Change: 11W</p> <p>Proposed Calendar Entry:</p> <p>CHEM 311 (3) Instrumental Analytical Chemistry</p> <p>Theory, design and application of instrumental methods of chemical analysis including spectroscopy, mass spectrometry, electrochemical detection methods and chromatography. [3-0-0]</p> <p>Prerequisite: CHEM 211</p>	<p>Present Calendar Entry:</p> <p>CHEM 311 (4) Instrumental Analytical Chemistry</p> <p>Instrumental methods of chemical analysis including spectroscopic methods, mass spectrometry, radiochemical methods, surface analysis, chromatography. [2-4-1]</p> <p>Prerequisite: CHEM 211.</p> <p>Type of Action: Change contact vector, credit value, and update course description.</p> <p>Rationale: The laboratory component of this course is being removed to allow for introduction of integrated third year laboratory courses. The course number is being preserved because this course has a long history and is widely referenced by number even by colleagues from other universities in Canada. Careful adjudication will ensure the old and new versions of the course are distinguished appropriately. The course description is being updated to better reflect the course content. The tutorial is being removed and the contact vector changed to [3-0-0] to allow for more in-depth coverage of the course content.</p> <p>Supporting Documents: SCI-10-1-CHEM 311</p>
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<p>Effective Date for Change: 11W</p> <p>Proposed Calendar Entry:</p> <p>CHEM 445 (3) Projects in Experimental Chemistry</p> <p>Principles of experimental design, practice and problem-solving in chemistry, including the opportunity to pursue projects in a research setting. [0-8-0]</p> <p>Prerequisite: CHEM 345.</p>	<p>Present Calendar Entry:</p> <p>Type of Action: Add new course</p> <p>Rationale: This new laboratory course will replace CHEM 415 and 425 as the required fourth- year offering for Major students. This course will build upon laboratory techniques developed in lower years by focusing on the design of experiments to solve specific problems in Chemistry. Students will be required to perform literature searches and design experimental procedures necessary for completing their projects. Most of this preparatory work will be done outside the scheduled laboratory periods (which will be used for wet lab experiments) hence the allocation of three credits for this course to reflect this additional time commitment. The course includes the option to pursue experimental projects in research laboratories and gain experience in a research setting. CHEM 415 and 425 will be delisted when appropriate.</p> <p>Supporting Documents: SCI-10-1-CHEM 445</p>
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MATHEMATICS	
<p>Effective Date For Change: 11W Proposed Calendar Entry:</p> <p>MATH 264 (1) VECTOR CALCULUS FOR ELECTRICAL ENGINEERING</p> <p>Divergence, gradient, curl, theorems of Gauss and Stokes. Applications to Electrostatics and Magnetostatics. MATH 264 content is closely coupled to the exercises in EECE 261 so both courses must be taken concurrently.</p> <p>Prerequisite: MATH 253.</p> <p>Co requisite: EECE 261.</p>	<p>Present Calendar Entry:</p> <p>Action: New Course. Rationale: This course provides the mathematical background for electrostatics and magnetostatics. As presented, it will be tightly coupled to EECE 261, in a complementary fashion. Applications will be taken from electrostatics and magnetostatics, in consultation with the EECE instructor for EECE261. Such integration is beneficial to the students and represents an excellent example of interdisciplinary teaching between two faculties and two departments.</p> <p>X Not available for Cr/D/F grading. (Check the box if the course is NOT eligible for Cr/D/F grading. Note: Not applicable to graduate-level courses.)</p> <p>The course is not available for Cr/D/F grading as it is a core course in EECE and is used in computation of averages for scholarships and awards and general standing in the Department of EECE.</p> <p>Supporting Documents: SCI-10-1-MATH 264</p>

<p>Effective Date For Change: 11W Proposed Calendar Entry:</p> <p>MATH 358 (3) ENGINEERING ANALYSIS</p> <p>Fourier series; auto- and cross-correlation; power spectra; discrete Fourier transform; boundary-value problems; numerical methods; partial differential equations; heat, wave, Laplace, Poisson, and wave equations. Applications to mechanical engineering and practical computing applications emphasized. Credit may be given for only one of MECH 358 and MATH 358. [3-2*-0]</p> <p>Prerequisite: All of MECH 224, MECH 225. Equivalency: MECH 358.</p>	<p>Present Calendar Entry:</p> <p>Type of Action: New Course Rationale: A review within the Mechanical Engineering Department at UBC has found students suffer in senior Mechanical Engineering courses as a result of not being previously introduced to advanced topics in mathematics. A recent survey comparing curricula from Mechanical Engineering at UBC to other Canadian departments of Mechanical Engineering has shown that UBC covers the same basic math courses (generally taken in first and second year), but lacks an advanced math course (generally taken in the third or fourth year). This course is intended primarily for Mechanical Engineering students, with some limited access also for students outside of Mechanical Engineering who need a partial differential equations course. The course will be co-listed as MECH 358, according to an agreement between MATH and MECH, with teaching support provided by both MATH and MECH.</p> <p>Supporting Documents: SCI-10-1-MATH 358</p>
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<p>Effective Date for Change: 11W Proposed Calendar Entry:</p> <p>MATH 360 (3) Mathematical Modeling in Science</p> <p>Principles of model selection and basic modeling techniques in biology, earth science, chemistry and physics. Optimization, dynamical systems and stochastic processes. [3-0-0]</p> <p>Prerequisite: MATH 101 or equivalent</p>	<p>Present Calendar Entry:</p> <p>Action: Create course. Rationale: The proposed MATH 360 is a new course that reflects the need for an applied course on quantitative methods in the Combined Major in Science Program. It will provide students with an overview of the role of mathematics in deepening our understanding of natural phenomena through models and analysis. The main emphasis will be on models in the Life Sciences, because one of the intended target audiences are students in the Combined Major in Science Program, many of whom have a large Life Sciences component in their curriculum. It is expected that a substantial proportion of all 3rd and 4th year Combined Major in Science students will take this course as part of their three-discipline curriculum. In particular, the course may be useful to satisfy the “Generalist Requirement” of the Combined Major in Science program. The course could also be valuable for Mathematics Majors with an applied interest, for whom it could serve as a preparation for the more advanced courses MATH 361, MATH 441 and MATH 445. Finally, the course will likely also be of interest to students in the Integrated Sciences Program.</p> <p>Supporting Documents: SCI-10-1-MATH 360</p>
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MICROBIOLOGY & IMMUNOLOGY	
<p>Effective Date for Change: 11S</p> <p>Proposed Calendar Entry:</p> <p>MICB 424 (3) Cellular Dynamics of Pathogenic and Environmental Bacteria</p> <p>Regulatory and signalling networks in bacterial cells with emphasis on how cellular and environmental cues are detected and integrated during different growth or life history stages of important pathogenic and environmental bacteria. [3-0-0]</p> <p>Prerequisite: MICB 301 or all of MICB 201 and MICB 325.</p>	<p>Present Calendar Entry:</p> <p>Type of Action: Create new course</p> <p>Rationale: Education in microbial physiology is an essential part of the degree program in Microbiology and Immunology. It is a fundamental background for understanding modern issues in microbial disease and environmental remediation. For a number of years this area was offered as the required MICB 324. As part of a reorganization of the MBIM specializations we combined basic microbial physiology concepts with the former microbial diversity course MICB 300 to form the current MICB 301. The remaining advanced concepts and methods for microbial physiology analysis were transferred to and augmented to form the new course MICB 424. This course is aimed at the students who want to specialize in this area in their 4th year.</p> <p>Supporting Documents: SCI-10-1-MICB 424</p>

PHYSICS & ASTRONOMY	
<p>Effective Session: 10W</p> <p>Proposed Calendar Entry:</p> <p>PHYS 333 (3) Energy and Climate</p> <p>The fundamental physics behind global issues of energy use and climate change.</p> <p>Not to be used to satisfy an upper level specialization requirement in any Physics & Astronomy major or honours specialization.</p> <p>[3-0-0]</p> <p>Prerequisite: Either (a) one of MATH 101, MATH 103, MATH 105, MATH 121 and one of PHYS102, PHYS 108, PHYS 153; or (b) SCIE 001.</p>	<p>Present Calendar Entry:</p> <p>Action: Add new course.</p> <p>Rationale: We do not currently have an “energy course” that deals with the larger implications of the basic physics. Such courses are popular in many other universities. As we already have a classical thermodynamics course (PHYS 203) we need a separate course for non-physicists that concentrates on the consequences of the physics rather than the concepts only. PHYS 333 will be a course in energy and climate physics for general science students and majors in sciences other than physics.</p> <p>Supporting Documents: SCI-10-1-PHYS 333</p>

<p>Effective Session: 11W Proposed Calendar Entry:</p> <p>ENPH – Engineering Physics Faculty of Science</p>	<p>Present Calendar Entry:</p> <p>Type of Action: Create new course code ENPH Rationale: The Engineering Physics specialization includes courses from many different departments, including PHYS. However, within Physics department there are several courses that are taken exclusively by Engineering Physics students. The Board of Study has recommended that all such courses be re-coded to ENPH to reflect the specialization's individual status, provide better visibility to ENPH course contents in student's transcripts and to address registration issues.</p> <p>Supporting Documents: SCI-10-1-ENPH</p>
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<p>Effective Session: 11W Proposed Calendar Entry:</p> <p>ENPH 253 (3) Introduction to Instrument Design</p> <p>Practical laboratory exposure to instrument bread-boarding including simple mechanical and electrical design, and communications with sensors, actuators. Micro-controller implementation and design. [1-6-0]</p> <p>Prerequisite: One of ENPH 259, PHYS 259, PHYS 209</p>	<p>Present Calendar Entry:</p> <p>PHYS 253 (3) Introduction to Instrument Design</p> <p>Practical laboratory exposure to instrument bread-boarding including simple mechanical and electrical design, and communications with sensors, actuators. Micro-controller implementation and design. [1-6-0]</p> <p>Prerequisite: One of PHYS 259, PHYS 209.</p> <p>Action: Change subject codes. Rationale: The Engineering Physics specialization includes courses from many different departments, including PHYS. However, within Physics department there are several courses that are taken exclusively by Engineering Physics students. The Board of Study has recommended that all such courses be re-coded to ENPH to reflect the specialization's individual status, provide better visibility to ENPH course contents in student's transcripts and to address registration issues. There are no library or budget issues because it is the same specialization.</p>
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<p>Effective Session: 11W Proposed Calendar Entry:</p> <p>ENPH 257 (2) Heat and Thermodynamics</p> <p>Thermometry, thermal properties of matter; heat transfer by conduction; convection and radiation; kinetic theory of gases and gas laws; heat engines; refrigeration; change of state; first and second laws of thermodynamics. [1-3-1]</p> <p>Prerequisite: Either (a) SCIE 001 or (b) one of MATH 200, MATH 217, MATH 226, MATH 255, MATH 263 and either (a) all of PHYS 108, PHYS 109 or (b) one of PHYS 102, PHYS 153.</p>	<p>Present Calendar Entry:</p> <p>PHYS 257 (2) Heat and Thermodynamics</p> <p>Thermometry, thermal properties of matter; heat transfer by conduction; convection and radiation; kinetic theory of gases and gas laws; heat engines; refrigeration; change of state; first and second laws of thermodynamics. [1-3-1]</p> <p>Prerequisite: Either (a) SCIE 001 or (b) one of MATH 200, MATH 217, MATH 226, MATH 255, MATH 263 and either (a) all of PHYS 108, PHYS 109 or (b) one of PHYS 102, PHYS 153.</p> <p>Action: Change subject code. Rationale: The Engineering Physics specialization includes courses from many different departments, including PHYS. However, within Physics department there are several courses that are taken exclusively by Engineering Physics students. The Board of Study has recommended that all such courses be re-coded to ENPH to reflect the specialization's individual status, provide better visibility to ENPH course contents in student's transcripts and to address registration issues. There are no library or budget issues because it is the same specialization.</p>
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<p>Effective Session: 11W Proposed Calendar Entry:</p> <p>ENPH 259 (2) Experimental Techniques</p> <p>Basic experimental techniques in acquisition, analysis and presentation of data. [1-3-0]</p> <p>Prerequisite: Either (a) all of PHYS 108, PHYS 109 or (b) one of PHYS 102, PHYS 153 or (c) SCIE 001.</p>	<p>Present Calendar Entry:</p> <p>PHYS 259 (2) Experimental Techniques</p> <p>Basic experimental techniques in acquisition, analysis and presentation of data. [1-3-0]</p> <p>Prerequisite: Either (a) all of PHYS 108, PHYS 109 or (b) one of PHYS 102, PHYS 153 or (c) SCIE 001.</p> <p>Action: Change subject code. Rationale: The Engineering Physics specialization includes courses from many different departments, including PHYS. However, within Physics department there are several courses that are taken exclusively by Engineering Physics students. The Board of Study has recommended that all such courses be re-coded to ENPH to reflect the specialization's individual status, provide better visibility to ENPH course contents in student's transcripts and to address registration issues. There are no library or budget issues because it is the same specialization.</p>
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<p>Effective Session: 11W Proposed Calendar Entry:</p> <p>ENPH 270 (2) Mechanics II Dynamics: systems of particles, kinematics and kinetics of rigid bodies (plane motion), energy and momentum, rotating coordinates. [2-0-1]</p> <p>Prerequisite: PHYS 170.</p>	<p>Present Calendar Entry:</p> <p>PHYS 270 (2) Mechanics II Dynamics: systems of particles, kinematics and kinetics of rigid bodies (plane motion), energy and momentum, rotating coordinates. [2-0-1]</p> <p>Prerequisite: PHYS 170.</p> <p>Action: Change subject codes. Rationale: The Engineering Physics specialization includes courses from many different departments, including PHYS. However, within Physics department there are several courses that are taken exclusively by Engineering Physics students. The Board of Study has recommended that all such courses be re-coded to ENPH to reflect the specialization's individual status, provide better visibility to ENPH course contents in student's transcripts and to address registration issues. There are no library or budget issues because it is the same specialization.</p>
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<p>Effective Session: 11W Proposed Calendar Entry:</p> <p>ENPH 352 (2) Laboratory Techniques in Physics</p> <p>Some of the experiments will be based on the lecture material for PHYS 301. Other techniques and subjects will also be covered. [0-3-0]</p> <p>Corequisite: PHYS 301.</p>	<p>Present Calendar Entry:</p> <p>PHYS 352 (2) Laboratory Techniques in Physics</p> <p>Some of the experiments will be based on the lecture material for PHYS 354. Other techniques and subjects will also be covered. [0-3-0]</p> <p>Corequisite: PHYS 354.</p> <p>Action: Change subject code. Update the prerequisite. Change PHYS 354 to PHYS 301 in the course description and corequisite list.</p> <p>Rationale: The Engineering Physics specialization includes courses from many different departments, including PHYS. However, within Physics department there are several courses that are taken exclusively by Engineering Physics students. The Board of Study has recommended that all such courses be re-coded to ENPH to reflect the specialization's individual status, provide better visibility to ENPH course contents in student's transcripts and to address registration issues. PHYS 354 has been renumbered as another section of PHYS 301. PHYS 354 is no longer offered.</p> <p>There are no library or budget issues because it is the same specialization.</p>
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Contact: Dr. Bill Ramey Phone: 822-3300	Faculty Approval Date: November 2, 2010 Email: wramey@interchange.ubc.ca
BIOLOGY	
<p>Effective Date for Change: 11W</p> <p>Proposed Calendar Entry:</p> <p>...</p> <p>Combined Honours</p> <p>Combined Honours (0057): Chemical Biology, see [link-to Chemistry section].</p>	<p>http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,418</p> <p>Present Calendar Entry:</p> <p>...</p> <p>Combined Honours</p> <p>Combined Honours (0057): Biology and Chemistry (BIOL, CHEM)</p> <p>First Year</p> <p>...</p> <p>⁸ To be chosen from 400-level CHEM lecture courses.</p> <p>Type of Action: Move the description of the Combined Honours (0057): Biology and Chemistry specialization to the Chemistry section of the calendar. Put a pointer in place of the description in the Biology section. Revise the title of the specialization.</p> <p>Rationale: The listing for the Combined Honours (0057): Biology and Chemistry (BIOL, CHEM) specialization is being moved from the Biology to the Chemistry section of the calendar to change the visibility of the specialization. There are no library or budget issues because the specialization has not changed.</p>

CHEMISTRY

Effective Date for Change: 11W

Proposed Calendar Entry:

Combined Honours (0057): **Chemical** Biology
(BIOL, CHEM)

First Year

Communication Requirement¹ 6

BIOL 112 3

BIOL 121 3

BIOL 140 2

CHEM 121, 123 (111, 113) 8

MATH 100 or 102 or 104² 3

MATH 101 or 103 or 105³ 3

PHYS 101⁴ 3

Electives⁵ 3

Total Credits **34**

Second Year

BIOL 200 3

BIOL 201 3

BIOL 234 3

CHEM 201 3

CHEM 202 3

CHEM 203⁶ 4

CHEM 211 4

CHEM 213, 245 4

MATH 200 3

PHYS 102⁴ 3

Total Credits **33**

Third Year

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,420>

Present Calendar Entry:

The current entry is in the Biology section of the calendar. To clarify editorial changes, the current description of the Combined Honours (0057): Biology and Chemistry specialization from the Biology section of the calendar has been included below.

The revised entry will be placed in the Chemistry section of the calendar. The previous entry in the Biology section will be deleted and a "POINTER" inserted.

Combined Honours (0057): Biology ~~and~~
~~Chemistry~~ (BIOL, CHEM)

First Year

~~ENGL 100-level~~¹ 6

~~BIOL 111~~² ~~0-3~~

BIOL 112 3

BIOL 121 3

BIOL 140 2

CHEM 121, 123 (111,113) 8

MATH 100 or 102 or 104 ~~(or 180~~

~~or 184 or 120)~~⁺ 3 ~~(4)~~

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

~~PHYS 100 or 200-level~~ 3

Elective^{2,3} 3 ~~0~~

Total Credits ~~35~~

Second Year

~~BIOL 200, 201~~ 6

~~BIOL 240~~⁴ ~~(0)1~~

~~CHEM 201, 202~~ 6

~~CHEM 203, 204~~ 8

CHEM 211 4

MATH 200 3

~~PHYS 100 or 200-level~~ 3

~~Arts Elective~~ 6

Total Credits ~~36~~

Third Year

BIOC 302 ⁷	3	BIOL 334, 335	6
BIOL 300 ⁸	3	All of BIOL 360, 361, 362 ⁵	7
CHEM 305	3	CHEM 305	3
CHEM 309	3	CHEM 312	3
CHEM 313	3	CHEM 313	4
CHEM 325	2		
CHEM 333	3	CHEM 333	3
Two of BIOL 337, 340, 341, 351, 352, 360, CHEM 345 ⁹	4-6		
BIOL Electives ¹⁰	3	BIOL Electives ⁶	3(4)
Electives ^{5, 11}	6-4	Arts Elective	6
Total Credits	33	Total Credits	38(39)
Fourth Year		Fourth Year	
		BIOC 303	6
		BIOL Electives ⁷	6
BIOL 449 or CHEM 449	6	BIOL or CHEM 449	6
BIOL and CHEM Electives ¹²	18	CHEM 309, 310	6
Electives ^{5, 11}	8	CHEM 311	4
Total Credits	32	CHEM Elective ⁸	3
		Total Credits	31
Total Credits for Degree	132	Minimum Credits for Degree	138
¹ A total of 6 credits of course work is required to meet the Communication Requirement. ENGL 112 is recommended. For a full list of acceptable courses see Communication Requirement. [Link-to Communication Requirement in Faculty of Science] SCIE 113 or SCIE 300 may be used to satisfy part of the Communication Requirement but not part of the Arts Requirement. [Link-to Science, Arts, and Breath Requirements in Faculty of Science]		¹ ENGL 112 is recommended. Qualified students are encouraged to consider ENGL 120 and/or 121. 3 credits of first year English may be deferred until second year. MATH 110 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 3 credits.	
² MATH 180 or 184 or 120 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 1 credit. MATH 110 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 3 credits.		² Students must take BIOL 111 as an elective if they lack the prerequisites for either BIOL 112 or 121. BIOL 112 can be used as a prerequisite to BIOL 121 if students have Chemistry 12 and Biology 11 or 12. Students who do not need BIOL 111 are encouraged to take 3 credits of 100-level Arts or science courses or 200-level BIOL courses. BIOL 112, 121, and 140 are required of all students.	
³ MATH 121 may substitute for any of the specified integral calculus courses listed by decreasing the electives by 1 credit.		³ Chosen from 100-level Arts or science courses or 200-level BIOL courses.	
⁴ PHYS 107, 108, and 109 may substitute for		⁴ BIOL 240 is highly recommended but not	

<p>PHYS 101 and 102 by decreasing the electives by 1 credit. Students without Physics 12 must take PHYS 100 prior to PHYS 101 or 107.</p> <p>⁵ There are a number of elective credits in this specialization. Even though these electives are assigned in a specific manner over each of the four years of study, they may be redistributed, and thus any extra elective credit taken in first or second year can be applied to the later elective credit requirements. The year level of an elective does not need to correspond to the year level of the specialization. Note that students in honours specializations must complete a minimum of 30 credits in each Winter session. Students who do not have credit for Biology 11 or 12 must take 3 credits of 100-level BIOL (usually BIOL 111). Students with credit for Biology 11 or 12 must successfully complete 3 credits of an ASTR, BIOL, EOSC, or GEOB lecture course. At least 18 credits must be from the Faculty of Arts, which may include Arts credits used to satisfy the Faculty of Science Communication Requirement.</p> <p>⁶ Students with CHEM 235 and a score of 76% or higher in CHEM 233 may apply for admission to this specialization and will be allowed to use CHEM 233 and 235 in place of CHEM 203.</p> <p>⁷ BIOC 303 may substitute for BIOC 302 by decreasing the third-year unspecified electives by 3 credits.</p> <p>⁸ STAT 200 may replace BIOL 300.</p> <p>⁹ BIOL 326, 363, 404, 409, 437, and 444 may also be included in this list of courses.</p> <p>¹⁰ Chosen from 300- and 400-level BIOL lecture courses. Recommended BIOL electives include BIOL 335, 361, 435, 436, 463.</p> <p>¹¹ Recommended electives include BIOC 402, 410, BIOL 435 and MICB 405.</p> <p>¹² Chosen from 300- and 400-level BIOL and CHEM lecture courses. At least 6 credits must be chosen from 400-level BIOL lecture courses</p>	<p>required.</p> <p>⁵ Must be taken in third year. Students are not permitted to take more than one of BIOL 351, 360, and 363.</p> <p>⁶ Organismal: 3 or 4 credits from: BIOL 204, 205, 209, 210, MICB 202, BIOL 317-324, and 332.</p> <p>⁷ Biology courses pertaining to organisms suggested.</p> <p>⁸ To be chosen from 400-level CHEM lecture courses.</p> <p>Type of Action: Move the description of the Combined Honours (0057): Biology and Chemistry specialization from the Biology section of the calendar and insert it immediately before the Combined Honours (0206): Chemistry and Mathematics specialization entry in the Chemistry section of the calendar. Change the title of the specialization and update the description, the credits and the footnotes. To clarify editorial changes, the current description of the Combined Honours (0057): Biology and Chemistry specialization from the Biology section of the</p>
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and at least 6 credits must be chosen from 400-level CHEM lecture courses. Recommended BIOL electives include BIOL 335, 361, 435, 436, 463. Recommended CHEM electives include CHEM 411, 413, 435.

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calendar has been included above.

Rationale: The listing for the Combined Honours (0057): Biology and Chemistry specialization is being moved from the Biology to the Chemistry section of the calendar. The enrolment in this specialization has dropped to low numbers in recent years and it is hoped the move of the description to Chemistry, along with a title change and description update, will reverse this trend. The specialization now incorporates the Faculty of Science Communication requirement. The specialization has been updated to increase flexibility and mesh with the new specializations in Biology. In particular, the present specialization focuses on a number of core courses, both in BIOL and CHEM, and contains ample selection credits for students to tailor their course selections from among the wide range of BIOL and CHEM courses available.

The name of the specialization was chosen after due consideration. It will help students to recognize the distinctions between biochemistry and this specialization. There are many Departments of Chemistry and Chemical Biology, whereas there are no Departments of Chemistry and Biological Chemistry (in fact a Google search for them actually returns Departments of Chemistry and Biochemistry). *Chemical Biology* is a journal published by the American Chemical Society and *The Journal of Chemical Biology* is published by Springer and on their website it states “Chemical biology was established initially as an interdisciplinary approach that employed chemical synthesis to address biological questions. However, this research area is now growing and evolving, quickly absorbing more and more aspects of physical sciences (experimental as well as theoretical tools and techniques) that can be used to elucidate research problems in the life sciences (biological and medical).” In contrast, the term “Biological Chemistry” is strongly associated with Biochemistry and a combined honours program emphasizing that area of research already exists. Alternatively, the term “Chemical Biology” is strongly associated with Chemistry and refers to research at the boundary between Chemistry and Biology. Thus, a combined program between Chemistry and Biology is quite naturally and

	<p>properly named “Chemical Biology” which we hope will be appealing to the students that we are trying to attract to this combined specialization. A slight reduction in the required biochemistry content is appropriate for this specialization. Footnote direction and recommended electives in the subject area allow additional biochemistry for students interested in further study in that field. A background in electricity and magnetism is important for all spectroscopic and related studies within the specialization. The majority of students in the specialization already take the needed physics courses. The inclusion of PHYS 102 (or PHYS 108) in the specialization ensures that all students will now have met this material. There are no library or budget issues because it is the same specialization.</p>
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EARTH & OCEAN SCIENCES

Effective Date for Change: 11W

Proposed Calendar Entry:

Majors Specializations

Combined Major (xxxx): Oceanography and Biology

First Year

Communication Requirement ¹	3
PHYS 101 or 107 ²	3
CHEM 121, 123 (or 111, 113)	8
EOSC 112 ³	3
BIOL 112, 121 ⁴	6
MATH 100 or 102 or 104 ⁵	3
MATH 101 or 103 or 105 ⁶	3
Electives ⁷	1
Total Credits	30

Second Year

Communication Requirement ¹	3
BIOL 200, 230, 234, 260 ⁸	12
One of BIOL 203, 204, 205, 209 or MICB 201 ⁹	3(4)
EOSC 211, 270	6
CHEM 233	3
Electives ^{9, 11}	3(2)
Total Credits	30

Third Year

BIOL 300, 336, 351	10
EOSC 372, 373	6
Two of BIOL 340, 341, 363	4
Electives ^{10, 11}	10
Total Credits	30

Fourth Year

BIOL 402	3
EOSC 470, 472	6
One of EOSC 475, 478	3
One of EOSC 448, 473	3
Electives ^{10, 11}	15
Total Credits	30
Total credits for degree	120

¹ A total of 6 credits of coursework is required to meet the Communication Requirement. ENGL 112 is recommended. For full list of

<http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,422>

Present Calendar Entry:

Action: Add new specialization after preamble but before "Honours Specializations".

Rationale: Oceanography has traditionally offered Combined Honours specializations to students interested in pursuing graduate degrees in oceanography. The Majors specialization in Earth and Ocean Sciences is available for students broadly interested in oceanography. However, between these two is missing a specialization for students wishing to seek employment as oceanographic or environmental technical scientists. Many of these students cannot qualify for honours degrees.

We have seen a sharp decrease in the number of oceanography students and this specialization will be attractive to a larger cross-section of students. Breadth has been included in the specialization as it includes both Life Science Courses (e.g. BIOL 336, 351, 402) and Earth Science Courses (e.g. EOSC 211, 372, 373).

Supporting Documents: SCI-10-1-Combined Major Oceanography and Biology

acceptable courses see Communication Requirement [link to: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1463#18434>]

² Students without credit for Physics 12 will be required to take PHYS 100 prior to PHYS 101. PHYS 100 will count as an elective. Students requiring PHYS 100 or MATH 110 may delay PHYS 101/107 until second year. Qualified students are encouraged to take PHYS 107.

³ Students who enter the specialization after second year may substitute EOSC 340.

⁴ Students without credit for Chemistry 12 and at least one of BIOL 11 or Biology 12 will be required to take BIOL 111 prior to BIOL 112 and those without credit for at least one of BIOL 111 or Biology 12 will be required to take BIOL 112 prior to BIOL 121. BIOL 111 will count as an elective. Students requiring BIOL 111 can delay BIOL 112 until second year.

⁵ MATH 180 or 184 or 120 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 1 credit. MATH 110 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 3 credits.

⁶ MATH 121 may substitute for any of the specified integral calculus courses listed by decreasing the electives by 1 credit.

⁷ Recommended electives are EOSC 111 (1 credit) or BIOL 140 (2 credits).

⁸ Up to 3 credits of BIOL 200, 230, 234, and 260 may be deferred until third year to allow space for additional electives.

⁹ Students who take 4 credits of organismal diversity courses (BIOL 203, 204, 205, 209) should take 2 credits of electives. Students who take 3 credits of organismal diversity courses (MICB 201) should take 3 credits of electives. Surplus elective credit taken in first or second year can be applied to third or fourth year as elective credit.

¹⁰The computation requirement and breadth requirement of the Faculty of Science are satisfied by the combination of courses in the combined major. However, the electives must be selected to ensure that the following Faculty of Science requirements are met: a) at least 18 credits must be from the Faculty of Arts, including Arts credits used to satisfy the Faculty of Science Communication Requirement; b) at least 48 upper-level credits including specialization requirements.

¹¹Students interested in Fisheries Oceanography should consider ECON 101 (Arts credit) and LAW 356 as electives.

For details of specialization objectives and learning goals, see ____ (link to Faculty of Science website).

<p>Effective Date for Change: 11W</p> <p>Proposed Calendar Entry:</p> <p>Combined Major (xxxx): Oceanography and Physics</p> <p>First Year</p> <table> <tr> <td>Communication Requirement¹</td> <td>3</td> </tr> <tr> <td>PHYS 101, 102 or (107, 108, 109)²</td> <td>6(7)</td> </tr> <tr> <td>CHEM 121, 123 (or 111, 113)</td> <td>8</td> </tr> <tr> <td>EOSC 112³</td> <td>3</td> </tr> <tr> <td>MATH 100 or 102 or 104⁵</td> <td>3</td> </tr> <tr> <td>MATH 101 or 103 or 105⁶</td> <td>3</td> </tr> <tr> <td>Electives^{4,7,8}</td> <td>4(3)</td> </tr> <tr> <td>Total Credits</td> <td>30</td> </tr> </table> <p>Second Year</p> <table> <tr> <td>Communication Requirement¹</td> <td>3</td> </tr> <tr> <td>MATH 200, 215, 221</td> <td>9</td> </tr> <tr> <td>PHYS 200, 209, 216</td> <td>10</td> </tr> <tr> <td>EOSC 211</td> <td>3</td> </tr> <tr> <td>Electives^{8,9}</td> <td>5</td> </tr> <tr> <td>Total Credits</td> <td>30</td> </tr> </table> <p>Third Year</p> <table> <tr> <td>PHYS 312 or MATH 316</td> <td>3</td> </tr> <tr> <td>MATH 317</td> <td>3</td> </tr> <tr> <td>PHYS 203</td> <td>4</td> </tr> <tr> <td>PHYS 309 or PHYS 319</td> <td>3</td> </tr> <tr> <td>EOSC 372, 373</td> <td>6</td> </tr> <tr> <td>Electives^{8,9}</td> <td>8</td> </tr> </table> <p>Third or Fourth Year¹⁰</p> <table> <tr> <td>ATSC 409</td> <td>3</td> </tr> <tr> <td>EOSC 477</td> <td>3</td> </tr> </table> <p>Fourth Year</p> <table> <tr> <td>PHYS 301, 304, 314, 409</td> <td>12</td> </tr> <tr> <td>EOSC 354</td> <td>3</td> </tr> <tr> <td>EOSC 473 or EOSC 448</td> <td>3</td> </tr> <tr> <td>Electives^{8,9}</td> <td>9</td> </tr> <tr> <td>Total Credits for Third and Fourth Year</td> <td>60</td> </tr> <tr> <td>Total Credits for Degree</td> <td>120</td> </tr> </table> <p>¹ A total of 6 credits of coursework is required to meet the Communication Requirement. ENGL 112 is recommended. For full list of</p>	Communication Requirement¹	3	PHYS 101, 102 or (107, 108, 109)²	6(7)	CHEM 121, 123 (or 111, 113)	8	EOSC 112³	3	MATH 100 or 102 or 104⁵	3	MATH 101 or 103 or 105⁶	3	Electives^{4,7,8}	4(3)	Total Credits	30	Communication Requirement¹	3	MATH 200, 215, 221	9	PHYS 200, 209, 216	10	EOSC 211	3	Electives^{8,9}	5	Total Credits	30	PHYS 312 or MATH 316	3	MATH 317	3	PHYS 203	4	PHYS 309 or PHYS 319	3	EOSC 372, 373	6	Electives^{8,9}	8	ATSC 409	3	EOSC 477	3	PHYS 301, 304, 314, 409	12	EOSC 354	3	EOSC 473 or EOSC 448	3	Electives^{8,9}	9	Total Credits for Third and Fourth Year	60	Total Credits for Degree	120	<p>http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,422</p> <p>Present Calendar Entry:</p> <p>Action: Add new specialization following Combined Major Oceanography and Biology.</p> <p>Rationale: Oceanography has traditionally offered Combined Honours specializations to students interested in pursuing graduate degrees in oceanography. The Majors specialization in Earth and Ocean Sciences is available for students broadly interested in oceanography. However, between these two is missing a specialization for students wishing to seek employment as oceanographic or environmental technical scientists. Many of these students cannot qualify for honours degrees. We have seen a sharp decrease in the number of oceanography students and this specialization will be attractive to a larger cross-section of students.</p> <p>Supporting Documents: SCI-10-1-Combined Major Oceanography and Physics</p>
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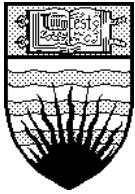
<p>acceptable courses see Communication Requirement [link to: http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,1463#18434]</p> <p>² Students without credit for Physics 12 will be required to take PHYS 100 prior to PHYS 101. PHYS 100 will count as an elective. Qualified students are encouraged to take PHYS 107, 108, 109.</p> <p>³Students who enter the specialization after second year may substitute EOSC 340.</p> <p>⁴Students without Biology 11 or 12 must take 3 credits of 100-level BIOL.</p> <p>⁵MATH 180 or 184 or 120 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 1 credit. MATH 110 may substitute for any of the specified differential calculus courses listed by decreasing the electives by 3 credits.</p> <p>⁶MATH 121 may substitute for any of the specified integral calculus courses listed by decreasing the electives by 1 credit.</p> <p>⁷A recommended one credit elective is EOSC 111. Students who take 6 credits of first year physics (PHYS 101, 102) should take 4 credits of electives. Students who take 7 credits of first year physics (PHYS 107, 108, 109) should take 3 credits of electives.</p> <p>⁸Surplus elective credit taken in first or second year can be applied to third or fourth year as elective credit.</p> <p>⁹The computation requirement and breadth requirement of the Faculty of Science are satisfied by the combination of courses in the combined major. However, the electives must be selected to ensure that the following Faculty of Science requirements are met: a) at least 18 credits must be from the Faculty of Arts, including Arts credits used to satisfy the Faculty of Science Communication Requirement; b) at least 48 upper-level credits including specialization requirements.</p>	
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¹⁰These courses are offered every second winter session.

For details of specialization objectives and learning goals, see ____ (link to Faculty of Science website).

<p>Effective Date for Change: 11W</p> <p>Proposed Calendar Entry:</p> <p>Minor (xxxx): Oceanography (OCGY)</p> <p>The minor consists of 18 credits, including all of EOSC 340, 372, 373, and three of EOSC 470-489 including at least two of EOSC 470, 472 and 477. See Minor in Science [link to http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,410]</p>	<p>http://www.calendar.ubc.ca/vancouver/index.cfm?tree=12,215,410,422</p> <p>Present Calendar Entry:</p> <p>Action: Add new specialization after oceanography honours specializations.</p> <p>Rationale: Provide students with a clear list of courses to form an Oceanography minor.</p> <p>Supporting Documents: SCIE-10-1-Minor: Oceanography (OCGY)</p>
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THE UNIVERSITY OF BRITISH COLUMBIA



1 December 2010

CURRICULUM & ADMISSIONS COMMITTEES
Vancouver Senate
2016 - 1874 East Mall
Vancouver, B.C. Canada V6T 1Z1

To: Vancouver Senate

From: Senate Curriculum & Admission Committees

Re: New Program Proposals for a Master of Engineering in Engineering and Public Policy, and for New Combined Programs of Doctor of Philosophy in Craniofacial Science with Diplomas in Endodontics and Periodontics

Master of Engineering in Engineering and Public Policy

Combined Doctor of Philosophy in Craniofacial Science / Diploma in Endodontics or Periodontics

The Senate Curriculum and Admissions Committees have reviewed the material forwarded to it by the Faculty of Applied Science and the Faculty of Graduate Studies (Faculty of Dentistry), and are pleased to recommend the following:

That Senate approve the new Master of Engineering in Engineering and Public policy and its associated courses; and

That Senate approve the new Combined Doctor of Philosophy in Craniofacial Science / Diploma in Endodontics, and Combined Doctor of Philosophy in Craniofacial Science / Diploma in Periodontics programs.

Respectfully Submitted,

Dr. David W. Fielding, Chair, Senate Admissions Committee
Dr. Peter Marshall, Chair, Senate Curriculum Committee

Master of Engineering in Engineering and Public Policy

Faculty of Applied Science

GRADUATE PROGRAM PROPOSAL

Faculty of Applied Science - M. Eng. Program Proposal

GENERAL INFORMATION

Title: M. Eng. in Engineering and Public Policy

Unit offering the programs: Faculty of Applied Science.

Anticipated Date of Implementation: 2011-12 Academic Year

I. NEED FOR THE PROGRAM

Societies are facing great challenges in pursuing sustainable development, ranging from climate change, degradation of soil, air and water, social disintegration and threats to security, emerging diseases, and persistence of extreme poverty. The past decade has also seen the rise of numerous new technologies and applications that have the potential to help meet these challenges. Traditionally, engineers have focused on making engineering decisions aimed at choosing the “best” technology based primarily on techno-economic considerations. Sustainability and broader and global social implications of new technologies and products were generally considered after the fact not as part of the original design process. Engineers are thus frequently confronted with challenges in seeking engineering solutions to large-scale social and environmental problems involving multifaceted interactions among people, society, social movements and science and technologies.

A 2004 US National Academy of Engineering (NAE) study showed the need for increasing engineering leadership in policy formation in the 21st century, due to the growing role of technology in society and the influences of policies on the development and deployment of new technologies. As a result, engineers do not only need to understand public policy and its impact on their technology work but also need to play a strong role in informing, creating and administering public policy.

In recent years, there has been increasing interest among engineering students in applying engineering skills to address complex real-world problems via involvement in activities such as Engineers Without Borders and campus-wide sustainability activities. For example, a recent cohort of the students in the professional Master of Engineering in Clean Energy Engineering program administered by the Faculty of Applied Science showed tremendous interest in the public policy process related to clean and renewable energy policy development in the Province and Canada.

A new breed of engineers is needed to enable the development of technology and applications that will help maximize societal benefits by taking into consideration of social, legal, ethical, political and economic factors influencing the choice and deployment of technologies. A Master of Engineering in Engineering and Public Policy professional degree will attract scientific and engineering professionals who are concerned with the interaction of their technical fields with the society and have a strong interest in topics such as energy and environment, health and medicine, information and communications, and emerging nano and biotechnologies.

There are job opportunities for students trained from this ENPP specialization in both the public and private sectors, as analysts and decision makers for government agencies, organizations of scientists and engineers, advocacy groups, think tanks and other organizations concerned with aspects of national science and technology policy, as science reporters and writers, as well as in managerial and executive positions in science and technology-oriented businesses which are concerned with government support of R&D, government regulation which is based on scientific or technological knowledge. Engineers have already been filling policy jobs in companies and institutions, such as regional and municipal governments, crown corporations such as ICBC and BC Hydro, and non-government organizations such as Suzuki Foundation, but usually without the benefit of any explicit policy training. UBC is a leading Canadian university, and also has a global reputation especially in Asia and Pacific region. Such a program will strengthen UBC's reputation in interdisciplinary education and research, but also will attract international engineering graduates from Asia countries like China and India, where engineers are highly respected and traditionally occupy senior government and corporate positions.

The first engineering and public policy program was introduced at Carnegie Mellon University over 30 years ago. Similar engineering/technology and public policy programs have been established in schools such as Massachusetts Institute of Technology, University of Maryland, Harvard and Stanford, to list just a few. In Canada, a Masters of Engineering and Public Policy program is run by the Dofasco Centre for Engineering and Public Policy at the Faculty of Engineering, McMaster University, while a research-oriented graduate program has been offered by the Centre for Policy Research on Science and Technology in the Faculty of Applied Science at Simon Fraser University.

The Faculty of Applied Science has been successfully managing a professional Master of Engineering program, and has recently piloted a multidisciplinary program in clean energy engineering in 2009, with a required component in energy policy. To assess the feasibility of creating an ENPP specialization at UBC, a working group was formed in summer 2009 consulting with the members listed in the table below. The group identified many resources across the UBC campus in support of such a program, e.g. Faculty of Arts, College for Inter-disciplinary Studies and its associated units (Liu Institute for Global Issues, the Institute for Resources, Environment and Sustainability, School of Environmental Health), Faculty of Law, Faculty of Land and Food Systems and the Sauder School of Business. The combination of engineering students' interest in training in public policy and the expertise and teaching-research interests of several faculty members in engineering and public policy, coupled with a range of existing courses, and a perceived need for a new professional M.Eng. specialization in this area, have led to this proposal.

While the six new core courses to be developed for this ENPP specialization (ENPP 501, 502, 503, 504, 596 and 597) are specifically tailored for engineering students, they are expected to appeal to research (M.A.Sc. and Ph.D.) students in the Faculty of Applied Science, as well as to students in other similar programs. Once successfully implemented, these courses can also be introduced to select senior engineering undergraduates as electives. The project course (ENPP 596) will challenge the M.Eng. students to apply their skills in a practical engineering and public policy context. As the program becomes more established, it will lead to closer collaboration with related programs of other faculties at UBC Vancouver.

ENPP working committee members:

Xiaotao (Tony) Bi, Chemical and Biological Engineering, lead coordinator
Jonathan Fannin, Civil Engineering
Eric Hall, Civil Engineering
Greg Lawrence, Civil Engineering
Steven Rogak, Mechanical Engineering
Tarek Sayed, Civil Engineering
Dirk van Zyl, Mining Engineering
Michael Brauer, Bridge Program/School of Environmental Health
Peter Dauvergne, Department of Political Science
Julian Dierkes, Institute of Asian Research
Simon Donner, Department of Anthropology and sociology
Hadi Dowlatabadi, Institute for Resources, Environment and Sustainability (IRES)
Paul Evans, Liu Institute for Global Issues
Lawrence Frank, School of Community and Regional Planning
Sumeet Gulati, Department of Resource Economics
Kathryn Harrison, Department of Political Science
George Hoberg, Department of Forest Resources Management
Shi-Ling Hsu, Faculty of Law
Milind Kandlikar, Liu Institute for Global Issues
Eric Mazzi, Clean Energy Research Centre
Tim McDaniels, Institute for Resources, Environment and Sustainability (IRES)
Karin Mickelson, Faculty of Law
Maged Senbel, School of Community and Regional Planning (SCARP)
Jerry Spiegel, School of Population and Public Health
James Tansey, Sauder School of Business
Hisham Zerriffi, Liu Institute for Global Issues

PROGRAM SPECIFICATIONS

Program Overview:

The Master of Engineering in Engineering and Public Policy will be offered to qualified students grounded in all engineering fields. The program provides a broad overview of the interactions between technologies and public policy on various engineering fields, such as energy, environment, health and biotechnologies, and information technologies. Projects will address practical issues on the development of public policies and its implication to the development, selection and deployment various technologies in specific fields.

Admission Requirements:

Admission to the program will be as specified for other Master of Engineering programs in the Faculty of Applied Science (see IV Calendar Statement). Applicants must hold a four-year Bachelor's degree from a recognized institution in engineering and is recommended that they have a minimum of three years of relevant professional experience. Admission requirements also include successful completion of a minimum of a 3-credit introductory course in microeconomics (equivalent to ECON 101) and a minimum of a 3-credit elementary statistics course (equivalent to STAT 251).

Applicants without adequate engineering background/training may be required to take remedial courses at the undergraduate level in addition to the full program.

Program Requirements:

The program requires completion of at least 30 credits, of which at least 24 must be at the 500-level. These must include the following 19-credits core courses, unique to the program:

- ENPP 501 (3) Law, Public Policy and Governance
- ENPP 502 (3) Public Policy Analysis –Tools and Methods
- ENPP 503 (3) Public Policy Case Studies
- ENPP 504 (3) Applied Economics in Public Policy
- ENPP 596 (6) M.Eng. Project in Engineering and Public Policy
- ENPP 597 (1) Seminar

A minimum of 11 credits of elective courses will be drawn from a list of approved courses covering other policy issues (e.g., energy and environment, health, climate change, information technology, intellectual property, emerging bio and nano-technologies), analysis approaches, and specific technologies (e.g., energy engineering, power generation, mobile computing, green building, environmentally-friendly industrial processing). Among the 11 credits of elective courses, no more than 6 credits can be taken from technologically focused courses in the fields of engineering or technologies.

The following existing courses are likely to be included in the list of approved elective courses. Where applicable, students must meet the pre-requisites for these courses or have permission of the instructor. Student registration into each course will be subject to space availability.

Policies, Ethics and Laws

AGEC 520 (3) **Topics in Land and Forest Resource Economics**

APSC 512 (3) **Intellectual Property Management and Technology Commercialization**

APSC 540 (3) **Business Decisions for Engineering Ventures**

APSC 541 (3) **Technology Entrepreneurship for Engineers**

CIVL 402 (2) **Engineering Law and Contracts in Civil Engineering**

CIVL 522 (3) **Project and Construction Economics**

COMM 495 (3) **Business and Sustainable Development**

CONS 425 (3) **Sustainable Energy: Policy and Governance**

ECON 339 (3) **Economics of Technological Change**

ECON 370 (3) **Benefit-Cost Analysis and the Economics of Project Evaluation**

ECON 371 (3) **Economics of the Environment**

ECON 471 (3) **Economics of Nonrenewable Resources*** with appropriate economics pre-requisites

ECON 472 (3) **Economics of Renewable Resources*** with appropriate economics pre-requisites

FRST 523 (3) **Forest and Environmental Policy**

IHHS 401 (3) **Health Care Ethics**

LAW 386C (3) **Sustainable Development Law**

LAW 387C (3) **Environmental Law**

LAW 392B (3) **Natural Resources Law**

LAW 394 (2) **Mining Law**

LIBR 561 (3) **Information Policy**

LIBR 563 (3) Information Ethics
PLAN 506 (3) The Legal Context of Planning
PLAN 548T/RMES 500J (3) Decision Insights for Planning and Policy Analysis
POLI 350A (3) Public Policy
POLI 351 (3) Environmental Politics and Policy
POLI 352A (3) Comparative Politics of Public Policy
PSYC 507 (3) Cultural Psychology
RMES 500G (3) Climate Change: Global Challenges and Local Responses
RMES 500Q (3) Gender, Space, Inequality and Environment (Equivalency: WMST 503D)
RMES 500T (3) Biofuels for Transport
RMES 500U (3) Law and Climate Change
RMES 520 (3) Climate Change in the 21st Century
RMES 530 (3) Knowledge, Policy and Values in Risk and Resource Management
RMES 542 (3) Integrated Assessment
SPHA 510 (1.5) Canadian Health Policy and the Healthcare System
SPHA 562 (1.5) Health Care Law
SPPH 542 (3) Seminar: Issues in Canadian Health Policy

Energy and Clean Technologies

CEEN 501 (3) Thermal Energy Systems
CEEN 502 (3) Alternative Energy Technologies
CEEN 523 (3) Energy and the Environment
CHBE 484 (3) Green Engineering Principles and Applications for Process Industries
CHBE 577 (3) Electrochemical Science, Engineering and Technology
CHBE 583 (3) Energy Engineering
EECE 492 (3) Distributed Energy Systems Management
EECE 553 (3) Advanced Power Systems Analysis
EECE 561 (3) Alternative Energy Sources
EOSC 432 (3) Fossil Fuels
MECH 470 (3) Energy Conversion Systems
MECH 545 (3) Fuel Cell Systems
MECH 578 (3) Internal Combustion Engines
MINE 584 (3) Energy from the Earth: Renewable Versus Conventional

Biotech, Nanotech and IT

EECE 412 (3) Introduction to Computer Security
EECE 432 (3) Biological Micro-Electro-Mechanical Systems
EECE 513 (3) Fault Tolerant Digital Systems
EECE 532 (3) Biomedical Microdevices
EECE 573 (3) Micro and Nano Fabrication Technologies
LIBR 561 (3) Information Policy
LIBR 563 (3) Information Ethics

Health and Environment

ARCH 513 (3) Environmental Systems and Controls 1
CHBE 479 (3) Chemical Engineering Aspects of Occupational Health and Safety
CHBE 575 (3) Air Pollution Control

CIVL 405 (3) **Environmental Impact Studies**
CIVL 415 (3) **Water Resource Engineering**
CIVL 557 (2) **Toxic and Hazardous Waste Treatment and Disposal**
GEOG 319 (3) **Environmental Impact Assessment**
GEOG 410 (3) **Environment and Society**
GEOG 517 (3) **Environmental Sustainability**
MINE 574 (3) **Mining Environment Case Studies**
OCCH 501 (3) **Principles of Occupational and Environmental Hygiene**
OCCH 510 (3) **Topics in Environmental Health**
PLAN 514 (3) **Impact Analysis for Planning**
PLAN 580 (3) **Urban Transportation Planning**
PLAN 581 (3) **Urban Infrastructure Planning and Development**
PLAN 599 (3) **Environmental Policy Analysis** (Equivalency: RMES 550)
RMES 501 (3) **Perspectives on Resources and Environment**
SPPH 502 (3) **Epidemiological Methods 1**
SPPH 532B (3) **Environmental Health Risk Assessment and Communication**
WOOD 491 (3) **Environmental Facilities Design**

Contact Information:

Faculty of Applied Science
Deb Feduik, Manager, MEng & Graduate Program
5000 - 2332 Main Mall, Vancouver, BC V6T 1Z4
Email: deb.feduik@ubc.ca 604-822-8386

II. CALENDAR STATEMENT

Proposed Calendar Entry:

URL: <http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,838,0>

The Master of Engineering (M.Eng.) program is suited to students who wish to pursue their engineering education in a preferred area of specialization beyond the undergraduate level, but who do not wish to pursue a thesis research program. Applicants who are considering taking a Doctor of Philosophy (Ph.D.) in the future should apply for admission to the Master of Applied Science (M.A.Sc.) through the Faculty of Graduate Studies.

Typical completion time for full-time Master of Engineering students is 12-16 months.

The Faculty of Applied Science administers the Master of Engineering program. Please visit the [Program](#) for a full listing program policies and procedures.

Admission Requirements

Note: Master of Engineering degrees alone do not form an acceptable basis for application to associations of professional engineers in Canada.

Applicants to the Master of Engineering program in all specializations except Engineering and Public Policy must hold a credential deemed academically equivalent to a four-year bachelor's degree from UBC, in engineering or a related discipline.

Applicants to the Engineering and Public Policy specialization must hold a credential deemed academically equivalent to a four-year bachelor's degree from UBC in engineering. Admission requirements also include successful completion of a minimum of a 3-credit introductory course in microeconomics (equivalent to ECON 101) and a minimum of a 3-credit elementary statistics course (equivalent to STAT 251).

The minimum admission requirement for students with degrees from North American institutions is an average of 76% (UBC-equivalency), calculated from senior-level coursework. An applicant with an average less than 76% may be admitted if they have achieved 80% or higher in at least 12 credits (UBC equivalency) of senior-level coursework, and at least 74% in the remaining senior-level coursework, in the prospective area of study.

The minimum admission requirement for applicants with degrees from outside North America is an overall average of 76% (UBC-equivalency).

For all specializations relevant professional experience is considered an asset.

Applicants holding a four-year bachelor's degree who do not meet the admissions minimum, but who have had sufficient formal training and relevant professional experience to offset the academic deficiency, may be granted admission on the recommendation of the graduate advisor in the area of specialization and the approval of the Master of Engineering Program Office.

For the Clean Energy Engineering specialization, applicants must have taken at least 3 credits (UBC-equivalency) of thermodynamics at the second- or third-year level.

Applicants from a university outside Canada in which English is not the primary language of instruction must present evidence of competency prior to being extended an offer of admission. Acceptable English language proficiency tests for applicants to graduate studies include the TOEFL, IELTS, and MELAB. The required minimum is determined by the Graduate program office in the area of specialization, but must be at or above the university minimum for graduate-level study.

Students interested in applying to the Master of Engineering program must contact the individual graduate program office for their area of specialization. Students who are planning on taking the program on a part-time basis must obtain approval from their graduate program advisor prior to the commencement of the program. Lists of the required application documents are available on the respective websites. Each graduate program office in an area of specialization is responsible for collection and assessment of application documents. The Master of Engineering Program Office issues the offer of admission letter.

Transfer Credit

Courses taken as an Access Studies or non-degree student may be approved for transfer toward a graduate program with the permission of the graduate program and the Master of Engineering Program Office.

Consistent with standard transfer credit regulations, students are limited to transferring a maximum of 12 credits or up to 40% of the program credit requirements, whichever is more, toward their master's program. No more than 6 credits of transfer credit may be at the undergraduate level (300-/400-level). In order to be eligible for transfer, the course(s):

- must be completed with a minimum "B" standing (UBC equivalent)
- must not have been counted toward the completion of another degree or program
- must have been completed no more than five years prior to the time the student commences the degree program
- must not be used as a basis for admission to the graduate program

Financial Assistance

Financial assistance is generally not available to students in the Master of Engineering program.

Program Requirements

The program requires completion of at least 30 credits. In some program areas, minimum requirements may be higher than 30 credits:

- At least 24 credits must be at the 500-level.
- A minimum of 18 of the 24 credits must be in the program area at the 500-level, including a project, if required, up to a maximum 6 credits.
- A maximum of 6 credits may be taken at the 300-/400-level.
- A maximum of 6 credits of 500-level directed studies courses may be counted toward the program requirements.

Students should consult each program area website for more information. Each student's coursework must be approved by the graduate program office for that area.

Specializations

[Biomedical Engineering](#)
[Chemical and Biological Engineering](#)
[Civil Engineering](#)
[Clean Energy Engineering](#)
[Electrical and Computer Engineering](#)
[Engineering and Public Policy](#)
[Geological Engineering](#)
[Materials Engineering](#)
[Mechanical Engineering](#)
[Mechatronics Design](#)
[Mining Engineering](#)

Engineering Management

The [Engineering Management](#) sub-specialization requires 12 credits of courses in management-related subjects, with a minimum of 6 credits of core courses and a maximum of 6 credits of elective courses. The chosen program area requirements must also be satisfied.

Contact Information

Master of Engineering Program Office

5000-2332 Main Mall

Vancouver, BC V6T 1Z4

Tel: 604.822.8386

Fax: 604.822.7006

Email: gradprog@apsc.ubc.ca

Web: www.engineering.ubc.ca/prospective_students/graduate/index.php

Deb Feduik, Coordinator

III. PRESENT and PROJECTED RESOURCES

i. Budget

The new courses in the program will be funded initially by a special allocation from the Faculty of Applied Science. The fees are being set at a level necessary to allow the program to be financially self-sufficient. Government sponsorship will be sought to provide additional support, allowing the program to be strengthened further. Elective courses will largely be existing courses offered by the various departments in Applied Science and in other faculties such as Commerce, Art, Forestry, CFIS, Law, and Science. (see Appendix A). After deducting the cost of administering the program, revenues will be distributed amongst faculties based on an agreed upon distribution commensurate with the teaching provided to the program.

Administration. A program coordinator will be appointed to run the new program under the APSC Dean's Office Master of Engineering Program jurisdiction. A program committee will be established reflecting the faculties participating in the program. We will work to secure additional faculty, jointly appointed with other relevant units, as the program grows and as UBC puts increased emphasis on policy educational and research initiatives.

New faculty member appointments. So far, at least 20 faculty members across the campus have contributed to the ENPP committee, and will be potentially appointed as the faculty associates of the new ENPP specialization. A significant number has educational background in both engineering and public policy and have shown very strong interest in active participation in the program design and delivery. Additional faculty members who are interested in contributing to this program will be added as the program is established.

Development and delivery of new courses. Six new courses need to be established specifically for this specialization. The courses will be developed and presented in partnership with participating faculties. Teaching cost will be guaranteed by APSC and recuperated from program revenues.

Increased enrollments in existing courses. It is expected that enrollments in some existing courses outside the Faculty of Applied Science, most notably in the Faculty of Arts and College for

Interdisciplinary Studies, may be increased modestly through students enrolled in this Program taking them as electives. It is expected that the new budget model would account for the cost of such increases. It is proposed that enrollment changes be monitored for the first two years of the program, and that any unresolved budget issues arising from increased enrollment in elective courses be discussed at that time. Registration in any of the elective courses remains subject to space availability and approval of the faculty offering the course.

Tuition Fees. Tuition fees assessed for international and domestic status and are within the range of other professional Master's programs at the University of British Columbia. The domestic tuition will be \$15,239 per year for full-time study and \$8,980.37 per year for part-time study. The international tuition will be \$25,429 per year for full-time study and \$14,985.32 per year for part-time study. These fees are equivalent to that of the Master of Engineering in Clean Energy Engineering program. We will work to secure work terms, to be either paid by the employer or sponsors of the program. These work terms will reduce the net fees for the most qualified students. Tuition flowback and application fees will be used for funding additional resources. This is the model which has been successfully used for the Master of Engineering in Clean Energy Engineering program. A comparison of similar professional programs shows that the M.Eng. in Engineering and Public Policy (ENPP) will be highly competitive with programs in North America and world-wide. (See Appendix B – Full-time Tuition Comparison).

ii Space

Desk space will be provided for students within the newly established M.Eng. program space located in 2360 East Mall.

iii. Library

There are four new lecture courses associated with the ENPP specialization. However, these courses fall within the expertise of existing professors and as such have general resources in the Library. The Library in their consultations support the courses offered in this new program with the Library materials it currently offers. (See Appendix F).

IV. CONSULTATION WITH OTHER DEPARTMENTS, PUBLIC INSTITUTIONS, AND PROFESSIONAL ORGANIZATIONS

Consultation requests were sent to the following (see Appendix C):

Faculty of Applied Science
Clean Energy Research Centre
Department of Chemical and Biological Engineering
Department of Civil Engineering
Department of Electrical and Computer Engineering
Department of Materials Engineering
Department of Mechanical Engineering
Department of Mining Engineering
School of Architecture and Landscape Architecture
College for Interdisciplinary Studies
Institute of Asian Research

Institute for Resources, Environment and Sustainability
Liu Institute for Global Issues
School of Community and Regional Planning
School of Environmental Health
Faculty of Arts
Department of Economics
Department of Political Sciences
Faculty of Forestry
Faculty of Land and Food Systems
Global Resource Systems
Faculty of Law
Faculty of Medicine
School of Population and Public Health
Faculty of Science
Faculty of Commerce
Sauder School of Business
Province of British Columbia
BC Ministry of Energy, Mines & Petroleum Resources
Bioenergy & Renewables Branch
BC Hydro - Power Smart Program, Codes & Standards
University of Victoria
Pacific Institute for Climate Solutions
Province of Alberta
Alberta Research Council, Foresight

V. NEW COURSES

(see Appendix D - New Code Rationale, Appendix E I ,ii ,iii – Calendar Descriptions, , Course Supporting Materials)

ENPP 501 (3) Law, Public Policy and Governance

Policy process and parliamentary government, federalism and multilevel governance, bureaucracy and public service, charter and rights-based litigation, interest groups and collective action, mechanisms for interest group consultation and input, policy instruments, environmental law, international law and climate change.

ENPP 502 (3) Public Policy Analysis –Tools and Methods

Epistemology; policy analysis basics: policy paradigms based on utility maximization; equity and rights based frameworks; tools, methods and applications of quantitative policy analysis: cost-benefit approaches, risk analysis, decision analysis, values, tradeoffs and multi-attribute utility theory, modeling uncertainty; critiques and limitations of tools: psychology, perception and decision making, ethical challenges. *Pre-requisite:* ENPP 501

ENPP 503 (3) Public Policy Case Studies

Policy analysis case studies in various technology areas including: energy & environment, climate change and adaptation, information technology, intellectual property law, health and medicine, biotechnology, nanotechnology, infrastructure and material supply. Emphasis will be on policy dimensions of technology development and commercialization, and the interactions between

policy process and technology selection and deployment. *Pre-requisite:* ENPP 501 and *Co-requisite:* ENPP 502.

ENPP 504 (3) Applied Economics in Public Policy

Applied multivariate statistics: factor analysis, multiple regression, non-linear regression, multivariate ANOVA, spatial econometric modeling. Applied economics for public policy: market concentration, externalities and imperfect information, tools to restrict monopolies and other restrictive industrial policies, tools to treat market failures due to externalities, quotas, standards, tradable permits, taxes and subsidies, unbiased labelling and government provision, cost effectiveness analysis, cost-benefit analysis, economic impact analysis, life cycle cost analysis.

ENPP 596 (6) M.Eng. Project in Engineering and Public Policy

Carry out a project and prepare an engineering report under the supervision of faculty members and/or researchers/scientists from project sponsoring organizations.

ENPP 597 (1) Seminar

Presentations and discussions of current topics in the area of engineering and public policy.

VI. APPENDICES

Appendix A – Budget Impact of Curriculum Proposals – not included

Appendix B – Tuition Comparison – Professional Degrees – not included

Appendix C – Curriculum Consultations – Report, Request Responses, APSC Replies – not included

Appendix D – New Course Code Rationale

Appendix E – i Calendar Entry – Master of Engineering

ii Calendar Entry – New Courses

iii New Course Supporting Materials – not included

Appendix F – Library Consultations – not included

Appendix D - New Course Code Rationale

To: Senate Curriculum Committee
Senate Curriculum Sub-Committee Graduate

Re: new Master of Engineering in Engineering and Public Policy (ENPP)

The proposed new Master of Engineering (MEng) specialization in Engineering and Public Policy is designed to be a collaborative offering between the Faculty of Applied Science and a number of related units at UBC (as listed in the proposal). It will be administered by the Faculty of Applied Science through the Master of Engineering Program Office.

We understand that a request for a new course code cannot be made purely for administrative reasons and also is not based on the potential number of students enrolled in the program or any one course. There is no minimum number of courses that must be offered to qualify for a new course code. To use an existing departmental course code would imply to both students and faculty that the program is more closely affiliated with that department than the others, reducing the likelihood of attracting students from other disciplines, and having a negative impact on the buy-in from faculty from the other engineering departments. Providing a unique identity will also be helpful for the faculty from outside the Faculty of Applied Science that are involved in the delivery of courses so that they can accurately list these courses as part of their teaching loads.

The discontinued Master of Engineering program in Pulp and Paper Engineering carried its own code (PPEN). The Master of Engineering in Clean Energy Engineering was approved a new course code CEEN in 2009. There is continued support in the Faculty of Applied Science for new programs to create their own codes.

UBC Senate has approved new course codes for similar areas and professional programs. The Faculty of Commerce, College of Interdisciplinary Studies, Department of Computer Science and several specializations such as Cell & Developmental Biology and Oncology have multiple course codes.

The code **ENPP** will be recognizable nationally and internationally with other Engineering and Public Policy (EPP) programs.

Appendix E - i Calendar Entry – Master of Engineering

Category: (1)

<p>Faculty: Applied Science Department: Dean's Office Faculty Approval Date: November 3, 2010 Effective Session: 2011 Winter (Term 1) Year for Change: 2011</p>	<p>Date: October 25 2010 Contact Person: Deb Feduik Phone: 604.822.8386 Email: deb.feduik@ubc.ca</p>
<p>Proposed Calendar Entry: URL: http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,838,0</p> <p>The Master of Engineering (M.Eng.) program is suited to students who wish to pursue their engineering education in a preferred area of specialization beyond the undergraduate level, but who do not wish to pursue a thesis research program. Applicants who are considering taking a Doctor of Philosophy (Ph.D.) in the future should apply for admission to the Master of Applied Science (M.A.Sc.) through the Faculty of Graduate Studies.</p> <p>Typical completion time for full-time Master of Engineering students is 12-16 months.</p> <p>The Faculty of Applied Science administers the Master of Engineering program. Please visit the Program for a full listing program policies and procedures.</p> <p>Admission Requirements</p> <p>Note: Master of Engineering degrees alone do not form an acceptable basis for application to associations of professional engineers in Canada.</p> <p>Applicants to the Master of Engineering program in all specializations except Engineering and Public Policy must hold a credential deemed academically equivalent to a four-year bachelor's degree from UBC, in engineering or a related discipline.</p> <p>Applicants to the Engineering and Public Policy specialization must hold a credential deemed academically equivalent to a four-year bachelor's degree from UBC in engineering. Admission requirements also include successful completion of a minimum of a 3-credit introductory course in microeconomics (equivalent to ECON 101) and a minimum of a 3-credit elementary statistics course (equivalent to STAT 251).</p>	<p>Present Calendar Entry: URL: http://www.students.ubc.ca/calendar/index.cfm?tree=12,195,838,0</p> <p>The Master of Engineering (M.Eng.) program is suited to students who wish to pursue their engineering education in a preferred area of specialization beyond the undergraduate level, but who do not wish to pursue a thesis research program. Applicants who are considering taking a Doctor of Philosophy (Ph.D.) in the future should apply for admission to the Master of Applied Science (M.A.Sc.) through the Faculty of Graduate Studies.</p> <p>Typical completion time for full-time Master of Engineering students is 12-16 months.</p> <p>The Faculty of Applied Science administers the Master of Engineering program. Please visit the Program for a full listing program policies and procedures.</p> <p>Admission Requirements</p> <p>Note: Master of Engineering degrees alone do not form an acceptable basis for application to associations of professional engineers in Canada.</p> <p>Applicants to the Master of Engineering program must hold a four-year bachelor's degree from a recognized institution, in engineering or a related discipline.</p> <p>The minimum admission requirement for students with degrees from North American institutions is an average of 76%, calculated from senior-level coursework. An applicant with an average less than 76% may be admitted if they have achieved 80% or higher in a least 12 credits (UBC equivalency) of senior-level coursework, and at least 74% in the remaining senior-level coursework, in the prospective area of study.</p> <p>The minimum admission requirement for applicants with degrees from outside North America is an</p>

The minimum admission requirement for students with degrees from North American institutions is an average of 76% (UBC-equivalency), calculated from senior-level coursework. An applicant with an average less than 76% may be admitted if they have achieved 80% or higher in at least 12 credits (UBC equivalency) of senior-level coursework, and at least 74% in the remaining senior-level coursework, in the prospective area of study.

The minimum admission requirement for applicants with degrees from outside North America is an overall average of 76% (UBC-equivalency).

For all specializations relevant professional experience is considered an asset.

Applicants holding a four-year bachelor's degree who do not meet the admissions minimum, but who have had sufficient formal training and relevant professional experience to offset the academic deficiency, may be granted admission on the recommendation of the graduate advisor in the area of specialization and the approval of the Master of Engineering Program Office.

For the Clean Energy Engineering specialization, applicants must have taken at least 3 credits (UBC-equivalency) of thermodynamics at the second- or third-year level.

Applicants from a university outside Canada in which English is not the primary language of instruction must present evidence of competency prior to being extended an offer of admission. Acceptable English language proficiency tests for applicants to graduate studies include the TOEFL, IELTS, and MELAB. The required minimum is determined by the Graduate program office in the area of specialization, but must be at or above the university minimum for graduate-level study.

Students interested in applying to the Master of Engineering program must contact the individual graduate program office for their area of specialization. Students who are planning on taking the program on a part-time basis must obtain approval from their graduate program advisor prior to the commencement of the program. Lists of the required application documents are available on the respective websites. Each graduate program office in an area of specialization is responsible for collection

overall average of 76%.

Applicants holding a four-year bachelor's degree who do not meet the admissions minimum, but who have had sufficient formal training and relevant professional experience to offset the academic deficiency, may be granted admission on the recommendation of the graduate advisor in the area of specialization and the approval of the Master of Engineering Program Office.

For the Clean Energy Engineering specialization, applicants must have taken at least 3 credits (UBC-equivalency) of thermodynamics at the second- or third-year level.

Applicants from a university outside Canada in which English is not the primary language of instruction must present evidence of competency prior to being extended an offer of admission. Acceptable English language proficiency tests for applicants to graduate studies include the TOEFL, IELTS, and MELAB. The required minimum is determined by the Graduate program office in the area of specialization, but must be at or above the university minimum for graduate-level study.

Students interested in applying to the Master of Engineering program must contact the individual graduate program office for their area of specialization. Students who are planning on taking the program on a part-time basis must obtain approval from their graduate program advisor prior to the commencement of the program. Lists of the required application documents are available on the respective websites. Each graduate program office in an area of specialization is responsible for collection and assessment of application documents. The Master of Engineering Program Office issues the offer of admission letter.

Financial assistance is generally not available to students in the Master of Engineering program.

Program Requirements

The program requires completion of at least 30 credits. In some program areas, minimum requirements may be higher than 30 credits:

- At least 24 credits must be at the 500-level.
- A minimum of 18 of the 24 credits must be in the program area at the 500-level, including a project, if required, up to a maximum 6 credits.

and assessment of application documents. The Master of Engineering Program Office issues the offer of admission letter.

Transfer Credit

Courses taken as an Access Studies or non-degree student may be approved for transfer toward a graduate program with the permission of the graduate program and the Master of Engineering Program Office.

Consistent with standard transfer credit regulations, students are limited to transferring a maximum of 12 credits or up to 40% of the program credit requirements, whichever is more, toward their master's program. No more than 6 credits of transfer credit may be at the undergraduate level (300-/400-level). In order to be eligible for transfer, the course(s):

- must be completed with a minimum "B" standing (UBC equivalent)
- must not have been counted toward the completion of another degree or program
- must have been completed no more than five years prior to the time the student commences the degree program
- must not be used as a basis for admission to the graduate program

Financial Assistance

Financial assistance is generally not available to students in the Master of Engineering program.

Program Requirements

The program requires completion of at least 30 credits. In some program areas, minimum requirements may be higher than 30 credits:

- At least 24 credits must be at the 500-level.
- A minimum of 18 of the 24 credits must be in the program area at the 500-level, including a project, if required, up to a maximum 6 credits.
- A maximum of 6 credits may be taken at the 300-/400-level.
- A maximum of 6 credits of 500-level directed studies courses may be counted toward the program requirements.

- A maximum of 6 credits may be taken at the 300-/400-level.
- A maximum of 6 credits of 500-level directed studies courses may be counted toward the program requirements.

Students should consult each **program area** website for more information. Each student's coursework must be approved by the graduate program office for that area.

Program Areas:

[Biomedical Engineering](#)
[Chemical and Biological Engineering](#)
[Civil Engineering](#)
[Clean Energy Engineering](#)
[Electrical and Computer Engineering](#)
[Geological Engineering](#)
[Materials Engineering](#)
[Mechanical Engineering](#)
[Mechatronics Design](#)
[Mining Engineering](#)

Engineering Management

The [Engineering Management](#) sub-specialization requires 12 credits of courses in management-related subjects, with a minimum of 6 credits of core courses and a maximum of 6 credits of elective courses. The chosen program area requirements must also be satisfied.

Contact Information

Master of Engineering Program Office
 5000-2332 Main Mall
 Vancouver, BC V6T 1Z4
 Tel: 604.822.8386
 Fax: 604.822.7006
 Email: gradprog@apsc.ubc.ca
 Web:
www.engineering.ubc.ca/prospective_students/graduate/index.php
Deb Feduik, Coordinator

Type of Action:

- (1) Update general MEng information;
- (2) New Master of Engineering Specialization in Engineering and Public Policy (ENPP),

Rationale:

<p>Students should consult each specialization website for more information. Each student's coursework must be approved by the graduate program office for that area.</p> <p>Specializations</p> <p>Biomedical Engineering Chemical and Biological Engineering Civil Engineering Clean Energy Engineering Electrical and Computer Engineering Engineering and Public Policy (link) Geological Engineering Materials Engineering Mechanical Engineering Mechatronics Design Mining Engineering</p> <p>Engineering Management</p> <p>The Engineering Management sub-specialization requires 12 credits of courses in management-related subjects, with a minimum of 6 credits of core courses and a maximum of 6 credits of elective courses. The chosen program area requirements must also be satisfied.</p> <p>Contact Information</p> <p>Master of Engineering Program Office 5000-2332 Main Mall Vancouver, BC V6T 1Z4 Tel: 604.822.8386 Fax: 604.822.7006 Email: gradprog@apsc.ubc.ca Web: www.engineering.ubc.ca/prospective_students/graduate/index.php Deb Feduik, Coordinator</p>	<p>Update general MEng information to be more in line with other similar University units.</p> <p>Applicants to the Engineering and Public Policy (ENPP) specialization follow the existing Master of Engineering admissions standards.</p> <p>Document ID#: Nov10 U/G G2</p>
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Appendix E - ii Calendar Entry – New Courses

Category: (1)

<p>Faculty: Applied Science Department: Dean's Office Faculty Approval Date: November 3, 2010 Effective Session 2011 Winter (Term 1) Year for Change: 2011</p>	<p>Date: October 25, 2010 Contact Person: Deb Feduik Phone: 604-822-8386 Email: deb.feduik@ubc.ca</p>
<p>Proposed Calendar Entry:</p> <p>ENPP 501 (3) Law, Public Policy and Governance Policy process and parliamentary government, federalism and multilevel governance, bureaucracy and public service, charter and rights-based litigation, interest groups and collective action, mechanisms for interest group consultation and input, policy instruments, environmental law, international law and climate change. <i>This course is not eligible for Credit/D/Fail grading.</i></p> <p>ENPP 502 (3) Public Policy Analysis –Tools and Methods Epistemology; policy analysis basics: policy paradigms based on utility maximization; equity and rights based frameworks; tools, methods and applications of quantitative policy analysis: cost-benefit approaches, risk analysis, decision analysis, values, tradeoffs and multi-attribute utility theory, modeling uncertainty; critiques and limitations of tools: psychology, perception and decision making, ethical challenges. <i>This course is not eligible for Credit/D/Fail grading. Pre-requisite: ENPP 501</i></p> <p>ENPP 503 (3) Public Policy Case Studies Policy analysis case studies in various technology areas including: energy & environment, climate change and adaptation, information technology, intellectual property law, health and medicine, biotechnology, nanotechnology, infrastructure and material supply. Emphasis will be on policy dimensions of technology development and commercialization, and the interactions between policy process and technology selection and deployment. <i>This course is not eligible for Credit/D/Fail grading. Pre-requisite: ENPP 501 and Co-requisite: ENPP 502.</i></p> <p>ENPP 504 (3) Applied Economics in Public Policy</p>	<p>URL: N/A</p> <p>Present Calendar Entry: None</p> <p>Action: New courses</p> <p>Rationale: Six core courses for new M.Eng. specialization in Engineering and Public Policy (ENPP). Applicants to the specialization Engineering and Public Policy (ENPP) follow the existing Master of Engineering admissions standards.</p> <p>The Master of Engineering in Engineering and Public Policy will be offered to qualified students grounded in all engineering fields. The program provides a broad overview of the interactions between technologies and public policy on various engineering fields, such as energy, environment, health and biotechnologies, and information technologies. Projects will address practical issues on the development of public policies and its implication to the development, selection and deployment various technologies in specific fields.</p> <p>While the six new core courses to be developed for this ENPP specialization (ENPP 501, 502, 503, 504, 596 and 597) are specifically tailored for engineering students, they are expected to appeal to research (M.A.Sc. and Ph.D.) students in the Faculty of Applied Science, as well as to students in other similar programs. Once successfully implemented, these courses may also be introduced to select senior engineering undergraduates as electives. The project course (ENPP 596) will challenge the M.Eng. students to apply their skills in a practical engineering and public policy context. As the program becomes more established, it will lead to closer collaboration with related programs of other faculties at UBC.</p> <p>For all courses X Not available for Cr/D/F grading.</p>

<p>Applied multivariate statistics: factor analysis, multiple regression, non-linear regression, multivariate ANOVA, spatial econometric modeling. Applied economics for public policy: market concentration, externalities and imperfect information, tools to restrict monopolies and other restrictive industrial policies, tools to treat market failures due to externalities, quotas, standards, tradable permits, taxes and subsidies, unbiased labelling and government provision, cost effectiveness analysis, cost-benefit analysis, economic impact analysis, life cycle cost analysis. <i>This course is not eligible for Credit/D/Fail grading.</i></p> <p>ENPP 596 (6) M.Eng. Project in Engineering and Public Policy Carry out a project and prepare an engineering report under the supervision of faculty members and/or researchers/scientists from project sponsoring organizations. <i>This course is not eligible for Credit/D/Fail grading.</i></p> <p>ENPP 597 (1) Seminar Presentations and discussions of current topics in the area of engineering and public policy. <i>This course is not eligible for Credit/D/Fail grading.</i></p>	<p>(Check the box if the course is NOT eligible for Cr/D/F grading. Note: Not applicable to graduate-level courses.)</p> <p>For ENPP 597 (1) Seminar X Pass/Fail or <input type="checkbox"/> Honours/Pass/Fail grading (Check one of the above boxes if the course will be graded on a P/F or H/P/F basis. Default grading is percentage.)</p> <p>Document ID#: Nov10 U/G G3</p>
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Combined Doctor of Philosophy in Craniofacial Science/Diploma in Endodontics

Faculty of Graduate Studies

Faculty of Dentistry

UBC Admission Proposal Form

<p>Faculty: Dentistry Department: Oral Biological and Medical Sciences Faculty Approval Date: May 11, 2010 Effective Session: 2011 Winter Session</p>	<p>Date: April 26, 2010 Contact Person: Dr. Jeff Coil Phone: 604.822.4159 Email: jcoil@interchange.ubc.ca</p>
<p>http://www.students.ubc.ca/calendar/index.cfm?tree=12,201,429,0</p> <p>Proposed Calendar Entry:</p> <p>Combined PhD in Craniofacial Science/Diploma in Endodontics</p> <p>This combined program option is a clinical specialty program that is offered in conjunction with a PhD in Craniofacial Science. The program provides education and training for potential clinicians, research workers, and teachers. Completion of the Diploma in Endodontics requires completion of the clinical and didactic requirements associated with the diploma program in the Faculty of Dentistry, and successful completion of the PhD in Craniofacial Science course requirements, and successful defense and submission of their dissertation to the Faculty of Graduate Studies. In this program option, the degree and the diploma are awarded conjointly and both must be completed to graduate. The combined program will require a minimum of six years to prepare the student for clinical practice and a teaching/research career. Graduates will be eligible to take the examination for specialty certification in endodontics offered by The Royal College of Dentists of Canada and The American Board of Endodontics.</p> <p>Applicants to the program must satisfy the requirements for admission to the Faculty of Graduate Studies and Dentistry. Applicants must hold a Doctor of Dental Surgery or Dental Medicine or equivalent from a recognized university. Applicants for the Ph.D. degree must hold a D.D.S., D.M.D., M.D., or D.V.M., or equivalent, or an M.Sc. in dental science or a related discipline. Students entering directly with a DDS, DMD, or international equivalent without a Master's degree must, during the first year of study, complete 12 credits with a first class average of which at least nine credits must be at the 500-level or above and at least nine credits must be no less than A- (at UBC, 80%), to</p>	<p>Type of Action: - Calendar Description http://www.students.ubc.ca/calendar/index.cfm?tree=12,201,429,0 To be inserted before the Combined MSc in Craniofacial Science/Diploma in Endodontics description.</p> <p>Action: To create a combined program option in endodontics to be done in conjunction with a PhD in Craniofacial Science.</p> <p>Rationale: To provide a research-intense opportunity for endodontic graduate students.</p>

<p>maintain registration as a doctoral student. The TOEFL score requirement for graduate from a country where English is not the primary language is 580 (paper-based) or 93 (internet-based). The application deadline for this combined program is October 1 and enrollment is limited.</p>	
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Combined Doctor of Philosophy in Craniofacial Science/Diploma in Periodontics

Faculty of Graduate Studies

Faculty of Dentistry

UBC Admission Proposal Form

<p>Faculty: Dentistry Department: Oral Biological and Medical Sciences Faculty Approval Date: May 11, 2010</p> <p>Effective Session: 2011 Winter Session</p>	<p>Date: April 26, 2010 Contact Person: Dr. Jeff Coil Phone: 604.822.4159 Email: jcoil@interchange.ubc.ca</p>
<p>http://www.students.ubc.ca/calendar/index.cfm?tree=12,201,429,0</p> <p>Proposed Calendar Entry:</p> <p>Combined PhD in Craniofacial Science/Diploma in Periodontics</p> <p>This combined program option is a clinical specialty program that is offered in conjunction with a PhD in Craniofacial Science. The program provides education and training for potential clinicians, researchers, and teachers. Completion of the Diploma in Periodontics requires completion of the clinical and didactic requirements associated with the diploma program in the Faculty of Dentistry, and successful completion of the PhD in Craniofacial Science course requirements, and successful defense and submission of their dissertation to the Faculty of Graduate Studies. In this program option, the degree and the diploma are awarded conjointly and both must be completed to graduate. The combined program will require a minimum of six years to prepare the student for clinical practice and a teaching/research career. Graduates will be eligible to take the examination for specialty certification in prosthodontics offered by The Royal College of Dentists of Canada and the American Board of Periodontics.</p> <p>Applicants to the program must satisfy the requirements for admission to the Faculties of Graduate Studies and Dentistry. Applicants must hold a Doctor of Dental Surgery or Dental Medicine or equivalent from a recognized university. All applicants must meet FoGS minimum academic standards for admission. Applicants for the Ph.D. degree must hold a D.D.S., D.M.D., M.D., or D.V.M., or equivalent, or an M.Sc. in dental science or a related discipline. The TOEFL score requirement for</p>	<p>Type of Action: - Calendar Description http://www.students.ubc.ca/calendar/index.cfm?tree=12,201,429,0</p> <p>To be inserted between ‘Combined M.Sc. in Craniofacial Science/Diploma in Pediatric Dentistry’ and ‘Combined M.Sc. in Craniofacial Science/Diploma in Periodontics’</p> <p>Action: To create a combined program option in periodontics to be done in conjunction with a PhD in Craniofacial Science.</p> <p>Rationale: To provide a research-intense opportunity for periodontic graduate students.</p>

graduate from a country where English is not the primary language is 580 (paper-based) or 93 (internet-based). The application deadline for this combined program is October 1 and enrollment is limited.

NOTE: Students entering directly with a DDS, DMD, or international equivalent without a Master's degree must, during the first year of study, complete 12 credits with a first class average of which at least nine credits must be at the 500-level or above and at least nine credits must be no less than A- (at UBC, 80%), to maintain registration as a doctoral student.

THE UNIVERSITY OF BRITISH COLUMBIA



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

2 December 2010

To: Vancouver Senate

From: Nominating Committee

Re: Adjustment to Committee Membership

Adjustment to Committee Membership

Motion: *That Senate approve the following revision to the membership of the Senate Committee on Appeals on Academic Standing.*

Dr. Peter Leung to fill a vacancy

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

November 29, 2010

To: Vancouver Senate

From: Vancouver Senate Student Awards Committee

RE: New Awards December 2010 (approval)

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.

Canada BAR Association of British Columbia Branch Entrance Award: Awards totalling \$4,000 have been endowed by the Canadian Bar Association British Columbia Branch (CBA BC) for first year students entering the J.D. program. This award recognizes the promotion of Justice and/or law reform through exemplary public or community service, extra-curricular activities at educational institutions, volunteer work with community or charitable organizations, or any kind of public service activities. This award is made on the recommendation of the Faculty of Law. (First Available 2011W Session)

ECHORIDGE Educational Foundation Scholarship in Medicine: A \$1,000 scholarship is offered by Janice Wilson and the Echoridge Educational Foundation for a domestic student in the MD program who, in the opinion of the Faculty, has outstanding academic achievement and personal qualities. Recommendation is made by the Faculty. (First Available 2011W Session)

William J. GODOLPHIN Prize: A prize of \$300 is awarded to the graduating student in the BMLSc program who has demonstrated excellence in critical thinking. The award is made on the recommendation of the coordinators of BMLSc courses that emphasize critical thinking (Path 404, Path 405, Path 406 and Path 407). Recommendation is made by the Faculty of Medicine. (First Available 2010W Session)

Irene GOLDSTONE HIV/AIDS and Social Justice Graduate Scholarship: Scholarships totalling \$1,000 have been endowed in recognition of Irene Goldstone's commitment to improving the lives of persons living with HIV/AIDS and the commitment of nurses engaged in HIV/AIDS and social justice. To be considered, candidates must be graduate students in the School of Nursing who are conducting research in HIV/AIDS or social justice. Recommendation is made by the School in consultation with the Faculty of Graduate Studies. (First Available 2011W Session)

KHYENTSE Foundation Award for Excellence in Buddhist Studies: Awards totalling \$1,000 are offered by the Khyentse Foundation to recognize undergraduate or graduate student achievement in Buddhist Studies, especially expertise in the classical languages of Buddhist traditions. Awards are made on the recommendation of the Department of Asian Studies and, in the case of graduate students, in consultation with the Faculty of Graduate Studies. (First Available 2010W Session)

James A. MOORE Major Entrance Scholarship: A \$10,000 Major Entrance Scholarship is offered by The James A. and Donna-Mae Moore Foundation to a student entering the Faculty of Science with outstanding academic achievement, preferably in Mathematics. Students who have expressed an interest in pursuing a career in teaching will be given preference. Mr. Moore was an alumnus of UBC, Double Honours Baccalaureate Degree in Mathematics and Chemistry 1932, Master of Arts, 1939. An enthusiastic teacher and pioneer of the B.C. Community College System, he dedicated his career to helping students realize their academic potential. The award can be renewed for an additional three years or until the first undergraduate degree is obtained, whichever is the shorter period. If the recipient chooses to pursue a Combined Honours Degree in Mathematics and either Chemistry, Physics, or Biology, he or she would then be a candidate for the higher-valued James A. Moore Memorial Scholarship beginning in the third year. The successful candidate will be selected by the Major Entrance Scholarship Selection Committee. (First Available 2011W Session)

James A. MOORE Memorial Scholarship: A \$15,000 Scholarship is offered by The James A. and Donna-Mae Moore Foundation to a Canadian student entering third year pursuing a Combined Honours Degree in Mathematics and either Physics, Chemistry or Biology. Mr. Moore was an alumnus of UBC, Double Honours Baccalaureate Degree in Mathematics and Chemistry 1932, Master of Arts, 1939. An enthusiastic teacher and pioneer of the B.C. Community College System, he dedicated his career to helping students realize their academic potential. The award may be renewed for an additional year or until the first undergraduate degree is obtained, whichever is the shorter period. The award may then also be renewed for an additional year if the recipient enrolls in the Faculty of Education to specialize in Mathematics and Science education after receiving a Combined Honours Degree from the Faculty of Science. The recipient cannot receive the James A. Moore Memorial Scholarship and the James A. Moore Major Entrance Scholarship concurrently. The award will be made on the recommendation of the Faculty of Science. (First Available 2011W Session)

Jocelyn NOEL Scholarship in Viola: A \$1,000 scholarship has been endowed by Jocelyn Noel (BEd '70, DipArtHis '02) for undergraduate or graduate students studying viola in the School of Music. Jocelyn Noel (née Dyke) has dedicated her life to music, playing violin and viola as a soloist and chamber musician, and as a member of the West Coast Symphony for more than 20 years. She helped found, along with Greg Millar, the first orchestra at UBC in 1944. It is her wish that this scholarship inspires a passion for music in future generations. The award is made on recommendation of the School, and in the case of a graduate student, with consultation from the Faculty of Graduate Studies. (First Available 2011W Session)

Previously-Approved Awards with Changes in Terms or Funding Source:

University of BC Social Work ALUMNI Division Bursary – One or more bursaries totalling \$2,200 have been endowed by UBC Social Work Alumni. The award is offered to students in the School of Social Work.

Reason for change: Request to remove 'and Family Studies' from the end of the description as Family studies is no longer relevant to the description.

Walter GAGE Memorial Bursary in Engineering – Bursaries totalling \$1,500 have been endowed by Richard Ott, P.Eng. (B.A.Sc.1957) in memory of Walter Gage. Professor Gage served UBC for more than fifty years, including as Dean of Administrative and Inter-Faculty Affairs, Dean of Inter-Faculty and Student Affairs, acting President, and President (1969-1975). Mr. Ott greatly appreciated the mentorship and support provided to him by Dean Gage when Mr. Ott was an engineering student. To be considered, candidates may be in any year of the engineering program, and must be Canadian Citizens who graduated from a BC high school. Recommendations are made by the Office of Student Financial Assistance and Awards.

Reason for change: Students must be Canadian Citizens and have graduated from a BC High School to be eligible for consideration.

Jennie Gillespie DRENNAN Memorial Scholarship – Income of \$10,900 per annum from the Albert Alexander Drennan Memorial Scholarship Fund in memory of Jennie Gillespie Drennan, M.D., 1895, Queen's College, Kingston, Ontario, will provide a scholarship for a deserving woman student in the Faculty of Medicine. The award is made on the recommendation of the Faculty of Medicine.

Reason for change: The donor wants the scholarship to benefit only one student.

Agnes and Gilbert HOOLEY Scholarship in Chemistry – J. Gilbert Hooley (1914-1987), who grew up in Vancouver, obtained his B.A. (1934) and M.A. (1936) from UBC and his Ph.D. (1939) from MIT After three years with Corning Glass Works, Dr. Hooley joined the UBC Chemistry Department (1942) where he remained until his retirement in 1979. The data he produced on the atomic weight of rubidium for his master's thesis is still being used today and is considered a classic piece of research in this field. While at UBC, Dr. Hooley carried out pioneering research in the areas of specific heat measurements and staging in graphite compounds. In 1979 he received the prestigious Charles E. Pettinos Award, an international honour granted by the American Carbon Society. Dr. Hooley married Agnes Schroeder in 1939. She was also an honours student in chemistry at UBC, B.A. (1938). Mrs. Hooley taught large, first-year chemistry classes at UBC from 1944 to 1956. She also completed an M.A. in Adult Education at UBC and earned two degrees in Music (A.T.C.M. and L.R.S.M.). Dr. and Mrs. Hooley had a life-long involvement with music, literature and the arts plus a serious and wide-ranging concern about broader social issues. In addition, they were active out-of-doors: skiing, hiking and sailing. In recognition of the contributions of Dr. and Mrs. Hooley to the academic and cultural life at UBC, scholarships valued up to the cost of one year's tuition

(based on domestic tuition, credit costs only, and limited to 30 credits for undergraduates) have been endowed by their colleagues and friends. These scholarships are available to: two second-year chemistry students continuing into a third-year chemistry program at UBC; two third-year chemistry students continuing into a fourth-year chemistry program at UBC; and two graduate students enrolled in a chemistry program at UBC. Preference is given to students who indicate some awareness of the social role of science. Awards are made on the recommendation of the Hooley Fund Committee within the Department of Chemistry, and in the case of graduate students, in consultation with the Faculty of Graduate Studies. The awards are made in the following September.

Reason for change: The fund has grown enough that the donor's initial wishes can be realized. Specifically, that they be offered to 2nd, 3rd, 4th year undergraduate students as well as graduate students.

Peter M. LANSDORP Bursary – A bursary of \$200 has been endowed by Dr. Peter M. Lansdorp through his company, Tetramerics Biotechnology Inc., for a student in any year or faculty who is in need of financial assistance to begin or continue his or her postsecondary education.

Reason for change: The donor wants the bursary to benefit only one student.

McMillan LLP (Vancouver) Peter M. BARK Memorial Scholarship – A scholarship of \$2,500 is awarded to a full-time law student who achieves high academic performance in their first year of law and has made a significant contribution to law school and community life. This scholarship is to honour the memory of Peter Bark, who worked as a law librarian at McMillan LLP, (formerly Lang Michener LLP), and died in 1990 at the age of 35 from complications arising from *HIV/AIDS*. The award is made on the recommendation of the Faculty of Law.

Reason for change: Name of the law firm changed from Lang Michener to McMillan LLP.

THE UNIVERSITY OF BRITISH COLUMBIA



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

3 December 2010

To: Vancouver Senate

From: Tributes Committee

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

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

Faculty Members Eligible for Emeritus Status				
Retirements or Resignations June 30-December 31, 2010				
Last Name	First Name	Rank	Faculty	Title
Carty	R. Kenneth	Professor	Arts	Professor Emeritus of Political Science
Clausen	Marion	Senior Instructor	Applied Science	Senior Instructor Emerita of Nursing
Erickson	Gaalen	Professor	Education	Professor Emeritus of Curriculum Studies
Evans	Robert G.	Professor	Arts	Professor Emeritus of Economics
Fyfe	Colin	Professor	Science	Professor Emeritus of Chemistry
Grams	Gary David	Assistant Professor	Medicine	Assistant Professor Emeritus of Family Practice
McMillan*	J. Malcolm	Professor	Science	Professor Emeritus of Physics and Astronomy
Meek	Robert	Clinical Professor	Medicine	Clinical Professor Emeritus of Orthopaedics
Millen	Sandra	Senior Instructor	Science	Senior Instructor Emerita of Zoology
Patterson	Caroline	Clinical Professor	Medicine	Clinical Professor Emerita of Medicine
Riddle	Donald	Professor	Medicine/Science	Professor Emeritus of Medical Genetics and the Michael Smith Laboratories
Russell	Mary	Professor	Arts	Professor Emerita of Social Work
Seal	Andrew M.	Associate Professor	Medicine	Associate Professor Emeritus of Surgery
Ward	Helen	Associate Professor	Medicine	Associate Professor Emerita of Medicine
Wojtowicz	Jerzy	Professor	Applied Science	Professor Emeritus of Architecture and Landscape Architecture
Wong	Norman	Professor	Medicine	Professor Emeritus of Medicine
Yee*	Marguerite	Senior Instructor	Pharmaceutical Sciences	Senior Instructor Emerita of Pharmaceutical Sciences

*Retirements from prior years.