The next open meeting of the Senate of the University of Victoria is scheduled for Friday, November 6, 2015 at 3:30 p.m. in the David Strong Building, Room C116.

*Please note change in room*

AGENDA as reviewed by the Senate Committee on Agenda and Governance.

1. APPROVAL OF THE AGENDA

2. MINUTES
   a. October 2, 2015 [SEN-NOV 6/15-1]

       Motion: That the minutes of the open session of the meeting of the Senate held on October 2, 2015 be approved and that the approved minutes be circulated in the usual way.

3. BUSINESS ARISING FROM THE MINUTES

4. REMARKS FROM THE CHAIR
   a. President’s Report

5. CORRESPONDENCE

6. PROPOSALS AND REPORTS FROM SENATE COMMITTEES
   a. Senate Committee on Academic Standards – Dr. Sara Beam, Chair
   b. Senate Committee on Awards – Dr. John Walsh, Chair
ii. New and Revised Awards

**Motion:** That Senate approve, and recommend to the Board of Governors that it also approve, the new and revised awards set out in the attached document:

- Dr. Arne H. Lane Graduate Fellowships in Marine Sciences (revised)*
- Gregory Blue Scholarship in Global History (new)*
- Ronald F. MacIsaac Prize (revised)
- 50th Anniversary Science Entrance Scholarship (revised)*
- University of Victoria Entrance Scholarship – The Brishkai Lund Scholarship (revised)
- University of Victoria Entrance Scholarship – The Donna Thomas Scholarship (revised)
- University of Victoria Entrance Scholarship – The Dr. & Mrs. R.B. Wilson Scholarship (revised)
- University of Victoria Entrance Scholarship – The Dr. J. Waelti-Walters (revised)
- University of Victoria Entrance Scholarship – The Howard Denike Scholarship (revised)
- University of Victoria Entrance Scholarship – The Dr. Hugh Stephen Scholarship (revised)

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c. Senate Committee on Planning- Dr. Catherine Mateer, Chair

i. Proposal to Change the Name of the Department and Degree Programs from Women’s Studies to Gender Studies

**Motion:** That Senate approve changing the Name of the Department and Degree Programs from Women’s Studies to Gender Studies, as described in the document “Proposal to Change the Name of the Department and Degree Programs from Women’s Studies to Gender Studies”, dated August 20, 2015.

ii. Proposal for Certificate in General Studies

**Motion:** That Senate approve, and recommend to the Board of Governors that it also approve, subject to funding, the establishment of a Certificate in General Studies, as described in the document “Proposal for a Certificate in General Studies”, dated September 22,
2015, and that this approval be withdrawn if the program should not be offered within five years of the granting of approval.

iii. Proposal to establish a Department of Civil Engineering at UVic (SEN-NOV 6/15-7)

**Motion:** That Senate approve, and recommend to the Board of Governors that it also approve, subject to funding, the establishment of a Department of Civil Engineering at UVic, as described in the document “Proposal for the Establishment of a Department of Civil Engineering”, dated October 14, 2015.

7. **PROPOSALS AND REPORTS FROM FACULTIES**

8. **PROPOSALS AND REPORTS FROM THE VICE-PRESIDENT ACADEMIC AND PROVOST**

   a. Update on enrolment

   **INFORMATION**

   b. Presentation on the Enhanced Planning Tools

   **INFORMATION**

9. **OTHER BUSINESS**

   a. Senate minutes

   **INFORMATION**

10. **ADJOURNMENT**
DRAFT MINUTES

A meeting of the Senate of the University of Victoria was held on October 2, 2015 at 3:30 p.m. in the Senate and Board Chambers, University Centre, Room A180.

1. APPROVAL OF THE AGENDA

Motion: (K. Erickson/C. Shankman) That the agenda be approved as circulated.

CARRIED

2. MINUTES

a. May 1, 2015

Motion: (J. Bengtson/T. Haskett) That the minutes of the open session of the meeting of the Senate held on May 1, 2015 be approved and that the approved minutes be circulated in the usual way.

CARRIED

3. BUSINESS ARISING FROM THE MINUTES

a. Election of students to Senate from the Faculty of Fine Arts and the Peter B. Gustavson School of Business

Ms. Andersen reported that a student representative from the Peter B. Gustavson School of Business had been acclaimed to Senate. No students from the Faculty of Fine Arts had been nominated.

4. REMARKS FROM THE CHAIR

a. United Way Presentation

Prof. Webber, Chair of this year’s University of Victoria United Way campaign provided a presentation to Senate.

b. Draft Strategic Research Plan

Dr. Castle provided a report to Senate on development of the Strategic Research Plan. He reviewed an outline of the plan and detailed how members of Senate could provide input. Prof. Cassels
encouraged members of Senate to provide feedback on the draft plan through the mechanisms described.

Dr. von Aderkas commented on the structure of the consultation sessions held. With respect to the content of the plan, he commented on graduate students and indirect costs of research.

c. President’s Report

Prof. Cassels reported on the start of term, noting that this year’s class was the largest in the university’s history. He commented on orientation and reminded members of Senate about the Spring Convocation that took place in June. In addition, Prof. Cassels reported on recent challenges on campus regarding respectful workplaces and an assault that had taken place.

On the federal front, Prof. Cassels commented on the election. He noted that the university was participating in a pilot program with Elections Canada and that polls would be set up on campus for students to vote in their home ridings. Also on the federal front, Prof. Cassels reported on recent research funding decisions and an upcoming meeting of university presidents to map out a post-election strategy.

With respect to provincial matters, Prof. Cassels reported on receipt of the university’s budget letter. He updated members of Senate on recent correspondence received from the Ministry regarding changes to the degree approval process. Dr. Mateer provided some further details and said she did not expect the impact on the university’s current process to be significant.

In response to a question from Dr. Capson regarding the budget letter and enrolment targets, Prof. Cassels said there was only a subtle shift in the enrolment targets for graduate vs. undergraduate students. In response to a further question about the budget letter, Prof. Cassels provided some information on the current debt restrictions imposed on universities.

Prof. Cassels updated members of Senate on campus initiatives. He reported on the enhanced planning tools system and said a detailed report would be provided at the next meeting. He informed members of Senate that he would be hosting a campus update the next week and invited everyone to attend.

5. CORRESPONDENCE

a. University of Victoria Financial Statements as at March 31, 2015

There were no questions regarding the financial statements.
6. PROPOSALS AND REPORTS FROM SENATE COMMITTEES

   a. Senate Committee on Academic Standards

      i. Revisions to the Undergraduate Academic Calendar regarding Regulations
         Governing Administration of University Examinations

Dr. Dechev introduced the proposal.

Ms. Andersen noted a typographical error in the proposed regulations.

Dr. Marck commented on the statement regarding asking questions, noting that it might be
confusing to students whether there were any situations, such as cheating, when asking questions
was permitted.

Dr. Smith asked what constituted the examination environment. If the examination environment
extends outside the classroom, he did not think it was feasible for an invigilator to be responsible
for the environment. Prof. Cassels noted that there was a resource issue identified about
invigilation and said the Provost was aware of it. Dr. Smith suggested that the language be
clarified.

Regarding whether students are permitted to answer questions, Mr. Shankman shared his
experience as both a student and an invigilator, and said it was common for students to ask
clarifying questions. He thought this practice would continue, despite the regulations. Ms. Charlton
agreed that it would be useful to clarify the types of questions that are permitted.

Dr. Grant noted inconsistencies with the regulations regarding mobile electronics. She also
commented that the university will need to consider restrictions regarding smart watches,
particularly because there are no clocks in some exam rooms.

Mr. Neiman asked how the regulations apply to students who have received accommodations
through the Resource Centre for Students with a Disability. Ms. Charlton said these regulations
were not intended to prohibit approved accommodations.

Dr. Aragon asked whether the use of electronic translators by students whose first language is not
English was permitted under the regulations. She said this type of accommodation was not to
accommodate students with a disability but was still important to consider.

Ms. Erickson thought it was important to keep the language regarding the examination
environment broad in order not to constrain invigilators’ ability to enforce rules and regulations.

Mr. Shankman suggested it would be useful to develop guidelines for escorting students to the
washroom.

Dr. Dechev agreed to share the comments received with the Senate Committee on Academic
Standards. The item was referred back to the committee upon motion (D. Popova/B. Peterson).
ii. Proposed Revisions to Calendar Entries on Declaration for Faculties of Humanities, Science and Social Sciences

Dr. Cindy Holder, Associate Dean Academic Advising introduced the proposal. There were no questions from members of Senate.

Motion: (C. Shankman/B. Peterson)
That Senate approve the attached revisions to the Undergraduate Academic Calendar.

CARRIED

b. Senate Committee on Agenda and Governance

i. Appointments to the 2015/2016 Senate Standing Committees

Dr. Branzan-Albu introduced the proposed appointments.

Motion: (A. Branzan-Albu/K. Erickson)
That Senate approve the appointments to the 2015/2016 Senate standing committees for the terms indicated in the attached document.

CARRIED

ii. Report from Chair

Prof. Cassels provided members of Senate with an overview of the role of the committee. He reviewed some items the committee would be considering this year, including attendance and engagement initiatives, and consideration of an inquiry regarding the length of reading break.

c. Senate Committee on Awards

i. New and Revised Awards

Dr. Walsh introduced the proposed new and revised awards. Prof. Gillen asked a clarifying question regarding wording in the Tectoria Video Game Industry Award for Developers. Dr. Walsh confirmed that the committee would confirm what wording was appropriate.

In response to a question from Dr. Liddell, Prof. Cassels provided some information regarding how student awards are paid out in accordance with the policies of the University of Victoria Foundation.

In response to a question, Dr. Walsh commented on how bursaries are administered. Ms. Lori Nolt commented that the criteria for bursary applications are included in the academic calendar.

Mr. Shankman noted that the criteria for bursary and scholarship applications can sometimes be opaque and thought it would be useful to make these criteria available to students.
Motion: (J. Walsh/K. Erickson)
That Senate approve, and recommend to the Board of Governors that it also approve, the new and revised awards set out in the attached document:

- Lee Hayes Scholarship (revised) *
- London Drugs Undergraduate Scholarship in Nursing (new)*
- Miller Thomson LLP National Entrance Scholarship (new) *
- Viking Alumni Rugby Award (revised) *
- Edward Hammond King Bursary (new) *
- Campus Dental Bursary (revised)
- Balbir Singh Sidhu Memorial Bursary in the Faculty of Science (new) *
- Magher Singh and Basant Kaur Chima Memorial Bursary (new) *
- Hakai-Raincoast Bursary (new)
- Dr. Nora Haimberger Scholarships (revised) *
- Laura Szendrei Memorial Award (new) *
- Law Foundation of B.C. Public Interest Award (new)
- Aboriginal Health Career Bursary (new)
- John Tucker Friends of Medieval Studies Scholarship (revised) *
- MBA Leadership/Citizenship Award (new)
- Youth In Care Living Expenses Award (new)
- Urbanecology.ca Scholarship (revised)
- Corrine Lowen Memorial Award in Social Dimensions of Health (new)
- Elsa Eleonora Fagerberg & Clara Maria Fagerberg Entrance Scholarship (revised) *
- Colin Jones Prize in Canadian Public Policy (revised) *
- Leonard Laudadio Prize in Environmental Economics (revised)
- Jeto Sangara Nursing Bursary (new)
- Joyce Clearihue Scholarship in Forest Biology (new) *
- Ted Whelen Graduate Scholarship (new) *
- Ted Whelen Graduate Entrance Scholarship (new) *
- Russian Embassy in Canada Book Prize (new)
- Tectoria Video Game Industry Award for Developers (new)
- Shirley Case Memorial Scholarship (new)
- Ian & Sheila Barrodale Award in Computer Science & Mathematics (new) *

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CARRIED
d. Senate Committee on Continuing Studies

i. Annual Report

Dr. MacDonald introduced the report. There were no questions.

e. Senate Committee on Curriculum

i. 2014-2015 Annual Report

Dr. Haskett introduced the report. There were no questions.

ii. 2015 Cycle 3 Curriculum Submissions

Dr. Haskett introduced the proposal.

Motion: (T. Haskett/K. Erickson)
That Senate approve the curriculum changes recommended by the Faculties and the Senate Committee on Curriculum for inclusion in the 2015/2016 academic calendar, effective January 1, 2016.

CARRIED

Motion: (T. Haskett/K. Erickson)
That Senate authorize the Chair of the Senate Committee on Curriculum to make small changes and additions that would otherwise unnecessarily delay the submission of items in the academic calendar.

CARRIED

f. Senate Committee on Planning

i. Annual Report on Status of Academic Program Reviews

Dr. Mateer reviewed the report.

ii. Proposal to change the name of the Master of Arts in Theatre History to the Master of Arts in Theatre

Dr. Mateer introduced the proposal.

Motion: (D. Capson/J. Walsh)
That Senate approve the name change of the MA in Theatre History, as described in the document “Proposal to Change the name of the MA in Theatre History to the MA in Theatre”, dated June 26, 2015.

CARRIED
iii. Proposal to Add a New Concentration in Applied Theatre to the MA Program in Theatre

Dr. Mateer introduced the proposal.

**Motion:** (P. Marck/B. Peterson)
That Senate approve, and recommend to the Board of Governors that it also approve, subject to funding, the establishment of a new Concentration in Applied Theatre to the MA Program in Theatre, as described in the document “Proposal to Add a New Concentration in Applied Theatre to the MA Program in Theatre”, dated September 15, 2015.

CARRIED

iv. Proposal for MA in Public History

Dr. Mateer introduced the proposal.

**Motion:** (T. Haskett/K. Erickson)
That Senate approve, and recommend to the Board of Governors that it also approve, subject to funding, the establishment of an MA in Public History, as described in the document “Public History MA Proposal”, dated May 27, 2015, and that this approval be withdrawn if the program should not be offered within five years of the granting of approval. Once Senate and the Board of Governors have approved the proposal, the proposal must be posted on the Ministry of Advanced Education website for peer review for a period of 30 days.

CARRIED

v. Proposal for Honours Program in Slavic Studies

Dr. Mateer introduced the proposal.

In response to a question, Dr. Littlewood commented on the number of students in Slavic Studies. He noted that the program would create a bridge to graduate studies in the field.

**Motion:** (B. Peterson/C. Shankman)
That Senate approve, and recommend to the Board of Governors that it also approve, subject to funding, the establishment of an Honours program in Slavic Studies, as described in the document “Proposal for Honours Program in Slavic Studies”, dated July 15, 2015, and that this approval be withdrawn if the program should not be offered within five years of the granting of approval.

CARRIED
7. PROPOSALS AND REPORTS FROM FACULTIES

There were none.

8. PROPOSALS AND REPORTS FROM THE VICE-PRESIDENT ACADEMIC AND PROVOST

a. Establishment of Term Chair in Transgender Studies

Dr. Mateer introduced the proposal.

Motion: (K. Erickson/C. Shankman)
That Senate approve, and recommend to the Board of Governors that it also approve, the establishment of a Term Chair in Transgender Studies in the Faculty of Social Sciences for a five-year term commencing January 1, 2016.

CARRIED

Mr. Bengtson commented on the university’s library holdings in this field, which were the largest in the world.

Prof. Cassels congratulated Dr. Devor for his exemplary work to build UVic’s capacity in this field.

9. OTHER BUSINESS

a. Election of Vice-Chair of Senate

Prof. Cassels reminded members of Senate that the Vice-Chair was elected each year at the October meeting. Dr. Gillis nominated Dr. Capson. This nomination was seconded by Dr. Grant. There were no other nominations. Dr. Capson was acclaimed as Vice-Chair of Senate for the 2015/16 year.

b. Joint Senate Board Retreat

Ms. Andersen reported that the Joint Senate Board Retreat was scheduled for January 25, 2016.

c. University Orator

Prof. Cassels introduced the proposal.

Motion: (W. Boyd/M. MacDonald)
That the Senate appoint Dr. John Archibald as University Orator for a term from October 2, 2015 until June 30, 2018.

CARRIED
Motion: (K. Erickson/P. Schrod)
That Senate appoint Dr. Andrew Rippin as Orator for a term from October 2, 2015 until June 30, 2018.

CARRIED

d. Academic Year Important Dates

Motion: (W. Boyd/B. Peterson)
That the Senate approve the Academic Year Important Dates for the period September 2016 through December 2016 for submission to the online academic calendar and for the academic calendar January 2016 publication.

CARRIED

There being no other business the meeting was adjourned at 5:15 p.m.
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</tr>
<tr>
<td>von Aderkas, Patrick</td>
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<td>Webber, Jeremy</td>
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<td>Wright, Bruce</td>
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<tr>
<td>Wyatt, Victoria</td>
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</table>
MEMBERSHIP OF THE SENATE OF THE UNIVERSITY OF VICTORIA
Effective July 1, 2015

**EX OFFICIO MEMBERS** - University Act: Section 35 (2) (a-f)

- Chancellor: Shelagh Rogers (31/12/17)
- President and Vice-Chancellor: Jamie Cassels, Chair
- V.P. Academic & Provost: Valerie Kuehne
- V.P. Research: David Castle
- Dean, Peter B. Gustavson School of Business: Saul Klein
- Dean of Education: Ralf St. Clair
- Dean of Engineering: Thomas Tiedje
- Dean of Continuing Studies: Maureen MacDonald
- Acting Dean of Fine Arts: Susan Lewis
- Dean of Graduate Studies: David Capson
- Acting Dean of Humanities: Cedric Littlewood
- Dean of HSD: Patricia Mark
- Dean of Law: Jeremy Webber
- Acting Dean of Science: Kathryn Gillis
- Dean of Social Sciences: Catherine Krull
- University Librarian: Jonathan Bengtson

**MEMBERS ELECTED BY THE FACULTIES** - Section 35 (2) (g)

- **BUSI:** Rebecca Grant (30/6/16)
  - Brock Smith (30/6/18)
- **EDUC:** Carolyn Crippen (30/6/16)
  - John Walsh (30/6/17)
- **ENGR:** Peter Driessen (30/6/16)
  - Nikolai Dechev (30/6/17)
- **FINE:** Carolyn Butler-Palmer (30/6/16)
  - Patricia Kostek (30/6/18)
- **GRAD:** Sara Beam (30/6/16)
  - Charlotte Schallie (30/6/17)
- **HUMA:** Andre Kushniruk (30/6/18)
  - Esther Sangster-Gormley (30/6/16)
- **HUMS:** Jason Colby (30/6/18)
  - Annalee Lepp (30/6/16)
- **LAWF:** Gillian Calder (30/6/17)
  - Mark Gillen (30/6/16)
- **SCIE:** Florin Diacu (30/6/17)
  - Diana Varela (30/6/17)
- **SOSC:** Janni Aragon (30/6/18)
  - Doug Baer (30/6/17)

**MEMBERS ELECTED BY THE FACULTY MEMBERS**

- Sections 35 (2) (g)

  - Sikata Banerjee - HUMS (30/6/16)
  - Deborah Begoray – EDUC (30/6/18)
  - Alexandra Branzan Albu – ENGR (30/6/17)
  - Penny Bryden – HUMS (30/6/16)
  - Aaron Devor – SOSC (30/6/17)
  - Tim Haskett – HUMS (30/6/17)
  - Robin Hicks – SCIE (30/6/18)
  - Helga Hallgrimsdottir – SOSC (30/6/18)

**MEMBERS ELECTED BY THE FACULTY**

- Sections 35 (2) (h)

  - Leslee Francis Pelton – EDUC (30/6/17)
  - Ann Stahl - SOSC (30/6/16)
  - Patrick von Aderkas - SCIE (30/6/16)
  - Victoria Wyatt – FINE (30/6/16)

**MEMBERS ELECTED FROM THE STUDENT ASSOCIATION** – Section 35 (2) (h)

  - Wesley-Ryan Boyd (SOSC) (30/6/16)
  - Lee Brekstad (HUMS)
  - Jordan Crocker (HUMA)
  - Julia Denley (SCIE)
  - Kayleigh Erickson (SOSC)
  - Michael Flynn (BUS)
  - Ivelina Ivanova (LAW)
  - Andrew Lemieux (GRAD)
  - Dakota Mellin (EDUC)
  - Alex Neiman (ENGR)
  - Bernadette Peterson (SCIE)
  - Diana Popova (GRAD)
  - Tristan Ryan (SOSC)
  - Phillip Schrod (SOSC)
  - Cory Shankman (GRAD)
  - vacancy (FINE)

**MEMBERS ELECTED BY THE CONVOCATION** – Section 35 (2) (i)

  - Rizwan Bashir (30/6/18)
  - Chandra Beaveridge (30/6/18)
  - Peter Liddell (30/6/18)
  - Incumbent on leave to Dec. 31/15 (30/6/18)

**ADDITIONAL MEMBERS** - Section 35 (2) (k)

  - Head, Division of Medical Sciences: Bruce Wright
  - Member elected by the Professional Librarians: John Durno (30/6/18)
  - Continuing Sessional: Alicia Ulysses (30/6/17)

**SECRETARY OF SENATE** - Section 64 (2)

  - University Secretary: Julia Eastman

**BY INVITATION** - Seated with specified speaking rights

  - Assoc. V.P. Student Affairs: Jim Dunsdon
  - Assoc. V.P. Academic Planning: Catherine Mateer
  - Registrar: Lauren Charlton (to Dec. 31/15)
  - Associate University Secretary: Carrie Andersen
Date: October 21, 2015  
To: Senate  
From: Dr. Sara Beam, Chair, Senate Committee on Academic Standards  
Re: 2014/15 Annual Report

The Terms of Reference for the Senate Committee on Academic Standards define its scope and relationship with Senate and other Senate committees. Each fall term the committee presents an annual report on its business and proceedings to Senate over the previous academic year.

The Senate Committee on Academic Standards met seven times in 2014/15: September 9, 2014, October 22, 2014, December 10, 2014, January 15, 2015, February 5, 2015, April 9, 2015 and May 21, 2015. During the course of the year, the committee approved the convocation lists of faculties, made recommendations to Senate, initiated projects in areas of the committee’s concern, and received proposals for input from other Senate committees and campus constituencies. Within these areas, the committee considered a number of issues over the course of the year, including:

- Approval of the convocation lists of the faculties  
- Recommendations to Senate:  
  - revisions to the undergraduate academic calendar regarding regulations governing administration of university examinations  
  - revisions to the undergraduate academic calendar regarding declaration for Faculties of Humanities, Science and Social Science  
- Continued Projects in 2014/15  
  - guidelines regarding the use of editorial services  
  - undergraduate grading patterns research  
- Provided input on initiatives  
  - proposals from other Senate committees  

**Approval of the convocation lists of the faculties:**

The committee approves, on behalf of Senate, the granting of degrees. At its October 2014 and May 2015 meetings, the committee approved the fall and spring convocation lists respectively. The deans of the faculties or a designate were in attendance.
Recommendations to Senate:

To approve revisions to the undergraduate academic calendar regarding regulations governing administration of examinations

The committee reviewed and approved proposed changes to the undergraduate academic calendar regarding the regulations governing administration of university examinations at its January 2015 and May 2015 meetings. The recommendations provided to Senate in February 2015 regarding revisions to the section entitled “Identification, entering and exiting the examination” were approved. Recommendations provided to Senate in October 2015 were referred back to the committee for further consideration.

To approve revisions to the undergraduate academic calendar regarding declaration for Faculties of Humanities, Science and Social Sciences

The committee received updates regarding declaration at its October 2014 and February 2015 meetings. The committee also reviewed and approved proposed changes to the undergraduate academic calendar regarding declaration for the Faculties of Humanities, Science and Social Sciences at its May 2015 meeting. These revisions were approved by Senate in October 2015.

Continued Projects in 2014/15

Guidelines regarding the Policy on Academic Integrity and use of editorial services

Throughout the year, the committee worked via a sub-committee to consider guidelines regarding the Policy on Academic Integrity and the use of editorial services. The committee as a whole received regular updates throughout the year and considered recommendations from the sub-committee at its April 2015 meeting. These recommendations, presented to Senate for feedback in May 2015, included proposed revisions to the Policy on Academic Integrity, proposed guidelines to provide a university-wide minimum standard, and awareness raising activities on the importance of academic integrity.

Undergraduate grading patterns

During the 2013/14 academic year, the committee initiated a project researching undergraduate grading patterns at the university. In 2014/15, the committee engaged Dr. Robert Anthony to provide a report on the issue that included a literature review, UVic data and information about other institutions. This report was
provided to the committee in May 2015. During the coming year, the committee will consider how best to address the issue based on the information provided in the report and in the Grading Patterns Report provided by Institutional Planning and Analysis.

**Grading Patterns Report**

The committee received the annual Grading Patterns Report at its October 2014 meeting. The report was provided to Senate in February 2015.

**Provided input on initiatives:**

**Provided Feedback on Proposals from Other Senate Committees**

At the December 2014 meeting, the committee reviewed a proposal from the Senate Committee on Admission, Re-registration and Transfer to revise admission requirements for the combined program in Music and Computer Science.

At the January 2015 meeting, the committee reviewed a proposal from the Senate Committee on Admission, Re-registration and Transfer to revise admission requirements for the Faculty of Graduate Studies.

**Comparative Grading Review: Multiple Sections and Common Grading Assessment**

At the May 2015 meeting, the Associate Registrar provided committee members with a presentation on comparative grading. This presentation was in response to an inquiry received by the Chair regarding the provision of comparative grading information for courses with multiple sections. Following consideration of the request, the committee decided not to undertake any further analysis of the issue.

*Respectfully submitted,*

**2015/2016 Senate Committee on Academic Standards**

Sara Beam (Chair), Faculty of Graduate Studies  
Eva Baboula, Faculty of Fine Arts  
Laurie Barnas, Associate Registrar  
Sarah Blackstone, Advisor to the Provost, Special Projects (President's nominee)  
Gillian Calder, Faculty of Law  
Rosaline Canessa, Faculty of Social Sciences  
Lauren Charlton, Registrar  
Jordan Crocker, Student Senator  
Nikolai Dechev, Faculty of Engineering  
David Harrington, Faculty of Science  
Cindy Holder, Associate Dean Academic Advising (HUMS, SCIE, SOSC)  
Valerie Kuehne, Vice-President Academic and Provost  
Peter Liddell, Convocation Senator  
Michele Martin, Division of Medical Sciences  
Norah McRae, Executive Director, Cooperative Education and Career Services
Michael Nowlin, Faculty of Humanities
Tim Pelton, Faculty of Education
Bernadette Peterson, Student Senator
Abdul Roudsari, Faculty of Human and Social Development
Richard Rush, Division of Continuing Studies
Ada Saab, Director, Graduate Admissions and Records
Brock Smith, Peter B. Gustavson School of Business
Kaylee Szakacs, University of Victoria Students’ Society Representative
Elissa Whittington, Graduate Students’ Society Representative
Carrie Andersen (Secretary), Office of the University Secretary

2014/2015 Senate Committee on Academic Standards
Heather Raven (Chair), Law
Eva Baboula, Fine Arts
Stan Bardal, Medical Sciences
Laurie Barnas, Associate Registrar
Nav Bassi, Convocation Senator
Sara Beam, Graduate Studies
Sarah Blackstone, Advisor to the Provost, Special Projects
Rosaline Canessa, Social Sciences
Lauren Charlton, Registrar
Jordan Crocker, Student Senator
Nikolai Dechev, Engineering
Kayleigh Erickson, UVSS representative
David Harrington, Science
Cindy Holder, Associate Dean Academic Advising (HUMS, SCIE, SOSC)
Susan Karim, Student Senator
Valerie Kuehne, Vice-President Academic and Provost
Ming Lei, GSS representative
Norah McRae, Director, Cooperative Education and Career Services
Michael Nowlin, Humanities
Tim Pelton, Education
Abdul Roudsari, Human and Social Development
Richard Rush, Continuing Studies
Ada Saab, Director, Graduate Admissions and Records
Brock Smith, Peter B. Gustavson School of Business
Cassbreea Dewis (Acting Secretary), Office of the University Secretary
NOTE: Previous year's (2014) figures are shown in brackets. Scholarships included in this report were adjudicated on the basis of academic performance in 2014-2015.

SUMMARY
- The Senate Committee on Awards approved 71 (74) new or revised awards for undergraduate and graduate students in 2014/15.
- There were 3790 (3814) scholarships awarded to 3117 (3447) undergraduate students, with a total value of $8,863,835 ($9,849,772).

ENTRANCE SCHOLARSHIPS
Student Awards and Financial Aid made offers of entrance scholarships to academically outstanding students from Canadian secondary schools, international secondary schools, and Canadian colleges and universities. UVic awarded 1690 (1647) entrance scholarships (non-renewable) to 1509 (1476) students with a value of $3,500,651 ($4,276,913). In addition, 127 (242) students received a renewable scholarship for a value of $720,000 ($1,323,000), increasing the total value of all entrance scholarships awarded to $4,220,651 ($5,599,913).

<table>
<thead>
<tr>
<th></th>
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</thead>
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<td>62</td>
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<td>$ 403,000</td>
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<td>77</td>
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<td>$ 15,000</td>
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<td>$ 5,000</td>
<td>$ 10,000</td>
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<td>$ 45,000</td>
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<td>2</td>
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<td>$ 22,500</td>
<td>$ 45,000</td>
</tr>
<tr>
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<td>0</td>
<td>0</td>
<td>@ $5000</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Totals 127 242 $ 720,000 $ 1,323,000
IN-COURSE SCHOLARSHIPS

UVic awarded 1549 (1529) non-renewable in-course scholarships to 1057 (1333) students with a value of $2,263,184 ($2,190,859). 424 (396) students received a renewal of their renewable scholarships with a value of $2,380,000 ($2,059,000). The total value of all in-course scholarships and awards was $4,643,184 ($4,249,859).

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<tr>
<th>In-Course Renewable Scholarships</th>
<th>2015</th>
<th>2014</th>
<th>Value</th>
<th>TOTAL 2015</th>
<th>TOTAL 2014</th>
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<td>20</td>
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<td>0</td>
<td>@ $2,500</td>
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<tr>
<td>Aga Khan Academy Scholarship</td>
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The following table shows the total funds awarded by scholarship category, GPA range for the President's Scholarships, and the number of awards per faculty or program. The budget for the President's Scholarships is proportionally allocated by the number of students in each faculty or program in relation to the total student population.

<table>
<thead>
<tr>
<th>Scholarship Category</th>
<th>President's Scholarships</th>
<th>Renewable Scholarships</th>
<th>Other Scholarships and Awards</th>
<th>Totals</th>
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<td></td>
<td>AMOUNT</td>
<td>GPA RANGE</td>
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<td>AMOUNT</td>
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<tr>
<td><strong>SOCIAL SCIENCES</strong></td>
<td>$125,861</td>
<td>8.88-8.38</td>
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<tr>
<td><strong>SCIENCE</strong></td>
<td>$119,903</td>
<td>9.0-8.33</td>
<td>39</td>
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<td><strong>HUMANITIES</strong></td>
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<td>8.89-8.1</td>
<td>35</td>
<td>$286,000</td>
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<tr>
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UVic aspires to be nationally competitive in recruiting and retaining students of the highest calibre in an increasingly competitive environment. Significant short term enhancements were made to our entrance scholarship program in 2013/14 and 2014/15. The enhanced scholarship program has been very successful, but was not sustainable. A proposal for a course correction was presented to Integrated Planning in June 2014 and that plan included reductions in scholarship values for 2015/16. The impact of those reductions is reflected in the reduction in the total value of scholarships detailed in this report. Student Awards and Financial Aid continues to work to better align our student financial aid resources with the enrolment plan.

The Senate Committee on Awards wishes to acknowledge the University's ongoing commitment to undergraduate financial aid programs.

Dr. John Walsh, Chair
Senate Committee on Awards

2015-2016 Senate Committee on Awards
J. Walsh, Chair
L. Nolt, Secretary
F. Canjura, Recording Secretary
S. Banerjee
K. Barnes
D. Begoray
A. Cirillo
M. Runtz
H. Hallgrimsdottir
D. Mellin
J. Wood
A. McLaughlin
L. Charlton
Y. Rondeau

2014-2015 Senate Committee on Awards
A. Lepp, Chair
L. Nolt, Secretary
N. Fullerton, Recording Secretary
K. Barnes
A. Baniasadi
L. Charlton
A. Cirillo
C. Crippen
K. Erickson
S. Evans
Y. Rondeau
M. Sotoudehnia
J. Walsh
J. Wood
MEMORANDUM

TO: Secretary of Senate  
University Secretary’s Office

DATE: November 6, 2015

FR: Lori Nolt, Director, Student Awards and Financial Aid  
Secretary, Senate Committee on Awards

RE: Awards Recommended to Senate for Approval

The Senate Committee on Awards recommends that the Senate approves and recommends to the Board of Governors the following awards:

*Administered by the University of Victoria Foundation
Additions are underlined
Deletions are struck through

DR. ARNE H. LANE GRADUATE FELLOWSHIPS IN MARINE SCIENCES* (REVISED-GS)
Two or more fellowships are awarded to outstanding graduate students in marine sciences. Selection of the recipients will be made by the Graduate Awards Committee upon recommendation of the Faculty of Science. The nominee’s research program should have a recognizable component that deals with marine sciences in some form.

GREGORY BLUE SCHOLARSHIP IN GLOBAL HISTORY* (NEW-UG)
One or more scholarships of at least $1,000 are awarded to academically outstanding undergraduate Department of History students (continuing or graduating), with preference given to students with a demonstrated commitment to Global History, ideally with a focus on the Global South. Nominations will be made by the Department of History.

RONALD F. MACISAAC PRIZE (REVISED-UG)
A prize of $200 $500 is awarded to a law student presenting the best paper either in counselling sexually abused children or understanding the problems associated with assisting them on social justice, counselling/assisting abused children or environmental law. Normally, eligible papers will be associated with courses in Directed Research, Family Law, Evidence, or Children and the Law offered by the Faculty of Law.
50TH ANNIVERSARY SCIENCE ENTRANCE SCHOLARSHIP*
(REVISED-UG)
A One or more scholarships is are awarded to academically outstanding students entering the
University of Victoria from a Canadian secondary schools who is are pursuing an undergraduate degrees
in the Faculty of Science.

UNIVERSITY OF VICTORIA ENTRANCE SCHOLARSHIP – THE
BRISHKAI LUND SCHOLARSHIP (REVISED-UG)
Scholarships of $1000 and $2000 are awarded to students with high academically outstanding
undergraduate students who are entering the University of Victoria directly from Canadian secondary
schools, colleges, or universities.

UNIVERSITY OF VICTORIA ENTRANCE SCHOLARSHIP – THE
DONNA THOMAS SCHOLARSHIP (REVISED-UG)
Scholarships of $1000 and $2000 are awarded to students with high academically outstanding
undergraduate students who are entering the University of Victoria directly from Canadian secondary
schools, colleges, or universities.

UNIVERSITY OF VICTORIA ENTRANCE SCHOLARSHIP – THE DR &
MRS. R.B. WILSON SCHOLARSHIP (REVISED-UG)
Scholarships of $1000 and $2000 are awarded to students with high academically outstanding
undergraduate students who are entering the University of Victoria directly from Canadian secondary
schools, colleges, or universities.

UNIVERSITY OF VICTORIA ENTRANCE SCHOLARSHIP – THE DR. J.
WAELETI-WALTERS SCHOLARSHIP (REVISED-UG)
Scholarships of $1000 and $2000 are awarded to students with high academically outstanding
undergraduate students who are entering the University of Victoria directly from Canadian secondary
schools, colleges, or universities.

UNIVERSITY OF VICTORIA ENTRANCE SCHOLARSHIP – THE HOWARD DENIKE SCHOLARSHIP (REVISED-UG)
Scholarships of $1000 and $2000 are awarded to students with high academically outstanding
undergraduate students who are entering the University of Victoria directly from Canadian secondary
schools, colleges, or universities.

UNIVERSITY OF VICTORIA ENTRANCE SCHOLARSHIP – THE DR.
HUGH STEPHEN SCHOLARSHIP (REVISED-UG)
Scholarships of $1000 and $2000 are awarded to students with high academically outstanding
undergraduate students who are entering the University of Victoria directly from Canadian secondary
schools, colleges, or universities.
At its meeting of 10 September 2015, the Senate Committee on Planning discussed and approved the request to change the Name of the Department and Degree Programs from Women’s Studies to Gender Studies. The following motion is recommended:

That Senate approve changing the Name of the Department and Degree Programs from Women’s Studies to Gender Studies, as described in the document “Proposal to Change the Name of the Department and Degree Programs from Women’s Studies to Gender Studies”, dated August 20, 2015.

: mam

Committee Membership:
Dr. Catherine Mateer, Chair
Ms. Lauren Charlton
Dr. Stan Dosso
Mr. Alexander Kovalchuk
Dr. Reuven Gordon
Ms. Carrie Andersen
Dr. David Castle
Dr. Maureen MacDonald
Dr. Jason Colby
Dr. Merwan Engineer
Dr. Patrick Nahirney
Ms. Jessica Gelowsky, Secretary

Dr. Valerie S. Kuehne
Dr. Sang Nam
Dr. Catherine McGregor
Dr. Victoria Wyatt
Dr. Anne Bruce
Dr. Ann Stahl
Mr. Philip Schrod
Dr. Andrea Giles
Dr. Stephen Evans
Ms. Gillian Calder
Dr. Ralf St. Clair
**Title of proposal:**

Proposal to Change the Name of the Department and Degree Programs from Women’s Studies to Gender Studies

<table>
<thead>
<tr>
<th>Contact Name and Number:</th>
<th>Annalee Lepp</th>
<th>721-6157</th>
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August 20, 2015

To: Dr. Katy Mateer, Associate Vice President Academic Planning and Senate Committee on Planning

From: Dr. Annalee Lepp, Chair on behalf of members of the Department of Women’s Studies, University of Victoria

Re: Proposal to Change the Name of the Department and Degree Programs from Women’s Studies to Gender Studies

A. Executive Summary

The Department of Women’s Studies wishes to change the unit’s name to the Department of Gender Studies. This change in department and degree name does not initiate any change in the substance, focus, or direction of the current program and no existing or approved course content or titles will be altered as a result (see Appendix 1). Rather, the name Gender Studies better reflects the way in which the program has, over the last ten years, kept pace with dynamic developments in the field and would make visible to undergraduate students the breadth and scope of our disciplinary/interdisciplinary curriculum, the range of empirical scholarship and theoretical approaches covered in it, and the interdisciplinary research and teaching expertise of faculty in the department. It is also in line with Women’s Studies program names changes that have, over the last seven or so years, been instituted in most universities across the Canada. Finally, this change is also the culmination of a multi-year departmental review process: it included extensive student discussions organized by the student-run Equity and Outreach Committee (course union) in February and March 2012; faculty discussions and a decision-making process in the Fall of 2012; the development of a new departmental mission statement; a faculty learning outcomes and visioning retreat in May 2014 followed by a curriculum revision retreat in June 2014; the submission and approval of a curriculum revision in the Fall of 2014; the re-design of our introductory course, WS 104 Gender and Social Justice (renamed WS 104: Gender, Power and Difference) in the Summer of 2014; and the creation of a Gender Studies majors seminar, which will be launched in the Spring of 2016, in which disciplinary developments and debates will be examined.

In April and May 2015, the department undertook an extensive consultation process among departments and programs in the Faculty of Humanities and among relevant units across the university (Appendix 2). On 21 April 2015, the Faculty of Humanities at its Faculty Council
Meeting unanimously approved the Women’s Studies Department and Degree Name Change Proposal. No units outside of the faculty that we consulted on the proposed changes raised any concerns and many offered positive support.

B. Developments in the Field of Women’s Studies
Established in 1979 as a small program, Women’s Studies at the University of Victoria became a department in 1995 and was one of the few Women’s Studies programs in Canada to achieve full departmental status in that period. In the decade after the first Women’s Studies programs were established in North American universities in the 1970s, the discipline began to shift away from a singular focus on making women’s lives visible as a proper subject of study and on the commonality of women’s experiences and to move toward a conceptual approach which sought to ‘centre the margins’; that is, to bring the perspectives, experiences, and voices of marginalized groups of women to the centre of scholarly inquiry, teaching, and praxis. This development was in response to critiques voiced by women of colour, Indigenous women, women with disabilities, and others who asked “which women” and “whose experiences” were being universalized and positioned as normative. In the Women’s Studies program at UVic, the application of this approach not only shaped faculty recruitment and hirings in the 1990s, but also resulted in a rethinking of research methodologies, theoretical paradigms, course offerings, course content, and the department’s mission statement. In 1995, for example, the Women’s Studies Department’s mission statement read as follows:

“The interdisciplinary Women’s Studies curriculum is designed to introduce students to a diversity of perspectives on women’s histories, struggles, experiences and thought. Women’s Studies builds on traditional and evolving knowledge and methodologies to integrate the many forms of feminist scholarship and activism. Through its course content and teaching strategies, the Department of Women’s Studies explores the concerns and experiences of those women traditionally outside the scope of mainstream thought and therefore rendered invisible in descriptions of female experience. This ‘centring the margins’ is part of our ongoing commitment to broadening and deepening feminist understanding of gender.”

Beginning in the early 2000s, Women’s Studies, as an evolving discipline, began to move away from the ‘centring the margins’ paradigm and increasingly embraced intersectionality (how gender intersects with other markers of difference) and transnationalism (rooted in understandings of colonialism, capitalism, and globalization) as the conceptual and methodological foundations in research, teaching, and learning, interdisciplinary knowledge production, and transformative social justice activism. In 2004, the Women’s Studies Department at UVic reformulated its vision statement to better reflect already existent and significant shifts in our curricular offerings and pedagogical approaches:

“Power circulates through people’s lives, shaping their experiences, their knowledge and their possibilities. In Women’s Studies, we examine the complex and fascinating ways power works in the lives of individuals and in groups. Both our teaching practice and our research explore the
meanings of such categories as gender, race, class, sexual orientation, age, ability, citizenship, and national identity. We analyze the ways these categories dynamically intersect to create a world with complicated systems of inequities both within Canada and across the globe. Using diverse kinds of feminist theory, we explore social structures, histories of ideas, and varieties of cultural production. We invite students to join us in producing feminist interdisciplinary knowledge that will both transform the circuits of power around us and empower us as socially aware individuals.”

Over the last seven years, scholars working at the intersections of the Women’s Studies and gender, sexualities, queer, masculinities, and trans studies have argued that the discipline, despite its strong focus on intersectionality and transnationalism, had not sufficiently troubled the conceptual ground of gender in all its complexity and across the gender spectrum. These powerful challenges from practitioners within the discipline, in particular, which again questioned the ‘Women’ in Women’s Studies, precipitated the field’s “naming debates” and the proliferation of varied program name changes, on the understanding that no one name could capture the diversity of intellectual approaches and expansiveness of the field. In addition, as scholars and instructors, faculty members in UVic’s Department of Women’s Studies were not only keeping pace with cutting edge disciplinary debates, key theoretical developments, and current scholarly research in the field, but also were making contributions to these transformations. Hence, our dynamic curriculum offerings and course content have consistently reflected shifts in the field. As such, both external disciplinary discussions and internal considerations formed the basis for departmental discussions of the ‘name’ beginning in 2012, a decision to change the name, and with it a revision of the department’s mission statement.

C. Women’s Studies Name Changes in Canadian and BC Post-Secondary Institutions
As noted above, a growing number of Women Studies programs across North American have undergone name changes. For example, in 2012, Annalee Lepp conducted a survey of all 48 Women’s Studies programs in Canadian universities, with a particular focus on program names and mission statements. At that point, 17 programs had retained Women’s Studies, 19 were called Women’s and Gender Studies (or vice versa); 4 referred to themselves as Gender Studies, and the other 8 had adopted such varied titles as Gender, Sexuality, and Women’s Studies (Simon Fraser University); Gender, Race, Sexuality, and Social Justice (University of British Columbia); Gender Equity and Social Justice (Nipissing University); Women’s Studies and Feminist Research (Western University); and Gender, Sexuality and Feminist Studies (McGill University). In addition, in 2012, as an executive member of the Canadian Women’s Studies Association/L’association canadienne des études sur les femme (CWSA/ACÉF), Annalee Lepp participated in initiating a process which resulted in the national association’s name change to Women’s and Gender Studies et Recherches Féministes (WGSRF). Also in 2012, as senior editor of Atlantis: A Women’s Studies Journal established in 1975 and the premier Canadian scholarly journal in the field, Annalee Lepp with Ann Braithwaite (University of Prince Edward Island) initiated a rebranding of the journal, which was renamed Atlantis: Critical Studies in Gender, Culture and Social Justice.
Since 2012, the landscape of ‘Women’s Studies’ undergraduate and graduate programs has continued to shift. As of February 2015, 9 programs had retained the name Women’s Studies; 27 had adopted Women’s and Gender Studies (or vice versa); 4 referred to themselves as Gender Studies; and additional variations had emerged including Diversity and Social Justice Studies (University of Prince Edward Island); Gender, Sexuality and Women’s Studies (York); Feminist and Gender Studies (Ottawa); and Gender Studies and Feminist Research (McMaster). The following list highlights the names currently being employed by ‘Women Studies’ programs in British Columbia universities and colleges:

**BC Universities**
- Capilano University: Women’s and Gender Studies
- Simon Fraser University: Gender, Sexuality, and Women’s Studies
- Trinity Western University: Gender Studies
- University of British Columbia (Vancouver): Gender, Race, Sexuality and Social Justice
- University of British Columbia (Okanagan): Gender and Women’s Studies
- University of Northern British Columbia: Gender and Women’s Studies
- Vancouver Island University: Women’s Studies

**BC Colleges (programs or courses in the field)**
- College of New Caledonia: Women’s Studies and Gender Relations Diploma
- Douglas College: Women’s Studies and Gender Relations
- Kwantlen Polytechnic University: two courses in Women’s Studies
- Langara College: Women’s Studies
- North Island College: Women’s Studies
- Northern Lights College: two courses in Women’s Studies
- Northwest Community College: three courses in Women’s Studies
- Okanagan College: Women’s Studies
- Selkirk College: Women’s Studies
- University College of the Fraser Valley: two courses in Women’s Studies

While one university program (Vancouver Island University) and some of the college programs/courses have, to date, retained Women’s Studies, we do not anticipate any transfer credit problems if and when our name to Gender Studies is approved, given that there is already considerable name variation in the system. In addition, the very active Women’s and Gender Studies BCCAT Articulation Committee, of which Annalee Lepp is the former chair, meets each May to discuss program/courses changes and to ensure the smooth transfer of course credits between the college and university programs across the province. The department would undertake a full re-articulation of courses in the BCCAT transfer system once the name change has been approved.

**D. Summary of Student Consultations and Departmental Decision-Making Process**
Departmental discussions of the ‘name’ began in February 2012. Annalee Lepp, the chair of Women’s Studies, asked the student-run Equity and Outreach committee (our course union) to organize a series of discussions with Women’s Studies students on the question of a name change. Key questions were: Does the name Women’s Studies reflect what you are learning in your courses? Do you, as Women’s Studies majors, minors, or undeclared students, see yourselves reflected in the name? The Equity and Outreach coordinators were asked to draft a report based on these discussions and submit it to the chair. Upon receipt of this report, Women’s Studies faculty also entered into a lengthy discussion about whether Women’s Studies continued to be the best way to represent who we are and what we do as a department in the areas of research, teaching, and community engagement.

a) February and March 2012: Summary of Equity and Outreach Committee’s Discussions of the Department’s Name

In February and March 2012, the Equity and Outreach Committee held three close-door meetings on the question of the name change. The coordinators invited students to the meetings via email, classroom call-out, and word of mouth; students who could not attend the meetings were also invited to submit their thoughts via email. They estimated that between 20 to 30 majors, minors, and undeclared students participated in the discussions. A report based on the discussions was submitted to the department and two students presented an overview of its main themes to faculty members at a department meeting in September 2012. The key themes that emerged from the student discussions were as follows:

i) Some students indicated that Women’s Studies as an academic discipline is often misunderstood and it can be challenging for students to explain their area of study to others.

ii) During the discussions, students asked such questions as: what is Women’s Studies all about and what words encompass what is learned? Feminist Studies? Gender Studies? Critical Studies? One student indicated that Women’s Studies courses focused more on the social construction of gender than on “women” as a group. Others argued that the name Women’s Studies did not really reflect the “materials being studied within the department, because the courses go so beyond that.” One student suggested that they had “learned so much about ‘women’s issues’,” but “had also learned about critical theories of race/anti-racism … and queer theory had blown apart notions of gender.”

iii) Students also discussed how the ‘Women’ in Women’s Studies has complex historical roots and implications. While its presence expressed the historical struggles of women in the university and elsewhere, it also reflected the historical exclusions of women of colour as well as queer and trans people in many canonical texts. One argument in favour of the name change that emerged was that what is being taught in the department has changed over time and students representing different identities and social locations are drawn to Women’s Studies. In other words, “that this department is far more inclusive in terms of what and who we teach it to is readily evident.”

iv) Students also acknowledged that changing the department name would have an impact on how it was perceived by newcomers. They argued that a new name could potentially draw in a more diverse range of students and therefore ensure the sustainability of the department. Some
students indicated that the term ‘Women’ in the title was limiting and exclusionary. One trans student said that they would finish their degree in the department if the word ‘Women’ was removed because they did not feel that the name of the department reflected them or represented what they studied in the department. It was further pointed out that the name Women’s Studies could also be a deterrent for self-identified men to take courses or major in the program as they would likely assume that their experiences were not valued or reflected in the department – when in fact, students do learn that thinking critically about gender requires analyzing masculinities, systems of power and privilege, as well as the gender binary.

v) Most students who participated in the discussion were open to a name change. A minority wished to retain ‘Women’ and add Gender and others favoured focusing on Gender or Gender plus something else. The following options were presented:

- Gender and Equity Studies
- Gender and Social Justice
- Gender Studies
- Gender Studies and Feminist Research
- Gender Equity and Justice
- Women’s and Gender Studies

Many students liked Gender and Equity Studies, while many thought that justice was important to include.

b) September and November 2012: Women’s Studies Faculty Discussions

At a department meeting in September 2012, faculty members reviewed the document presented by the Equity and Outreach Committee and engaged in a preliminary discussion of a possible name change. Some of the questions discussed included: Did faculty members feel that their research and teaching still fits comfortably within the domain of ‘Women’s Studies’? How can we look forward in locating and anticipating future trends in cutting edge disciplinary scholarship that will ensure our continued relevance as a place and space for critical research, pedagogies, reflection, and engagement? How can we remain relevant and continue to attract a diverse and increasingly diverse student body, including Indigenous, racialized, queer, trans, genderqueer, etc. students? How can we ensure that a diverse body of students see themselves reflected in our name and mission statement? There was also a discussion about how, for various theoretical and political reasons, adopting words like ‘feminist’ and ‘equity’ in the department name would be limiting; we also acknowledged that using ‘(social) justice’ in the department name would be problematic given the existing minor program at UVic.

Further discussion among faculty was initiated over email and at the 12 November 2012 department meeting. A process for decision making was established. In order to obtain a non-binding sense of faculty members’ positions on the issue, each faculty member was asked to submit their department name preference to the Administrative Assistant, who would generate a survey and each faculty member could vote on their first choice anonymously. At the 19 November 2012 department meeting, the results of the survey and vote were revealed:

- Gender, Race, and Sexualities Studies (1 vote)
After further discussion, general consensus was reached and Gender Studies was chosen – on the understanding that no one name reflects what every faculty member does. One argument that was made in favour of Gender Studies was that, for many programs, Women’s and Gender Studies has signified a kind of compromise (retain Women and add Gender); at the same time, this pairing tends to signal that women are not gendered and that Gender Studies does not include women, whereas Gender Studies does not erase women but embeds them in gender relations in all their intersectional and transnational complexities. It was further argued that it was important to keep the department name simple and comprehensible especially to incoming students and that the department’s mission statement constituted an important vehicle to illuminate the full breadth of the department’s intellectual and pedagogical vision.

c) Post-Decision Initiatives

i) Revised Department Mission Statement

After the decision to change the department name to Gender Studies, a revised department mission statement was drafted, revised, and eventually agreed upon. This final version reads as follows:

“The Department of Gender Studies at the University of Victoria offers students a range of cutting edge courses that address ‘gender’ as a social construction that intersects with other categories of difference within networks of power. Course topics include examinations of the relationships between gender and race, nation, citizenship, geographical location, class, sexuality, sex, ability, and age in the contexts of colonization, capitalism, globalization, and transnationalism. Interdisciplinary faculty research frames the department’s curriculum and its areas of analysis: Indigenous resurgence, anti-racism, nationalisms, human rights and development, medicalization, girlhoods, cultural production, and post-structuralism. Gender Studies, a discipline previously identified as Women’s Studies, continues to highlight historical and contemporary feminist scholarship, but also broadens this established approach with courses inclusive of queer and trans perspectives as well as the production of masculinities. Underlying all Gender Studies courses is the active pursuit of social justice enabled by critical analyses that expose inequities and interrogate their systemic foundations.”

ii) Learning Outcomes, Visioning, and Curriculum Retreats and Outcomes

In May 2014, Women’s Studies faculty members participated in a learning outcomes and visioning retreat facilitated by Teresa Dawson, Director of the Learning and Teaching Centre. During this day-long retreat, the department developed program-wide and year-level learning outcomes. Consistent with the name change and the revised mission statement, the program-level learning outcomes that were devised are as follows:

Students who complete a program in Gender Studies at UVic should be:
• critically engaged, robust, empowered thinkers and actors who understand the relationship between self and systems of power;
• informed local and global citizens who value and advocate for social, economic and political change;
• articulate, critical thinkers who question assumptions, understand complex contexts and can make strong, effective arguments in various genres, including written, oral, visual and social media;
• able to use diverse interdisciplinary and critical approaches to gender/s, to inform, research, understand, question and analyze contemporary issues they encounter;
• understand the ways gender intersects with race, class, sexualities, abilities, citizenship, ethnicity, sex, identity and environment;
• equipped and confident that they are prepared to achieve a wide variety of future leadership, career and/or life goals.

In June 2014, with year-level learning outcomes in place, Women’s Studies faculty members also participated in a curriculum re-design retreat. During this half-day retreat, the department reviewed all of its course offerings to determine whether they were being taught at the appropriate level and revisited course descriptions to ensure that they were up to date. The department also decided to introduce a required Gender Studies seminar at the 300-level for honours students and majors; this seminar is optional for minors. In addition to giving students an opportunity to develop professional skills and to learn about faculty members’ research and methodologies, it is also designed to introduce students to the discipline of Gender Studies and examine various debates and developments in the field. A curriculum revision reflecting these changes was submitted to the Humanities Curriculum and Academic Standards Committee in August 2014. These changes were approved by the Faculty of Humanities Curriculum and Academic Standard Committee, the Faculty of Humanities Faculty Council, and Senate.

Over the course of this review and revision process, the department has been “wearing” Gender Studies – referring to the program as such to gauge students’ responses and adapting to the new name. We have received no push back from our current students, who in general have expressed support and excitement about the pending name change.

E. External Consultations
In April and May 2015, this name change proposal was emailed to the following individuals: Deans of Humanities, Social Sciences, Education, Fine Arts, Graduate Studies, Human and Social Development, and Law; to Department Chairs and Program Directors in Education, Fine Arts, Human and Social Development, Humanities, Social Sciences, and the Sciences; to Valerie Kuehne, Vice President Academic and Provost, Katy Mateer, Associate Vice President Academic Planning, Katherine Blake, Humanities Development Officer, and Caron Rollins, Women’s Studies Librarian; and to various administrative offices such as the Registrar and Advising (see Appendix 2 for a complete list; see Document 2 and 3 for email correspondence on the name change and curriculum matters). On 21 April 2015, the Faculty of Humanities at its
Faculty Council Meeting unanimously approved the Women’s Studies Department and Degree Name Change Proposal. No units outside of the faculty that we consulted on the proposed changes raised any concerns and many offered positive support (see attached email correspondence).

The name change proposal was also forwarded to Marie Lovrod, the current president of the Women’s and Gender Studies et Recherches Féministes (WGSRF) and to Ann Braithwaite, past president of the Canadian Women’s Studies Association, a member of our most recent external review team, and leading scholar on Women’s and Gender Studies disciplinary discussions and debates in the Canadian context (see attached letters of support – Document 4 and 5). Given that we are one of the last departments in the country to proceed with a name change, it was not deemed necessary to consult more widely with Women’s and Gender Studies colleagues across the country. Annalee Lepp, as past president and current executive member of the WGSRF and as former chair of the Women’s and Gender Studies BCCAT Articulation Committee, has informed colleagues across the country about the pending name change at the WGSRF annual Coordinators Meetings at Brock University (2014) and at University of Ottawa (2015) as well as at the annual BCCAT Articulation Committee meeting at Capilano University (2014) and at Douglas College (2015). There were no concerns raised at any of these meetings; the more common response was: “what took you so long!”

F. Conclusion
The proposed name change from Women’s Studies to Gender Studies (at the unit and the degree level) is driven by a desire to more accurately reflect, clarify, and make visible the scholarship, research, and teaching that is already being undertaken by faculty members in the department and by practitioners in the discipline. In other words, we seek greater consistency between what we are called and what we do. As such, it does not initiate any change in the substance, focus, or direction of the current program and no existing or approved course content or titles will be altered as a result. The name change also signals that interdisciplinary, intersectional, anti-colonial, and transnational research and teaching on women and gender are not separate enterprises. Through the use of uncomplicated language, it also signals to University of Victoria undergraduate students (both incoming and otherwise) our already inclusive approach to the study of gender and its many intersections within a local and global context and enables all students of any gender to be reflected in the name. The revised mission statement further clarifies our scholarly, theoretical, and pedagogical approach to the study of gender. While our program has developed a national reputation for being one of the strongest undergraduate programs in the country, in our estimation, there will be no negative ramifications to our reputation associated with this name change; rather, we would argue that it will enhance our reputation given ongoing theoretical and pedagogical innovations in the discipline and in existing programs in Canada and the United States. With the exception of advertising the name change, developing new department letterhead, and replacing signage in the Clearihue Building, there are no other anticipated financial costs associated with undertaking this name change in the unit, the faculty, or the broader university.
Appendix 1

Gender Studies Undergraduate Program and Courses

This course list includes all existing and approved courses. The only changes being instituted are the replacement of WS with GNDR and the re-numbering of the courses; no course titles are being changed.

A full program and curriculum change docket reflecting the changes below was submitted to the Faculty of Humanities Curriculum and Academic Standards Committee in July 2015 (see Document 5 and 7). It will be reviewed by the committee in the Fall of 2015. The docket will then pass through the usual approval channels (Humanities Faculty Council, Senate Committee on Curriculum, and Senate).

GNDR 100  
Units: 1.5  
Hours: 3-0  
Formerly: WS 104  
Gender, Power and Difference  
Interdisciplinary introduction to gender studies. Considers the way gender (i.e., our idea of what it is to be a "real" woman or man) is constructed across class, race/ethnicity, sexualities, (dis)abilities, age and geographical location. Examines the impact of these intersecting identities on social inequality through diverse topics, such as media, culture, language, work, health, globalization, colonization and activism. Situates Canadian topics in a broader, transnational context, emphasizing connections between the “local” and the “global.”
Notes: - Credit will be granted for only one of 100, WS 104.
  - Not open to fourth-year students without permission of the department.

GNDR 200  
Units: 1.5  
Hours: 3-0  
Formerly: WS 203  
Popular Culture and Social Media  
Critically examines representations of gender, race, class and sexualities in popular culture and social media with a consideration of how historical, ideological, social and political forces influence media practices.
Notes: - Credit will be granted for only one of 200, WS 203.
  - 100 is recommended prior to taking this course.

GNDR 201  
Units: 1.5  
Hours: 3-0  
Formerly: WS 205  
Gender, Food and Power  
Examines the intersections between gender, foodways (the practices associated with the production, distribution, preparation, and consumption of food) and power in globalized, North American food systems.
Notes: - Credit will be granted for only one of 201, WS 205.
  - 100 is recommended prior to taking this course.
GNDR 202
Units: 1.5
Hours: 3-0
Formerly: WS 206, 312

Globalization and Resistance
Inquiry into the gendered, racialized, sexualized, and classed impacts of the complicated spread of global interdependence in the political, economic, and cultural arenas. Also explores challenges to economic re-structuring, poverty, militarization, labour rights abuses, and environmental degradation.

Notes: - Credit will be granted for only one of 202, WS 206, 312.
- 100 is recommended prior to taking this course.

GNDR 203
Units: 1.5
Hours: 3-0
Formerly: WS 102, 207

Indigenous Women in Canada
Introduces a wide range of themes and issues relating to the contemporary and historical experience of Indigenous women in Canada. Examines Indigenous women’s gendered experience of colonization and resistance, explores their contributions to social justice movements and the cultural resurgence of their nations.

Notes: - Credit will be granted for only one of 203, WS 207, 102.
- 100 is recommended prior to taking this course.

GNDR 204
Units: 1.5
Hours: 3-0
Formerly: WS 209

Gender, Health, Power and Resistance
Explores gender and health from a feminist intersectional perspective, noting power and resistance. Addresses topics such as the sexual division of health care, the feminization and racialization of health inequalities, environmental racism and the identity politics of health movements.

Notes: - Credit will be granted for only one of 204, WS 209.
- 104 is recommended prior to taking this course.

GNDR 205
Units: 1.5
Hours: 3-0
Formerly: WS 211

Girlhoods in Film and Popular Culture
Examines changing social constructions of girls and girlhoods in the West as a reflection of tensions in dominant social norms, moral concerns and political economy. Explores debates in feminist girlhood studies about contemporary girlhood cultures and discourses.

Notes: - Credit will be granted for only one of 205, WS 211.
- 104 is recommended prior to taking this course.

GNDR 206
Units: 1.5
Hours: 3-0
Formerly: WS 212, 332A

Monstrous Women
Examines the ways in which Western culture has constructed particular women as monstrous throughout history. Emphasizes critical thinking and analysis regarding the effects of being produced as monstrous, and considers who profits from transforming particular women into monsters.
Notes: - Credit will be granted for only one of 206, WS 212, 332A.
  - 100 is recommended prior to taking this course.

GNDR 207  Units: 1.5  Hours: 3-0
Formerly: WS 213, 313
Gender, Globalization and the Love Industry
The words ‘romantic’, ‘exotic’, ‘mythical’, ‘pleasurable’ and ‘indulgent’ are often used to
describe our relationship with chocolate, diamonds and flowers. Examines the evolution of the
romance industry through these highly symbolic commodities, the gendered and imperial
relationship between consumers and producers, and the role of advertising in shaping desire.
Notes: - Credit will be granted for only one of 207, WS 213, 313.
  - 100 is recommended prior to taking this course.

GNDR 219  Units: 1.5  Hours: 3-0
Formerly: WS 219
Topics in Gender Studies
Variable content course on aspects of Gender Studies.
Notes: - May be taken more than once in different topics.
  - Credit will be granted for only one of 219, WS 219 (if taken in the same topic).
  - 100 is recommended prior to taking this course.

GNDR 300  Units: 1.5  Hours: 3-0
Formerly: WS 303
Gender Studies Seminar
Introduction to the discipline of Gender Studies, intended for students pursuing an Honours,
Major, or General and Minor program in Gender Studies. Examines various debates and
developments in the field, introduces students to faculty research and methodologies, and offers
students the opportunity to develop professional skills.
Notes: - Credit will be granted for only one of 300, WS 303.
  - Required for GS Honours and Major students.
  - Recommended for GS General and Minor students.
Prerequisites: Registration in Gender Studies or permission of the department.

Economies, States and Global Issues

GNDR 301  Units: 1.5  Hours: 3-0
Formerly: WS 310A
Women, Race and Empire
Introduces the complex and often problematic relationship between women, race and
colonialism. Examines issues such as the link between gender and race in European colonialism,
the implication of white women in empire, the location of racialized women in imperial contexts,
and the influence of gender and imperialism in the way post-colonial feminisms unfold in certain
contexts.
Note: Credit will be granted for only one of 301, WS 310A, WS 329 (if taken in the same topic).
Prerequisites: Minimum second-year standing or permission of the department.

GNDR 302  Units: 1.5  Hours: 3-0
Formerly: **WS 311**

**Sex Work, Trafficking and Human Rights**
Within the context of the global economy and transnational migration, examines current debates about sex work and human trafficking into various labour sites, including the commercial sex sector. Explores legal, policy and grassroots approaches to sex work and human trafficking at the international and national levels.

**Note:** Credit will be granted for only one of 302, WS 311.

**Prerequisites:** Minimum second-year standing or permission of the department.

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**GNDR 303**

Units: **1.5**

Hours: **3-0**

Formerly: **WS 312A**

**Families, Intimacies and Nationhood**
Through the lens of families and intimacies, examines the politics of gender, race, class and sexuality in the nation building of Canada. Investigates family, relationships, and nation making in the context of policies governing colonialism, citizenship, parenthood, cohabitation, marriage, divorce, custody and state benefits. Maps transformations of intimacy that have evolved as a result of and in spite of state sanctioned policies.

**Note:** Credit will be granted for only one of 303, WS 312A, 329 (if taken in the same topic).

**Prerequisite:** Minimum second-year standing or permission of the department.

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**GNDR 304**

Units: **1.5**

Hours: **3-0**

Formerly: **WS 314**

**Imagining India from Empire to Bollywood**
Uses a gendered lens to analyze the manner in which both the British colonial gaze and Indian nationalists imagined India. Theoretical readings, biographies and Bollywood films will unpack ways in which gender, race and class constructed dominant ideas of the Indian nation and how this nationalism in turn shaped women’s lives. Exploration begins in the late colonial period and ends in modern India.

**Note:** Credit will be granted for only one of 304, WS 314.

**Prerequisites:** Minimum second-year standing or permission of the department.

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**GNDR 305**

Units: **1.5**

Hours: **3-0**

Formerly: **WS 315**

**Gender and International Human Rights**
An interdisciplinary examination of the ways in which international human rights theories, organizations, laws, and practice are gendered, racialized, sexualized, and class based, and their effects on freedom, equality, and dignity. Analyzes the history and development of ideas/definitions of "rights" and challenges to these definitions. Emphasizes the interconnectedness of the global and local through a multitude of topics, including culture, human security, bodily integrity, civil and political liberties, and human rights activism.

**Note:** Credit will be granted for only one of 305, WS 315, 319 if taken in the same topic.

**Prerequisites:** Minimum second-year standing or permission of the department.

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**GNDR 306**

Units: **1.5**

Hours: **3-0**

Formerly: **WS 316**

**Gender and International Development**
Examines the evolution of feminist responses to and critiques of mainstream development policies and theories of international development. Examines the tensions around development work in the Global South. Topics may include the environment and natural resources, health, education, poverty, and empowerment strategies.

**Note:** Credit will be granted for only one of 306, WS 316, 319 if taken in the same topic.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 307**

Units: 1.5

Formerly: WS 317

**Sexuality and the Body in International Development**

Examines the variety of ways that bodies are positioned in international development discourse and policy. Topics include HIV/AIDS, reproductive rights, maternal health, disabled bodies, violated bodies, sexualities, techno-bodies and care labour.

**Notes:**
- 305 and/or 306 are recommended prior to taking this course.
- Credit will be granted for only one of 307, WS 317.
- Prerequisites: Minimum second-year standing or permission of the department.

**GNDR 319**

Units: 1.5

Formerly: WS 319

**Topics in Economies, States and Global Issues**

Variable content course on aspects of economies, states and global issues as they pertain to gendered lives.

**Notes:**
- May be taken more than once for credit in different topics with permission of the department.
- Credit will be granted for only one of 319, WS 319 if taken in the same topic.

**Prerequisites:** Minimum second-year standing or permission of the department.

**Power, Identities and Difference**

**GNDR 320**

Units: 1.5

Formerly: WS 321A

**Queer Desire**

Explores Queer theory. Highlights the philosophical arguments, debates and shifting knowledges generated out of Queer theory’s critique of the Western production of heterosexuality—the assumed stability of sex, gender and sexuality—and Queer theory’s critique of identity politics.

**Note:** Credit will be granted for only one of 320, WS 321A.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 321**

Units: 1.5

Formerly: WS 323A

**The Medicalization of Sex**

Traces the scientific construction of sexuality from the 19th century to the present. Examines how medicine, psychiatry, surgery and, more recently, drug companies have constructed popular definitions of sexual normalcy and deviance, function and dysfunction. Highlights the power of science and medicine to define, judge, regulate, and discipline sex and considers the transformative possibilities afforded by new technologies.

**Note:** Credit will be granted for only one of 321, WS 323A.

**Prerequisites:** Minimum second-year standing or permission of the department.
GNDR 322  Units: 1.5  Hours: 3-0
Formerly: WS 324A
Girl Power and Feminisms
What is at stake in girl power? Examines girl power in film, music, video, the internet, fiction, spoken word poetry, magazines and everyday popular culture. Explores diverse girl cultures as a source for new feminisms and activisms, girl power as resistance and regulation and the construction of girl subjectivities through girl power.
Note: Credit will be granted for only one of 322, WS 324A.
Prerequisites: Minimum second-year standing or permission of the department.

GNDR 323  Units: 1.5  Hours: 3-0
Formerly: WS 325
Women in Contemporary India
Looks at the unique cultural/social/historical issues defining the position of women in India. Such issues include competing notions of feminism, the shape and influence of the Indian women’s movement, the role of class and caste in women’s lives, and most recently, the impact of globalization. Cultural critique of the manner in which Indian women have been studied and represented in the West will form the context of our examination.
Note: Credit will be granted for only one of 323, WS 325.
Prerequisites: Minimum second-year standing or permission of the department.

GNDR 324  Units: 1.5  Hours: 3-0
Formerly: WS 326
Gender, Nation and War
Examines how the social construction of gender has influenced ideas of nation. Focuses on two main issues. One, the relations between culturally endorsed concepts of masculinity and femininity, nation, and female participation in nationalist politics. Two, the manner in which the link between gender and nation has, in certain contexts, supported war and warriorhood.
Note: Credit will be granted for only one of 324, WS 326.
Prerequisites: Minimum second-year standing or permission of the department.

GNDR 325  Units: 1.5  Hours: 3-0
Formerly: WS 327A
North American Asian Feminist Thought and Action
Introduces emerging thought and practice in North American Asian Feminisms through texts, cultural products and community engagement.
Note: Credit will be granted for only one of 325, WS 327A, 339 (if taken in the same topic).
Prerequisite: Minimum second-year standing or permission of the department.

GNDR 329  Units: 1.5  Hours: 3-0
Formerly: WS 329
Topics in Power, Identities and Difference
Variable content course on aspects of power, identities and differences as they pertain to gendered lives.
Notes: - May be taken more than once for credit in different topics with permission of the department.
- Credit will be granted for only one of 329, WS 329 (if taken in the same topic).
Prerequisite: Minimum second-year standing or permission of the department.

**Feminist Theories and Activism**

**GNDR 330**
Units: 1.5  
Hours: 3-0  
Formerly: WS 331A , 204

**Feminist Thought, Past and Present**
Introduces feminist theory. Highlights predominant historical and philosophical influences on and debates within Western feminism from the mid-20th century to the contemporary.

**Note:** Credit will be granted for only one of 303, WS 331A, 204.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 331**
Units: 1.5  
Hours: 3-0  
Formerly: WS 333A

**Queering the Undead**
Introduces the concept of “queer” by exposing the similarities between Hollywood monsters and marginalized genders, sexes, sexualities and races. Focuses on the term “queer” as both activist and theoretical, and the production of zombies, werewolves, vampires and cyborgs as both constructive and problematic to queer concerns.

**Note:** Credit will be granted for only one of 331, WS 333A, 219 (if taken in the same topic).

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 332**
Units: 1.5  
Hours: 3-0  
Formerly: WS 334

**What’s Race Got to Do With It?**
An exploration of feminist and non-feminist theories of race, racism and racialization in relation to other sources of structured social inequality. Approaches will include political, economic, cultural and psychoanalytic theories.

**Notes:** - Credit will be granted for only one of 332, WS 334.  
- Recommended preparation for 333, Anti-Racist Feminisms and Democratic Futures.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 333**
Units: 1.5  
Hours: 3-0  
Formerly: WS 336, 331

**Anti-Racist Feminisms and Democratic Futures**
Introduces students to emerging debates in the growing literature on anti-racist feminism. Examines key assumptions underlying feminism and feminist anti-racist discourses. Analyzes western feminism as theory and practice by situating it within a global and historical context. Beginning with an analysis of whiteness, binarisms, colonialisms and orientalisms, challenges students to consider the theory and practice needed for a feminist, anti-racist reimagining of democracy and democratic futures.

**Note:** Credit will be granted for only one of 333, WS 336, 331.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 334**
Units: 1.5  
Hours: 3-0  
Formerly: WS 337

**Bodies Out of Bounds**
Critiques productions of the ‘normal’ body by introducing and critically analyzing bodies that defy, resist, challenge and, in the process, expose the ‘normal’ body as myth. Explores the disruptive potential of diverse bodies and various bodily practices.

**Note:** Credit will be granted for only one of 334, WS 337.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 335**

Units: 1.5  
Hours: 3-0  
Formerly: WS 338

**Border Crossing, Migration and Gender**

Examines the emerging field of transnational feminist thought by introducing students to feminist approaches to understanding globalization. Uses an interdisciplinary approach to explore: global/local interactions, place and mobility, women's activism and organizing, nationalisms and citizenship, diasporic subjects, transnational and postmodern cultural formations, and transnational political economies and globalization.

**Note:** Credit will be granted for only one of 335, WS 338.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 339**

Units: 1.5  
Hours: 3-0  
Formerly: WS 339

**Topics in Feminist Theories and Activism**

Variable content course on aspects of feminist theories and activism as they pertain to gendered lives.

**Notes:**  
- May be taken more than once for credit in different topics with permission of the department.  
- Credit will be granted for only one of 339, WS 339 (if taken in the same topic).

**Prerequisite:** Minimum second-year standing or permission of the department.

**Film, Literature and Cultural Production**

**GNDR 340**

Units: 1.5  
Hours: 3-0  
Formerly: WS 340

**Indigenous Cinema Decolonizing the Screen**

Intensive analysis of the work of Indigenous filmmakers with emphasis on Canada and the US. Topics include: de-colonizing the screen; identity, community and representation; the ethics or image-making; Indigenous women's filmmaking; Indigenous filmmaking as both an art form and a tool for social change. Examines the development of Indigenous cinema in Canada with special emphasis on documentaries, and looks at new directions in Indigenous cinema including experimental works and drama.

**Note:** Credit will be granted for only one of 340, WS 340.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 341**

Units: 1.5  
Hours: 3-0  
Formerly: WS 341

**Indigenous Women’s Autobiographies**

Explores Indigenous women's auto/biography as a creative form of expression that draws upon both the Indigenous oral tradition and the written tradition of Euro-American autobiography. Looks at a range of Indigenous women's autobiographical texts created under a variety of circumstances, from life histories narrated by Indigenous women and 'mediated' by non-Native
recorder-editors, to contemporary texts written by Native women themselves that challenge the boundaries of conventional autobiography.

**Note:** Credit will be granted for only one of 341, WS 341.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 342**
Formerly: WS 345

**Queer Literature**
Explores “queer” representation in non/fiction. Particular attention paid to characters that embody marginalized genders, sexes and sexual practices.

**Note:** Credit will be granted for only one of 342, WS 345.

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 343**
Formerly: WS 346

**Indigenous Women Writing Resistance**
Examines the work of North American Indigenous women “word warriors” through a selection of novels, poetry, plays and spoken word. Explores the ways in which Indigenous women writing resistance have “reinvented the enemy’s language” and used writing to resist the colonial project, reclaim and rewrite their histories, and re-imagine themselves and their futures.

**Note:** Credit will be granted for only one of 343, WS 346, 349 (if taken in the same topic).

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 344**
Formerly: WS 347

**Queer Film**
Surveys ‘queer’ representation in popular film. Particular attention is paid to critical analyses of gay, lesbian, straight, queer, transgender and transsexual embodiment on the screen.

**Note:** Credit will be granted for only one of 344, WS 347, 219 (if taken in the same topic).

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 349**
Formerly: WS 349

**Topics in Film, Literature and Cultural Production**
Variable content course on aspects of film, literature and cultural production as they pertain to gendered lives.

**Notes:**
- May be taken more than once for credit in different topics with permission of the department.
- Credit will be granted for only one of 349, WS 349 (if taken in the same topic).

**Prerequisites:** Minimum second-year standing or permission of the department.

**GNDR 400A**
Formerly: WS 400A

**Critical Research Practices**
Study and practice of critical research methods.

**Note:** Credit will be granted for only one of 400A, WS 400A.

**Prerequisites:**
- 3.0 units of 200-level GNDR/WS; and
- 4.5 units of 300- or 400-level GNDR/WS; or
- permission of the department.

**GNDR 400B**

Units: 1.5  
Hours: 3-0

Formerly: WS 400B

**Research Seminar for Independent Project**

Building on project begun in 400A, students meet weekly to discuss research challenges.

**Notes:**
- Credit will be granted for only one of 400B, WS 400B.
- Open to Gender Studies Major students only.

**Prerequisites:** 400A.

**GNDR 450**

Units: 1.5  
Hours: 3-0

Formerly: WS 450

**Practising Feminism in the Field**

The application of feminist theory to field-based practice acquired through placement with an organization, community group or service. Please refer to the “Regulations Concerning Practica”.

**Notes:**
- Credit will be granted for only one of 450, WS 450.
- Open only to Gender Studies Major or Honours students. Admission by permission of the department. Students must notify the department by April 30 in the previous academic year of their intention to register.

**Prerequisites:**
- 3.0 units of 200-level GNDR/WS; and
- 4.5 units of 300- or 400-level GNDR/WS; or
- permission of the department.

**GNDR 480**

Units: 1.5  
Hours: 3-0

Formerly: WS 480

**Advanced Seminar in Gender Studies**

Selected aspects of Gender Studies

**Notes:**
- Credit will be granted for only one of 480, WS 480 (if taken in the same topic).
- May be taken more than once for credit in different topics with permission of the department.

**Prerequisites:**
- 3.0 units of 200-level GNDR/WS; and
- 4.5 units of 300- or 400-level GNDR/WS; or
- permission of the department.

**GNDR 490**

Units: 1.5  
Hours: 3-0

Formerly: WS 490

**Directed Studies**

Supervised study in an area of Gender Studies to be determined by the student and the instructor.

**Note:** Open only to Gender Studies Honours or Major students with a minimum GPA of 6.0 in upper-level GNDR/WS courses.

**Prerequisites:**
- 3.0 units of 200-level GNDR/WS; and
- 6 units of 300- or 400-level GNDR/WS; or
- permission of the department.

GNDR 499  
Units: 3.0  
Hours: 3-0  
Formerly: WS 499  

**Honours Graduating Essay**  
During the final year of the Honours Program, students will write a graduating essay of approximately 15,000 words under the direction of a member of the Gender Studies Department. Between September and April students are required to meet periodically as a group to discuss research challenges.  
**Note:** Students must have their topic approved by the thesis adviser by June 30 prior to the fall term of their 499 registration. See regulations for acceptance into the Gender Studies Honours Program.
# Appendix 2

Gender Studies consultation re: department name change. Email messages sent April and May 2015.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Position</th>
<th>Name</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advising</td>
<td>Associate Dean</td>
<td>Cindy Holder</td>
<td><a href="mailto:adminadv@uvic.ca">adminadv@uvic.ca</a></td>
</tr>
<tr>
<td>Anthropology</td>
<td>Chair</td>
<td>Ann Stahl</td>
<td><a href="mailto:anthone@uvic.ca">anthone@uvic.ca</a></td>
</tr>
<tr>
<td>Art History &amp; Visual Studies</td>
<td>Acting Chair</td>
<td>Erin Campbell</td>
<td><a href="mailto:erinjc@uvic.ca">erinjc@uvic.ca</a></td>
</tr>
<tr>
<td>Biology</td>
<td>Chair</td>
<td>Kerry Delaney</td>
<td><a href="mailto:biochair@uvic.ca">biochair@uvic.ca</a></td>
</tr>
<tr>
<td>Continuing Studies Intercultural Education</td>
<td>Program Coordinator</td>
<td>Miranda Angus</td>
<td><a href="mailto:mangus@uvic.ca">mangus@uvic.ca</a></td>
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<tr>
<td>Diploma Program</td>
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<tr>
<td>Co-op (HUMS, FINA, Prof Writing)</td>
<td>Executive Director</td>
<td>Norah McCrae</td>
<td><a href="mailto:nmccrae@uvic.ca">nmccrae@uvic.ca</a></td>
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<tr>
<td>Curriculum &amp; Instruction</td>
<td>Chair</td>
<td>Leslee Francis-Pelton</td>
<td><a href="mailto:cichair@uvic.ca">cichair@uvic.ca</a></td>
</tr>
<tr>
<td>Development</td>
<td>Development Officer</td>
<td>Katherine Blake</td>
<td><a href="mailto:kablake@uvic.ca">kablake@uvic.ca</a></td>
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<td>Economics</td>
<td>Chair</td>
<td>David Scoones</td>
<td><a href="mailto:econchr@uvic.ca">econchr@uvic.ca</a></td>
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<td>Educational Psychology &amp; Leadership</td>
<td>Chair</td>
<td>John O. Anderson</td>
<td><a href="mailto:epilschr@uvic.ca">epilschr@uvic.ca</a></td>
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<td>English</td>
<td>Chair</td>
<td>Iain Higgins</td>
<td><a href="mailto:englchr@uvic.ca">englchr@uvic.ca</a></td>
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<tr>
<td>Faculty of Education</td>
<td>Dean</td>
<td>Ralf St. Clair</td>
<td><a href="mailto:educdean@uvic.ca">educdean@uvic.ca</a></td>
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<td>Faculty of Fine Arts</td>
<td>Acting Dean</td>
<td>Lynne Van Luven</td>
<td><a href="mailto:finedean@uvic.ca">finedean@uvic.ca</a></td>
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<td>Faculty of Humanities</td>
<td>Dean</td>
<td>John Archibald</td>
<td><a href="mailto:deanhums@uvic.ca">deanhums@uvic.ca</a></td>
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<td>Faculty of Law</td>
<td>Dean</td>
<td>Jeremy Webber</td>
<td><a href="mailto:lawdean@uvic.ca">lawdean@uvic.ca</a></td>
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<td>Faculty of Science</td>
<td>Dean</td>
<td>Robert Lipson</td>
<td><a href="mailto:sciedean@uvic.ca">sciedean@uvic.ca</a></td>
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<td>Faculty of Social Sciences</td>
<td>Dean</td>
<td>Catherine Krull</td>
<td><a href="mailto:soscdean@uvic.ca">soscdean@uvic.ca</a></td>
</tr>
<tr>
<td>Film Studies</td>
<td>Coordinator</td>
<td>Lianne McLarty</td>
<td><a href="mailto:lmclarty@uvic.ca">lmclarty@uvic.ca</a></td>
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<td>French</td>
<td>Chair</td>
<td>Marc Lapprand</td>
<td><a href="mailto:lapprand@uvic.ca">lapprand@uvic.ca</a></td>
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<td>Germanic &amp; Slavic Studies</td>
<td>Chair</td>
<td>Helga Thorson</td>
<td><a href="mailto:helgat@uvic.ca">helgat@uvic.ca</a></td>
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<td>Graduate Studies</td>
<td>Dean</td>
<td>David Capson</td>
<td><a href="mailto:graddean@uvic.ca">graddean@uvic.ca</a></td>
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<td>Greek &amp; Roman Studies</td>
<td>Chair</td>
<td>Brendan Burke</td>
<td><a href="mailto:bburke@uvic.ca">bburke@uvic.ca</a></td>
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<td>Hispanic &amp; Italian Studies</td>
<td>Acting Chair</td>
<td>Beatriz de Alba-Koch</td>
<td><a href="mailto:albakoch@uvic.ca">albakoch@uvic.ca</a></td>
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<td>History</td>
<td>Chair</td>
<td>Jason Colby</td>
<td><a href="mailto:jcolby@uvic.ca">jcolby@uvic.ca</a></td>
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<td>Human &amp; Social Development</td>
<td>Dean</td>
<td>Mary Ellen Purkis</td>
<td><a href="mailto:hsdean@uvic.ca">hsdean@uvic.ca</a></td>
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<td>Humanities Computing &amp; Media Centre</td>
<td>Research &amp; Development</td>
<td>Stewart Arneil</td>
<td><a href="mailto:sarneil@uvic.ca">sarneil@uvic.ca</a></td>
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<td>Indigenous Studies</td>
<td>Program Coordinator</td>
<td>Rob Hancock</td>
<td><a href="mailto:rola@uvic.ca">rola@uvic.ca</a></td>
</tr>
<tr>
<td>Latin American Studies</td>
<td>Director</td>
<td>Beatriz de Alba-Koch</td>
<td><a href="mailto:latam@uvic.ca">latam@uvic.ca</a></td>
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<td>Library</td>
<td>WS Librarian</td>
<td>Caron Rollins</td>
<td><a href="mailto:crollins@uvic.ca">crollins@uvic.ca</a></td>
</tr>
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<td>Linguistics</td>
<td>Chair</td>
<td>Hossein Nassaji</td>
<td><a href="mailto:nassaji@uvic.ca">nassaji@uvic.ca</a></td>
</tr>
<tr>
<td>Medieval Studies</td>
<td>Director</td>
<td>Helene Cazes</td>
<td><a href="mailto:hecedes@uvic.ca">hecedes@uvic.ca</a></td>
</tr>
<tr>
<td>Office of the Registrar</td>
<td>Registrar</td>
<td>Lauren Charlton</td>
<td><a href="mailto:ljc@uvic.ca">ljc@uvic.ca</a></td>
</tr>
<tr>
<td>Pacific &amp; Asian Studies</td>
<td>Chair</td>
<td>R. Christopher Morgan</td>
<td><a href="mailto:rcmorgan@uvic.ca">rcmorgan@uvic.ca</a></td>
</tr>
<tr>
<td>Philosophy</td>
<td>Chair</td>
<td>Colin Macleod</td>
<td><a href="mailto:philchr@uvic.ca">philchr@uvic.ca</a></td>
</tr>
<tr>
<td>Political Science</td>
<td>Chair</td>
<td>Avigail Eisenberg</td>
<td><a href="mailto:chairpol@uvic.ca">chairpol@uvic.ca</a></td>
</tr>
<tr>
<td>Religious Studies</td>
<td>Director</td>
<td>Martin Adam</td>
<td><a href="mailto:mtadam@uvic.ca">mtadam@uvic.ca</a></td>
</tr>
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<td>School of Child &amp; Youth Care</td>
<td>Director</td>
<td>Jennifer White</td>
<td><a href="mailto:scycdir@uvic.ca">scycdir@uvic.ca</a></td>
</tr>
<tr>
<td>School of Nursing</td>
<td>Director</td>
<td>Noreen Frisch</td>
<td><a href="mailto:nfrisch@uvic.ca">nfrisch@uvic.ca</a></td>
</tr>
<tr>
<td>School of Social Work</td>
<td>Director</td>
<td>Jacquie Green</td>
<td><a href="mailto:swdirect@uvic.ca">swdirect@uvic.ca</a></td>
</tr>
<tr>
<td>Social Justice Studies</td>
<td>Director</td>
<td>Margo Matwychuk</td>
<td><a href="mailto:mmatwych@uvic.ca">mmatwych@uvic.ca</a></td>
</tr>
<tr>
<td>Sociology</td>
<td>Chair</td>
<td>Sean Hier</td>
<td><a href="mailto:shier@uvic.ca">shier@uvic.ca</a></td>
</tr>
<tr>
<td>Sociology, Transgender Archives</td>
<td>Professor</td>
<td>Aaron Devor</td>
<td><a href="mailto:ahdevor@uvic.ca">ahdevor@uvic.ca</a></td>
</tr>
<tr>
<td>Student Affairs</td>
<td>Associate V-P</td>
<td>Jim Dunsdon</td>
<td><a href="mailto:avpsa@uvic.ca">avpsa@uvic.ca</a></td>
</tr>
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<td>Student Awards &amp; Financial Aid</td>
<td>Director</td>
<td>Lori Nolt</td>
<td><a href="mailto:lnolt@uvic.ca">lnolt@uvic.ca</a></td>
</tr>
<tr>
<td>Technology and Society Minor</td>
<td>Director</td>
<td>David Leach</td>
<td><a href="mailto:dleach@uvic.ca">dleach@uvic.ca</a></td>
</tr>
<tr>
<td>V-P Academic</td>
<td>V-P Academic &amp; Provost</td>
<td>Valerie Kuehne</td>
<td><a href="mailto:provost@uvic.ca">provost@uvic.ca</a></td>
</tr>
<tr>
<td>V-P Academic</td>
<td>AVP Academic Planning</td>
<td>Katie Mateer</td>
<td><a href="mailto:avmateer@uvic.ca">avmateer@uvic.ca</a></td>
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</table>
Hi Katy,

I have attached the Department of Women’s Studies name change to Department of Gender Studies Proposal to this email for your review and comment. As you can tell, the name change does not initiate any change in the substance, focus, or direction of the program. Our first stop is the Faculty of Humanities Faculty Council meeting on Tuesday. I have also circulated this document widely to Deans and Chairs (any unit that has any courses with gender in the title) to see if there are any concerns about this move. I have also done some external consultations but since we are one of the last departments in Canada to change their name, I did not feel it necessary to consult all of my colleagues across Canada (this is rationalized in the document).

I will let you know what happens at the Humanities meeting on Tuesday and then we can perhaps discuss next steps.

All the best,

Annalee
Annalee,
Thanks for letting me know about this name-change proposal.

While it is true that there is currently no grad program, perhaps a proposal for one will come forward at some point. Having a widely recognized, discipline-appropriate name for the department could be a factor in the setting of context for an innovative new grad program.

I support the proposal to change the name and extend best wishes for success.

Sincerely,
David
David W. Capson, Ph.D., P.Eng.
Dean, Faculty of Graduate Studies
Hi John,

Just in case you are bored and looking for something to read on this beautiful Saturday afternoon I am forwarding the Department of Women’s Studies name change to Department of Gender Studies proposal to you that will be discussed and voted on at Tuesday’s Faculty of Humanities meeting. As indicated in the proposal, it does not initiate any change in the substance, focus, or direction of the current program. I am circulating it among all the Humanities chairs as well as other Deans and units across campus. It will also be posted on the Sharepoint site by Amelia on Monday for wider reading.

All the best!
Annalee

-- Dr. John Archibald
Dean, Faculty of Humanities

Hi colleagues,

In case you are bored and need something to read on this beautiful Saturday afternoon, I am forwarding the Department of Women’s Studies name change to Department of Gender Studies proposal to you. This proposed name change is on the agenda of the Humanities Faculty Council meeting on Tuesday. It will also be posted on the Faculty of Humanities sharepoint site on Monday.
Expressions of support are always welcome. At the same time, if there are concerns about this move, please let me know. As indicated in the document, the name change does not initiate any change in the substance, focus, or direction of the current program; rather it seeks to make visible and clarify what we do in the areas of scholarship, research, and teaching.

All the best!

Annalee

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From: Helene Cazes  
Sent: April-18-15 7:09 PM  
To: Annalee Lepp  
Subject: Re: Department of Women's Studies Name Change to Department of Gender Studies Proposal

Thank you dear Annalee. I find the name change appropriate and meaningful.

Hélène Cazes
University of Victoria
Professor, French Department
Director, Program of Medieval Studies
Coordinator, Humanities Diploma Program

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From: Colin Macleod  
Sent: April-19-15 3:27 PM  
To: Annalee Lepp  
Subject: Re: Department of Women's Studies Name Change to Department of Gender Studies Proposal

Dear Annalee,

I support changing the name of your department to Gender Studies. I won’t be at the meeting to express my support personally but feel free, if need be, to indicate that the Chair of Philosophy supports the change.

Best  
C  
Colin Macleod  
Associate Editor, Canadian Journal of Philosophy  
Associate Professor of Philosophy & Law

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UNIVERSITY OF VICTORIA  
Office of the Dean  

MINUTES  

A regular meeting of the Faculty of Humanities was held on  
TUESDAY, April 21, 2015  
at 2:30 p.m. in CLE A212

1. APPROVAL OF AGENDA  
CARRIED

2. APPROVAL OF MINUTES – March 24, 2015  
MOTION (Eric Sager, Marc Lapprand): “That the minutes of the March 24, 2015 be approved.”  
CARRIED

3. BUSINESS ARISING FROM THE MINUTES  
None

4. DEAN’S REMARKS  
The Dean thanked student representatives for their participation in the faculty meetings for the year.

Committee appointments for 2015-16 were announced. The full list is available on the Administrative Resources SharePoint. The Dean thanked Andrea McKenzie for filling the vacant positions and for her contributions as Chair of Committee on Committees.

5. ASSOCIATE DEAN’S REMARKS  
None

6. WOMEN’S STUDIES NAME CHANGE (Annalee Lepp, Women’s Studies)  
MOTION (Annalee Lepp, Sara Beam): “That the Faculty of Humanities support the Department of Women’s Studies name change to Gender Studies and forward the proposed name change to the Senate Committee on Planning and then to Senate for its approval.”  
CARRIED

Annalee Lepp spoke about the proposal to change Women’s Studies to Gender Studies. She indicated that no objections have been raised to the proposed name change and that the change won’t cause any changes in the program or course name changes. The name change accurately reflects what the department is doing in terms of teaching, and it is also consistent with other similar national programs. Faculty members were supportive of the name change.
Hi Lauren,

As you have probably heard through the grapevine (or maybe not), the Department of Women’s Studies is in the process of changing its name to the Department of Gender Studies. The name change was approved by the Humanities Faculty Council this week. The proposal will then move to the Senate Committee on Planning in September and to Senate in October. I then plan on submitting the curriculum change in November (Cycle 2) so that, if all goes well, the new name and course code/numbers are in the calendar as of September 2016.

I have been consulting widely across campus and the Dean of Humanities suggested that I contact you as well to ensure that the course code (GNDR) and the course numbers we are proposing do not pose a problem from the Registrar’s perspective. I have attached the name change proposal and you will see the new course code and numbering sequence of courses on pages 11-21.

If you could let me know if there are any problems once you have had a chance to review, that would be terrific. If I should be sending this document to someone else in the Registrar’s office, just let me know and I will forward it on.

All the best!
Annalee

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Hello Annalee,

Thank you very much for the update. This is an exciting change. I have confirmed that the course abbreviation of GNDR is available for your use.

Based on an experience last year where a department name and course title were approved by Planning, SCC and Senate and then had to be followed up with a further revision through the same governance process due to changes to program titles offered by the department; you should include in your proposal the required changes to your program offerings that appear in your departmental entry and, as well, reference that the entries in the Faculty of Humanities listings of Honours, Majors and General program offering will also require update.

It is very good to know about the planned department, course title and program changes since it the changes impact a number of items and processes including internal tables, program codes and degree audit reports, etc.

Regards,
Lauren

Lauren J. Charlton
Registrar / Office of the Registrar / Division of Student Affairs
Hi Social Sciences colleagues,

I am writing to let you know that the Department of Women’s Studies in the Faculty of Humanities is seeking to change its name to the Department of Gender Studies. As detailed in the attached proposal, this move in department and degree name does not initiate any change in the substance, focus, or direction of the current program and no existing or approved course content or titles will be altered as a result. Rather, the change to Gender Studies is designed to reflect, clarify and make visible the existing scholarship, research, teaching that is already being undertaken by faculty members in the department and practitioners in the discipline.

Our first stop in the process is the Humanities Faculty Council meeting on Tuesday; if approved, the proposal will move to the Senate Committee on Planning and ultimately to Senate. Expression of support are always welcome. However, if you have any concerns about this change after reviewing the attached document which outlines the rationale and the department’s decision making process, please let me know. Also if there are any other units in the Social Sciences that you think need to be consulted (besides Anthropology, Economics, Political Science, and Sociology), please let me know that as well. Our program assistant has scoured the calendar for any units that offer courses with gender in the title, but it is possible that key ones might have been overlooked.

All the very best!
Annalee

Hi Aaron,

I’m writing to let you know formally that the Department of Women’s Studies in the Faculty of Humanities is seeking to change its name to the Department of Gender Studies. As detailed in the attached proposal, this move in department and degree name does not initiate any change in the substance, focus, or direction of the current program and no existing or approved course content or titles will be altered as a result. Rather, the change to Gender Studies is designed to reflect, clarify and make visible the existing scholarship, research, teaching that is already being undertaken by faculty members in the department and practitioners in the discipline.

Our first stop in the process is the Humanities Faculty Council meeting on Tuesday; if approved, the proposal will move to the Senate Committee on Planning and ultimately to Senate. Expressions of support are always welcome. However, if you have any concerns about this change after reviewing the attached document which outlines the rationale and the department’s decision making process, please let me know. I have also sent this to the Dean of Social Sciences, the Department of Sociology, and other units in the faculty.

All the best!
Annalee
Hi Annalee
I read through the entire proposal and found it very thorough and persuasive. You have my support.

One thing that you didn’t address was the logo for the dept. It looks like all women to me. You might want to make some of them look more androgynous or even male. Not an objection, just a thought. I expect that your students will catch it at some point too.

Yours
Aaron
- - - - - - - - - - - - - - - -
Dear Dean Lipson and Kerry Delaney, Chair of the Department of Biology,

I am writing to let you know that the Department of Women’s Studies in the Faculty of Humanities is seeking to change its name to the Department of Gender Studies. As detailed in the attached proposal, this move in department and degree name does not initiate any change in the substance, focus, or direction of the current program and no existing or approved course content or titles will be altered as a result. Rather, the change to Gender Studies is designed to reflect, clarify and make visible the existing scholarship, research, teaching that is already being undertaken by faculty members in the department and practitioners in the discipline.

Our first stop in the process is the Humanities Faculty Council meeting on Tuesday; if approved, the proposal will move to the Senate Committee on Planning and ultimately to Senate. Expression of support are always welcome. However, if you or any of the members of the Faculty of Science or the Department of Biology have any concerns about this change after reviewing the attached document which outlines the rationale and the department’s decision making process, please let me know.

All the best!
Annalee

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From: sciedean
Sent: April-20-15 8:35 AM
To: Annalee Lepp; Biochair
Cc: sciedean
Subject: RE: Re: Department of Women's Studies Name Change to Department of Gender Studies Proposal

Dear Annalee,

I read your brief with great interest. I think you have undergone an effective consultation and your name change reflects the internal desires of your unit and is in line with the trend nationally. Of course the Faculty of Science and your unit do not intersect that much, but it is clear from your document and course descriptions that the notions of and issues related to “gender” are not simply chromosome-based. While I will let the Chair of Biology provide his own thoughts as Dean of Science I support your proposed name change without reservation.

Thank you for including Science in your consultation.
Best regards
Rob

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From: Biochair
Sent: April-18-15 8:02 PM
To: Annalee Lepp
Subject: Re: Department of Women's Studies Name Change to Department of Gender Studies Proposal

You have the support of the chair of biology for your proposed name change
Dr. Kerry Delaney, Ph.D
Chair, Department of Biology

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Hi Lynne and Erin,

I am writing to let you know that the Department of Women’s Studies in the Faculty of Humanities is seeking to change its name to the Department of Gender Studies. As detailed in the attached proposal, this move in department and degree name does not initiate any change in the substance, focus, or direction of the current program and no existing or approved course content or titles will be altered as a result. Rather, the change to Gender Studies is designed to reflect, clarify and make visible the existing scholarship, research, teaching that is already being undertaken by faculty members in the department and practitioners in the discipline.

Our first stop in the process is the Humanities Faculty Council meeting on Tuesday; if approved, the proposal will move to the Senate Committee on Planning and ultimately to Senate. Expression of support are always welcome. However, if you have any concerns about this change after reviewing the attached document which outlines the rationale and the department’s decision making process, please let me know.

All the very best!
Annalee

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From: Fine Arts Dean
Sent: April-20-15 9:51 AM
To: Annalee Lepp; Erin Campbell
Cc: Fine Associate Dean

Subject: Re: Department of Women's Studies name change to Department of Gender Studies proposal

Annalee, this sounds like a wonderful adaptation to the times in which we live. I have forwarded the document to Associate Dean Evanthia Bamboula, who will reply as Chair of the Fine Arts Curriculum Committee.

All best, Lynne

Dr. Lynne Van Luven,
Acting Dean, Faculty of Fine Arts

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From: Fine Associate Dean
Sent: April-24-15 10:46 AM
To: Annalee Lepp
Cc: Fine Arts Dean; Fine Associate Dean; Art History Chair

Subject: RE: Department of Women's Studies name change to Department of Gender Studies proposal

Dear Annalee,

Lynne van Luven asked me to provide feedback on the proposal to change the name of the department (and programs offered) of Women’s Studies to Gender Studies. Thank you for providing us with the opportunity to review this proposal. As the Dean has already communicated to you, we are happy to endorse this
change. This is an excellent opportunity to signal to the students the complexity of
gender-related issues that they undoubtedly encounter during their studies. The name change will fit well with similar trends in other institutions as you have
detailed in the proposal. We hope that the change will also open the way for a
greater collaboration between our respective programs, several of which address issues of gender in their content and pedagogy.

We wish you the best.
Eva

Dr. Evanthia Baboula
Department of Art History and Visual Studies
Associate Dean, Faculty of Fine Arts

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From: Erin

Campbell
Sent: April-24-15 3:39 PM
To: Annalee Lepp; Fine Arts Dean
Cc: Fine Associate Dean
Subject: Re: Department of Women's Studies name change to Department of Gender Studies proposal

Dear Annalee, we totally support the name change in AHVS. A very good move!
All the best, Erin

Erin J. Campbell, Associate Professor
Acting Chair & Graduate Advisor
Art History & Visual Studies
Dear Dean Webber,

I am writing to let you know that the Department of Women’s Studies in the Faculty of Humanities is seeking to change its name to the Department of Gender Studies. As detailed in the attached proposal, this move in department and degree name does not initiate any change in the substance, focus, or direction of the current program and no existing or approved course content or titles will be altered as a result. Rather, the change to Gender Studies is designed to reflect, clarify and make visible the existing scholarship, research, teaching that is already being undertaken by faculty members in the department and practitioners in the discipline.

Our first stop in the process is the Humanities Faculty Council meeting on Tuesday; if approved, the proposal will move to the Senate Committee on Planning and ultimately to Senate. Expressions of support are always welcome. However, if you or any of the members of the Faculty of Law have any concerns about this change after reviewing the attached document which outlines the rationale and the department’s decision making process, please let me know.

All the very best,

Annalee

Dr. Annalee Lepp, Ph.D.
Associate Professor and Chair
Department of Women’s Studies
Dear colleagues in the Faculty of Education,

I am writing to let you know that the Department of Women’s Studies in the Faculty of Humanities is seeking to change its name to the Department of Gender Studies. As detailed in the attached proposal, this move in department and degree name does not initiate any change in the substance, focus, or direction of the current program and no existing or approved course content or titles will be altered as a result. Rather, the change to Gender Studies is designed to reflect, clarify and make visible the existing scholarship, research, teaching that is already being undertaken by faculty members in the department and practitioners in the discipline.

Our first stop in the process is the Humanities Faculty Council meeting on Tuesday; if approved, the proposal will move to the Senate Committee on Planning and ultimately to Senate. Expression of support are always welcome. However, if you have any concerns about this change after reviewing the attached document which outlines the rationale and the department’s decision making process, please let me know.

All the very best!

Annalee

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From: Ralf St. Clair - Dean of Education
Sent: April-21-15 2:57 PM
To: Annalee Lepp
Subject: Re: Department of Women's Studies name change to Department of Gender Studies proposal

Hi Annalee,

Sorry for the delayed reply. The Faculty of Education has no concerns about the proposed change, and supports it both for its more inclusive tone and the degree to which it reflects changes in your area over the last few years.

Thank you,

Ralf
19 April 2015

Humanities Faculty Council
University of Victoria
Victoria, BC V8W 2Y2

Dear Humanities Faculty Council Members:

Re: Proposal to Change the departmental name of Women’s Studies to Gender Studies at the University of Victoria

After a complete review of the proposal document supplied by Department Chair, Dr. Annalee Lepp, I hereby extend my full support for the projected unit name change, both in my capacity as President of the Canadian national scholarly association, Women’s and Gender Studies et Recherches Féministes, and as Coordinator of the Undergraduate Program in Women’s and Gender Studies at the University of Saskatchewan.

It is clear from the documentation provided, that the consultation and revisioning process undertaken to reassess both unit name and mission has been thorough, rigorous, and well-organized. Indeed, by consulting first with students, then faculty, then national peers and finally, Faculty Council, I would argue that the process has been exemplary.

As the proposal indicates, most peer departments and programs across the country have undertaken their own processes for revising unit names. These efforts articulate dynamic developments in the discipline, signalling the breadth and scope of curricula and rendering the inclusive profile of the field more broadly visible to a wider spectrum of students and colleagues.

Having been involved in the process of changing the name of our scholarly organization in 2012, and in naming our new graduate program at the University of Saskatchewan, I can confirm that the rationale provided accurately reflects the national conversation, and was achieved through evident commitment to most promising practices in the field.

In conclusion, I trust that Faculty Council will not only approve this decision but extend warm congratulations to unit faculty for a task well-executed.

Sincerely,

Marie Lovrod, Ph.D.
President of WGSRF and Program Coordinator
At its meeting of 8 October 2015, the Senate Committee on Planning discussed and approved the request for a Certificate in General Studies. The following motion is recommended:

That Senate approve and recommend to the Board of Governors that it also approve, subject to funding, the establishment of a Certificate in General Studies, as described in the document “Proposal for a Certificate in General Studies”, dated September 22, 2015, and that this approval be withdrawn if the program should not be offered within five years of the granting of approval.

:Mom

Committee Membership:
Dr. Catherine Mateer, Chair
Ms. Lauren Charlton
Dr. Stan Dosso
Mr. Alexander Kovalchuk
Dr. Reuven Gordon
Ms. Carrie Andersen
Dr. David Castle
Dr. Maureen MacDonald
Dr. Jason Colby
Dr. Merwan Engineer
Dr. Patrick Nahirney
Ms. Jessica Gelowsky, Secretary

Dr. Valerie S. Kuehne
Dr. Sang Nam
Dr. Catherine McGregor
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Dr. Anne Bruce
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Mr. Philip Schrod
Dr. Andrea Giles
Dr. Stephen Evans
Ms. Gillian Calder
Dr. Ralf St. Clair
# Cover Page for Senate Committee on Planning

<table>
<thead>
<tr>
<th>Title of proposal:</th>
<th>Division of Continuing Studies: Certificate in General Studies</th>
</tr>
</thead>
</table>
| **Contact Name and Number:** | Nancy Moudahi  
250-893-8354  
uvcsasst@uvic.ca |
| Approved by DCS Executive Council: | September 21, 2015 |
| Pending Approval by Senate Committee on Continuing Studies: | October 7, 2015 |
| Date approved by Graduate Studies: (if applicable) | N/A |
| Date submitted: | September 22, 2015 |
PROPOSAL TO
THE UNIVERSITY OF VICTORIA

Certificate in General Studies

SEPTEMBER 22, 2015

Prepared in accordance with Policy AC1135, Policy for the Establishment of Certificate and Diploma Programs.
EXECUTIVE SUMMARY

Certificate and diploma programs within the Division of Continuing Studies at the University of Victoria are designed to meet the needs of many of our adult learners seeking professional development opportunities. However, there are those students whose professional and career goals do not match precisely with the variety of programs we currently offer. Therefore, we are proposing the introduction of a certificate program that allows students to select individual courses from a cross-section of existing certificate and diploma programs.

The proposed certificate will be offered within the Division of Continuing Studies.

PROGRAM PROPOSAL

1. PROGRAM IDENTIFICATION

1.1 Name of Program
Certificate in General Studies

1.2 Academic Units
This will be a non-credit certificate and will be offered through the Division of Continuing Studies. Academic units would be involved if some courses are offered in credit and non-credit sections. In this case, the academic leader for the credit courses is the relevant department/faculty (e.g. Fine Arts, Humanities, School of Environmental Studies, to name a few)

1.3 Anticipated Program Start Date
January, 2016

1.4 Contact Persons
Richard Rush
Director of Community & Professional Programs
Phone 250-721-8472
rushr@uvic.ca
2. HISTORY AND CONTEXT OF THE PROGRAM

This program is designed to address unique learning needs of individual or small groups of students by providing them with a framework to customize their learning program within the Division of Continuing Studies. While the certificate programs, as presently constituted, provide an opportunity for structured learning within a variety of subject areas, there is virtually no ability to recognize learning that crosses disciplines. Furthermore, there are students whose professional and career goals do not match precisely with the programs we currently offer. The proposed program would provide a University of Victoria non-credit certificate to students completing between a minimum of 10.5 units and a maximum of 15 units (University Policy AC1135 Policy for the Establishment of Certificate and Diploma Programs).

The proposed certificate program is modelled after a similar program at the University of Manitoba (Certificate in Interdisciplinary Studies) which was based on a program offered by San Jose State University. Over and above the value to individual students to direct their own learning, the format enabled the unit to identify new certificates to be offered and to generate inquiries that could be directed to other programs.

The distinct format of placing the broad learning objectives in the hands of the learner provides greater flexibility and can enhance access to the courses offered by the Division. In most programs, the Division determines the set of courses (both required and electives) that are needed to meet the specific program objectives. In this program, the students identify their learning objectives so should be able to determine, in consultation with program staff, the courses that will enable them to meet their objectives. The framework would allow students to select courses from a variety of disciplines in order to update competencies, learn new skills, explore new career fields or add to professional expertise. The formal program would be documented through a learning contract prepared by the student and approved by the Division prior to entering the program.

Those students who complete all program requirements would be awarded a University of Victoria Certificate in General Studies.

3. AIMS, GOALS AND OBJECTIVES

The objective of the Certificate in General Studies is to provide students with a framework to pursue interdisciplinary studies within the Division of Continuing Studies. It is intended to provide substantial flexibility and maximum control to the student in designing the learning objectives and the course of study.

A secondary objective is to provide an opportunity for those students who are unable or unwilling to complete a certificate because they have had a change in job duties or interests, to receive some credit
for what they have already completed while supplementing it with new learning. The Certificate in General Studies is not intended to duplicate or modify existing certificates or provide an avenue for students to avoid undesirable courses in existing certificate programs.

A third objective is for the program to provide a vehicle for assessing demand in new and emerging areas. The manner in which students choose to “package” their courses can provide an indication of programs the Division might start to develop in the future.

3.1 Anticipated Contribution to University of Victoria Strategic Plans

The proposed certificate program aligns well with the objectives articulated in the UVic Strategic Plan. Of particular note is objective 24 and some of the key strategies identified within that objective.

**Objective 24:** To support lifelong learning by increasing continuing education opportunities for on-campus and online adult and part-time learners.

Key strategies:
24a) develop and deliver programming in diverse disciplines to support the personal and professional development needs of individuals and communities in the region and, in areas of unique strength, address national and international continuing education needs.
24b) develop expanded opportunities to deliver new and existing academic programs for lifelong learners.

3.2 Target audience, student and labour market demand:

The intended audience for the Certificate in General Studies is a similar demographic to the students registered in other Division programs (majority are female, based in BC, approximately 33% have bachelor’s degrees, 19% have Master’s degrees, majority are employed full time – DCS Student Survey 2010). It is designed for students with clear, albeit interdisciplinary interests.

Career focused learners within the Division are seeking career advancement or an enhancement to existing job skills. Given the mobility of today’s workforce, a program that a student starts may not be relevant to their work demands if they change jobs or employers during the course of the certificate or diploma. A Certificate in General Studies can respond to this situation by enabling students to redirect their learning objectives in a manner that befits their circumstances.

4. ADMISSION REQUIREMENTS AND PROCEDURES

This program will be open to any student who can demonstrate admissibility to Division non-credit programs. Graduation from secondary school is normally required. Mature applicants who do not meet this requirement may be considered on the basis of previous academic or work experience. Students would be required to meet pre-requisites for any courses that they wish to include in their program of study.
5. FACULTY COMPLEMENT AND ADVISORY SUPPORTS

Division programs are taught by sessional instructors, often with industry experience and/or UVic faculty. No additional instructors would be required for this program as it relies entirely on existing courses.

A Program Coordinator would be assigned to this program (in the same manner all existing programs have the oversight of a Program Coordinator) to provide guidance to students in the program and to work with them to identify appropriate courses to meet their learning objectives.

As with other Division programs, an Advisory Committee will be created – typically including members that represent former/current Division students, instructors, academic partners and Division staff. This committee would meet 1-2 times annually or as required to provide oversight to the delivery of the program.

6. CURRICULUM DESIGN

Pursuant to Policy AC1135, Policy for the Establishment of Certificate and Diploma Programs
A certificate program must have a minimum of 10.5 units and a maximum of 15 units of instruction. This typically equates to a minimum of 7 courses and a maximum of 10 courses. As noted previously, the program allows each student to select the content of their program based on one or more program objectives. Students identify their learning objectives and, in consultation with program staff, determine the courses that will enable them to meet their objectives. This framework would enable students to select courses from a variety of disciplines in order to update competencies, learn new skills or add to their professional expertise.

The listing of eligible courses in attached in Appendix 1. All of these courses would be taken as non-credit courses and all currently exist within a credential already approved by the University of Victoria Senate and Board of Governors.

6.1 Delivery methods:

Course are available either through in-class or online education format, depending on which courses the student elects to take.

6.2 Policies on student evaluation:

As is the case with existing certificates and diplomas in the Division, students will be evaluated through a mix of assignments and participatory activities that support their mastery of course content. All evaluation activities, grading, and academic performance expectations will be consistent with the policies and standards for evaluation of student course work within the Division and/or the relevant department. Students will be expected to fully participate in course offerings, behave and work to
professional standards, and engage with and submit assignments in timely ways.

7. **ENROLMENT PLAN**

It is expected that there would be 10-15 students seeking to enroll in this certificate on an annual basis.

In the first year we would also approach students who had not completed their other certificates to determine if this more customized certificate could entice them back to complete a credential.

8. **PROGRAM EVALUATION**

The effectiveness of individual courses within the Certificate in General Studies program will be gauged by student performance in course assignments and other activities, and by evaluations of student experience as documented in the Course Experience Survey. The outcomes of these forms of evaluation will be reviewed by the program steering committee and will inform subsequent course design and delivery.

9. **RELATED PROGRAMS AT UVIC OR IN BRITISH COLUMBIA INSTITUTIONS**

Thompson Rivers University (TRU) – Open Learning offers a certificate, diploma and degree in General Studies. The certificate accepts an array of college and/or university courses for credit but requires that at least 6 credits of 30 must be obtained through TRU for the certificate. (9 of 60 for the diploma and 15 of 120 for the degree).
APPENDICES

1. Eligible Courses
2. Draft Learning Contract
3. Recruitment and marketing plan
4. Viability Index
### APPENDIX A – ELIGIBLE COURSES

#### Certificate in General Studies

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Certificate/Diploma</th>
<th># of Units</th>
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<td>Introduction to Canadian Culture</td>
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<td>Introduction to Canadian Contemporary Issues</td>
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(*With Instructor Approval*)
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</tr>
<tr>
<td>BMBA450</td>
<td>Social Marketing and E-Commerce</td>
<td>Certificate or Diploma in Business Administration</td>
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<tr>
<td>BMBA410</td>
<td>Strategic Leadership</td>
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<tr>
<td>BMBA440</td>
<td>Strategic Management</td>
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</tr>
<tr>
<td>BMBA460</td>
<td>Strategy Execution</td>
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<tr>
<td>TECJ100</td>
<td>Computing Concepts</td>
<td>Computer Based Information Systems</td>
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<tr>
<td>TECJ432</td>
<td>Database Concepts</td>
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<td>TECJ420</td>
<td>Networks and Network Management</td>
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<td>1.5</td>
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<tr>
<td>TECJ401</td>
<td>System Analysis and Design</td>
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<tr>
<td>TECJ402</td>
<td>Human Side of Information Systems</td>
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<td>1.5</td>
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<tr>
<td>TECJ425</td>
<td>IT Security</td>
<td>Computer Based Information Systems</td>
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<tr>
<td>TECJ230</td>
<td>Web Design and Management I</td>
<td>Computer Based Information Systems</td>
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<tr>
<td>TECJ340</td>
<td>Web Design and Management II</td>
<td>Computer Based Information Systems</td>
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<tr>
<td>TECJ315</td>
<td>Relational Database Application Systems</td>
<td>Computer Based Information Systems</td>
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<tr>
<td>TECJ320</td>
<td>Database Application Development</td>
<td>Computer Based Information Systems</td>
<td>1.5</td>
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<tr>
<td>TECJ460</td>
<td>Programming with Java</td>
<td>Computer Based Information Systems</td>
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<tr>
<td>TETS461</td>
<td>Digital Identity Management: Concepts and Technologies (.05 elective)</td>
<td>Computer Based Information Systems</td>
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<td>HPPR 401</td>
<td>Public Relations Theory and Practice</td>
<td>Public Relations Diploma</td>
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<td>HPPR 402</td>
<td>Effective Communication Tools</td>
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<td>HPPR 403</td>
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<td>HPPR 407</td>
<td>Evolution of Public Relations</td>
<td>Public Relations Diploma</td>
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<tr>
<td>HPPR 408</td>
<td>Case Studies in Public Relations</td>
<td>Public Relations Diploma</td>
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<td>HPPR 406</td>
<td>Managing the Public Relations Function</td>
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<td>HPPR 428</td>
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<td>HPPR 433</td>
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<td>Public Relations Diploma</td>
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<td>HPPR 450</td>
<td>Social Media for Public Relations</td>
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<td>HPEO401</td>
<td>Occupation and Environmental Health Law</td>
<td>Certificate in Environmental and Occupational Health</td>
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</tr>
<tr>
<td>HPEO403</td>
<td>Risk Management Perfection &amp; Communication</td>
<td>Certificate in Environmental and Occupational Health</td>
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<tr>
<td>HPEO404</td>
<td>Human Health Risk Assessment</td>
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<td>Certificate in Environmental and Occupational Health</td>
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<td>HPEO409</td>
<td>Environmental Health Economics</td>
<td>Certificate in Environmental and Occupational Health</td>
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<td>HPEO411</td>
<td>Health Protection Technology</td>
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<tr>
<td>LING 180A</td>
<td>Dynamics of Indigenous Language Shift</td>
<td>Aboriginal Language Revitalization Certificate</td>
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<tr>
<td>LING 181</td>
<td>Introductory Linguistics for Language Revitalization</td>
<td>Aboriginal Language Revitalization Certificate</td>
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<tr>
<td>LING 182</td>
<td>Language Learning, Language Revitalization and Social Action</td>
<td>Aboriginal Language Revitalization Certificate</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Certificate</td>
<td>Credit Units</td>
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<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>--------------</td>
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<tr>
<td>LING 183A</td>
<td>Field Methods for Language Preservation &amp; Revitalization: Documentation &amp; Recording</td>
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<tr>
<td>LING 183B</td>
<td>Field Methods in Language Preservation and Revitalization: Project Development</td>
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<tr>
<td>LING 159</td>
<td>LING 489 Indigenous Language Levels 1 -4</td>
<td>Aboriginal Language Revitalization Certificate</td>
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<tr>
<td>LING 179</td>
<td>48 Indigenous language Mentorship Levels 1 -4</td>
<td>Aboriginal Language Revitalization Certificate</td>
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<tr>
<td>LING 184</td>
<td>Indigenous Language Materials Development</td>
<td>Aboriginal Language Revitalization Certificate</td>
<td>1.5</td>
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<tr>
<td>LING 185</td>
<td>Indigenous Language Revitalization Practicum</td>
<td>Aboriginal Language Revitalization Certificate</td>
<td>1.5 or 3</td>
</tr>
<tr>
<td>LING 186</td>
<td>Language in Indigenous Culture</td>
<td>Aboriginal Language Revitalization Certificate</td>
<td>1.5</td>
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<tr>
<td>LING 187</td>
<td>Special Topics in Language Revitalization</td>
<td>Aboriginal Language Revitalization Certificate</td>
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<tr>
<td>LING 188</td>
<td>Language and Land</td>
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<tr>
<td>CW 100E</td>
<td>Intro to Creative Writing</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
<td>3</td>
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<tr>
<td>ART 100E</td>
<td>Studio Foundation</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
<td>1.5</td>
</tr>
<tr>
<td>ART 150E</td>
<td>Introduction to Art Theory</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
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</tr>
<tr>
<td>CW 150E</td>
<td>Writing for Children from a First Nations Perspective</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
<td>1.5</td>
</tr>
<tr>
<td>CW 155E</td>
<td>Critical Process and World View</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
<td>1.5</td>
</tr>
<tr>
<td>CW 160E</td>
<td>First nations Non Fiction</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
<td>1.5</td>
</tr>
<tr>
<td>CW 212E</td>
<td>Structure in Cinema and Television</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
<td>1.5</td>
</tr>
<tr>
<td>ART 101E</td>
<td>Drawing</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
<td>1.5</td>
</tr>
<tr>
<td>ART 211E</td>
<td>Painting</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
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</tr>
<tr>
<td>ART 221E</td>
<td>Sculpture</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
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<tr>
<td>ART 130E</td>
<td>Printmaking</td>
<td>Foundations in Indigenous Fine Arts Certificate</td>
<td>1.5</td>
</tr>
</tbody>
</table>
## DCS: Certificate in General Studies Learning Contract

**Student Name:** __________________________   **Student V#:** ________________

<table>
<thead>
<tr>
<th>What are you going to learn? (Objectives)</th>
<th>How are you going to learn it?</th>
<th>Target date for Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itemize what you want to be able to do or know when completed.</td>
<td>Courses to Take</td>
<td>When do you plan to complete each task?</td>
</tr>
</tbody>
</table>

**Notes:**
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

I have reviewed and find acceptable the above learning contract

**Student Signature:** _____________________________   **Date:** _____________________

**DCS Program Coordinator Signature:** _____________________  **Date:** ______________
APPENDIX 3 – RECRUITMENT AND MARKETING PLAN

Upon approval of the Certificate in General Studies by the Board of Governors, a web site along with print promotional materials will be released to provide prospective students with information on the program, the options available and the admissions and registration procedures. Information about the program will also be available in the Division’s Calendar (published two times per year).

As noted previously, efforts will be made to re-engage students who have failed to complete other programs in order to determine if the Certificate in General Studies would be a viable option for them.
## Summary

<table>
<thead>
<tr>
<th>Program:</th>
<th>Certificate in General Studies</th>
<th>Previous Year Course Registrations:</th>
<th>New Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inception Date:</td>
<td>Est. January 2016</td>
<td>Previous Year Overall Revenue:</td>
<td>New Program</td>
</tr>
<tr>
<td>Review Team:</td>
<td></td>
<td>Previous Year Direct Expenses:</td>
<td>New Program</td>
</tr>
<tr>
<td>Review Date:</td>
<td></td>
<td>Previous Year Overall Expenses:</td>
<td>New Program</td>
</tr>
<tr>
<td>Credit/Non Credit:</td>
<td>Non Credit</td>
<td>Previous Year Overall Net:</td>
<td>New Program</td>
</tr>
</tbody>
</table>

### Factor: Overall Rating: (Strong/Positive, Moderate, Weak/Negative, None/Unfeasible, N/A) General Positioning:

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alignment</td>
<td>Strong</td>
</tr>
<tr>
<td>2. Value to Communities</td>
<td>Moderate</td>
</tr>
<tr>
<td>3. Academic value to the Students/ Clients/Audience</td>
<td>Moderate</td>
</tr>
<tr>
<td>4. Financial</td>
<td>Moderate</td>
</tr>
<tr>
<td>5. Sustainability</td>
<td>Strong</td>
</tr>
<tr>
<td>6. Central Resource Requirements – Start-up</td>
<td>None</td>
</tr>
<tr>
<td>6. Central Resource Requirements – Maintenance</td>
<td>Moderate</td>
</tr>
<tr>
<td>7. Demands on Program Unit(s) Resources</td>
<td>Weak</td>
</tr>
<tr>
<td>8. Ongoing Program Measures</td>
<td>Moderate</td>
</tr>
<tr>
<td>Factor</td>
<td>Yes</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>1. Alignment</td>
<td>✓</td>
</tr>
<tr>
<td>a. University</td>
<td>✓</td>
</tr>
<tr>
<td>b. DCS</td>
<td>✓</td>
</tr>
<tr>
<td>c. Unit</td>
<td>✓</td>
</tr>
<tr>
<td>2. Value to Communities</td>
<td>✓</td>
</tr>
<tr>
<td>a. Does the program have as its goal the improvement of conditions in the community by, for example:</td>
<td>✓</td>
</tr>
<tr>
<td>- Providing a “train the trainer” model with information flowing back to the community;</td>
<td>✓</td>
</tr>
<tr>
<td>- addressing the needs or improving conditions of disenfranchised or underserved populations;</td>
<td>✓</td>
</tr>
<tr>
<td>- focusing on the needs of the collective as well as the individual.</td>
<td>✓</td>
</tr>
<tr>
<td>b. Has the community or community organizations expressed a need for the program (either as part of a needs analysis, survey or a direct request for programming), and is documented evidence of support such as letters of support), or documented policy or PD changes which require this program content?</td>
<td>✓</td>
</tr>
<tr>
<td>c. Does the program draw on and build upon expertise which exists in the community thereby supporting and developing community assets?</td>
<td>✓</td>
</tr>
<tr>
<td>d. Does the program offer unique content which the community wouldn’t be able to access otherwise, or is it offered in a unique format which increases accessibility?</td>
<td>✓</td>
</tr>
<tr>
<td>e. Will the program develop capacity among community organizations or service providers?</td>
<td>✓</td>
</tr>
<tr>
<td>3. Academic value to the Students/Clients/Audience</td>
<td>✓</td>
</tr>
<tr>
<td>a. Can program ladder into credit programs?</td>
<td>✓</td>
</tr>
<tr>
<td>b. Does program have content currency and relevance? e.g.</td>
<td>✓</td>
</tr>
<tr>
<td>- Is there a balance between theory and practice?</td>
<td>✓</td>
</tr>
<tr>
<td>- Can students receive PLAR credit for coursework and work-related experience they have completed outside the program?</td>
<td>✓</td>
</tr>
<tr>
<td>- Is there a credentialing or PD requirement for curriculum (industry or government mandated)?</td>
<td>✓</td>
</tr>
<tr>
<td>- Does curriculum represent advances in the field of study?</td>
<td>✓</td>
</tr>
</tbody>
</table>
### APPENDIX 5 – VIABILITY INDEX

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>c.</td>
<td>Does the program have pedagogical currency and relevance? e.g.</td>
</tr>
<tr>
<td></td>
<td>- Is the program founded upon adult learning principles?</td>
</tr>
<tr>
<td></td>
<td>- Does the program and do the courses have clear learning objectives and do the content and assignments contribute to the achievement of these objectives?</td>
</tr>
<tr>
<td></td>
<td>- Is technology used appropriate for content, instructor and student needs?</td>
</tr>
<tr>
<td>d.</td>
<td>Does the program include an advisory committee with terms of reference that reflect its degree of involvement in supporting the program?</td>
</tr>
<tr>
<td>e.</td>
<td>Is the program designed to provide students with academic or professional development? e.g.</td>
</tr>
<tr>
<td></td>
<td>- access to or connections with experts in the field</td>
</tr>
<tr>
<td></td>
<td>- practical application of subject matter which may assist with employability</td>
</tr>
<tr>
<td>f.</td>
<td>Is the program designed to provide students with an opportunity for personal (as opposed to professional) development or transformation</td>
</tr>
<tr>
<td>g.</td>
<td>Do program students have access to advising related to: e.g.</td>
</tr>
<tr>
<td></td>
<td>- Academic matters</td>
</tr>
<tr>
<td></td>
<td>- Career counselling</td>
</tr>
<tr>
<td></td>
<td>- Admissions and Funding</td>
</tr>
<tr>
<td></td>
<td>- Graduation</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4.</td>
<td>Financial</td>
</tr>
<tr>
<td>a.</td>
<td>Does the program/course contribute a positive net income (after direct and indirect expenses)</td>
</tr>
<tr>
<td>b.</td>
<td>Does the program/course recover development costs within 3 years (direct, indirect, institutional)</td>
</tr>
<tr>
<td>c.</td>
<td>Does the program/course rely on external funding to the Division</td>
</tr>
<tr>
<td></td>
<td>If yes:</td>
</tr>
<tr>
<td></td>
<td>• Is it one time support</td>
</tr>
<tr>
<td></td>
<td>• Ongoing</td>
</tr>
<tr>
<td>d.</td>
<td>Can the program sustain ongoing development (and delivery) without external funding</td>
</tr>
</tbody>
</table>

Courses cross multiple program areas – the tuition will stay with the course.
### APPENDIX 5 – VIABILITY INDEX

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>e. Does the program provide a financial benefit to another DCS</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>program/service area?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sustainability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Is the Life expectancy of the program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Less than or equal to 3 years?</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. More than 3 years?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Does the program require substantive curriculum revision more</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>frequently than every 2-3 years to maintain the program?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Is there a sufficient pool of instructors (skill set, numbers,</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>availability)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Is there an agreement with external partners that extends</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>throughout the duration of the program (contact person, financial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and/or non-financial support, written or verbal)?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Have program and student evaluations been considered and planned</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Does the program/course require space (classroom/office) not</td>
<td>✓</td>
<td></td>
<td></td>
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<tr>
<td>currently available?</td>
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<td></td>
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<tr>
<td>6. Preamble: After considering what central services will be</td>
<td>✓</td>
<td></td>
<td></td>
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<tr>
<td>required for this program development and maintenance:</td>
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<td></td>
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<tr>
<td>Is there staff capacity (person hours, skills) to support the start-up</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>phase of the program/course?</td>
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</tr>
<tr>
<td>a. Can Administrative Services support be managed within existing</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>person hours and skill sets?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Can Marketing Services support be managed within existing person</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>hours and skill sets?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Can IT Services support be managed within existing person hours and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skill sets?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Can DES support be managed within existing person hours and skill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sets?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there staff capacity (person hours, skills) for the intended</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>duration of the program/course?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Can Administrative Services support be managed within existing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>person hours and skill sets?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Can Marketing Services support be managed within existing person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hours and skill sets?</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### APPENDIX 5 – VIABILITY INDEX

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>c.</td>
<td>Can IT Services support be managed within existing person hours and skill sets?</td>
</tr>
<tr>
<td>d.</td>
<td>Can DES support be managed within existing person hours and skill sets?</td>
</tr>
<tr>
<td>7.</td>
<td>Demands on Program Unit(s) Resources</td>
</tr>
<tr>
<td>a.</td>
<td>Does the program unit have sufficient content knowledge and skills to develop and deliver this program?</td>
</tr>
<tr>
<td>b.</td>
<td>Do program staff (Director, Coordinator, Secretary) have time available for each of the following phases:</td>
</tr>
<tr>
<td>i.</td>
<td>Phase I: Planning and partnership development;</td>
</tr>
<tr>
<td>ii.</td>
<td>Phase II: Program development, including</td>
</tr>
<tr>
<td></td>
<td>a. curriculum planning/development</td>
</tr>
<tr>
<td></td>
<td>b. policies and systems development;</td>
</tr>
<tr>
<td>iii.</td>
<td>Phase III: Program/course implementation;</td>
</tr>
<tr>
<td>iv.</td>
<td>Phase IV: Ongoing administration;</td>
</tr>
<tr>
<td>v.</td>
<td>Phase V: Evaluation and redevelopment.</td>
</tr>
<tr>
<td>8.</td>
<td>Ongoing Program Measures</td>
</tr>
<tr>
<td>In considering ongoing regular evaluation of a course or program, has consideration been given to:</td>
<td></td>
</tr>
<tr>
<td>a.</td>
<td>Academic value</td>
</tr>
<tr>
<td></td>
<td>i. Student satisfaction (student evaluations)</td>
</tr>
<tr>
<td></td>
<td>ii. Impact on life/work of students</td>
</tr>
<tr>
<td>b.</td>
<td>Sustainability</td>
</tr>
<tr>
<td></td>
<td>i. Continuance or discontinuance of the course or program</td>
</tr>
<tr>
<td></td>
<td>ii. If discontinue, what is the teach-out plan</td>
</tr>
<tr>
<td>c.</td>
<td>Regular program evaluation</td>
</tr>
<tr>
<td></td>
<td>i. Annually, biannually, every five years, external or internal?</td>
</tr>
<tr>
<td></td>
<td>ii. Evaluate future market possibilities and product life cycle</td>
</tr>
<tr>
<td></td>
<td>iii. Enrollments, finances, student outcomes</td>
</tr>
<tr>
<td></td>
<td>iv. Demographic profile of student body</td>
</tr>
<tr>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Program will be reviewed after the first year to assess efficiency and effectiveness.</td>
<td></td>
</tr>
</tbody>
</table>
At its meeting of 8 October 2015, the Senate Committee on Planning discussed and approved the request for a Department of Civil Engineering, subject to inclusion of the revisions proposed by the SCP on that date. The following motion is recommended:

That Senate approve, and recommend to the Board of Governors that it also approve, subject to funding, the establishment of a Department of Civil Engineering at UVic, as described in the document “Proposal for the Establishment of a Department of Civil Engineering”, dated October 14, 2015.

:mem

Committee Membership:
Dr. Catherine Mateer, Chair
Ms. Lauren Charlton
Dr. Stan Dosso
Mr. Alexander Kovalchuk
Dr. Reuven Gordon
Ms. Carrie Andersen
Dr. David Castle
Dr. Maureen MacDonald
Dr. Jason Colby
Dr. Merwan Engineer
Dr. Patrick Nahirney
Ms. Jessica Gelowsky, Secretary

Dr. Valerie S. Kuehne
Dr. Sang Nam
Dr. Catherine McGregor
Dr. Victoria Wyatt
Dr. Anne Bruce
Dr. Ann Stahl
Mr. Philip Schrod
Dr. Andrea Giles
Dr. Stephen Evans
Ms. Gillian Calder
Dr. Ralf St. Clair
PROPOSAL FOR THE ESTABLISHMENT OF A DEPARTMENT OF CIVIL ENGINEERING

Faculty of Engineering
University of Victoria

October 14, 2015

Contact: Tom Tiedje, PhD, PEng, FRSC, FCAE
Dean of Engineering
engrdean@uvic.ca, 250 721-8611
Contents

1.0 Identification of new program ................................................................. 1
2.0 Aims, Goals and Objectives ...................................................................... 1
3.0 Areas of Specialization and Evidence of Adequate Faculty Complement .... 9
4.0 Enrolment Plan ......................................................................................... 10
5.0 Governance ............................................................................................... 11
6.0 Plans for Ongoing Program Assessment .................................................. 12
7.0 Related Programs ...................................................................................... 13

Appendices

A) Business Plan

B) Proposal for BEng in Civil Engineering

C) Proposal for MASc in Civil Engineering

D) Proposal for PhD in Civil Engineering

E) Letters of support for BEng program
PROPOSAL FOR THE ESTABLISHMENT OF A
DEPARTMENT OF CIVIL ENGINEERING

Faculty of Engineering
University of Victoria

1. IDENTIFICATION OF NEW DEPARTMENT

Name of Department  Department of Civil Engineering
Location            Faculty of Engineering, University of Victoria
Start Date          January 1, 2016
Contact Person      Tom Tiedje, PhD, PEng, FRSC, FCAE, Dean, Faculty of Engineering
                    Tel: 250 721-8611    email: engrdean@uvic.ca

2. AIMS GOALS AND OBJECTIVES

Background

Civil Engineering derives its name from ‘civilian’ as opposed to military engineering, and is the branch of engineering which addresses the interaction between a civil society and the natural environment. Engineers apply scientific principles to the design, analysis and maintenance of technologies for use in Canadian society, ensuring practicality, reliability and safety. Civil Engineers design and construct roads, bridges, buildings, dams, transportation and water infrastructure. As the first civilian professional engineering discipline ever introduced, the Department of Civil Engineering plays an irreplaceable role and functions as a core academic unit within the Faculty of Engineering in most North American universities. The Department of Civil Engineering normally covers a number of closely related sub-disciplinary areas as mutually supportive elements, including structural engineering, material engineering, geotechnical engineering, transportation engineering, water resources engineering, environmental engineering, offshore engineering, etc. To address the unbalanced and incomplete engineering discipline deficiency in the Faculty of Engineering at UVic, to answer the urgent need from the province and the pronounced demands from students, the Civil Engineering B. Eng. program was established at UVic three years ago. The first Civil Engineering class will graduate in 2017.

With the high demands from the students and the community, the emerging MASc and PhD programs, and the coming accreditation review from the Canadian Engineering Accreditation Board in January 2017, it becomes critical to establish the Department of Civil Engineering now.
A major challenge for society in the future will be to follow the principles of sustainability and a low carbon society while minimizing the environmental footprint. Through new concepts such as smart cities and green buildings, it will be possible and essential to redesign and rebuild our infrastructure. The Department of Civil Engineering, as an independent academic unit, will take the lead and effectively collaborate with many other sister departments in the Faculties of Engineering, Sciences, Social Sciences, Business, and Law etc. in meeting this challenge. The traditional cost-versus-benefit analysis that has been used in engineering design is being replaced by a triple bottom line – social, environmental, and financial performance. Sustainability figures strongly in this analysis.

Goal of this Document

The goal of this document is to describe the need for a new department, Civil Engineering, in the Faculty of Engineering. To efficiently stage and unfold the new professional engineering program, the Civil Engineering program has been hosted, in its incubation, in the Department of Mechanical Engineering, even though the Civil Engineering program is not a natural fit in the department. The Civil Engineering undergraduate program has proven to be very popular with students and the graduate programs are being established. With rapid increases in the numbers of the undergraduate and graduate students, and of faculty and staff, it is time now to form the independent academic unit.

In the coming two years the faculty component that supports the Civil Engineering programs will triple to 15, and all indications are that this department is poised for growth beyond that time. The spring 2015 budget letter provides for faculty, staff and operation of this new department.

Identification as a distinct department is critical for faculty recruitment and retention – civil engineering faculty would not be able to function adequately, building research programs and carry out graduate student supervision, professional practice and curriculum development without an independent department. The distinct department is also critical for future recruitment of undergraduate and graduate students, who seek an established location for this historic branch of Engineering. In addition, there is not capacity to manage the requirements of the distinct civil engineering program within the Mechanical Engineering administrative structure.

In spring 2017, the Civil Engineering undergraduate program will undergo its first accreditation by the Canadian Engineering Accreditation Board. This accreditation is a necessity for any Canadian engineering programs. Those that are not successful, over the long term, are unable to recruit students because the graduates will not be able to practice in the Engineering profession. Preparing for accreditation is an onerous activity that requires demonstration of appropriate curriculum, evaluation of the teaching faculty, and institutional support. The existing Mechanical Engineering department is unable, in its current form, to support both of these programs through accreditation cycles, and we feel the accreditation of both programs could be at risk if the current situation continued.

Mission Statement

The mission of the University of Victoria Civil Engineering Department will be to deliver quality outcomes in undergraduate and graduate education in Civil Engineering, to carry out high impact research in the discipline, and to serve the profession. Considerations of sustainability will be integral to all of the department’s activities. The World Council on Environment and Development defines sustainability as: “Development that meets the needs of the present without compromising the ability
of future generations to meet their own needs.” In carrying out its mission the department will create career and personal growth opportunities for graduates, support economic growth in BC, help protect the environment, and contribute to a more sustainable society.

**Distinctive Characteristics**

The Department of Civil Engineering at the University of Victoria will:

- Embed considerations of sustainability in all aspects of its activities
- Adopt an integrated and systems perspective to Civil Engineering education and practice, including project based learning
- Include research activities that set it apart from other universities (e.g. building science)
- Address housing and infrastructure challenges associated with remote and aboriginal communities
- Include a mandatory coop component in the undergraduate program

**Current Status**

The University of Victoria’s Senate approved an undergraduate Bachelor of Engineering program in Civil Engineering in 2012. The proposal is available at [https://docs.engr.uvic.ca/docs/documents/CEE_Proposal_5Jan2012_V2-1.pdf](https://docs.engr.uvic.ca/docs/documents/CEE_Proposal_5Jan2012_V2-1.pdf).

During the initial phase this program is being run by the Department of Mechanical Engineering. The first students entered the program, at the second year level from the common first year student group, in September 2013 and will begin graduating in 2017. Proposals for graduate level MASc and PhD programs are in progress ([https://docs.engr.uvic.ca/docs/documents/MASc_CIVE_Proposal_July2015.pdf](https://docs.engr.uvic.ca/docs/documents/MASc_CIVE_Proposal_July2015.pdf) and [https://docs.engr.uvic.ca/docs/documents/PhD_CIVE_Proposal_July2015.pdf](https://docs.engr.uvic.ca/docs/documents/PhD_CIVE_Proposal_July2015.pdf)).

By establishing a department of Civil Engineering we are strengthening the ability of the university to attract students and faculty into the discipline of Civil Engineering, one of the largest engineering disciplines. In fact by offering a broader range of disciplinary choices in a transparent manner with a new department, we will make the Faculty of Engineering a more attractive choice for any entering student who is uncertain about in which program she or he has most interests.

The desire, on the part of community stakeholders, for a strong Civil Engineering program on Vancouver Island is clear from the letters of support received from community members in support of the undergraduate program proposal. (Copied in appendix A.)

**Anticipated Contributions to the Strategic Plan of the University**

The strategic plan of the University of Victoria from 2012, *A Vision for the Future – Building on Excellence*, articulates a vision “to be the university of choice for outstanding students faculty and staff” and a mission of “to promoting the development of a just and sustainable society through our programs of education and research”. The Civil Engineering department will contribute to sustainability in ways that other parts of the university cannot, in the built environment of urban and rural design. Sustainability is a core value throughout the Civil Engineering program.

In addition the Civil Engineering Department will contribute to several of the objectives listed in the strategic plan.
Objective 1: *To be a diverse, welcoming learning community, with a demonstrated commitment to equity and fairness.*

The Engineering student population at UVic has traditionally shown low gender diversity. By offering programs in Civil Engineering and Biomedical Engineering we have increased gender diversity by a factor of two, as measured by the percentage of female students entering first year engineering. Female participation in engineering programs across Canada is indicated in Table 1.

<table>
<thead>
<tr>
<th>Program</th>
<th>% Female Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bio-programs</td>
<td>42</td>
</tr>
<tr>
<td>Environmental</td>
<td>40</td>
</tr>
<tr>
<td>Chemical</td>
<td>33</td>
</tr>
<tr>
<td>Civil</td>
<td>23</td>
</tr>
<tr>
<td>Electrical</td>
<td>13</td>
</tr>
<tr>
<td>Software</td>
<td>11.1</td>
</tr>
<tr>
<td>Mechanical</td>
<td>10.9</td>
</tr>
<tr>
<td>Computer</td>
<td>10.8</td>
</tr>
</tbody>
</table>

Prior to the Faculty of Engineering program expansion of 2012 the engineering disciplines in our program offerings were Computer, Electrical, Mechanical and Software, the disciplines with the lowest gender diversity nationally. The establishment of the Civil and Biomedical Engineering programs has increased the gender diversity of the student body at UVic and will continue to increase it as these programs grow. The new Civil Engineering department will increase the profile of the Civil Engineering program and support its continued growth and development.

Objective 3: *To continue to increase the number of Indigenous students graduating from all faculties at UVic, building on our commitment to and our unique relationship with the First Peoples of Canada.*

Civil Engineering offers a pathway for quality employment and leadership in the resource industries and in building and operating infrastructure, areas of interest to aboriginal students. A goal of the department is to ‘address housing and infrastructure challenges associated with remote and aboriginal communities.’ This goal will be met through research expertise and course exercises. Existing Civil Engineering faculty have aspirations to participate in this area, already adding research expertise in the following areas that will support the aboriginal communities in our area of influence: sustainable urban development of water resources, climate change impacts, pollutant dispersion modelling in rivers and nearshore regions, Energy efficient buildings, high performance thermal insulations, hygrothermal properties of construction materials, moisture management in building envelopes, wood-frame constructions, novel and/or bio-based construction materials, technologies for retrofitting building envelope and structures, groundwater footprints and sustainability; mega-scale groundwater systems; groundwater recharge and discharge; fluid flow around geologic structures. As the faculty grows to full strength, they anticipate including graduate and undergraduate laboratory activities in and that support our remote and aboriginal communities.

Although this new department is not expected to explicitly hold seats in its 2nd year admission for underrepresented groups, such as female and aboriginal students, the faculty has begun discussion of
holding seats in the 1st year admission to the beginning (general year) of the Bachelor of Engineering programs. Support for aboriginal students in the programs through program advisor and a new advising position that is being added to specifically to support international and aboriginal students in the faculty’s programs.

Objective 12: To ensure that our undergraduate and graduate programs of teaching and learning are the highest quality, responsive to intellectual developments and student needs, inclusive, and organized around best practices in teaching and learning.

There is a clearly demonstrated student demand for access to Civil Engineering degree programs in BC, with BC employers importing about half of their new recruits from other jurisdictions. By establishing a department we will be better able to address this demand with quality programs, and create opportunities for BC students, especially Vancouver Island students.

Best practices in teaching and learning include a movement away from traditional lecture led courses allowing for student activities that include opportunities for additional learning engagement. All engineering undergraduate programs in the faculty, including the Civil program, include four mandatory co-operative education terms and significant instruction and assessment (by our NSERC design chair) of design learning outcomes. In addition, the Civil Engineering undergraduate program has been designed to include project-based learning throughout the curriculum.

Objective 29: To engage the community through programs and activities that meet the mandate of the university and the needs of the community.

The Civil Engineering program will enable the university to engage in new ways with municipalities (wastewater treatment), the provincial government (groundwater) and the construction sector (net zero buildings), especially on Vancouver Island. Civil Engineering coop students, from the new program that will form the basis of the new department, have been welcomed by employers throughout our community.

The impact on the Vancouver Island economy of locally trained engineers has been profound. When the Faculty of Engineering, who’s offering was established 25 years ago as a high-tech faculty there were just 9 technology companies on Vancouver Island. Now - 25 years later - there are more than 900 technology companies. The technology industry is now the largest industry on the Island. These companies, mainly small, are disproportionately populated by UVic engineers.

Objective 37: To optimize the use of our human, financial, physical and information resources.

By growing the Faculty of Engineering we can offer the students more choices, more electives, more diverse projects, at lower cost through economies of scale. As a result of program expansions since 2012 the undergraduate engineering student population has grown significantly and is having an effect on the upper level courses throughout the faculty. The expanded student cohorts are now moving into and filling previously available classroom and laboratory spaces in 3rd and 4th year courses. Some of the courses and laboratory spaces required by the new Civil Engineering program have been provided by the existing programs. Others have been accommodated in spaces vacated by others (E-Hut, Ian Stewart). It is anticipated, however, that the demands of the Civil Engineering programs and research activities will provide a compelling case for capital expansion. The University’s Five Year Capital Plan (http://www.uvic.ca/financialplanning/assets/docs/FiveYearCapitalPlan2014_%202015.pdf) identifies Engineering as a priority area for expansion (cf. p. 10).
3. AREAS OF SPECIALIZATION AND EVIDENCE OF ADEQUATE FACULTY COMPLEMENT

The first year of the engineering undergraduate program is common to all engineering disciplines and consists primarily of science (including Computer Science) and English courses. Instructors are in place in the first year program and no growth in the size of the first year engineering program is anticipated in the foreseeable future. It is anticipated that faculty members in the Civil Engineering program will engage with the first year design and mechanics courses, taking over from ECE and Mechanical faculty members once a critical mass of Civil Engineering faculty are available. The second year of the program includes courses from Mechanical Engineering, Mathematics and Geography as well as CIVE.

Civil Engineering faculty will teach the 4 CIVE courses in second year as well as the third and fourth year CIVE courses. Table 1 shows the five “pillars” of the Civil Engineering undergraduate program. Faculty members and new hires that are planned to be recruited are listed in the table. These individuals will also teach graduate courses, supervise research projects, capstone design projects and serve on graduate supervisory committees.

Table 2: Program Areas and Designated Faculty

<table>
<thead>
<tr>
<th>Core program areas</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural and Materials Engineering, Mechanics</td>
<td>Nadler (0.5), Gupta, Phalguni, 3 New Hires</td>
</tr>
<tr>
<td>Water Resources, Fluid Mechanics</td>
<td>Valeo, Gleeson, 3 New Hires</td>
</tr>
<tr>
<td>Transportation Systems</td>
<td>Iverson (0.5), 1 New Hire</td>
</tr>
<tr>
<td>Geotechnical Engineering</td>
<td>1 New Hire</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>1 New Hire</td>
</tr>
<tr>
<td>Project and Construction Management and Design</td>
<td>1 New Hire</td>
</tr>
</tbody>
</table>

As shown in Table 1, the total number of core faculty members currently on staff or planned is 16 or 15 FTE; this includes 14.5 regular appointments, a 0.5 teaching assistant professor, and a department chair. Teaching assistant professor Scott Iverson is a long-time member of the Mechanical Engineering Department and has historically taught Technology and Society, and Economics to engineering students. These courses have recently been transferred to the Economics Department, and to instructors in the Philosophy Department, and the Technology and Society interdisciplinary program, freeing up Iverson’s time to support the transportation area, an area in which he is well qualified to teach. We plan to initiate a number of Industrial Research Chairs (IRCs) in various key areas of civil engineering, including in the first instance the area of building science. In 2014/15 given our limited instructional capacity we advertised for sessional instructors to assist in delivering required courses. As a result we were able to recruit a number of highly qualified professional engineers both in Victoria and from Vancouver in the area of geotechnical engineering, environmental engineering, environmental policy, geomatics, surveying and mechanics. Some of these individuals have indicated that they are interested in an ongoing relationship with the university and may be hired to teach again in the future.
The planned number of faculty members together with available sessional instructors is sufficient to deliver quality undergraduate and graduate programs in Civil Engineering. This number is also sufficient to manage the effects of study leaves. Based on experience in the existing engineering programs, the effect of study leaves on supervision of graduate students can normally be managed with use of electronic communication tools. If a need arises for interim supervision during the absence of a faculty member, a faculty member in a related program area (see Table 1) will be sufficient to provide adequate coverage. Present engineering policies regarding this issue will also apply to the civil program.

It is anticipated that Computer Science, Mechanical, and Electrical, Computer Engineering and possibly Science graduate students will have an interest in Civil Engineering graduate courses or undergraduate technical electives. Similarly we expect selected Civil Engineering students will take courses from other engineering and science departments.

Civil Engineering Faculty Members

Sadik Dost, PhD, PEng Acting Civil Engineering Program Director, undergraduate degree in civil engineering, research in materials engineering (Dr. Dost is a faculty member in the Mechanical Engineering program who is providing academic leadership for the Civil program)

Tom Gleeson, PhD, EIT, groundwater, groundwater sustainability

Rishi Gupta, PhD, PEng, civil engineering materials

Scott Iverson, PhD, PEng, project management, transportation

Phalguni Mukhopadhyaya, PhD, PEng, building science, building insulation

Ben Nadler, PhD, PEng, theoretical mechanics, structures

Caterina Valeo, PhD, PEng, urban hydrology and runoff

4. ENROLMENT PLAN

The undergraduate student enrolment projection from February 2013 is shown in the table below. The enrolment plan shows a steadily increasing intake in CIVE up to 2018. In parallel with the introduction of the new Civil and Biomedical undergraduate programs in the Bachelor of Engineering programs the number of students admitted to the common 1st year of the programs grew from a steady state of approximately 220 individuals to 450 individuals, the new steady state. At this point we have no plans to further increase this first year intake so there will be a parallel easing of the demand in the other engineering programs, likely primarily in Mechanical Engineering as this discipline has the most commonality with Civil. This is not necessarily a bad thing as Mechanical Engineering is consistently oversubscribed.

There is a future plan to establish a Civil Engineering Bridge program with Camosun College, once the program is established. This Bridge is expected to generate 15-20 additional students in Term 3A. A class size of 82 students as indicated for second year in 2017 is efficient from a resource perspective as well as being a good learning environment. The faculty will make efficient use of its facilities and, at the same time, students will have good opportunities to find classmates they can work with.

In the Faculty of Engineering the ratio of graduate students to faculty is 5:1 of which typically 2/3 are master students and 1/3 are PhD students. Based on the steady state number of regular faculty members in the Civil Engineering department being 14.5, not including the 0.5 assistant teaching
professor, once new faculty have their research programs fully up to speed the expected number of MASc and PhD students will be 48 and 24 respectively. This number will grow when the planned Industrial Research Chairs and/or CRC Chairs are realized.

Table 3: Civil Engineering Headcount Projection

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Tot. Eng. EETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eng. Units</td>
<td>6.5</td>
<td>14.5</td>
<td>12</td>
<td>20.5</td>
<td>11.5</td>
<td></td>
</tr>
<tr>
<td>2012/13</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>2013/14</td>
<td>60</td>
<td>50</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>74</td>
</tr>
<tr>
<td>2014/15</td>
<td>70</td>
<td>58</td>
<td>55</td>
<td>0</td>
<td>0</td>
<td>130</td>
</tr>
<tr>
<td>2015/16</td>
<td>80</td>
<td>66</td>
<td>62</td>
<td>55</td>
<td>0</td>
<td>223</td>
</tr>
<tr>
<td>2016/17</td>
<td>90</td>
<td>74</td>
<td>69</td>
<td>62</td>
<td>55</td>
<td>293</td>
</tr>
<tr>
<td>2017/18</td>
<td>100</td>
<td>82</td>
<td>77</td>
<td>69</td>
<td>62</td>
<td>326</td>
</tr>
<tr>
<td>2018/19</td>
<td>110</td>
<td>90</td>
<td>84</td>
<td>77</td>
<td>69</td>
<td>360</td>
</tr>
</tbody>
</table>

As noted above one of the goals of the Civil Engineering program was to increase the gender diversity in the Faculty of Engineering. This has been successful. As a result of establishing the Civil and Biomedical Engineering programs, the percentage of female students entering the BEng/BSEng program in first year has doubled.

Also, we have experienced strong student demand for Civil Engineering as indicated by the number of first year students selecting Civil as their discipline of choice in second year. This demand parallels employer demand for graduates as described in the recent Engineers Canada report, *Engineering Labour Market in Canada: Projections to 2025*, which projects the labour market for Civil Engineers to be “tight” for the next five years. According to this report Civil Engineering has the highest labour market demand of all the engineering disciplines.

Nationwide there are 2.1 engineering undergraduate students per 1000 population. In BC there are only 1.5 students per 1000 population even though a new engineering school has been established in the Okanagan (UBCO). This statistic together with the large fraction of newly employed engineers in BC that come from other jurisdictions means there is room for additional educational capacity in the system. Although we plan to keep the number of new engineering students admitted in first year at a constant level for the foreseeable future, the total engineering undergraduate enrolment will continue to grow for a few more years as the new larger first year classes progress through the system.

---

1 This projection from 2013 is very close but not precisely correct for 2013-2015 though it has value in showing the consistency of the projection. For example, we admitted 55 students in second year in 2014/15, whereas the table shows 58. Following this projection we expect to have 390 Civil Engineering students by 2017/18. The first year CIVE enrolment is difficult to determine as the first year is common and students don’t declare their discipline until second year.
5. DEPARTMENTAL GOVERNANCE

To facilitate a smooth start and steady buildup of strong academic and research programs, the BEng Civil Engineering program was introduced inside the Department of Mechanical Engineering due to some similar courses, shared focus, and the strong, well established academic and research programs of the Department of Mechanical Engineering. The intention from the beginning was to create a new academic department of Civil Engineering with equally strong academic and research programs, at the appropriate time. The collective decision by the civil faculty members, the program director, the Mechanical Engineering department chair and the Dean of Engineering is that now is the right time to establish a standalone department.

The proposed Department of Civil Engineering will be housed in the Faculty of Engineering, which will be governed in the same way as the sister departments in the faculty.

The department chair will be the leading administrator of the department and will be responsible for administering its undergraduate and graduate programs and curriculum developments, the department’s day-to-day activities, providing leadership and guidance to its faculty, staff and students to achieve the objectives, and managing the promotion and merit evaluations.

The department will have a traditional administrative structure that will include, an undergraduate advisor, a graduate advisor, an administrative secretary and two additional office staff: one being responsible for the graduate programs, and one serving as the receptionist. It is projected that the Department at its full size will have five technical staff responsible for teaching and computer labs. These numbers are approximate and will be refined based on the needs of the program, opportunities for sharing with other departments and the available funding. For example, the Faculty of Engineering administers the undergraduate advisors in the Engineering Undergraduate Office.

The department will also have regular academic committees such as APRT, Curriculum, Accreditation, Space, Awards etc.

6. PLANS FOR ON-GOING PROGRAM ASSESSMENT

The Civil BEng program will lead to an engineering degree that will be accredited by the Canadian Engineering Accreditation Board. A CEAB accredited degree qualifies the graduate for registration as an Engineer in Training which is the first step to becoming a professional engineer. The first accreditation visit will be in 2017. Engineering programs in Canada are normally accredited every six years or less depending on the decision of the CEAB. The accreditation process is onerous and involves a thorough analysis of the program including both curriculum content and outcome assessment. This process will ensure the quality of the program and will help guide decision making by the chair and department.

In addition, all programs including BEng, MASc and PhD will be subject to periodic internal reviews at intervals defined by the university in order to ensure program quality.

The department will also have annual retreats and special meetings where the overall governance, deliverables, teaching and research outputs and performances will be reviewed.

7. RELATED PROGRAMS

BASc, MASc and PhD programs in Civil Engineering are offered at UBC-Vancouver and UBC-Okanagan. The UVic program is broadly similar to the UBC programs with distinctive elements as noted above. BCIT also offers a Civil Engineering program. The BCIT program caters to a different
demographic than UVic, in that admission to their program is through their technology (non-degree) program. As described above, these programs are not meeting the demand for Civil Engineering in BC, either from students or employers.

UNBC offers an Environmental Engineering degree program jointly with UBC. Students spend two years at UNBC in Prince George, then move to UBC Vancouver for two years, and then return to UNBC for a final project. The UBC part of the program is offered by their Civil Engineering Department. UNBC is also starting a provincially funded Masters program on wood construction.

Camosun College offers a Civil Engineering Bridge program that currently leads students to transfer to UBC. They have expressed interest in establishing a Bridge program to UVic, modeled after our successful Electrical and Mechanical Bridges.

Civil Engineering is the engineering discipline, which deals with the built environment. The Civil Engineering program has thematic linkages to other units at the University of Victoria, including for example the School of Earth and Ocean Sciences, Geography, Environmental Studies and Public Administration.
Appendix A  Business Plan

Financial Plan Summary

Resources available to support the program include a combination of existing resources re-allocated within the faculty of Engineering, new funding provided by the university over the period 2011-2014, plus planned new funding up to and including 2017/18, described in the Faculty of Engineering budget letter of March 6, 2015. All of the new university funding is associated with proportionate increases in the Faculty of Engineering EETs target. This plan includes a phased implementation of new faculty and staff positions, plus a TA and supplies budget for Civil Engineering. There is also a commitment for support for equipment for student labs to augment equipment already in place.

Faculty Appointments Required

In addition to the three faculty searches underway seven additional faculty appointments are required to achieve the faculty complement of 15 FTE’s. The necessary appointments are included in the March 6, 2015 budget letter.

Staff Requirements

In the beginning stage of the department it is planned to have three office staff (one administrative secretary, one graduate secretary and one receptionist), and three technical staff responsible for the teaching and computer labs. As the undergraduate and graduate programs grow and the full faculty complement comes on board, the administrative and technical staff will grow to as much as five administrative and five technical staff depending on opportunities for sharing with other programs, competing needs and available funding. Base budget funding for administrative and technical staff is included in the budget letters of 2013 and 2015.

Student Financial Support Plan

Student financial support packages available to other Faculty of Engineering students will also be available to Civil Engineering students, including bursary funding derived from tuition fees. The Faculty of Engineering has recently attracted an endowment of $80K from the Engineering Institute of Canada for in-course scholarships for Civil Engineering students.

Space Requirements

New teaching lab space has been made available in the Ian Stewart Complex (geotechnical and environmental engineering labs), and in the temporary materials facility next to TEF (civil engineering materials). The Civil Engineering computer, fluids and thermodynamics labs are located in shared space in the ELW building.

The university has assigned E-Hut to the Faculty of Engineering as research lab space for Civil Engineering faculty members. Facilities Management has hired a space consultant to audit space usage in the EOW, ELW and ECS buildings. It is likely that opportunities for more efficient utilization of space will be identified as a result of this audit potentially identifying ways to accommodate additional graduate students and research space for new faculty members.

The Civil Engineering Chair’s office and administrative staff will be located on the third floor of the EOW building in the beginning stage of the department.

Structures and structural testing is a core part of the Civil Engineering curriculum. Many universities including UBC-V, UBC-O and Calgary have large high-head spaces for structural testing. We don’t have such a lab, so in the short term there is only one option, namely to limit ourselves to testing small structures that can fit inside a conventional lab. For large structures it is realistic to go to UBC. A collaboration agreement can be worked out by a new hire in the structures area if necessary.
Additional space for the Faculty of Engineering is one of the priorities in the university’s capital plan.

**Library Requirements**

The library has been consulted in connection with the establishment of the Civil Engineering undergraduate program. The formation of a Civil Engineering Department itself will have no additional impact on library resources.

**Other Instructional Resources**

In parallel with the establishment of the BEng program in Civil Engineering, Coop and Career has hired additional staff specifically to support the Civil Engineering program.

There will be a need for additional equipment for undergraduate labs, some of this equipment has been specified in the 2015 university call for academic equipment requirements and some is as yet unspecified since some labs have not been developed yet. A request for equipment is pending in the Faculty of Engineering’s submission to the annual academic equipment allocation. We are currently renting surveying equipment from BCIT; at some point in the future it would be cost effective to buy our own equipment.
Proposal for Civil Engineering at UVic
1 November 2010; March 3, 2011, Revised December 12, 2011

Executive summary

A Canadian Engineering Accreditation Board accredited undergraduate degree program in Civil Engineering is proposed as the first part of a broader initiative in Civil Engineering at the University of Victoria. The program will have a focus on the environment and sustainability at the undergraduate level. Once the undergraduate program is approved we plan to develop a graduate program. The program will be created within the Mechanical Engineering Department. An intake of 30 students in the first term of second year is planned, with future expansion dependent on availability of resources.

The aims of the program are to teach and advance sustainable civil engineering—the design of structures including buildings and water structures, and transportation systems including highways, rail and air—as an integrated discipline. The program will foster a systems perspective that embeds considerations and principles of sustainability and relevant socio-economic issues at the onset of the design process. Project based learning with design studio experience will be emphasized, as well as enhanced humanities and social sciences content.

UVic Civil Engineering graduates will serve as
- planners, designers, constructors, and operators of the built environment;
- stewards of the natural environment and its resources;
- innovators and integrators of ideas and technology;
- managers of risk and uncertainty to protect public safety; and
- leaders in shaping public environmental and infrastructure policy.

The proposed program capitalizes on strong evidence of growing demand for a new breed of Civil Engineering graduates needed to meet growing challenges in climate change adaptation and mitigation, water resource management and environmental impacts. The program builds on existing areas of strength at UVic and will foster interdisciplinary research, both within Engineering and with other Faculties as well as with Camosun College.

Program Highlights

- Projected CIVE undergraduate enrolment 126 (110 undergraduate Engineering EETS)
- Sustainability integrated as a core theme in the undergraduate curriculum
- Project based learning model in upper years
- Program start date September, 2012 for Year 1 [common to all B.Eng. programs] and September 2013 for Year 2.
- Faculty offices in EOW third floor, teaching labs shared with Mechanical Engineering, new labs located in Ian Stewart complex and accessing labs at Camosun Interurban campus, research labs in ELW.
- Administrative home in Mechanical Engineering Department
Program Rationale

Improve quality

The breadth of choices available in a given program is an important figure of merit in engineering student decision-making regarding choice of universities. A broader range of choices will attract more and better students to Engineering at the University of Victoria.

Raise enrolments

Higher enrolments mean more efficient program delivery and more elective choices for students, which is another measure of program quality.

Increase number of female students

Our existing suite of programs consists of the more male-centric engineering disciplines (Computer, Electrical, Mechanical, Software). The Faculty has a 10% participation rate by female students, compared with a Canadian average of 17%. Civil Engineering is more attractive to women students than our existing programs. Emphasis on sustainability and the environmental aspects of engineering places has also been shown to be attractive to women.

Aboriginal students

Civil engineering is relevant to the needs of aboriginal communities, outside the major urban centres in Canada.

Meet needs of the community

Since 2003 the number of civil engineering students has been steadily increasing, relative to other engineering disciplines in Canada. The worldwide effort to achieve carbon neutrality, improve environmental stewardship, solve critical water quality issues, rebuild aging infrastructure and the growth in the resource sector in Canada are expected to continue to drive demand for civil engineers for the foreseeable future.
Proposal for Civil Engineering at the University of Victoria

During times of economic hardship, we know how important it is to ensure B.C. students have better access and a wide variety of choice in pursuit of post-secondary education. These new degree opportunities will help our students achieve their educational goals and provide them with the post-secondary education and skills training they need to succeed.

-Moira Stilwell, BC Minister of Advanced Education

1 Background and Rationale

1. Identification of new program

Program Name: Civil Engineering
Degree Name: BEng, Civil Engineering
Location: UVic Gordon Head

Academic units (Faculties, departments, or schools) offering the new program:
Department of Mechanical Engineering, within the Faculty of Engineering

Anticipated program start date: September 2012 (first years)
Name, title, phone number and e-mail address of contact person:
T. Tiedje, Dean, Faculty of Engineering, 250 721-8611, engrdean@uvic.ca

2. History and context of the program

The UVic Faculty of Engineering was born in the mid-80s recession. The government of the day elected to initially fund just one department, Electrical Engineering. Subsequently, the department of Computer Science moved from Arts & Science to Engineering in '89, and the Government provided funds for the establishment of the Department of Mechanical Engineering in 1990, bringing us to our present three departments. This is a strikingly modest complement for a research university of the size and stature of UVic.

British Columbia has traditionally trained a smaller number of engineering students than the rest of the country, as illustrated in Figure 1. This figure shows that in 2008, BC trained 40% fewer engineers per capita than Alberta and Ontario and about half as many as Quebec, Saskatchewan and New Brunswick. This shortfall has been made up in the past by importing engineers from other jurisdictions; for example, 45% of recently-registered professional engineers in BC have foreign educational credentials.
However, the impact on the economy of locally trained engineers is profound. For example when the UVic Faculty of Engineering was established 25 years ago, there were 9 technology companies on Vancouver Island. Now - 25 years later - there are 900 technology companies, and the technology industry with $2B in sales is the largest on the Island. These companies, mainly small, are disproportionately populated by UVic engineers. Two of the biggest companies (IBM Victoria Lab, Schneider Electric) are buyouts of start-ups created by UVic engineers.

Fig. 1 Engineering students per capita by province (Engineers Canada 2008).

3. Competing Programs

36 institutions offer accredited Engineering Programs in Canada, and 27 of the most important ones are listed in the table below, along with the number of accredited programs that they offer. The UVic Faculty of Engineering is conspicuous among leading Canadian universities by its small number of engineering programs offered, just 4. Our leading competitors offer at least six programs, and a few offer twice that number. [The exceptions are SFU with one program, although a second program is underway, and the nascent programs at BCIT and UBC-Okanagan.]
The four core engineering programs, namely Chemical, Civil, Electrical, and Mechanical Engineering, are the oldest and most widely offered programs. They provide the breadth required for engineering education and are the basis of most newer specialty programs. UVic offers only two of these four core engineering programs, along with relatively new programs in Computer and Software Engineering, which are offspring of Electrical Engineering and Computer Science.

Many entering first year students are uncertain about which branch of engineering they want to study. In order to give students a chance to make an informed choice, most engineering Faculties offer a common first year, during which students have the opportunity to learn more about the various branches of Engineering before committing themselves to a particular discipline. A range of choices is also attractive to students, according to feedback received.

The UVic Engineering programs consist of Computer Engineering, Electrical Engineering, Mechanical Engineering and Software Engineering. Since three of the programs are information technology oriented, our program is narrower than four choices might suggest.

A narrow scope is a handicap, because programs are largely an artificial construct, a carving up of the integrated body of engineering knowledge for pedagogical and administrative convenience. The fewer the programs offered, the smaller the fragment of the body of engineering knowledge which can be offered to our students, and the narrower their view, not to mention a paucity of opportunities for interdisciplinary research. This is regrettable from the viewpoints of program breadth and scholarship. Real-world engineering problems rarely restrict themselves to one or two academic program areas.
Additional reasons for the larger and more expansive suites of programs offered by our competitors include *economies of scale* which operate in Engineering Faculties\(^1\). Although quality, not size, is most important, a bigger Faculty can offer more elective choices in a cost effective way.

For these reasons the 2007-2011 Strategic Plan of the Faculty of Engineering sets as a goal “to expand the Faculty to include a greater spectrum of engineering disciplines”.

### 4. Why Civil Engineering?

Anecdotal evidence from our student recruiters suggests that *Civil Engineering* is the discipline which we do not offer, which is most sought by prospective students\(^2\). The Dean’s office has received enough queries from parents and prospective students about the possible availability of Civil Engineering at UVic that a stock answer has been developed that the receptionist can repeat. We are not aware of queries about any other engineering disciplines even though there are many others that we don’t offer. Three students have informed the Dean’s office over the past 2 years that they are leaving our Faculty to go elsewhere because there is no CE program at UVic. Students have no obligation to tell us why they are leaving so it is likely more students have left for this reason. Although there are numerous other engineering programs that are not available at UVic, we are not aware of any students leaving for any program other than CE. Our college and high school recruiters tell us that prospective students frequently inquire about the availability of Civil Engineering and sometimes comment that if CE were available they would have considered UVic. As noted below there is strong demand within the Camosun Bridge program for Civil Engineering, similar or stronger than the demand for Mechanical Engineering, our most in-demand engineering program. At the most recent Faculty Meeting at which the Civil Engineering program proposal was discussed, the undergraduate student representative spoke up strongly in favour of the program as something that would be attractive to students. The Engineering program coordinator at the University of the Fraser Valley tells us that we have underestimated student demand in our enrolment projections. At UBC Civil Engineering is the most in-demand engineering program with the highest admission cut-off. In fact UBC is concerned about students using Mining Engineering as a way to get around the admission cut-off since Mining Engineering uses many of the CE courses, thereby over-enrolling the CE courses.

Demand for various engineering disciplines changes over relatively long time periods for reasons that are not always obvious, most likely tied to the availability of employment. Even if CE were not the most in-demand program it would still make sense for UVic to have a Civil and

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\(^2\) recently received from one of our students:

Hi Dr. Tiedje,

My name is ***** and I am transferring to University of Alberta for civil engineering. However, I just realized that I need to send a withdrawal form to the school, and needs an approval from you to withdraw from the program. My only reason to leave U–Vic engineering program is that I want to become a civil engineer.
Environmental Engineering program to diversify our course offerings and meet the needs of the community.

Civil Engineering derives its name from 'civilian' as opposed to military engineering, and is the branch of engineering which addresses the interaction between a civil society and the natural environment. Included as part of civil engineering are buildings, roads, bridges, transportation, and many topics related to water, sustainability and the environment. Civil engineering has many points of contact with Mechanical Engineering, however for our Faculty it represents a significant step-out from a focus almost exclusively on 'high-tech' to include matters that connect society with our natural environment. The linkages between the various disciplines in the Faculty of Engineering, showing the relationship between Civil Engineering and the existing programs, are illustrated in Fig. 2.

![Fig. 2 Relationships among engineering disciplines.](image)

A major challenge for society in the future is the redesign and rebuilding of our infrastructure to accommodate principles of sustainability and a low carbon society while minimizing the environmental footprint. Civil engineers will take the lead in meeting this challenge. Similar to the way UVic engineers have led the development of the technology industry on Vancouver Island, UVic civil engineers can be expected to lead the Province over the next 25 years in its transition to a society with a green and sustainable infrastructure.
The traditional cost-versus-benefit analysis for engineering design is being replaced by the triple bottom line – social, environmental, and financial performance. Sustainability figures strongly in this analysis. The World Council on Environment and Development defines it this way: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

The ongoing calls for alternative sources of electricity from independent power producers will be an ongoing source of work for civil engineers in BC for the foreseeable future. With legacy hydro dams, BC is in a position to be a leader in alternative energy generation, due to the potential for buffering intermittent sources with water storage. The potential for wind, tidal and micro-hydro (run-of-river) as well as geothermal energy are particularly important in the northern regions of Vancouver Island and rural areas of BC. The deployment of these energy extraction technologies is largely the domain of civil engineering, and the availability of locally trained professionals would facilitate the transition of economic activities from the declining forestry sector to alternative energy for which demand is growing both locally and globally. Geotechnical and structural engineers will continue to be in demand to help ensure that our many dams are well-designed and maintained. Civil engineering includes fields such as water treatment, transportation and traffic, geotechnical engineering, municipal engineering, materials for roads and structures, building construction, biomedical engineering and structural engineering. Graduates of our current program focusing on information and communication technology and manufacturing, can be expected to find employment primarily but not exclusively in urban areas including Southern Vancouver Island, the Lower Mainland and the Okanagan. Civil Engineers on the other hand can find employment over a more geographically dispersed area including rural areas of the province. For example small municipalities, mining operations, construction companies and forestry companies all typically employ Civil Engineers.

There are attractive potential synergies with existing UVic entities, including the Faculties of Business, Science and Social Sciences (Geomatics and Geography). In addition there are obvious points of contact with PICS and PCIC, IESVic, Mechanical Engineering, and Earth and Ocean Science. Two of the focal research themes of PICS are “Low Carbon Economy” and “Sustainable Communities”; climate change and its potential environmental impacts on the environment, including watershed are central issues for PICS and within SEOS; and Sustainable Energy Systems and associated energy conversion technologies are core strengths of IESVic and Mechanical Engineering. The proposed Civil Engineering program with its focus on sustainability will allow natural links with these units through curriculum and research activities targeted at deployment of clean energy infrastructures and at integrated urban design that incorporate sustainable transportation systems and green buildings. In addition the impacts of climate change will necessitate in the long term the development of better adapted designs, materials and structures. For example, the gradual disappearance of the permafrost in arctic regions will radically affect foundation design, while changing precipitation patterns predicted by models produced by PCIC would impact the design, economics and productivity of run-of-river and hydroelectric dams. An equally important linkage between the Civil Engineering program and PICS as well as Environmental Studies is the policy dimension. The expertise of these two units can substantially inform and enrich the civil engineering program and contribute
to equipping graduates with the necessary understanding of policy issues around infrastructure renewal, sustainability and environmental challenges and ensure graduates can become active participants in shaping public policy. Following the collapse of the dotcom bubble in 2000 there has been a change in the demand for the various engineering disciplines. Fig. 3 shows the number of students in six of the most popular engineering disciplines in the period 2001-2010, with notable increases in Mechanical and Civil Engineering, a decline in Computer Engineering and growth in Software Engineering. These trends are evident in most engineering programs in Canada. This change in enrolment patterns illustrates an advantage of a broadly based Faculty. Individual program enrolments may fluctuate, but the aggregate demand for all engineering degrees is more stable and less susceptible to changes in demand in one sector.

Fig. 3 Undergraduate engineering enrolment in Canada by discipline (Engineers Canada).

5. Attracting Women into Engineering

Attracting more female students into engineering is one of the goals of the Faculty of Engineering, as expressed in the 2007-2011 Strategic Plan. Nationally, the Engineering profession has not been as successful as Law or Medicine in attracting women. In fact, among the various engineering disciplines, the engineering programs at UVic (Mechanical, Electrical, Software, Computer) have the lowest participation rates by women as shown in Table 2.
Table 2: Participation rates of female students by program (Engineers Canada 2010), (current UVic programs in bold)

<table>
<thead>
<tr>
<th>Program</th>
<th>% Female Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biosystems</td>
<td>38.9</td>
</tr>
<tr>
<td>Chemical</td>
<td>33.5</td>
</tr>
<tr>
<td>Civil</td>
<td>21.4</td>
</tr>
<tr>
<td>Computer</td>
<td><strong>10.3</strong></td>
</tr>
<tr>
<td>Electrical</td>
<td><strong>12.7</strong></td>
</tr>
<tr>
<td>Environmental</td>
<td>39.7</td>
</tr>
<tr>
<td>Mechanical</td>
<td><strong>10.4</strong></td>
</tr>
<tr>
<td>Software</td>
<td>9.7</td>
</tr>
</tbody>
</table>

An obvious way to attract female students to Engineering is to add an engineering discipline that has a stronger appeal to women. The data in Table 2 suggest that any program we add will be more attractive to women than the programs we have now. Based on experience at other institutions, a Civil Engineering program would have approximately double the fraction of female students of our existing programs. Table 3 shows that the participation rate by women in our engineering programs is low compared to other Canadian universities. This is a serious concern.

Table 3 - Percentage of female undergraduate students in engineering by university

<table>
<thead>
<tr>
<th>University</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>U. Calgary</td>
<td>23.4%</td>
</tr>
<tr>
<td>Queens</td>
<td>22.9</td>
</tr>
<tr>
<td>U. Toronto</td>
<td>21.6</td>
</tr>
<tr>
<td>U. Alberta</td>
<td>20.6</td>
</tr>
<tr>
<td>UBC</td>
<td>18.3</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>16.8</td>
</tr>
<tr>
<td>SFU</td>
<td>14.2</td>
</tr>
<tr>
<td>U. Victoria</td>
<td><strong>10.5</strong></td>
</tr>
</tbody>
</table>

6. Labour market demand

There are about 7300\(^3\) Civil Engineers [including structural, environmental, geomatics, and surveying sub-disciplines] currently licensed by the Association of Professional Engineers and Geoscientists of BC (APEGBC). In addition the Association of Professional Engineers and Geoscientists of BC\(^4\) says that the current cohort includes a disproportionate number of baby

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\(^3\) See [http://www.civil.ubc.ca/about/facts/index.php](http://www.civil.ubc.ca/about/facts/index.php). This includes only engineers registered with the BC Association, and thus is a lower limit on the number of civil engineers in the province.

\(^4\) Derek Doyle, personal communication.
boomers who are approaching retirement. Assuming a 30 year career, BC needs about 240 civil engineers per year to maintain the present number, or 310/yr to include a growth rate that matches the population growth rate in BC [about 1% per year]. Not all Civil Engineers are registered with APEGBC and not all BC engineering graduates practise engineering in BC or even practice engineering after they graduate. [This is to be expected as an engineering graduate has many different career options.] Therefore, the total number of graduates required to satisfy the local demand will be significantly higher than is suggested by the number of APEGBC members. Market factors, natural resource prices and public policy agendas around infrastructure renewal, sustainability and environmental challenges will also have a big effect on the demand for civil engineers. The same challenges operate worldwide, so our traditional approach of importing engineers will be problematic. We note that the demand for BEng Environmental Engineers is small compared to the demand for Civil Engineers, although the demand for Environmental Engineers is likely stronger at the Master's level.

In BC, Civil Engineering degrees are offered at UBC-Vancouver and by two new programs at BCIT and at UBC-Okanagan. We estimate that there were about 140 Civil engineering graduates from BC universities in 2010. Therefore there is a shortfall of at least 100 Civil Engineers/yr. UBC-V and UNBC have a joint Environmental Engineering program in which students spend their first two years at UNBC, the next two at UBC-V in Civil Engineering and a final semester at UNBC. In 08/09 UNBC enrolled 30 first year Environmental Engineering students, double the number from the previous year.

Engineering Faculty recruiters report that our lack of a Civil Engineering program is the most important reason why prospective students look elsewhere for their Engineering education. Co-op coordinators report similar experiences and also report unsolicited work term requests for CivE students from employers. An absolute majority of students who go elsewhere do so for this reason. Several co-op employers who hire mechanical engineers indicate that they would prefer Civil Engineers.

7. Employer Feedback

The proposed Civil Engineering program has been discussed with employers in a variety of venues including individual discussions, lunch meetings, presentations at professional society events, and meetings with groups at employer premises. These meetings have been followed up with requests for letters of support. All the people we talked to have been supportive, many enthusiastically so. Here is a summary of the feedback we have received from private sector employers:

- Difficult to attract engineers to Vancouver Island
- Locally trained civil engineers are more effective employees than imports

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5 Manfred Bultmann, Engineering Co-op Manager: "...I support your opinion that there is a need for such a program from our perspective. We receive about 5 postings per term without any solicitation of jobs in this discipline. Coordinators regularly report about requests for civil engineering students, particularly from around Vancouver Island."
Local opportunities for postgraduate study would help retain staff
- Interest in hiring civil engineering co-op students
- Need expertise in Building Science in BC
- Replacements for retiring baby boomers, particularly in Civil Engineering
- Would use university testing facilities for Civil Engineering work, if they existed
- Canada #3 worldwide in consulting engineering, a significant export market for BC engineering companies which is dominated by civil engineers
- Advocated unsuccessfully for Civil Engineering program at UVic in 1980’s
- UVic Mechanical Engineers are good but prefer to hire Civil Engineers

The following feedback was received from public sector employers:

- Want civil engineers with broad knowledge including policy expertise
- Civil engineering is the discipline that best addresses risk management, which is important in areas such as health
- Retrofitting existing buildings for sustainability, huge opportunity and challenge, role for engineering
- 500 boil water advisories in small BC municipalities, some 20 years old
- Building codes and urban planning in state of flux, due to new demands for sustainability
- Interest in hiring civil engineering co-op students
- Difficult to find qualified civil engineers to work in municipalities
- Need for university expertise in civil engineering on the Island to address local concerns such as waste water treatment, legacy dam maintenance and aboriginal housing

Potential Employers include:

- energy conservation firms [green retrofits for older buildings]
- construction firms (e.g. Kiewit, PCL, Ledcor)
- architectural firms
- consulting companies (e.g. Stantec, AECOM, Thurber)
- mining and energy companies
- forest industry
- municipalities
- provincial government (Community Development, Energy Mines and Petroleum Resources, Environment, Healthy Living and Sport, Labour and Citizens Services)
- environmental remediation firms (e.g. Golder Associates)
- ocean engineering
- sustainable energy (run of the river hydro, wind farms)
- BC Hydro, Fortis
8. Enrolment Projection

The Camosun Bridge Program, [which accepts qualified graduates from Technology Diploma programs and qualifies them to enter Year 3 of Professional Engineering Degree programs], is expected to be a significant source of students. We currently accept 25 students/yr into Mechanical Engineering from the Bridge, and plan to increase this number.

The following message [Summer 2010] from Derek Wakefield, Director of the Bridge program at Camosun College, discusses likely demand for Civil Engineering from Bridge students:

<table>
<thead>
<tr>
<th></th>
<th>2009 Summer Bridge</th>
<th>2009 Winter Bridge</th>
<th>2010 Winter Bridge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mechanical</td>
<td>Electrical</td>
<td>Computer</td>
</tr>
<tr>
<td></td>
<td>- 33 (4 to UBC)</td>
<td>- 31 (all to UVic)</td>
<td>- 6 (all to UVic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mechanical</td>
<td>Civil</td>
<td>Mining</td>
</tr>
<tr>
<td></td>
<td>- 10 (8 to UBC)</td>
<td>- 25 (all to UBC)</td>
<td>- 1 (all to UBC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Civil</td>
<td>Mining</td>
<td>Mechanical</td>
</tr>
<tr>
<td></td>
<td>- 60 applicants to date</td>
<td>- 2 applicants to date</td>
<td>- 20 applicants to date</td>
</tr>
</tbody>
</table>

“We are still processing applicants for the Winter Bridge programs, as the deadline is not until August 15. However, I can tell you that the number of applicants to the Civil Engineering Bridge program has at least doubled. Every year I get remarks from Civil Eng Bridge students about how nice it would be to take Civil Engineering at UVic.”

More recent information (September 2010) from the Civil Engineering Department at Camosun indicates that they have 40 students in their Civil Engineering Bridge program, 25 of whom will go to UBCV and 15 to UBCO. From experience with the Mechanical Engineering bridge program and the information provided by Derek Wakefield, we conclude that 25 Civil Engineering students per year is a reasonable estimate for the number of Bridge Students we can expect from Camosun.

Discussions with Peter Mulhern at the University of the Fraser Valley suggest that we can expect about 5 engineering transfer students into a second year Civil program from UFV. Vancouver Island University may provide a similar number.

Table 4 Enrolment projection and academic term schedule

Projected CEE Enrolment in Startup Phase
<table>
<thead>
<tr>
<th>Academic Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>5</th>
<th>Tot. Engr EETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engr Units:</td>
<td>7</td>
<td>13.5</td>
<td>7.5</td>
<td>9</td>
<td>---</td>
</tr>
<tr>
<td>2012/13</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>2013/14</td>
<td>35</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>43</td>
</tr>
<tr>
<td>2014/15</td>
<td>40</td>
<td>30</td>
<td>18</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
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### Schedule of Academic and Coop Terms

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<th>Academic Year</th>
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<tr>
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**Comments**

Depending on available resources upper year enrollments could be increased by accepting Camosun bridge students into third year.

A potential problem with our current general admission into first year is that we may attract many more students who are interested in civil engineering than we have capacity for. This problem could be resolved by advertising CE as a limited enrolment program and offering admission directly into CE in first year to students with an A average in high school up to the limit of 30.

### 9. Related Programs in Other BC Post-Secondary Institutions

- UBCV BASc in Civil Engineering
- UBCV BASc in Civil Engineering with Environmental Option
- UBCO BASc in Civil Engineering
- UBC/UNBC BASc in Environmental Engineering
- BCIT BASc in Civil Engineering
- Civil Technology and Civil Engineering Bridge program at Camosun College
- University of the Fraser Valley Engineering Transfer program
- Vancouver Island University Engineering Transfer program
- Thompson Rivers University Engineering Transfer program

### II Academic Program

*UVic CEE Proposal—March 3, 2011*
1. Goals and Objectives

Our aim is to educate Civil Engineering professionals who will be entrusted by society to create a sustainable world and to enhance the global quality of life, by serving as:

- planners, designers, constructors, and operators of the built environment;
- stewards of the natural environment and its resources;
- innovators and integrators of ideas and technology;
- managers of risk and uncertainty to protect public safety; and
- leaders in shaping public environmental and infrastructure policy.  

We seek to provide leadership in the field by focusing on technological innovations, seeking advances in basic knowledge, and taking an integrated systems perspective. Throughout, sustainability and sound understanding of natural systems and environmental impacts will be stressed.

We will strive to teach and advance civil and environmental engineering—the design of structures including building and water structures, transportation systems including highways, rail and air—as an integrated discipline. The program will foster a systems perspective that embeds considerations and principles of sustainability and relevant socio-economic issues at the onset of the design process of the built environment, rather then relying on mitigation later, as has too often been the case.

By sustainability, we mean responsible and efficient use of resources, energy conservation and efficiency in structures, minimization of air, soil and water pollution, and of impacts on ecosystems throughout the lifecycle of the built environment.

Our distinctive characteristics:

To reflect the evolving nature of Civil and Environmental Engineering practice, the program is distinct in its structure and delivery, to ensure that students practice:

- Critical consideration of the social, environmental, regulatory and policy contexts
- Effective written and oral communication
- Interdisciplinary teamwork
- Independent and collaborative learning and problem solving
- Systems level thinking
- Innovation in design

We will strive to teach and advance civil engineering [the design of structures including building and water structures, transportation systems including highways, rail and air, and environmental engineering] as an integrated discipline. The program will foster a systems perspective that embeds considerations and principles of sustainability and relevant socio-economic issues at the onset of the design process of the built environment, rather than rely on later mitigation - as has too often been the case.

UVic CEE Proposal—March 3, 2011
Graduate Attributes:

The program will allow graduates to develop the following sets of knowledge, skills, and values:

A knowledge base for engineering: Demonstrated competence in university level mathematics, natural sciences, engineering fundamentals, and specialized engineering knowledge appropriate to the program.

Problem analysis: An ability to use appropriate knowledge and skills to identify, formulate, analyze, and solve complex engineering problems in order to reach substantiated conclusions.

Investigation: An ability to conduct investigations of complex problems by methods that include appropriate experiments, analysis and interpretation of data, and synthesis of information in order to reach valid conclusions.

Design: An ability to design solutions for complex, open-ended engineering problems and to design systems, components or processes that meet specified needs with appropriate attention to health and safety risks, applicable standards, economic, environmental, cultural and societal considerations.

Use of engineering tools: An ability to create, select, apply, adapt, and extend appropriate techniques, resources, and modern engineering tools to a range of engineering activities, from simple to complex, with an understanding of the associated limitations.

Individual and team work: An ability to work effectively as a member and leader in teams, preferably in a multi-disciplinary setting.

Communication skills: An ability to communicate complex engineering concepts within the profession and with society at large. Such abilities include reading, writing, speaking and listening, and the ability to comprehend and write effective reports and design documentation, and to give and effectively respond to clear instructions.

Professionalism: An understanding of the roles and responsibilities of the Professional Engineer in society, especially the primary role of protection of the public and the public interest.

Impact of engineering on society and the environment: An ability to analyze social and environmental aspects of engineering activities. Such abilities include an understanding of the interactions that Engineering has with the economic, social, health, safety, legal, and cultural aspects of society; the uncertainties in the prediction of such interactions; and the concepts of sustainable design and development, and environmental stewardship.

Ethics and equity: An ability to apply professional ethics, accountability, and equity.
**Economics and project management**: An ability to appropriately incorporate economics and business practices including project, risk and change management into the practice of engineering, and to understand their limitations.

**Life-long learning**: An ability to identify and to address one’s own educational needs in a changing world, sufficiently to maintain competence and to contribute to the advancement of knowledge.

How will we do this?

The program is structured and delivered around a set of existing and new courses that will include:

A strong emphasis on environmental and sustainability issues wherever meaningful. In particular, core professional courses in the areas of transportation, green building design, hydrology, structures and water resources will include substantial design projects that will emphasize the avoidance of environmental insult by design.

Project based learning (PBL) courses promoting self directed learning, multi-disciplinary collaboration, improved understanding of the application of knowledge to design, and the integration of complex issues arising in professional practice.

A rich variety of design experiences: in addition to the design component of PBL courses, the program will include a capstone cross-disciplinary project in the final year. Students will select projects in the areas of their choice, and will perform the projects under the mentorship of practising registered engineers. In all these courses, there will be emphasis on environmental virtue by design.

The over-riding theme is sustainability, including

- responsible and efficient use of resources
- energy conservation and efficiency in civil structures and systems, and
- minimization of air, soil and water pollution, and of impacts on ecosystems

2. **Connection with the strategic plans of the university and the faculty**:

The criteria for areas of University focus and our support of them are:

**Consideration of intellectual value and societal need**:
Canada in general and BC in particular need Civil Engineers. The societal need for Civil Engineers whose education has stressed the environment and sustainability in the core engineering courses is explicated below.

**Student demand**
Evidence of student [and employer!] demand is provided elsewhere in this document.
The ability to be a national or regional leader in the area
The proposed Civil Engineering program will lead the way in Canada, owing to its deep integration of environmental and sustainability issues within Civil Engineering.

Collegial support among faculty
The presence of Civil Engineering will create new commonalities with our existing departments, which in turn will lead to new specialty inter-disciplinary options for students, will widen and strengthen the existing undergraduate programs, and will foster interdisciplinary research both within the Faculty and with, for example Earth and Ocean Science, PICS and IESVic.

An established or planned ability to attain a critical mass of faculty in the area
This proposal contemplates an adequate number to attain critical mass as a subsection of the Mechanical Engineering department.

Promoting the development of a sustainable society through our programs of education and research
The healthy evolution of the built environment in a highly urbanized country such as Canada will be one of the primary determinants of future socio-economic well being and long-term sustainability.

Provide departments and faculties with increased flexibility in academic planning
The proposed program will introduce PBL courses as well as variable credit course options that can inform subsequent program redesign and developments elsewhere at UVic.

Support and facilitate high-quality research initiatives in areas of national importance and advantage to Canada
The Canadian consulting engineering sector ranks third in the world in size (behind the USA and the UK) and Civil Engineering is the lead discipline in this sector. The continuing success and reputation of this sector will depend on its capacity to innovate and lead in the integration of sustainability concepts.

In addition, the new program will directly support two of the Faculty’s three major goals as defined in its Plan. Namely, it will help us to:

• Ensure the content and delivery of all programs are of the highest quality
• Provide students with a broad educational experience.

It will also help us to pursue two of the areas mentioned as possible targets for expansion, namely: energy systems and environmental engineering
3. Curriculum for BEng in Civil Engineering

Degree name: Bachelor of Engineering (BEng) in Civil Engineering.

The curriculum design is consistent with the most recent recommendations of the Canadian Engineering Accreditation Board (CEAB), and the recommendations of the American Society of Civil Engineers for Civil Engineering curricula.

Consistent with all existing B.Eng. programs at UVic, the curriculum comprises the UVic B.Eng. Common First Year, followed by six terms unique to the degree. There is no program specialization as Civil Engineering programs are moving away from the specialization model and towards well-rounded graduates in all the traditional sub-disciplines of Civil Engineering. Years 2 to 4 of program incorporate:

- Terms 2A, 2B, and 3A are topical courses that are primarily lecture based and provide knowledge and skills in specific fields and ensuring appropriate breadth and depth in the program.
- Terms 3B, 4A and 4B contain significant Project-Based Learning courses organized around a project defined in the thematic area corresponding to each term: these courses introduce a) the engineering, scientific and liberal arts knowledge and b) the technical, laboratory and communication skills required to complete a project.

Detailed Program by Terms and units:

<table>
<thead>
<tr>
<th>Term 1A</th>
<th>Course #</th>
<th>Topic</th>
<th>Units (Hours)</th>
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<tbody>
<tr>
<td>CSC 111</td>
<td>Fundamentals of programming I</td>
<td>1.5(3-2-0)</td>
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<tr>
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<td>Introduction to professional practice</td>
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<tr>
<td>ENGR 110</td>
<td>Design and Communication I</td>
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<tr>
<td>MATH 100</td>
<td>Calculus I</td>
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<tr>
<td>MATH 110</td>
<td>Matrix algebra</td>
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<tr>
<td>PHYS 122</td>
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<td>ENGR 120</td>
<td>Design and Communication II</td>
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<td>ENGR 141</td>
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<td>Calculus II</td>
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<td>PHYS 125</td>
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<td>MATH 201</td>
<td>Introduction to Differential Equations</td>
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<td>Thermodynamics</td>
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<td>Course #</td>
<td>Topic</td>
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<tr>
<td>EOS 120</td>
<td>The Dynamic Earth</td>
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<tr>
<td>MECH 200</td>
<td>Engineering Graphics, CAD and GIS</td>
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<td>Sustainable Development in Civil Engineering</td>
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<td>MECH 242</td>
<td>Dynamics</td>
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<td>STAT 254</td>
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<td>Mechanics of solids</td>
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<td>CIVE 220</td>
<td>Civil Engineering Materials</td>
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<tr>
<td>CIVE 299</td>
<td>Surveying</td>
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**Term 3A**

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<td>Numerical analysis</td>
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<td>CIVE 350</td>
<td>Structural analysis</td>
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<tr>
<td>MECH 345</td>
<td>Fluid mechanics</td>
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<tr>
<td>CIVE 320</td>
<td>Geotechnical engineering</td>
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<tr>
<td>CIVE 330</td>
<td>Environmental engineering</td>
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<td>CIVE 300</td>
<td>Environmental policy</td>
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**Term 3B**

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<td>CIVE 360</td>
<td>Sustainable transportation systems &amp; urban communities</td>
<td>1.5 (3-2)</td>
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<td>CIVE 340</td>
<td>Sustainable water resources</td>
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<tr>
<td>CIVE 370</td>
<td>Construction and project management</td>
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<td>CIVE 450</td>
<td>Green building design</td>
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<td>CIVE 352</td>
<td>Reinforced concrete structures &amp; green construction</td>
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<tr>
<td>CIVE 460</td>
<td>Intelligent transportation systems &amp; safety</td>
<td>2.0 (2-4)</td>
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<td>CIVE 430</td>
<td>Solid waste, air and water pollution</td>
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<td>CIVE 440</td>
<td>Hydrology and marine engineering</td>
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<td>Complementary studies elective</td>
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Calendar Entries for New Civil Engineering Courses

CIVE 200  Sustainable development in Civil Engineering
Principles of sustainable design in engineering systems, manufacturing, infrastructure, transportation, communications, and community development; design for the environment and sustainability metrics; introduction to life cycle assessment framework, methods, and tools. Evaluation of sustainable technologies from technical, economic, environmental and social perspectives using life cycle analysis. Environmental impact assessments, environmental audit protocols and plans, pre-assessment planning and preliminary assessment of contaminated sites, site investigation, remedial planning and design. Green design case studies.

CIVE 220  Civil engineering materials

Pre-requisite: MATH 100, CHEM 101 OR 150, PHYS 112 or 125

CIVE 299  Surveying
Fundamental concepts of horizontal and vertical angle measurement, leveling; area computation, earthworks computation, profiles and cross-sections, circular curves, Principle of geodetic computations and their applications, Describing the equipment and operation involved in field surveying, Electronic and satellite based surveying instruments, traverse computations; location of manmade structures, map reading and interpretation, use of topographic maps.

CIVE 300  Environmental policy
Introduction to environmental policy, law and governance and cultural and sociological implications of sustainable engineering. How policy is formed and changed. Civil engineering development in First Nations.

Pre-requisite: 200

CIVE 320  Geotechnical Engineering
Composition, structure and physical properties of soil and rock; groundwater flow; stress in soil; compressibility behaviour, consolidation and settlement analysis; shear strength of soils; rock failure analysis, state of stress in the earth's crust, stresses and deformations in rocks, including
elastic, plastic, and time-dependent behaviour; impact of geologic discontinuities on rock strength. Site investigation, design and construction aspects of shallow foundations, calculation of settlements in soils, piled foundations, earth pressure calculations and earth retaining structures, slope stability analysis.

Pre-requisite: MECH 220

CIVE 330 Environmental engineering
Environmental systems analysis techniques for natural and engineered systems. Sources, characteristics, transport, and effects of air and water contaminants; biological, chemical, and physical processes in water; unit operations for air and water quality control; water and wastewater treatment processes; solid waste management; environmental quality standards. Design, planning, and management of engineered environmental systems.

Pre-requisite: 200, EOS 110, 120

CIVE 340 Sustainable water resources (Project based learning)
Design and environmental integration of a water resource system using simulation and geomatics software. Introduction to hydrology; hydraulic engineering, and water resources planning; environment and management of watersheds and ecosystems; risk and uncertainty; urban water systems and water quality; economic demand and supply principles, externalities.

Pre-requisite: 200, MECH 345

CIVE 350 Structural Analysis
Analysis and design of determinate and indeterminate structures under static loads, including beams, plates, trusses, cables, framed structures and arches. Introduction to matrix methods for structural analysis.

Pre-requisite: MECH 220

CIVE 351 Sustainable design of steel and timber structures
Design of metal structures; behaviour of members and their connections; shear lag, block shear, local plate buckling, lateral torsional buckling, inelastic strength and stability. Design of tension members and cables, beams, columns, simple bolted and welded connections. Mechanical properties of wood; effects of moisture content and loading on strength and durability; engineered woods; design of connections, beams, and columns; design of buildings, bridges other wood structures. Life cycle analysis of structures.

Pre-requisite: 200, 350, MECH 220

CIVE 352 Reinforced concrete structures and green construction
Strength and design of reinforced concrete structures; fundamental behaviour under various stresses; concepts of concrete plasticity and fracture mechanics; failure, safety and design

UVic CEE Proposal—March 3, 2011
criteria; high-performance concrete materials. Applications in complex systems and innovative
design. Building envelopes, building science, green buildings and case studies

Pre: 200, 320, 350, MECH 220

CIVE 360 Sustainable transportation systems and urban infrastructure
Topical lectures, case studies, transportation system design project in small teams. Role of
transportation in urban development and planning; social impacts, policy; sustainability, clean
transportation technology. Transportation network analysis, design, and flow prediction.

Pre-requisite: 200, MECH 200, ENGR 001

CIVE 370 Construction and project management
Construction engineering; project definition and organization; planning; scheduling, control and
management of resource allocation; engineering economics; cost estimation and construction
econometrics; documentation and reporting systems.

Pre-requisite: none

CIVE 430 Solid waste, air and water pollution
Urban sources of air and water pollution, acute and chronic health effects of pollution taught
through case studies; environmental quality standards and compliance criteria in BC and Canada;
air and water quality modelling for prediction, introduction to software; integrated waste
management and design, reduce, reuse, recycle, resource recovery and utilization, composting,
fundamentals of waste degradation and disposal, geo-environmental aspects of landfill design,
leachate and gas management at landfills.

Pre-requisite: 330

CIVE 440 Hydrology and marine engineering
Sustainable development of watersheds, harbours and nearshore marine areas. Designs of
structures including dams, and offshore structures as well as environmental impacts and safety
issues during and after construction. Proactive protection of watersheds and nearshore areas.

Pre-requisite: 340, 330

CIVE 450 Green building design
Design and construction concepts: site sustainability, water efficiency, energy flows, materials
and resources, indoor environmental quality. Life cycle analysis methods, including estimation
of material and energy flows in the construction, operation, maintenance and decommissioning
of the built environment. Innovative design and integration. LEED (Leadership in Energy and
Environmental Design) certification criteria.

Pre: 200, MECH 250

CIVE 451 Sustainable buildings: retrofitting, repairs and recycling
Specialties of housing in remote communities integrating aspects of structural engineering, rural
municipal engineering, transportation engineering while mitigating ecological footprints; major
retrofit issues that consider safety, serviceability and aspects dealing with environmental factors, energy consumption and movement of moisture. Potential for recycling building materials for further use.

Pre-requisite: 200, 220, 351, 352

CIVE 452 Engineering for earthquakes and extreme events
Basics of earthquake engineering and seismic resistant design of structures, foundations and relevant geotechnical issues; fundamentals behind seismic hazard maps contained in building codes; risk analysis; an examination of natural disasters and their effects on the society; basic probabilistic modeling and simulation techniques and their applications to natural disaster problems; geotechnical issues, transportation design; hazard and risk assessments, cost and time analysis.

Pre-requisite: 320, 350

CIVE 460 Intelligent transportation systems
Traffic safety engineering; specific planning policies or other infrastructure investments to design places and networks consistent with the goals and objectives of community planning; transportation design in remote communities including ice roads and safety issues; intelligent transportation systems; design of public transit systems, mountain highway engineering.

Pre-requisite: 360

CIVE 498 Cross-disciplinary capstone design project
Team or individual design project. Key sustainability metrics; integration of fundamentals acquired in mathematics, science, engineering, and complementary studies. A project proposal, a progress report, an oral presentation, and a comprehensive final report are required.

Pre-requisite: Pass in all 3A and 3B courses

TOTAL COURSES TO BE OFFERED

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<thead>
<tr>
<th>Term</th>
<th>Increased enrolment courses</th>
<th>New Civil Engineering courses</th>
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<td>3A</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>3B</td>
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</tr>
<tr>
<td>4A</td>
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<tr>
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<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>14</td>
</tr>
</tbody>
</table>

4. Program Objective and Delivery Methods
Our objective is to offer a modern and unique civil engineering program which encompasses the fundamental knowledge required to practise civil engineering, and which emphasizes new and emerging sustainability challenges, specifically in energy, environment, infrastructure renewal, and climate change. A unique characteristic of the new curriculum is that it will treat these areas in an integrated way rather than as add-ons.

The delivery method combines traditional lecture with a rich project based learning (PBL) and design studio experience throughout the program. In addition, we will take care to build explicit connections among related courses, by way of team teaching. In particular, we will strive to motivate mathematical and scientific material with engineering applications, and foster an integrated perspective on the role of engineering in society.

The project based learning and design studio has project teams working on specific design activities and elevates conventional tutorials to a set of facilitated small group discussions, and in-class or virtual team learning experiences that are carefully designed and conducted in a studio environment.

The design studio consists of a physical workspace for meeting and group work equipped with work stations running design and simulation tools which enable students to develop, produce and implement creative work in an environment which closely simulates a design office. The studio and PBL activities will reinforce the skills, knowledge, and values of professional engineering practice. Students will be encouraged to examine and assess the whole life cycle of a design broadly, in all its phases from conception through design, construction, operation, maintenance and decommissioning. They will critically examine the sustainability or recycling options of each component, and will learn to minimize environmental insults by thoughtful design rather than by tacked-on amelioration post facto.

Student assignments will include written essays and research papers, computational problems, team projects and in-class presentations. Student feedback will be collected from web-based applications that are commonly used in other programs at UVic, and by using in-class wireless devices such as iClicker(tm).

Due to the interactive nature of Engineering programs, the design studio, laboratory, tutorial and seminar experiences are essential for undergraduate students. However, there is also considerable material which could be effectively and efficiently delivered by distance education using programmed learning techniques. This would be particularly helpful to undergraduate B.Eng. students who wish to complete a course during a work term.  

Opportunities for civic engagement

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Although it is beyond the scope of this document, which is limited to the proposed B.Eng. undergraduate degree program, continuing education for professional engineers is another responsibility of Faculties of Engineering. Working engineers require updating courses to stay abreast of new ideas, immigrants with foreign qualifications need training in Canadian specializations policy and practice, and former managers who return to professional practice need refresher courses. None of these can be effectively provided in the traditional on-campus format of three lectures plus a lab per week. Internet-based distance education and short courses, plus brief campus visits for laboratory and design studio work, is indicated.
Health, education and infrastructure are three major investments made by Canadian society. Civil engineers are entrusted with design and construction of the physical components of infrastructure from buildings, roads and bridges to water and transportation networks. Civil engineers are involved in flood and earthquake protection and in a host of environmental issues. Hence students can become involved with charitable organizations such as Habitat for Humanity and Engineers Without Borders, offering technical advice and solutions to developing communities worldwide.

Civil Engineering expertise is needed by remote and aboriginal communities in BC with respect to housing and domestic water issues. In southern Vancouver Island waste water treatment will be an important issue for years to come and Civil Engineering expertise at UVic will be invaluable in informing the public and advising municipal governments and the provincial government.

Residency requirements and anticipated time to completion

The Civil Engineering degree program is a five year program [8 academic terms plus 4 or more work terms]. Student must enrol full-time for a minimum period of two years, and may continue on a part-time basis subject to the permission of the Faculty of Engineering and subject to the maximum time for degree completion in Engineering programs (80 months).

Opportunities for experiential learning

One opportunity is provided in the design capstone project. The project will be based on a real-world design problem that is at or near the Request for Proposals stage. The design project will be formulated by the students together with an outside partner such as a local municipality, Capital Regional District, BC Hydro, Vancouver International Airport, Ministry of Energy, Mines and Petroleum Resources or other municipal or provincial government departments in British Columbia. Input and guidance will be sought from consulting and practising professional engineers.

As with all UVic B.Eng. programs, co-op education is a mandatory component of the program. The Faculty of Engineering employs Co-op coordinators who will be responsible for co-op placements.

III Administration, Staff and Space

1. Administrative Unit

Civil and Environmental Engineering Program [CEE], within the Department of Mechanical Engineering
The program will be part of the Mechanical Engineering Department and new faculty members teaching in the Civil Engineering program will have appointments in the Department of Mechanical Engineering. [Electrical and Computer Engineering operates in a similar way, as they have both Electrical and Computer Engineering programs within the Department.] Adding new faculty members to Mechanical Engineering will eventually lead to the need for a separate Department of Civil and Environmental Engineering as the program grows.

2. Areas of specialization and faculty complement.

New faculty hiring will be required. The areas of specialization will evolve with input from newly recruited faculty members.

3. Recruitment and Admission

Existing systems for recruiting in the Faculty of Engineering will be followed: visits by university and faculty recruiters to colleges and high schools; invitations to students to visit our Faculty (Experience UVic, College Transfer Day).

Existing admission requirements for the BEng program: 77% high school graduation, 73% in grade 12 mathematics. Grade 12 English, Mathematics, Physics, Chemistry and one other subject.

4. Faculty and Resources

Six faculty positions are available to support the Civil Engineering program: two of these positions have already been filled and four positions are available from future retirements in the Faculty of Engineering. A number of features have been built into the program so that it can be delivered with 6 faculty members:

- A maximum second year intake of 30 students is proposed to maintain quality instruction with a small faculty complement while minimizing impact on courses provided by other units.

- The program relies on existing courses and labs as much as possible, in particular mechanical engineering courses and labs.

- All Civil Engineering courses are required courses in the program, with limited electives provided by existing courses offered by other units. The project based learning instructional approach for the upper level courses will provide the students with some flexibility in choice of topics, mitigating the impact of limited elective choices.

- Some labs will be offered by the Civil Engineering Technology Department, at Camosun College Interurban Campus.

UVic CEE Proposal—March 3, 2011
• Until adequate resources are available, Camosun Bridge students will not be admitted into the Civil Engineering program.

Experience at other Canadian universities suggests that the Civil Engineering has the potential to rival Mechanical Engineering as the most popular engineering discipline, as discussed above. Therefore we could realistically expect to attract a class of 100 students if resources were available. The “soft start” with only 30 students has several practical advantages:

• By getting started now on a small scale, and demonstrating that there is student demand, the University of Victoria will be in a strong position when the provincial government is ready to re-invest in higher education again.

• A small program greatly mitigates the problem of finding necessary office and laboratory space, while at the same time helping to build the case for donor and provincial funding for new space.

• A small student intake will allow us to pilot the new project-based learning approach with small classes and academically strong students.

A variety of opportunities exist for external support. In order to increase the number of faculty members, we plan to pursue are NSERC Industrial Research Chairs in areas of significant regional interest. The following areas are under consideration for the moment: wastewater treatment, marine engineering, intelligent transportation systems, and sustainable infrastructure. We plan to develop a graduate program.

The coop office has indicated that they will be able to handle 30 additional civil students without hiring an additional coop coordinator.

Existing courses with increased enrolments: 22
New CIVE core courses: 19
Tenure track faculty members will be responsible for 3 undergraduate courses and senior instructors will be responsible for teaching 6 undergraduate courses. One course, CIVE 299 Surveying, will be completely taught by faculty from Camosun College.

5. Space

The following space is expected to be available:
• Existing UVic classrooms.
• Computer labs in ELW and ECS.
• Mechanical Engineering undergraduate materials and fluids labs
• Faculty and staff offices on the third floor of the EOW building. In this context it is noteworthy that the proposed 4 new hires will be replace retiring faculty members in the Faculty of Engineering.

UVic CEE Proposal—March 3, 2011
There is reasonable expectation that the following space will be available:

- Two wet labs formerly used by Earth and Ocean Sciences in the Ian Stewart Complex, not currently in use.
- Camosun College, Interurban Campus, has agreed in principle to make their Civil Engineering Technology labs and surveying course available to our students.

6. Library Requirements:

Library Support for Civil and Environmental Engineering

There are library resources currently in place which would support some facets of Civil Engineering. The library’s journal and book holdings from Engineering Village, Springer, Elsevier, Wiley and other major publishers are relevant to the proposed curriculum. Within a few years in order to support the research of the new Civil Engineering faculty, it will be necessary to subscribe to additional journal databases, and to broaden the book resources (print and/or electronic) which would require an increase in both the engineering book budget and journal subscriptions.

Initially, the library budget will be comprised of $15,000 for electronic books on Civil and Environmental Engineering. These titles will be chosen by Library Staff in consultation with the new Civil Engineering Faculty.
Title of proposal: | Proposal for the Establishment of a Master of Applied Science (MASc) Graduate Program in Civil Engineering
---|---
Contact Name and Number: | Tom Tiedje, PhD, PEng, FRSC, FCAE
Dean of Engineering
engrdean@uvic.ca, (250) 721-8611
Date approved by Department: | February 6, 2013
Date approved by Faculty: | March 6, 2013
Date approved by Graduate Studies: | Pending
(If applicable)
Date submitted: | September 14, 2015
Draft 4

Master of Applied Science (MASc)
Graduate Program in Civil Engineering

Faculty of Engineering
Faculty of Graduate Studies
University of Victoria

January 20, 2015
Master of Applied Science (MASc) Graduate Degree Program in Civil Engineering

1. **Program Identification**

1.1. **Program Name:** MASc Degree Program in Civil Engineering

1.2. **Location:** Engineering Office Wing (EOW), Faculty of Engineering

1.3. **Academic Units Offering the Program:** Faculty of Engineering, Faculty of Graduate Studies

1.4. **Anticipated Program Start Date:** September 1, 2016

1.5. **Contacts:**

   **Tom Tiedje**
   Dean, Faculty of Engineering
   Phone: 250-721-6012; E-mail: ttiedje@uvic.ca

   **Zuomin Dong**
   Chair, Department of Mechanical Engineering
   Phone: 250-472-5658; Email: zdong@me.uvic.ca

   **Sadik Dost**
   Acting Director of the Civil Engineering Program
   Phone: 250-721-8898; Email: sdost@me.uvic.ca
2. History and Context of the Program

The new Bachelor of Engineering (BEng) undergraduate program in Civil Engineering, to be accredited by the Canadian Engineering Accreditation Board in 2017, has been recently established in the Faculty of Engineering at the University of Victoria. The program has attracted enthusiastic responses from the first year students enrolled in the Faculty of Engineering and has contributed to the recent large increase in both applications for admission to the Faculty of Engineering and the number of female students admitted to first year engineering.

To facilitate a smooth start and steady buildup of a strong academic and research program, the BEng Civil Engineering Program was first introduced in the Department of Mechanical Engineering due to some similar courses, shared focus, and the strong, well established academic and research programs of the Department of Mechanical Engineering, with the intention of making it a regular academic department with equally strong academic and research programs.

The proposal and process for the establishment of a “Department of Civil Engineering” has been initiated in parallel to this proposal. Once the Department of Civil Engineering structure has been established, the undergraduate BEng program, and the proposed graduate MASc and PhD programs in civil engineering will be housed in the new Department of Civil Engineering.

The BEng program has started with an intake of 40 students in the first term of the second year of the civil engineering program in 2013, and 52 students in 2014 with the potential to expand to 80 to 100 students. In the Spring term of 2015, the third year will begin with the class of term 3A.

Civil Engineering got its name as the first non-military engineering discipline. The emerging environment and sustainability oriented civil engineering technologies and practices represent the future of Civil Engineering. Graduates from this type of program are in high demand. Our new Civil Engineering program will undoubtedly join the other strong academic programs at UVic to sustain and speed up our efforts to make UVic a leading research university in Canada and globally.

The success of the Civil Engineering program cannot be accomplished without a full, strong graduate program to attract first-class academic staff and graduate students. As was clearly indicated in the original plan for the newly introduced Civil Engineering (BEng) program, with this document we propose the introduction of its graduate components: the Graduate MASc and PhD Degree Programs in Civil Engineering at the University of Victoria.

In parallel with the objectives of the undergraduate component, the proposed graduate MASc Degree Program aims at delivering first-class teaching and research in advancing sustainable Civil Engineering.
The proposed program capitalizes on evidence of growing demand for a new breed of Civil Engineering graduate needed to meet growing challenges in climate change adaptation and mitigation, water resources management and environmental management that considers population growth and limited resources in the future. Other areas include construction, rehabilitation and repair of infrastructure, innovative use of building materials, building science, building energy efficiency, water safety and security, energy from waste disposal, solid and liquid waste management, intelligent transportation systems, coastal engineering and design of infrastructure for remote and indigenous communities. The proposed graduate program will bring teaching, research and industrial collaborations on advanced and cutting-edge technologies to UVic. It will enhance the existing areas of strength at UVic and foster interdisciplinary research, both within Engineering and with other Faculties at UVic.

3. Aims, Goals and Objectives

3.1. Distinctive Characteristics:

A program in Civil Engineering will directly address the priorities identified by the Faculty of Engineering and the University of Victoria, and contribute to the strategic plan of the university. The proposed program will not only be innovative in terms its research areas but will also integrate its educational program with its own undergraduate students and those from other departments. While the members of the proposed graduate program in Civil Engineering will normally be the faculty members in the Civil Engineering Program, faculty members from other departments and programs, such as Mechanical, Electrical, Computer, and Software Engineering, and Computer Science and Earth and Ocean Sciences may also participate in the research and graduate student supervision.

The development of the Graduate MASc Degree Program in civil engineering is urgent and vital for the success of the Civil Engineering BEng Program at UVic. This will ensure the attraction of the high quality faculty members, and excellent graduate students who are essential for the training of high quality undergraduate students. It will also help bring in significant research funds and leverage provincial and federal programs for research and Industrial Chairs and new Research Centres.

3.2. Anticipated Contribution to the UVic, Faculty and Academic Unit’s Strategic Plans:

An engineering program cannot be complete without the key graduate components.

The establishment of the Civil Engineering Graduate MASc Degree Program at UVic will ensure the fulfillment of a number of the primary goals of UVic’s Strategic Plan including:
➢ To offer programs in teaching and research of such quality as to place us in the appropriate level of a national and international set of comparable programs as judged by peer evaluation and accreditation.

➢ To be nationally and internationally competitive in the recruitment and retention of graduate students of the highest calibre.

➢ To bring significant research funds to UVic and develop unique and innovative knowledge base and research excellence in the areas of civil engineering and related fields.

➢ To make significant contribution to UVic’s position as a leading research university focusing on issues of local, national and global importance, to encourage interdisciplinary research areas of high priority for society, and to promote and expand the mobilization of research knowledge for societal benefit.

Currently the Civil Engineering Program in the Faculty of Engineering has five faculty members who are presently members of the Department of Mechanical Engineering. Once the Department of Civil Engineering is established, they will become the members of the new Department. In addition, we are in the process of hiring three additional faculty members in Civil Engineering; one being the Chair of the proposed Department of Civil Engineering, and the other two regular appointments. We are also planning to hire additional faculty members in 2016 and 2017. This will increase the core size of the Department to 15 faculty members.

The Department of Mechanical Engineering also has a faculty member, Sadik Dost, with civil engineering training and years of experience in civil engineering teaching and research. We are also exploring bringing on NSERC Industrial Research Chairs in Building Science, Water Safety and Security, Intelligent Transportation Systems, and Solid Waste Management. This will increase the size of the Department further.

The proposed Graduate MASc Degree Program in civil engineering will begin on September 1, 2016. Again this is essential for attracting high quality faculty and graduate students to the Department of Civil Engineering.

It must also be mentioned that the MASc Degree Program in civil engineering is similar in many ways to its sister departments in the Faculty. Particularly in terms of its capability for bringing in research funds, it is expected that the level of funding will be high. For its planned core size of 15 faculty members (with further possible expansion with the addition of industrial chairs), the size of annual operating research
funding is expected to be in the order of $3M, excluding one-time grants and contributions such as CFI, Equipment, infrastructure funds, etc.

The MASc Degree Program is expected to have in steady state, about 2-3 graduate students per faculty member or for this size of faculty population, 30 to 45 students pursuing MASc degree at a given time.

3.3 Target audience, Student and Labour Market Demand

Graduated students will find career opportunities in industry, and academia, as well as in municipal, provincial and federal governments, both in Canada and internationally. While some MASc-level graduates will continue their research at the PhD level, an MASc is often the preferred educational level for employment in industry.

The proposed graduate program in civil engineering will offer the degree of Master Applied Science (MASc) in the areas of faculty members’ specialties.

Civil engineers both graduate and undergraduate are the dominant engineering practitioners employed by the construction industry, the largest industry in BC. Future construction projects in the resource sector, such as pipelines and LNG plants, will be supported by civil engineers. Construction projects include renewal and new construction of infrastructure such as highways, sewage systems, and public water supplies which are also the domain of civil engineering. The ongoing transition to renewable carbon-free energy systems is also supported by civil engineers who are involved in run of the river power projects, wind farms and retrofitting old buildings for improved energy efficiency. Building codes and the way cities are designed are changing to take into account new more sustainable lifestyles. The transition to a more sustainable society is creating many research opportunities aimed at facilitating this transition.

Canada is the third largest exporter of consulting engineering services in the world and civil engineers are prominent in the consulting engineering industry. In BC a high proportion of the engineers registered with the Association of Professional Engineers and Geoscientists of BC (APEGBC) are civil and structural engineers. Of the newly registered professional engineers in BC every year, in excess of 40% have foreign academic credentials. This means that we are not producing enough engineers in BC to supply our own requirements. Finally Civil Engineering is the second most popular engineering discipline among engineering students in Canada, after Mechanical Engineering.

Another area of pressing need in BC for civil engineering expertise is in the area of remote community housing, and infrastructure such as drinking water. Many aboriginal communities are in remote
locations therefore Civil Engineering is a logical area for future growth in aboriginal student enrollment in engineering.

Normally MASc students will be provided with financial support from faculty research funds for the first year. Subject to satisfactory performance and the availability of funding, financial support may be renewed. Graduate support can also be provided through various sources such as teaching assistantships, University of Victoria Fellowships, Mitacs Fellowships and NSERC Postgraduate Scholarships (PGS). All eligible students will be encouraged to apply for funding from provincial, federal and other external sources. It is essential that graduate students take part in undergraduate teaching as Teaching Assistants.

4. Admission Requirements

Admission requirements for the program will meet or exceed the requirements of the Faculty of Graduate Studies. Details particular to this Program are summarized below.

Applicants for admission whose first language is not English must meet the English Competency Requirement as specified by the Faculty of Graduate Studies. The minimum acceptable TOEFL (Test of English as a Foreign Language) score for the Civil Engineering Program will be 575 on the paper-based test or 90 on the Internet-based test (the minimum score for each section is Writing: 20; Speaking: 20; Reading: 20; Listening: 20). A minimum acceptable IELTS score will be 6.5. Even with passing TOEFL/IELTS scores, students may be required to take English language courses in addition to their other course work.

The admissions selection process will be competitive. Not all students who meet the minimum requirements will be admitted. It is expected that around 15 students will be admitted to the program each year. On-line applications will be submitted by following the links from the Faculty of Graduate Studies webpage. The Graduate Admissions and Records Office is the official depository for all applicant documentation. Additional information about graduate studies in the Program will be made available at the Faculty webpage.

Selection of students and the initiation of the admission process will be handled by the Civil Engineering Graduate Studies Committee in consultation with potential supervisors.

4.1. Admission to the Master of Applied Science (MASc) Program
Applicants will normally hold an undergraduate degree in Civil Engineering. The minimum requirement for admission to the MASc will be B+ (grade point average of 5.0 and 6.0 respectively on the University of Victoria scale of 9.0) for the last two years of university work.

4.2. Deadlines
Entry points to the Program will be September, January and May.

4.3. Program Requirements
The program requirements for the Civil Engineering Graduate MASc Program will be along similar lines to those of existing programs in the Faculty of Engineering. Upon the approval of the proposed program, the detailed calendar entry will be developed. Presently the following requirements are proposed.

The supervisory committee, in consultation with the student, will determine the program of study for each student. The supervisory committee may decide that additional course work is required. The program may also include senior undergraduate courses after assessment of the background strengths of the student.

4.4. Master of Applied Science (MASc)

The work leading to the degree of MASc will provide an opportunity for the student to pursue advanced studies and to carry out research or undertake creative design in a field of civil engineering under the supervision of a member of the department’s graduate faculty.

4.4.1. Course Requirements
The program will consist of a minimum of 15 units, normally with not less than 6.0 units of graduate course work, a 1.5 unit seminar, and a thesis (CIVE 599). Required course work will be subject to the approval of the department.

4.4.2. Other Requirements
The program will allow for a maximum of two Directed Studies courses (CIVE 590), of which only one may be directly related to the thesis topic. The program of study will be determined by the supervisory committee in consultation with the student. The supervisory committee may decide that additional course work is required. All MASc students will be required to give a seminar (CIVE 595) on their thesis research during the second year of the program. Normally, students will register in CIVE 595 until
program completion. The seminar will have a unit value of 1.5. Students must attend a minimum of two-thirds of the seminar series.

4.4.3. Thesis
The thesis (CIVE 599) for the MASc program will be equivalent to 9 units. The topic of the thesis will be subject to the approval of the department.

4.4.4. Oral Examination
MASc students will be required to defend their completed thesis in a final oral examination which is open to the public.

4.4.5. Program Length
The program length is determined by the Faculty of Graduate Studies. Civil Engineering MASc students are expected to complete program requirements within 24 months except for co-op students. Normally, financial support will not be continued beyond this time limit.

4.5. Co-Operative Option
The proposed Program will participate in the Co-operative Education Program of the Faculty of Graduate Studies. Under this program, an MASc student will normally spend the first year of the program on course work. The second year will be spent working at a paid research-related position in either industry or government. During the third and subsequent years, the student will alternate between the University and the place of work to complete the research and write and defend the thesis.

Participation in the co-operative program requires:
1. acceptance of the student by a suitable sponsoring organization
2. the organization’s agreement to allow the publication of the student’s research findings in the open literature

As an integral part of the graduate program, students are normally required to undertake teaching or research assistantships within the department.

5. Areas of specialization and evidence of adequate faculty complement

The present and future faculty members’ research areas are briefly summarized below.
Table 1 presents five core research areas and the faculty qualified to teach graduate students, supervise research and/or serve on supervisory committees in these fields. Primary faculty are those individuals that will play a central role in the program, regularly supervising students and actively volunteering to contribute to graduate teaching in Civil Engineering. The associate members will have a less active role but are expected to facilitate the delivery of the program when they have students enrolled in it.

<table>
<thead>
<tr>
<th>Core program areas</th>
<th>Faculty</th>
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<tbody>
<tr>
<td>Structural and Materials Engineering, Mechanics</td>
<td>Nadler, Gupta, Phalguni, 3 New Hires</td>
</tr>
<tr>
<td>Water Structures and Resources, Fluids Mechanics</td>
<td>Valeo, Gleeson, 3 New Hires</td>
</tr>
<tr>
<td>Transportation Systems</td>
<td>Iverson (0.5), 1 New Hire</td>
</tr>
<tr>
<td>Geotechnical Engineering</td>
<td>1 New Hire</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>1 New Hire</td>
</tr>
<tr>
<td>Project and Construction Management in Engineering</td>
<td>1 New Hire</td>
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<tr>
<td>and Design</td>
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</table>

As seen from Table 1, the total number of core faculty members presently planned is 15.5; that includes 14 regular appointments and the Chair of Department. Further Scott Iverson (0.5) is currently giving support in the transportation area, and we plan to initiate a number of Industrial Chairs (IRCs) in various key areas of civil engineering.

This planned number is the minimum required to deliver the undergraduate and proposed graduate programs in civil engineering. This also includes the effects of study leaves that are anticipated according to the present UVic policies. Of course any further expansion in recruitment will enhance the delivery of the programs.

Based on the experience in the existing engineering programs, study leaves do not affect supervision of graduate students. This is mainly due to the present communication tools available to supervisors and students. If any needs arise for interim supervision during the absence of a faculty member(s), the planned overlaps in research areas and the number of faculty members (see Table 1) in the specialty areas will be sufficient to provide adequate coverage. Present engineering policies regarding this issue will also apply to the civil program.

The anticipated effects on any existing programs will be complementary enhancements. Additional graduate courses, along with enhanced 4th year technical electives, will be available to the students of other programs.
6. Curriculum design

6.1. Schedule of Course Delivery
Graduate courses will normally be offered as 3h lectures per week as done in the sister department of mechanical engineering. It will also be possible some courses may be scheduled as cross-listed 4th year undergraduate technical electives courses for efficiency.

6.2. Delivery Methods
Delivery methods may include a variety of options depending on the course content and instructors' delivery; including any combination of classroom lectures, classroom tutorials, outside classroom projects, fieldwork and homework, etc., using the available teaching tools and techniques.

6.3. Linkage Between the Learning Outcomes and the Curriculum Design
This linkage will be evaluated and examined periodically. In engineering at UVic, presently, all undergraduate programs have or are preparing learning outcomes. The graduate programs are also going in that direction but the learning outcomes are not developed yet.

The proposed program capitalizes on evidence of growing demand for a new breed of Civil Engineering graduates needed to meet growing challenges in climate change adaptation and mitigation, sustainable water resources management and environmental management that considers population growth and limited resources in the future. Other areas include construction, rehabilitation and repair of infrastructure, innovative use of building materials, building science, building energy efficiency, water safety and security, energy from waste disposal, solid and liquid waste management, intelligent transportation systems, coastal engineering and design of infrastructure for remote and indigenous communities. The proposed graduate program will bring teaching, research and industrial collaborations on advanced and cutting-edge technologies to UVic. It will enhance the existing areas of strength at UVic and foster interdisciplinary research, both within Engineering and with other Faculties at UVic. Outcomes will be as follows for the proposed degree programs.

At the end of the MASc program in Civil Engineering, students will be able to:

1. Investigate industrial and academic requirements using appropriate enquiry-based, experimental and analytical methods to identify underlying civil engineering problems
2. Apply mathematics, natural sciences, engineering fundamentals, specialized knowledge of the branches of civil engineering, and state of the art engineering tools to formulate models of civil systems, execute model-based analyses and develop solutions informed by those analyses. (1, 2, 4).
3. Interpret results of model-based analyses or experimental based research to reach substantiated conclusions and apply these results with an understanding of the associated limitations (2, 4)
4. Throughout the investigation, analysis, experiment, design and implementation of solutions to
advanced engineering and scientific industrial and academic requirements, present techniques and methods for advanced issue in civil engineering in general.

6.4. Use and Purpose of Practica, Co-op, or Work Terms
As stated earlier in Section 4, the proposed Program will participate in the Co-operative Education Program of the Faculty of Graduate Studies. Under this program, an MASc student will normally spend the first year of the program on course work. The second year will be spent working at a paid research-related position in either industry or government. During the third and subsequent years, the student will alternate between the University and the place of work to complete the research and write and defend the thesis.

Participation in the co-operative program requires:
1) acceptance of the student by a suitable sponsoring organization
2) the organization’s agreement to allow the publication of the student’s research findings in the open literature

In addition, without a formal co-op structure, graduate students whose research is based on collaborative research projects with industry may choose to spend during their program a period of time in the industrial premises and take part in industrial processes to enhance their training and learning. This will be encouraged whenever possible.

6.5. Residency Requirements and Anticipated Time to Completion
The residency requirements and anticipated times to completion for each degree program are as follows.

For the M.A.Sc. degree program, a minimum of 1 year residency is required. A minimum of half of the courses required during the program must be taken at UVic (not including the directed studies course(s)). The completion time is normally 2 years except for co-op students. Details are presented in Section 4 (programs requirements).

6.6. Policies on Student Evaluation and Oral Examinations
Policies on student evaluation and oral examinations for the M.A.Sc. degree program is presented in detail in Section 4 (programs requirements).

7. Enrolment Plan for the Length of the Program

In engineering a typical ratio of graduate students to faculty is 4 to 5, of which typically 2/3 are master students and 1/3 are PhD students. Based the core number of faculty members, which is 15, the
expected number of MASc students will be in the order of 30- to 45. These projected numbers are summarized in Table 2.

It is expected that, similar to the Mechanical Engineering Program, also with the possible addition of industrial chairs, the number of MASc students in the civil program may exceed the projected numbers.

Table 2: Enrollment Projection for Full Grown Civil program

<table>
<thead>
<tr>
<th>Core program areas</th>
<th>Faculty</th>
<th>Enrollment Projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural and Materials Engineering, Solid Mechanics</td>
<td>Nadler, Gupta, Phalguni, 3 New Hires</td>
<td>12-18 MASc</td>
</tr>
<tr>
<td>Water Structures and Resources, Fluid Mechanics</td>
<td>Valeo, Gleeson, 3 New Hires</td>
<td>10-15 MASc</td>
</tr>
<tr>
<td>Transportation Systems</td>
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<td>1 New Hire</td>
<td>2-3 MASc</td>
</tr>
<tr>
<td>Project and Construction Management, Design</td>
<td>1 New Hire</td>
<td>2-3 MASc</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>30-45 MASc</td>
</tr>
</tbody>
</table>

9. Related Program at UVic or Other BC Institutions

UBC currently offers a comprehensive program in Civil Engineering at its Vancouver campus and more limited offerings at its Okanagan campus. These are the only research oriented Civil Engineering graduate programs in British Columbia and our program will be the only one available on Vancouver Island. BCIT has an undergraduate program in Civil Engineering, but no thesis-based graduate program. UNBC has the first two years of an undergraduate environmental engineering program that flows into the UBC civil engineering program in third year. Our program will focus on key areas of interest to industry and communities on the island, in British Columbia and in Canada. At the same time by careful recruiting we expect to be able to create a distinctive research program that builds on UVic’s strengths and is world class in the key strength areas that our researchers will focus on.
APPENDICES

A. Short Faculty CV’s
B. Calendar Curriculum Change Forms

The forms are attached for the following courses. This will evolve and be updated whenever needed.

COURSE DESCRIPTIONS

CIVE 580  
Units: 1.5  
Selected Topics in Civil Engineering  
Note: May be taken more than once for credit in different topics.

CIVE 590  
Units: 1.5  
Directed Studies  
A wide range of topics will be available.  
Note: Pro Forma is required.

CIVE 595  
Units: 1.5  
Seminar  
Participation in a program of seminars by internal and external speakers on current research topics. All MASc students will be required to give a seminar on their thesis research during the second year of the program.  
Grading: INP, COM, N, F.

CIVE 599  
Units: 9.0  
MASc Thesis  
Grading: INP, COM, N, F.

CIVE 601  
Units: 1.5  
Advanced Engineering Analysis  
An introduction to advanced mathematical methods used in engineering analysis. The focus will be on the application of mathematics to engineering rather than the rigorous proof of mathematical concepts. Topics will cover matrix and linear algebraic methods, solution of ordinary and partial differential equations, and numerical analysis.  
(Note: this course content may be tailored to have a single common course for both MECH and CIVE students).
C. Enrollment Plan from Section 7

Table 2: Enrollment Projection for Full Grown Civil program

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<th>Core program areas</th>
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<td>Structural and Materials Engineering, Solid Mechanics</td>
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<td>12-18 MASc</td>
</tr>
<tr>
<td>Water Structures and Resources, Fluid Mechanics</td>
<td>Valeo, Gleeson, 3 New Hires</td>
<td>10-15 MASc</td>
</tr>
<tr>
<td>Transportation Systems</td>
<td>1 New Hire</td>
<td>2-3 MASc</td>
</tr>
<tr>
<td>Geotechnical Engineering</td>
<td>1 New Hire</td>
<td>2-3 MASc</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>1 New Hire</td>
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</tr>
<tr>
<td>Project and Construction Management, Design</td>
<td>1 New Hire</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>30-45 MASc</strong></td>
</tr>
</tbody>
</table>

D. Recruitment and Marketing Plan

The recruitment and marketing plan for the proposed civil MASc graduate program will be similar to that of Mechanical Engineering. Civil engineering graduate students will either be fully supported from faculty members research funding and/or student fellowships and scholarships.

The civil engineering graduate program will have a very well designed web page to describe the program and advertise our uniqueness and special research topics. We will aim at attracting outstanding Canadian and foreign students. Our established reputation in engineering will further enhance our recruitment.

E. Letters of support

Strong support and interest shown for the civil undergraduate BEng program is an indication of the need for a graduate program, and will help with the quick development of the proposed graduate program.

The letters of support obtained for the undergraduate program are attached.
F. Business Plan

a. Income generated

Students will be supported from research funds, teaching assistantships, and fellowships. The students will pay tuition to the university.

b. Faculty Appointments

As mentioned the appointment of 15 core faculty members are projected.

c. Staff requirement

A graduate departmental secretary position will be needed.

d. Space requirement

Graduate student space required will about (30-45) x 40sqft = 1200-1800 sqft. This will be available.

e. Library Requirement

In addition to what is required for the civil undergraduate program students, there will be some requirements in the forms of books, journals, and other tools.

g. Other Instructional Cost

Not anticipated.
Title of proposal: Proposal for the Establishment of a Doctor of Philosophy (PhD) Graduate Program in Civil Engineering

Contact Name and Number: Tom Tiedje, PhD, PEng, FRSC, FCAE
Dean of Engineering
engrdean@uvic.ca, (250) 721-8611

Date approved by Department: February 6, 2013

Date approved by Faculty: March 6, 2013

Date approved by Graduate Studies: Pending

Date submitted: September 14, 2015
Draft 4

Doctor of Philosophy (PhD)
Graduate Program in Civil Engineering

Faculty of Engineering
Faculty of Graduate Studies
University of Victoria

January 20, 2015
Doctor of Philosophy (PhD) Graduate Degree Program Proposal in Civil Engineering, January 20, 2015

Doctor of Philosophy (PhD) Graduate Degree Program in Civil Engineering

1. Program Identification

1.1. Program Name: PhD Degree Program in Civil Engineering

1.2. Location: Engineering Office Wing (EOW), Faculty of Engineering

1.3. Academic Units Offering the Program: Faculty of Engineering, Faculty of Graduate Studies

1.4. Anticipated Program Start Date: September 1, 2016

1.5. Contacts:

Tom Tiedje
Dean, Faculty of Engineering
Phone: 250-721-6012; E-mail: ttiedje@uvic.ca

Zuomin Dong
Chair, Department of Mechanical Engineering
Phone: 250-472-5658; Email: zdong@me.uvic.ca

Sadik Dost
Acting Director of the Civil Engineering Program
Phone: 250-721-8898; Email: sdost@me.uvic.ca
2. History and Context of the Program

The new Bachelor of Engineering (BEng) undergraduate program in Civil Engineering, to be accredited by the Canadian Engineering Accreditation Board in 2017, has been recently established in the Faculty of Engineering at the University of Victoria. The program has attracted enthusiastic responses from the first year students enrolled in the Faculty of Engineering and has contributed to the recent large increase in both applications for admission to the Faculty of Engineering and the number of female students admitted to first year engineering.

To facilitate a smooth start and steady buildup of a strong academic and research program, the BEng Civil Engineering Program was first introduced in the Department of Mechanical Engineering due to some similar courses, shared focus, and the strong, well established academic and research programs of the Department of Mechanical Engineering, with the intension of making it a regular academic department with equally strong academic and research programs.

The proposal and process for the establishment of a “Department of Civil Engineering” has been initiated in parallel to this proposal. Once the Department of Civil Engineering structure has been established, the undergraduate BEng program, and the proposed graduate MASc and PhD programs in civil engineering will be housed in the new Department of Civil Engineering.

The BEng program has started with an intake of 40 students in the first term of the second year of the civil engineering program in 2013, and 52 students in 2014 with the potential to expand to 80 to 100 students. In the Spring term of 2015, the third year will begin with the class of term 3A.

Civil Engineering got its name as the first non-military engineering discipline. The emerging environment and sustainability oriented civil engineering technologies and practices represent the future of Civil Engineering. Graduates from this type of program are in high demand. Our new Civil Engineering program will undoubtedly join the other strong academic programs at UVic to sustain and speed up our efforts to make UVic a leading research university in Canada and globally.

The success of the Civil Engineering program cannot be accomplished without a full, strong graduate program to attract first-class academic staff and graduate students. As was clearly indicated in the original plan for the newly introduced Civil Engineering (BEng) program, with this document we propose the introduction of its graduate components: the Graduate MASc and PhD Degree Programs in Civil Engineering at the University of Victoria.

In parallel with the objectives of the undergraduate component, the proposed graduate PhD Degree Program aims at delivering first-class teaching and research in advancing sustainable Civil Engineering.
The proposed program capitalizes on evidence of growing demand for a new breed of Civil Engineering graduate needed to meet growing challenges in climate change adaptation and mitigation, water resources management and environmental management that considers population growth and limited resources in the future. Other areas include construction, rehabilitation and repair of infrastructure, innovative use of building materials, building science, building energy efficiency, water safety and security, energy from waste disposal, solid and liquid waste management, intelligent transportation systems, coastal engineering and design of infrastructure for remote and indigenous communities. The proposed graduate program will bring teaching, research and industrial collaborations on advanced and cutting-edge technologies to UVic. It will enhance the existing areas of strength at UVic and foster interdisciplinary research, both within Engineering and with other Faculties at UVic.

3. Aims, Goals and Objectives

3.1. Distinctive Characteristics:

A program in Civil Engineering will directly address the priorities identified by the Faculty of Engineering and the University of Victoria, and contribute to the strategic plan of the university. The proposed program will not only be innovative in terms its research areas but will also integrate its educational program with its own undergraduate students and those from other departments. While the members of the proposed graduate program in Civil Engineering will normally be the faculty members in the Civil Engineering Program, faculty members from other departments and programs, such as Mechanical, Electrical, Computer, and Software Engineering, and Computer Science and the Earth and Ocean Sciences may also participate in the research and graduate student supervision.

The development of the Graduate PhD Degree Program in civil engineering is urgent and vital for the success of the Civil Engineering BEng Program at UVic. This will ensure the attraction of the high quality faculty members, and excellent graduate students who are essential for the training of high quality undergraduate students. It will also help bring in significant research funds and leverage provincial and federal programs for research and Industrial Chairs and new Research Centres.

3.2. Anticipated Contribution to the UVic, Faculty and Academic Unit’s Strategic Plans:

An engineering program cannot be complete without the key graduate components.

The establishment of the Civil Engineering Graduate PhD Degree Program at UVic will ensure the fulfillment of a number of the primary goals of UVic’s Strategic Plan including:
➢ To offer programs in teaching and research of such quality as to place us in the appropriate level of a national and international set of comparable programs as judged by peer evaluation and accreditation.

➢ To be nationally and internationally competitive in the recruitment and retention of graduate students of the highest calibre.

➢ To bring significant research funds to UVic and develop unique and innovative knowledge base and research excellence in the areas of civil engineering and related fields.

➢ To make significant contribution to UVic’s position as a leading research university focusing on issues of local, national and global importance, to encourage interdisciplinary research areas of high priority for society, and to promote and expand the mobilization of research knowledge for societal benefit.

Currently the Civil Engineering Program in the Faculty of Engineering has five faculty members who are presently members of the Department of Mechanical Engineering. Once the Department of Civil Engineering is established, they will become the members of the new Department. In addition, we are in the process of hiring three additional faculty members in Civil Engineering; one being the Chair of the proposed Department of Civil Engineering, and the other two regular appointments. We are also planning to hire additional faculty members in 2016 and 2017. This will increase the core size of the Department to 15 faculty members.

The Department of Mechanical Engineering also has a faculty member, Sadik Dost, with civil engineering training and years of experience in civil engineering teaching and research. We are also exploring bringing on NSERC Industrial Research Chairs in Building Science, Water Safety and Security, Intelligent Transportation Systems, and Solid Waste Management. This will increase the size of the Department further.

The proposed Graduate PhD Degree Program in civil engineering will begin on September 1, 2016. Again this is essential for attracting high quality faculty and graduate students to the Department of Civil Engineering.

It must also be mentioned that the PhD Degree Program in civil engineering is similar in many ways to the PhD in its sister departments in the Faculty. Particularly in terms of its capability for bringing in research funds from federal departments and granting councils, from industry, and from municipal and provincial governments. It is expected that the level of funding will be high. For its planned core size of
15 faculty members (with further possible expansion with the addition of industrial chairs), the size of annual operating research funding is expected to be in the order of $3M, excluding one-time grants and contributions such as CFI, Equipment, infrastructure funds, etc.

The PhD degree program is expected to have in steady state, about 1-2 graduate students per faculty member or for this size of faculty population, 15 to 30 students pursuing PhD degree at a given time.

3.3 Target audience, Student and Labour Market Demand

Graduated students will find career opportunities in industry, and academia, as well as in municipal, provincial and federal governments, both in Canada and internationally. After obtaining a PhD in civil engineering, students will have the opportunity to find jobs in industry, academia, and research establishments.

The proposed graduate program in civil engineering will offer the degree of Doctor of Philosophy (PhD) in the areas of faculty members’ specialties.

Civil engineers both graduate and undergraduate are the dominant engineering practitioners employed by the construction industry, the largest industry in BC. Future construction projects in the resource sector, such as pipelines and LNG plants, will be supported by civil engineers. Construction projects include renewal and new construction of infrastructure such as highways, sewage systems, and public water supplies which are also the domain of civil engineering. The ongoing transition to renewable carbon-free energy systems is also supported by civil engineers who are involved in run of the river power projects, wind farms and retrofitting old buildings for improved energy efficiency. Building codes and the way cities are designed are changing to take into account new more sustainable lifestyles. The transition to a more sustainable society is creating many research opportunities aimed at facilitating this transition.

Canada is the third largest exporter of consulting engineering services in the world and civil engineers are prominent in the consulting engineering industry. In BC a high proportion of the engineers registered with the Association of Professional Engineers and Geoscientists of BC (APEGBC) are civil and structural engineers. Of the newly registered professional engineers in BC every year, in excess of 40% have foreign academic credentials. This means that we are not producing enough engineers in BC to supply our own requirements. Finally Civil Engineering is the second most popular engineering discipline among engineering students in Canada, after Mechanical Engineering.
Another area of pressing need in BC for civil engineering expertise is in the area of remote community housing, and infrastructure such as drinking water. Many aboriginal communities are in remote locations therefore Civil Engineering is a logical area for future growth in aboriginal student enrollment in engineering.

Normally PhD students will be provided with financial support from faculty research funds for the first year. Subject to satisfactory performance and the availability of funding, financial support may be renewed. Graduate support can also be provided through various sources such as teaching assistantships, University of Victoria Fellowships, Mitacs Fellowships and NSERC Postgraduate Scholarships (PGS). All eligible students will be encouraged to apply for funding from provincial, federal and other external sources. It is essential that graduate students take part in undergraduate teaching as Teaching Assistants.

4. Admission Requirements

Admission requirements for the program will meet or exceed the requirements of the Faculty of Graduate Studies. Details particular to this Program are summarized below.

Applicants for admission whose first language is not English must meet the English Competency Requirement as specified by the Faculty of Graduate Studies. The minimum acceptable TOEFL (Test of English as a Foreign Language) score for the Civil Engineering Program will be 575 on the paper-based test or 90 on the Internet-based test (the minimum score for each section is Writing: 20; Speaking: 20; Reading: 20; Listening: 20). A minimum acceptable IELTS score will be 6.5. Even with passing TOEFL/IELTS scores, students may be required to take English language courses in addition to their other course work.

The admissions selection process will be competitive. Not all students who meet the minimum requirements will be admitted. It is expected that around 8 students will be admitted to the program each year in steady state. On-line applications will be submitted by following the links from the Faculty of Graduate Studies webpage. The Graduate Admissions and Records Office is the official depository for all applicant documentation. Additional information about graduate studies in the Program will be made available at the Faculty webpage.

Selection of students and the initiation of the admission process will be handled by the Civil Engineering Graduate Studies Committee in consultation with potential supervisors.
4.1. Admission to the Doctor of Philosophy (PhD) Program
The minimum requirement for admission to the doctoral program will be a master's degree in science or engineering. In exceptional cases, a student registered for a master’s degree may be allowed to transfer to the doctoral program without completing the master’s program.

4.2. Deadlines
Entry points to the Program will be September, January and May.

4.3. Program Requirements
The program requirements for the Civil Engineering Graduate PhD Program will be along similar lines to those of existing programs in the Faculty of Engineering. Upon the approval of the proposed program, the detailed calendar entry will be developed. Presently the following requirements are proposed.

The supervisory committee, in consultation with the student, will determine the program of study for each student. The supervisory committee may decide that additional course work is required. The program may also include senior undergraduate courses after assessment of the background strengths of the student.

4.4. Doctor of Philosophy (PhD)
The objective of the PhD program is the accomplishment of independent and original research work leading to significant advancement of knowledge in the field of civil engineering. All PhD students will be under the supervision of a member of the department’s graduate faculty.

4.4.1. Course Requirements
The program for a student with a master’s degree will be a minimum of 30 units, normally with not less than 3.0 units of approved course work, a 1.5 unit seminar, a 3.0 unit candidacy examination and a dissertation (CIVE 699). The approved course work must include CIVE 601(1.5 units) which must be taken before the candidacy exam.

A student transferring from a master's program to the doctoral program will be required to complete a program of at least 49.5 units. This program includes a minimum of 18 units of approved courses, (including CIVE 601), a 1.5 unit seminar, a 3.0 unit candidacy examination, and a dissertation (CIVE 699).
For those students transferring from a master’s program, credit will normally be given for courses already completed. Required course work will be subject to the approval of the department.

4.4.2. Comprehensive Exams
The Civil Engineering Program may not require comprehensive examinations.

4.4.3. Candidacy
Within 24 months of registration and successful completion of CIVE 601, a PhD student must submit a written dissertation research proposal, defining the research topic, the goals of the research and the methodology to be used. The PhD student is required to pass an oral candidacy exam before their supervisory committee. The PhD student must register in CIVE 693 (3.0 units) from the beginning of the PhD program until the candidacy examination is successfully completed. CIVE 693 is a prerequisite for CIVE 699. During the candidacy examination, the supervisory committee will question the candidate to determine whether the candidate has the appropriate background knowledge and skills to undertake the proposed dissertation project, and whether the project is likely to lead to results suitable for a PhD dissertation.

4.4.4. Other Requirements
Candidates who hold a master’s degree from a university outside Canada or the United States will normally be required to complete at least 9 units of courses, a 1.5 unit seminar and a 3.0 unit candidacy examination.

The program of study will be determined by the supervisory committee in consultation with the student. The supervisory committee may decide that additional course work is required. The program will allow for a maximum of one Directed Studies course (CIVE 590).

All PhD students will be required to give two seminars (CIVE 695) on their thesis research within 20 months and 34 months of registration. Normally, students will register in CIVE 695 until program completion. The seminars have a total unit value of 1.5. Students must attend a minimum of two-thirds of the seminar series.

4.4.5. Dissertation
The dissertation (CIVE 699) for the PhD program will be equivalent to 27 units. The topic of the dissertation is subject to the approval of the department.
4.4.6. Oral Examination
PhD candidates will be required to defend their completed dissertation in a final oral examination which is open to the public.

4.4.7. Program Length
The program length is determined by the Faculty of Graduate Studies. Civil Engineering PhD students are expected to complete program requirements within 36 months. Normally, financial support will not be continued beyond this time limit.

4.5. Co-Operative Option
Under exceptional circumstances, when it is quite evident that the industrial work periods form an essential and integral part of a student's thesis project, a PhD student may participate in the co-operative graduate program.

Participation in the co-operative program requires:
1. acceptance of the student by a suitable sponsoring organization
2. the organization's agreement to allow the publication of the student's research findings in the open literature

As an integral part of the graduate program, students are normally required to undertake teaching or research assistantships within the department.

5. Areas of specialization and evidence of adequate faculty complement
The present and future faculty members' research areas are briefly summarized below.

Table 1 presents five core research areas and the faculty qualified to teach graduate students, supervise research and/or serve on supervisory committees in these fields. Primary faculty are those individuals that will play a central role in the program, regularly supervising students and actively volunteering to contribute to graduate teaching in Civil Engineering. The associate members will have a less active role but are expected to facilitate the delivery of the program when they have students enrolled in it.

Table 1: Core Program Areas and Designated Faculty

<table>
<thead>
<tr>
<th>Core program areas</th>
<th>Faculty</th>
</tr>
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<tbody>
<tr>
<td>Structural and Materials Engineering,</td>
<td>Nadler, Gupta, Phalguni, 3 New Hires</td>
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</table>
As seen from Table 1, the total number of core faculty members presently planned is 15.5; that includes 14 regular appointments and the Chair of Department. Further Scott Iverson (0.5) is currently giving support in the transportation area, and we plan to initiate a number of Industrial Chairs (IRCs) in various key areas of civil engineering.

This planned number is the minimum required to deliver the undergraduate and proposed graduate programs in civil engineering. This also includes the effects of study leaves that are anticipated according to UVic policies. Of course any further expansion in recruitment will enhance the delivery of the programs.

Based on the experience in the existing engineering programs, study leaves do not affect supervision of graduate students. This is mainly due to the present communication tools available to supervisors and students. If any needs arise for interim supervision during the absence of a faculty member(s), the planned overlaps in research areas and the number of faculty members (see Table 1) in the specialty areas will be sufficient to provide adequate coverage. Present engineering policies regarding this issue will also apply to the civil program.

The anticipated effects on any existing programs will be complementary enhancements. Additional graduate courses, along with enhanced 4th year technical electives, will be available to the students of other programs.

6. **Curriculum design**

6.1. **Schedule of Course Delivery**
Graduate courses will normally be offered as 3h lectures per week as done in the sister department of mechanical engineering. Some courses may be scheduled as cross-listed 4th year undergraduate technical electives for efficiency.

6.2. **Delivery Methods**
Delivery methods may include a variety of options depending on the course content and instructors’
delivery; including a combination of classroom lectures, classroom tutorials, outside classroom projects, fieldwork and homework, etc., using the available teaching tools and techniques.

6.3. Linkage Between the Learning Outcomes and the Curriculum Design
This linkage will be evaluated and examined periodically. In engineering at UVic, presently, all undergraduate programs have or are preparing learning outcomes. The graduate programs are also going in that direction but the learning outcomes are not developed yet.

The proposed program capitalizes on evidence of growing demand for a new breed of Civil Engineering graduates needed to meet growing challenges in climate change adaptation and mitigation, sustainable water resources management and environmental management that considers population growth and limited resources in the future. Other areas include construction, rehabilitation and repair of infrastructure, innovative use of building materials, building science, building energy efficiency, water safety and security, energy from waste disposal, solid and liquid waste management, intelligent transportation systems, coastal engineering and design of infrastructure for remote and indigenous communities. The proposed graduate program will bring teaching, research and industrial collaborations on advanced and cutting-edge technologies to UVic. It will enhance the existing areas of strength at UVic and foster interdisciplinary research, both within Engineering and with other Faculties at UVic. Outcomes will be as follows for the proposed degree programs.

Ph.D. program is the most advanced degree in any areas of engineering and others. This requires the development of a comprehensive and deep knowledge base in the special areas of choice, and the further enhancement of knowledge.

At the end of the PhD program in Civil Engineering, students will be able to:
1. Investigate industrial and academic requirements using appropriate enquiry-based, experimental and analytical methods to identify underlying special civil engineering problems
2. Apply mathematics, natural sciences, engineering fundamentals, specialized knowledge of the branches of civil engineering, and state of the art engineering tools to formulate models of civil systems, execute model-based analyses and develop solutions informed by those analyses. (1, 2, 4).
3. Interpret results of model-based analyses or experimental based research to reach substantiated conclusions, develop an advanced knowledge base, and take them further and apply these results with an understanding of the associated limitations (2, 4).
4. Throughout the investigation, analysis, experiment, design and implementation of solutions to advanced engineering and scientific industrial and academic requirements, present techniques, processes, recommendations, and methods for advanced issues in civil engineering for academic and industrial applications.

6.4. Use and Purpose of Practica, Co-op, or Work Terms
As stated earlier in Section 4, the proposed Program will participate in the Co-operative Education Program of the Faculty of Graduate Studies.

Under exceptional circumstances, when it is quite evident that the industrial work periods form an essential and integral part of a student’s thesis project, a PhD student may participate in the co-operative graduate program.

Participation in the co-operative program requires:
1) acceptance of the student by a suitable sponsoring organization
2) the organization’s agreement to allow the publication of the student’s research findings in the open literature

In addition, without a formal co-op structure, graduate students whose research is based on collaborative research projects with industry may choose to spend during their program a period of time in the industrial premises and take part in industrial processes to enhance their training and learning. This will be encouraged whenever possible.

6.5. Residency Requirements and Anticipated Time to Completion
The residency requirements and anticipated times to completion for each degree program are as follows.

For the PhD degree program, a minimum of 2 year residency is required. A minimum of half of the courses required during the program must be taken at UVic (not including the directed studies course(s)). The completion time is normally 4 years except co-op students. Details are presented in Section 4 (programs requirements).

6.6. Policies on Student Evaluation, Candidacy Exams, and Oral Examinations
Policies on student evaluation and oral examinations for the Ph.D. degree program, and the policy of candidacy examination for the PhD program are presented in detail in Section 4 (programs requirements).

7. Enrolment Plan for the Length of the Program

In engineering a typical ratio of graduate students to faculty is 4 to 5, of which typically 2/3 are master students and 1/3 are PhD students. Based the core number of faculty members, which is 15, the expected number of PhD students will be in the order of 15- to 30.
It is expected that, similar to the Mechanical Engineering Program, also with the possible addition of industrial chairs, the number of PhD students in the civil program may exceed the projected numbers.

Table 2: Enrollment Projection for Full Grown Civil program

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CIVE 693 Units: 3.0
Candidacy Examination
PhD students enroll in CIVE 693 for the duration of their preparation for the candidacy examination. This begins at the time the PhD student first enrolls in the PhD program and continues until the candidacy examination has been completed.
Grading: INP, COM, N, F.

CIVE 695 Units: 1.5
Seminar
Participation in a program of seminars by internal and external speakers on current research topics. Normally, all PhD students are required to give two seminars on their thesis research within 16 months and 34 months of registration.
Grading: INP, COM, N, F.
CIVE 699 Units: 27.0
PhD Dissertation
Prerequisites: CIVE 693
Grading: INP, COM, N, F.
C. Enrollment Plan from Section 7

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<td>Transportation Systems</td>
<td>1 New Hire</td>
<td>1-2 PhD</td>
</tr>
<tr>
<td>Geotechnical Engineering</td>
<td>1 New Hire</td>
<td>1-2 PhD</td>
</tr>
<tr>
<td>Environmental Engineering</td>
<td>1 New Hire</td>
<td>1-2 PhD</td>
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<tr>
<td>Project and Construction Management, Design</td>
<td>1 New Hire</td>
<td>1-2 PhD</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>15-30 PhD</td>
</tr>
</tbody>
</table>

D. Recruitment and Marketing Plan

The recruitment and marketing plan for the proposed civil PhD graduate program will be similar to that of Mechanical Engineering. Civil engineering graduate students, normally, will fully be supported from faculty members research funding. We will also accept students with fellowships and scholarships.

The civil engineering graduate program will have a very well designed web page to describe the program and advertise our uniqueness and special research topics. We will aim at attracting outstanding Canadian and foreign students. Our established reputation in engineering will enhance our recruitment.

E. Letters of support

Strong support and interest shown for the civil undergraduate BEng program is an indication of the need for a graduate program, and will help with the quick development of the proposed graduate program.

The letters of support obtained for the undergraduate program are attached.
F. Business Plan

a. Income generated

Students will be supported from research funds, teaching assistantships, and fellowships. The students will pay tuition to the university.

b. Faculty Appointments

As mentioned the appointment of 15 core faculty members are projected.

c. Staff requirement

A graduate departmental secretary position will be needed.

d. Space requirement

Graduate student space required will about \((15-30) \times 40\text{sqft} = 600-1200\text{sqft}\). This will be available.

e. Library Requirement

In addition to what is required for the civil undergraduate program students, there will be some requirements in the forms of books, journals, and other tools.

g. Other Instructional Cost

Not anticipated.
March 18, 2011

Dr. Tom Tiedje
Dean
Faculty of Engineering
University of Victoria
Victoria, BC V9W 2Y2

Dear Dr. Tiedje:

RE: Support for a Civil Engineering Program at the University of Victoria

Based on my role as Knowledge Mobilization Coordinator at the University of Victoria, I write in strong support of your efforts to establish a civil engineering program at the University of Victoria. I work with my colleague Dr. Joaquin Trapero in the Office of Research Services (and with many others across the campus) to provide knowledge mobilization (KM) services to the university and our community. Knowledge mobilization refers to the purposeful application of research results for societal benefit. KM is a research priority for our institution, and is considered the research component of the university’s civic engagement. Amongst other activities, my role is to help connect university researchers with those in the community who could use their research, and connect community organizations (including governments at all levels) with researchers who could help them with the many issues with which they grapple.

Local governments in our region (and elsewhere) are facing immense fiscal challenges in addressing the needs of their communities. At a recent meeting, one local government shared a number of issues with us, and asked about the possibility of exploring how UVic research expertise could assist them with these issues. Not surprisingly given the responsibilities of local governments, a large number of these concern civil-engineering matters. Some examples include (but are not limited to) the following:

- Transportation: master plans, public transit planning and infrastructure, road networks, bicycle parking plans and strategies, zero-emissions vehicles;
- Water and wastewater: water master plans, stormwater planning and infrastructure; waste water/sewer master planning and infrastructure, emergency supplies of water;
- Solid waste management;
- Buildings: asset management plans and strategies, building condition assessments;
- Energy: green/renewable energy, energy efficiency, reducing energy costs; and
- Green buildings: policies, by-laws, regulations, and other sustainability initiatives.

Based on our experience, Joaquin and I strongly believe these are challenges for other local communities, as well as communities within our Vancouver Island region, province, and even across Canada. More expertise in this area from researchers at UVic willing to work with communities to address these and other matters would be most welcome.

Yours sincerely,

Dale Anderson, PhD
Knowledge Mobilization Coordinator
February 22, 2011

Honourable Ida Chong
Minister of Science and Universities
PO Box 9080 Stn Prov Govt
Victoria BC
V8W 9E2

Re: Support for Civil-Sustainable-Environmental Engineering Program at UVic

Dear Minister Chong:

Throughout my career, I have been involved in creating solutions for society's challenges; as an engineer, it is at the very core of my work. Now more than ever, engineers must use their natural problem-solving abilities to address the challenges of a changing environment to ensure sustainability for future generations. This is becoming an integral part of engineering practice, especially with respect to disciplines that address our built environment, such as civil engineering.

In my current capacity, interacting with people in industry, government, business and universities, it is clear the problem of our changing climate and environment is more challenging than ever. The question of how to educate engineers to successfully and efficiently address the challenges associated with these changes is one of paramount importance to the prosperity of British Columbia.

The proposed Civil-Sustainable-Environmental Engineering program capitalizes on strong evidence of this growing demand for engineering graduates to address challenges in climate change adaptation and mitigation, water resource management and environmental impacts.

We applaud the initiative and offer the strongest possible endorsement of developing and expanding the engineering program at the University of Victoria. We are impressed with the innovation and leadership of the engineering faculty and know that this initiative will be transformative for education at UVic. Currently, 45% of the engineers that we licensed in 2010 were internationally educated. This creates a huge vulnerability to our long-term prosperity. We urge support for this initiative.

Yours truly,

Frank Denton, P.Eng.
President

cc: Don Fast, Deputy Minister of Science and Universities
    Dr. Tom Tiedje, P.Eng., Dean of Engineering, University of Victoria
January 21, 2010

Dr. Tom Tiedje, Dean
Faculty of Engineering
University of Victoria
3800 Finnerty Road (Ring Road)
Victoria, BC
V8P 5C2

Re: Proposed Bachelor of Engineering Program in Civil & Environmental Engineering

Dear Dean Tiedje

The Canadian Society for Senior Engineers (CSSE) is indeed privileged and honoured to have had the opportunity to review the University of Victoria Faculty of Engineering's proposal to create a Bachelor of Engineering Program in Civil and Environmental Engineering.

The Canadian Society for Senior Engineers (CSSE), a Member Society of the Engineering Institute of Canada (EIC), is a Canada-wide organization of Senior Engineers, representing a broad spectrum of engineering disciplines. Many of our members have held senior leadership positions in industry, academia, government and many are Fellows of the Engineering learned societies. As part of our advocacy mandate, the CSSE maintains an active role in expressing carefully considered opinions, either alone or in concert with other Canadian engineering organizations, on issues of sovereign national or important regional interest relating to Canadian engineering.

It is clear that there are many challenges in the future to redevelop much of our aging urban infrastructure using the best sustainable technologies available for Canada to meet its long term needs. I welcome your initiative to create a Civil and Environmental Engineering program at the University of Victoria to graduate some 60 Bachelor's graduates per year, plus Master's and PhD graduates that our increasingly economically-driven, environmentally sensitive society demands.

National Engineering enrollment data also indicates that Civil Engineering and Environmental Engineering undergraduate programs attract up to double the women students as a percentage of enrollment than do the current UVic Faculty of Engineering disciplines offered. The 2009 Engineering Leadership Summit, in the Montreal Declaration, noted that, "At a high level, we acknowledge that we must: Attract and retain women in much greater numbers". The program UVic is proposing would do that.
I also like your approach to marketplace differentiation, namely

- inclusion of environmental issues in the design process from the outset, rather than as afterthoughts or add-ons – the so-called Triple Bottom Line

- emphasis on water, green building design & retrofit, and integrated transportation systems

- close ties with work being done in your Department of Mechanical Engineering on renewable and integrated energy systems, in the Pacific Institute for Climate Solutions on mitigation and adaptation options for climate change, in the Department of Biology on water quality, in the Environmental Studies Department on ecological restoration and in the Environmental Law Program.

- Practical work experience as an integral and essential part of the academic program, with a minimum of four co-op work terms required for graduation.

From the local CSSE Vancouver Island Branch perspective, we have experience that indicates that the proposed Civil and Environmental Engineering program will be welcomed by parents and students who will no longer have to leave Vancouver Island to pursue a Civil Engineering degree.

I am certain employers will look forward to the possibility of employing your students both on co-op work terms and after graduation.

Please don't hesitate to contact me if I may be of further assistance.

Yours sincerely,

Dr. Robin Black, Ph.D., P.Eng., C.C.E.
Owner, Robin Black & Associates

Member of the Canadian Society of Senior Engineers
Board Member of the Mid Island Science Technology and Innovation Council
Life Member of APEGGA, Member of APEGBC
Life Member of The Canadian Medical and Biological Engineering Society
Past President and Life Member of the Calgary Council for Advanced Technology
January 28, 2010

Dr. T. Tiedje
Dean, Faculty of Engineering
University of Victoria

RE: Civil-Sustainable-Environmental Engineering Program at UVic

Dear Dr. Tiedje,

It is the clear mandate of the UVic Engineering Students' Society to represent the best interests of UVic Engineering students. For this reason it is prudent that, on behalf of the organization, I express support of the proposed Civil-Sustainable-Environmental Engineering Program at UVic.

The University of Victoria has a very narrow engineering faculty. As shown in the Civil and Environmental proposal, UVic has one of the least diverse engineering programs in Canada. This lack of diversity negatively affects UVic students by limiting their opportunity to pursue different avenues within engineering - if a student takes engineering at UVic, they must settle for Mechanical, Electrical, Computer, or Software Engineering. By limiting the choices available to students, the chance of them pursuing the type of engineering that is right for them is greatly decreased. In the end, going into the right discipline predicates success in the program - a goal that the faculty and the ESS share.

While success within the program may determine the course of a student's degree, it does not challenge their place in industry. As technology changes, engineers must be prepared to meet the requirements laid out by the industry. For this reason, a supply of engineers of any and all disciplines is necessary. UVic should aim to prepare its students to meet this necessity. By allowing more program diversity within the faculty, UVic will be able to graduate engineers who will have a key role in society.

Finally, it is clear in the current cultural climate that sustainability and environmental awareness are paramount concerns. As a campus, UVic is extremely aware of this. The introduction of a sustainability program within engineering brings the engineering faculty up to par with this well established culture on campus. The introduction of the program would solidify UVic's role as a leader in sustainability research and education, and would address the growing issues we face.

Post-secondary education has a role in preparing students for technically demanding careers. This is the obligation laid upon the institution itself, and should therefore be enthusiastically met. By diversifying their array of engineering specializations, UVic would have a program that accomplishes this demand, but which also better interests, prepares, and suits their students.

Thank you,

Liam Butters
President, UVic Engineering Students' Society
January 18, 2010

Dean Thomas Tiedje,
Faculty of Engineering, UVic,
PO Box 1700, STN CSC,
Victoria, B.C., V8W 2Y2.

Dear Tom

Re: Proposed Faculty of Civil Engineering at UVic

I was delighted with your presentation on January 8 at the EIC/CSSE meeting on the proposed civil engineering program for UVic.

You have my support for this proposal.

Demand for civil engineers has increased in the last decade and the province graduates less than half of the required 250 engineers per year.

Furthermore the field of civil engineering has expanded, increasing the demand for civil engineers.

In order to meet our demand for civil engineers, more programs will have to be opened. It makes excellent sense to add civil engineering to the existing faculty of engineering at UVic.

Also due to the speed at which technology is moving, there will have to be provisions made to retrain engineers. It is estimated that engineers will require updating 2 or 3 time during their career. This need should be considered when setting up a civil engineering faculty.

Thank you and hopefully the civil engineering program will be created.

Yours truly,

[Signature]

Gerard F. Buydens, P.Eng
February 10, 2010

Faculty of Engineering  
University of Victoria  
PO Box 3055 Stn C  
Victoria, BC V8W 3P6

Attention: Professor Tom Tiedje, Dean of Engineering

Reference: Letter of Support for the CEAB Accredited Degree Program

Dear Sirs,

On behalf of CWA Engineers Inc., I am pleased to provide this letter of support to The University of Victoria’s Faculty of Engineering to create a CEAB accredited degree program for Civil Engineers.

There has been a significant shortage of engineers before the economic downturn in late 2008. With the global economy on the road of recovery and British Columbia leading the way in Canada, the need for trained engineers will be in high demand, particularly civil engineers in the infrastructure, utility and resource sectors.

CWA believes that a program as proposed by the University of Victoria will provide another much needed base for training civil engineers for the province and nationally.

I sincerely support this initiative.

Please feel free to contact me if I can be of further assistance.

Yours truly,

CWA Engineers Inc.

President

Dir: 604 419 5161  
www.cwaengineers.com
May 2, 2011

Dear Tom,

Re: Establishment of a Civil Engineering program at the University of Victoria

On behalf of the University of Victoria's Co-operative Education Program and Career Services, I would like to add my voice of support for the establishment of a program in Civil Engineering at UVic. The Engineering program has been a strong participant in our co-operative education program that has, since its inception, seen more than 14,000 engineering student placements. These students have worked throughout BC, Canada and internationally and have become successful alumni.

A program in Civil Engineering would be a positive addition to the set of programs we already have available to our industry partners. Many of our industry partners have requested students with a background in civil engineering and the introduction of such a program would not only strengthen our relationships with existing industry partners, but would also allow us to expand and develop new partnerships. With labour market projections for civil engineering forecasting strong demand we will be graduating students with excellent prospects for successful careers in civil engineering.

As we continue to grow our international opportunities for engineering students through exchange agreements, the availability of civil engineering would allow for more exchange possibilities. This could result in more of our engineering students having international experiences and capabilities prior to graduation.

A civil engineering program at UVic would be a positive development for the faculty, the university and our community. As a result, I would strongly endorse your proposal.

Sincerely,

Norah McRae
Executive Director, Co-operative Education Program and Career Services
April 5, 2011

T. Tiedje
Dean, Faculty of Engineering
Professor, Electrical and Computer Engineering
University of Victoria
Engineering Office Wing, Room 248
PO Box 3055 STN CSC
Victoria, BC, V8W 3P6

Dear Tom,

Thank you for the opportunity to discuss the proposal for a Civil Sustainable Engineering Program at UVic. The proposal is most timely, and will be very complementary with campus efforts to be a community and academic leader in sustainability in the future. There are many areas of intersection with the Geography program, and I look forward to our further discussions about creating synergies between our units to augment the learning opportunities for students from both of our disciplines.

Sincerely,

Philip Dearden, PhD
Professor and Chair
January 20, 2011

Thomas Tiedje  
Dean of Engineering  
University of Victoria,  
Victoria, BC.

Dear Dr. Tiedje,

Headworks Bio Canada Inc., a global leader for mechanical and biological wastewater treatment based wastewater treatment technology, is a wholly owned subsidiary of Headworks, based in Houston, Texas.

Headworks Bio team members are committed to designing and implementing quality treatment systems for the industrial, municipal and marine markets. Emphasis on sustainability and water reuse are key values, as well as constant research and evaluation of new technologies and processes.

Headworks Bio is already a committed partner in UVIC’s COOP program, hiring mechanical engineering coop students to assist our engineers, and as potential full-time candidates upon graduation.

However, in addition to our existing mechanical needs, we would be very interested in having a civil engineering program at UVIC also, with emphasis on water and infrastructure. Coop students from such a program would be of great interest to our business and would be a great addition to our engineering team.

I hope you will be successful in getting the civil engineering program at UVIC started in the near future.

Sincerely,

Graeme Dempster, P.Eng  
Senior Design Engineer  
Headworks Bio Canada.
10 February, 2010

Dear Dr. Tiedje,

Vancouver Island University (VIU) is pleased to offer our support for the University of Victoria’s efforts to initiate a Bachelor of Engineering Program in Sustainable Civil Engineering.

VIU services engineering students in the mid-Island region primarily through transfer agreements with the University of Victoria (UVic) and the University of British Columbia (UBC). Hence, we work primarily with students in either their first or second year of studies and have a strong connection with high schools in this catchment area. In many cases, we find that students in 1st or 2nd year do not have a strong pull towards any particular engineering stream. Indeed, most do not yet have a good understanding of what it means to work as an Electrical Engineer, a Civil Engineer, etc. What these students need are options, and that is what we believe the Sustainable Civil Engineering stream at the University of Victoria (UVic) would offer.

We also note with interest the studies put forth by UVic in support of their application indicating that there is not only an increasing need for civil engineers to build our infrastructure, design towards energy conservation, and help society move towards a greener economy, but there is also the demographic need to replace the large numbers of civil engineers who are nearing retirement. Local industry has communicated a similar sentiment to us and has shown a strong desire to not only increase the number of Intakes for civil engineering students but also to ensure that a portion of that increase is located on Vancouver Island. This proximity allows these companies to have a closer relationship with students through their academic careers and therefore increase the likelihood that these students will choose to make Vancouver Island their home upon graduation.

It is interesting to note that the majority of students from our program who transfer to UVic apply for Mechanical or Electrical Engineering (two streams offered at both UBC and UVic) while the majority of those who transfer to UBC are applying for Civil Engineering (a stream not offered at UVic). We suspect that if a Sustainable Civil Engineering program were in place at UVic, the majority of students currently transferring from VIU to UBC in their second year would instead switch to UVic in order to be closer to their families. We believe that by staying closer to home, the impact on both their studies and their desire to stay within the region will be positive.

Please do not hesitate to contact us further.

Sincerely,

Brian Dick, Ph.D.
Engineering Coordinator/Professor
Vancouver Island University

Greg Crawford, Ph.D.
Dean, Faculty of Science and Technology
Vancouver Island University
February 8, 2010

Dr. Catherine A. Mateer
Associate Vice-President Academic Planning
Administrative Services Building A244
PO Box 1700 STN CSC
Victoria BC V8W 2Y2

Dear Dr. Mateer:

Thank you for your letter of January 20, 2011, with attached letters of support for the proposed Civil-Sustainable-Environmental Engineering Program at the University of Victoria (UVic). As you note, the letters suggest that the proposed program would be well received by a wide range of organizations on Vancouver Island.

I have forwarded the letters to staff within the Ministry of Science and Universities for consideration during the review of the engineering proposal recently submitted by UVic. While no new funding is currently available for such an initiative, I appreciate the on-going efforts of UVic to explore new programming, both responsive to the needs of the economy and building on the strengths of the university.

Thank you again for apprising me of the letters of support.

Sincerely,

Don Fast
Deputy Minister
March 30, 2011

I am writing to express support for the Proposal for Civil and Environmental Engineering at UVic. It is clear that there is student demand for such a program, as well as societal demand for program graduates. The focus on environmental and sustainability issues seems timely and appropriate for UVic, and the integrated-discipline approach is pedagogically sound. Adding Civil and Environmental components would significantly increase the breadth in Engineering at UVic, bringing in students in those disciplines and making the Engineering program in general more attractive to entry-level students who have not decided their specialization.

I noted with interest mention in the proposal of addressing engineering challenges in climate change adaptation, water resource management, and environmental impacts. Faculty in the School of Earth and Ocean Sciences (SEOS) address similar issues in both teaching and research from a science perspective. Hence, there should be joint interests and possibilities for collaboration between our departments, which we would welcome. You have identified several courses in our program of interest to your students, either as core or elective courses. Likewise, some courses in your program may be of interest to our students (e.g., Soil and rock mechanics), although there may be issues regarding prerequisites.

In summary, the proposed Civil and Environmental Engineering Program sounds like it would be good for UVic and is of interest to SEOS—I am pleased to support the proposal.

Sincerely,

Stan Dosso
Acting Director and Professor
Dean T. Tiedje,
Faculty of Engineering,
3800 Finnerty Rd.,
UVIC
V8P 5C2

Dear Dr. Tiedje,

Thank you for developing a proposal for inclusion of Civil Engineering into the UVIC faculty.

As president of the Scholarship Society of the Vancouver Island Branch of the Engineering Institute of Canada off and on over the last 24 I have witnessed the problems that civil engineering students from Vancouver Island face in trying to obtain a degree "offshore".

Separated from the possibility of home residence and support and burdened with extra travel expenses they experience a particularly hard time in achieving their life's goal. Many do not make it.

The members of our small Branch have distributed some $70,000 to deserving engineering students from this area over the years and put an additional $35,000 into an endowment fund. No discipline needs this assistance more than do Civils.

Good luck with, and congratulations on, your proposal for a Victoria based Faculty.

Yours sincerely,

D. Murray Galbraith
1565 Brodick Cr.
Victoria, B.C.
V8N 1N3
February 3, 2010
File: 10-0000-01/2010-Vol 01

Professor Tom Tiedje, Dean
Faculty of Engineering
University of Victoria
PO Box 3055, Station C
Victoria BC V8W 3P6

Dear Professor Tiedje:

Re: CEAB Accredited Degree Program - Civil Engineers

In response to your request for support of the University of Victoria’s proposed CEAB Accredited Degree Program, I confirm that the City of Richmond agrees that this is a very worthwhile initiative.

There is a high demand for engineers and a program such as you are proposing would not only increase the supply, but also enhance the calibre of engineers coming to the workforce.

For the past 4-5 years, the City of Richmond has implemented an Engineer in Training Program, providing practical work training and exposure to all aspects of Civil Engineering. Our program has proven to be very successful. We are like-minded in our quest for quality engineers. We also maintain a Co-op student Program, which has proven beneficial to both students and the Engineering & Public Works Department.

In conclusion, we whole-heartedly endorse your program. If you require further clarification, please do not hesitate to contact me.

Yours truly,

Robert Gonzalez, P.Eng.
General Manager, Engineering and Public Works
(604) 276-4150
rgonzalez@richmond.ca

RG:es
Dear Dean Tiedje:

Reference: Re: Proposed Civil Engineering Department at UVic

We’re pleased to have had the opportunity to review your Faculty of Engineering’s proposal to create a Bachelor of Engineering Program in Sustainable Civil Engineering.

As an employer of Civil Engineers, we noted with interest that about 240 new Civil Engineers will be required per year in BC just to offset retirements. In addition, we agree that infrastructure renewal, new construction, energy conservation and the challenges of moving to a greener economy will create substantial additional demand here for Civil Engineers. Given that UBC currently graduates about 125 Civil Engineers per year, it is clear that an additional source of supply is needed and so we welcome your initiative to graduate about 60 Bachelor’s graduates per year, plus Master’s and PhD graduates.

We also like your approach to marketplace differentiation, namely

- inclusion of environmental issues in the design process from the outset, rather than as afterthoughts or add-ons - the so-called Triple Bottom Line

- emphasis on water, green building design & retrofit, and integrated transportation systems. Consideration of providing some structural courses within the green building program would be beneficial to at least 4 major structural firms on Vancouver Island, as well as numerous smaller ones.

- close ties with work being done in your Department of Mechanical Engineering on renewable energy sources, in the Pacific Institute for Climate Solutions on mitigation and adaptation options for climate change, in the Department of Biology on water quality, in the Environmental Studies Department on ecological restoration and in the Environmental Law Program [among others]

- practical work experience as an integral and essential part of the academic program, with a minimum of four co-op work terms required for graduation.

We look forward to the possibility of employing your students both on co-op work terms and after graduation.

Please don’t hesitate to ask if we may be of further assistance.
Stantec

January 21, 2010
Dean Thomas Tiedje
Page 2 of 2

Reference: Proposed Civil Engineering Department at UVic

Sincerely,

STANTEC CONSULTING LTD.

Tony Horlor, P. Eng.
Principal
Tel: (250) 388-9161
Fax: (250) 382-0514
tony.horlor@stantec.com

c.

es z:\et_amhuvic\20100121.doc
February 15, 2010

Faculty of Engineering
University of Victoria
P.O. Box 3055, Stn C
Victoria, BC V8W 3P6

Attention: Professor Tom Tiedje, Dean of Engineering

Dear Mr. Tiedje:

Re: Proposed Civil Engineering Program at the University of Victoria

Thank you for providing a copy of your draft proposal for establishing a Civil Engineering program at the University of Victoria. I have read the proposal with interest and note that a substantial amount of effort has gone into preparing an outline of the program.

As you are aware, Metro Vancouver provides services to more than 2.2 million residents in the Greater Vancouver area, and has an ongoing need for civil engineers. Our data suggests that as demand for regional services expands with the growing population in the region, and as increasing numbers of civil engineers retire over the next decade, our demand for civil engineers will grow. In support of this need, we have taken the initiative to make Metro Vancouver an organization of choice for young graduates. The cornerstone of this initiative is a formal, structured four year Engineers-in-Training (EIT) program that will facilitate the EIT obtaining their professional designation in a timely manner and develop EIT's with an intimate knowledge of how our organization works.

We are supportive of a new Civil Engineering program at the University of Victoria to help address the growing demand for civil engineers, however, the program needs to be competitive with those offered by other major universities in Canada. In our opinion, this means providing strong academic and practical learning experiences, setting high academic entry and graduation standards, hiring instructors that are leaders in their field, as well as developing a curriculum that meets the needs of the industry.

From our perspective, the sustainability element of the proposed program is essential. Sustainability has been at the core of Metro Vancouver's management and operating philosophy since 2002. We believe engineering has a particularly important role in applying the principles of sustainability and we specifically recruit for skills and knowledge in this area.
I trust that these comments will be helpful to you as you continue to develop and build support for your proposed civil engineering program.

Yours truly,

[Signature]

Tim R. Jarvis, P.Eng.
Manager, Engineering & Construction

cc: Toivo Alias  ) Metro Vancouver, Policy & Planning
    Doug Humphris  ) Metro Vancouver, Operations & Maintenance
    Linda Shore   ) Metro Vancouver, Human Resources
Dear Dean Tiedje,

I am pleased to have seen your Faculty of Engineering’s proposal to create a Bachelor of Engineering Program in Sustainable Civil Engineering.

I note with interest that about 240 new Civil Engineers will be required per year in BC just to offset retirements. In addition, I agree that infrastructure renewal, new construction, energy conservation and the challenges of moving to a greener economy will create substantial additional demand here for Civil Engineers. Given that UBC currently only graduates about 125 Civil Engineers per year, it is clear that an additional source of supply is needed, so your initiative to graduate about 60 Bachelor’s graduates per year, plus Master’s and PhD graduates is most welcome.

I also like your approach to marketplace differentiation, namely

- inclusion of environmental issues in the design process from the outset, rather than as afterthoughts or add-ons – the so-called Triple Bottom Line

- emphasis on water, green building design & retrofit, and integrated transportation systems

- close ties with work being done in your Department of Mechanical Engineering on renewable energy sources, in the Pacific Institute for Climate Solutions on mitigation and adaptation options for climate change, in the Department of Biology on water quality, in the Environmental Studies Department on ecological restoration and in the Environmental Law Program.

- practical work experience as an integral and essential part of the academic program, with a minimum of four co-op work terms required for graduation.

Regards

Mahomed Kathrada, P.Eng.
February 2, 2010

File: 0510-01

FACSIMILE: 250-721-8676

University of Victoria
Faculty of Engineering
PO Box 3055 Stn C
Victoria BC V8W 3P6

Attention: Tom Tiedje,
Dean of Engineering

Dear Mr. Tiedje:

Re: New Civil Engineering Program at the University of Victoria

Thank you for your e-mail dated January 22, 2010 regarding the University of Victoria’s Faculty of Engineering’s CEAB accredited degree program.

I would like to indicate my support to the University of Victoria of the CEAB accredited degree program which is being pursued.

The project is aligned with the need for a greater supply of B.Eng. Graduates for local governments.

If you require further information, please feel free to contact me at 604-591-4314.

Yours truly,

Vincent Lalonde, P. Eng
General Manager, Engineering

VL/kd/brb
March 29, 2011

Dr. Thomas Tiedje, PEng
Dean
Faculty of Engineering
University of Victoria
PO Box 3058 STN CSC
Victoria, BC V9W 2Y2

Dear Sir:

Re: University of Victoria—
Proposed Civil/Environmental Engineering Degree Program

I wish to offer support and encouragement for the proposed Civil/Environmental Engineering Degree Program to be offered by the University of Victoria. Levelton Consultants Ltd. is a BC-based firm of consulting engineers with over 45 years of experience in the civil and environmental engineering disciplines. We currently employ over 200 engineers, scientists and support staff in BC and Alberta. We depend on the availability of engineering graduates to meet growing demand, sustain our business and to help infuse emerging technology into our practice.

It is clear that in recent years the demographics of Canada’s professional work force have shifted significantly, and after two or three decades of an over-supply of engineering capacity we are now facing a period in which the demand for engineering capacity will exceed the supply. We also expect that the overall demand for engineering services will continue to increase with the anticipated increase in economic development, both domestically and abroad. Furthermore, the current challenges in the energy, environmental and infrastructure renewal fields will place added importance on the civil and environmental disciplines.

Accordingly, the proposal to augment UVic’s highly respected engineering program is timely and necessary. We look forward to the opportunity to work with UVic and its civil/environmental engineering graduates.

LEVELTON CONSULTANTS LTD.

Per: N.A. Cumming, FACI, PEng.
Executive Vice President
February 10, 2010

Prof. Tom Tiedje, Dean
Faculty of Engineering
University of Victoria
PO Box 3055 Stn C
Victoria BC V8W 3P6

Dear Prof. Tiedje:

RE: Civil Sustainable Environmental Engineering Program

This letter is to provide our support for the development of a civil engineering program at the University of Victoria. The demand for graduate engineers in BC is high and as the trend of increased retirement of engineers continues it becomes increasingly difficult to find qualified engineering graduates. Kerr Wood Leidal is an BC based, consulting engineering firm specializing in water and wastewater infrastructure from water supply to sewage treatment. We have had a Victoria office for the past 10 years. Our Burnaby office has grown to over 85 people and continues to grow. We are poised to grow our Victoria operation but are limited by lack of local talent.

As our municipal infrastructure crumbles there will be increased demand for civil engineering expertise. Sustainable infrastructure and water resources management are two of our business lines and these are areas of market growth. UBC currently graduates about 125 civil engineering graduates per year. Many of them get multiple offers in the Vancouver area and leave us with very few to choose from. We often hire out of Province engineers since BC educated engineers are not available. In addition, in the Water Resources specialty area, UBC graduates about 10 Masters Level graduates per year. Over half of these are from other countries and return to the home countries so it is very difficult for us to find these specialists for the Victoria area. This proposed program has a strong focus on the environment through environmental design and management. We see this as a plus since our business is focused on this area of engineering. In 1990 I returned to school to upgrade from a technology degree obtained from Camosun College and was forced to go off the Island to obtain a degree in civil engineering.
Prof. Tom Tiedje,
February 10, 2010

Given the demand, we strongly encourage the University of Victoria to pursue this program as soon as possible.

Yours truly,

KERR WOOD LEIDAL ASSOCIATES LTD.

David Murray, P.Eng.
Project Manager

dnM/ami

KERR WOOD LEIDAL
 associates limited
April 26, 2011

Tom Tiedje, PhD, PEng., FRSC
Dean, Faculty of Engineering
UVIC
PO Box 3055 Stn CSC
Victoria BC
V8W 3P6

Re: Support for Civil-Sustainable-Environmental Engineering Program at UVIC

Dr. Tiedje

On behalf of Camosun College I would like to express my support for offering the Civil Engineering Degree at UVIC. The breadth of engineering programs offered on Vancouver Island is narrow and should be broadened. Of all the engineering professions, one of the highest demand areas is Civil Engineering. Vancouver Island has a growing need for professionals to work on developing the municipal infrastructure, water resources and resource based industries. There is a need for growth as well as replacement for the retiring work force.

Camosun College has offered a very successful Civil Engineering Technology program for over thirty years. Technology graduates want to advance their careers by qualifying as Engineers. We have facilitated this transition by partnership with Universities for over 20 years. Camosun College is privileged to be the only college serving this program niche and has developed a national reputation for such successful transitions. We have a long standing and successful partnership with UVIC for Mechanical and Electrical Engineering. Our Civil Engineering Partnership is with UBC. This agreement has graduates of 2 year technology program from all parts of Canada come to Victoria and then move to Vancouver to complete their degree. A Civil Engineering degree would not only allow direct entry from high school to the UVIC degree but also allow the majority of Civil Technology graduates to transfer and study locally at UVIC.

When employers select new engineers they express a greater interest for those with the technology to engineer pathway. To that end, Camosun College and UVIC has an excellent opportunity to work together to fulfill not only the needs of prospective students but also identify the demand of employers.

Camosun College is so committed to this new program that we are willing to support our UVIC peers by offering access to our laboratory equipment and provide support in teaching such curriculum content, if required. In summary, Camosun College fully supports this Initiative. If any further information is required, please do not hesitate to contact me at your convenience.
Yours truly,

[Signature]

Baldev Pooni, MSc.
Vice President
Education & Student Services

c: Catherine Mateer, Associate Vice President Academic Planning, UVIC
Eric Sehn, Dean of Trades and Technology Camosun College
January 16, 2010

Dr. Tom Tiedje, Dean
Faculty of Engineering
University of Victoria
3800 Finnerty Road (Ring Road)
Victoria, BC
V8P 5C2

Re: Proposed Bachelor of Engineering Program in Civil & Environmental Engineering

Dear Dean Tiedje,

The Canadian Society for Senior Engineers (CSSE) is indeed privileged and honored to have had the opportunity to review the University of Victoria Faculty of Engineering’s proposal to create a Bachelor of Engineering Program in Civil and Environmental Engineering.

The Canadian Society for Senior Engineers (CSSE), a Member Society of the Engineering Institute of Canada (EIC), is a Canada-wide organization of Senior Engineers, representing a broad spectrum of engineering disciplines. Many of our members have held senior leadership positions in industry, academia, government and many are Fellows of the Engineering learned societies. As part of our advocacy mandate, the CSSE maintains an active role in expressing carefully considered opinions, either alone or in concert with other Canadian engineering organizations, on issues of sovereign national or important regional interest relating to Canadian engineering.

As a former employer of Civil Engineers, I noted with interest that well in excess of 200 new Civil Engineers will be required each year in British Columbia just to offset retirements, not to mention economic growth and infrastructure replacement. Infrastructure renewal, new construction, energy conservation and the challenges of moving to a greener economy will create substantial additional demand in B.C. for Civil Engineers. Given that UBC currently graduates only about half of the incremental B.C. demand for Civil Engineers per year and some immediately leave the Province for employment elsewhere, it is clear that an additional source of supply of new Civil Engineering graduates is urgently needed. The need for additional Environmental Engineers is similarly compelling, albeit on a smaller scale.

With these strong economic and societal drivers in mind, we welcome your initiative create a Civil and Environmental Engineering program at the University of Victoria to graduate some 50 Bachelor’s graduates per year, plus Master’s and PhD graduates that our increasingly economically-driven, environmentally sensitive society demands.

National Engineering enrollment data also indicates that Civil Engineering and Environmental Engineering undergraduate programs attract up to double the women students as a percentage of enrollment than do the current UVic Faculty of Engineering disciplines offered. The 2009 Engineering Leadership Summit, in the Montreal Declaration, noted that, “At a high level, we acknowledge that we must: … Attract and retain women in much greater numbers”. The program UVic is proposing would do that.

I also like your approach to marketplace differentiation, namely

- inclusion of environmental issues in the design process from the outset, rather than as afterthoughts or add-ons – the so-called Triple Bottom Line

K.W. Putt, P.Eng.
558 Wilderness Place, Sooke, B.C. V9Z 1C4
Experience counts! 
Valorisons l'expérience!

- emphasis on water, green building design & retrofit, and integrated transportation systems
- close ties with work being done in your Department of Mechanical Engineering on renewable and integrated energy systems, in the Pacific Institute for Climate Solutions on mitigation and adaptation options for climate change, in the Department of Biology on water quality, in the Environmental Studies Department on ecological restoration and in the Environmental Law Program.
- Practical work experience as an integral and essential part of the academic program, with a minimum of four co-op work terms required for graduation.

From the local CSSE Vancouver Island Branch perspective, we have experience that indicates that the proposed Civil and Environmental Engineering program will be welcomed by parents and students who will no longer have to leave Vancouver Island to pursue a Civil Engineering degree.

I am certain employers will look forward to the possibility of employing your students both on co-op work terms and after graduation.

Please don't hesitate to contact me if I may be of further assistance.

Yours sincerely,

K.W. (Ken) Putt, P.Eng., FCAE, FEIC, FCSSE
Past-President, Canadian Society for Senior Engineers (CSSE)
Past-President, Engineering Institute of Canada (EIC)
Past-President, Canadian Society for Engineering Management (CSEM)

K.W. Putt, P.Eng.
558 Wilderness Place, Sooke, B.C. V9Z 1C4
February 28, 2011

Mr. Don Fast
Deputy Minister
Ministry of Science and Universities
PO Box 9324 Stn Prov Govt
Victoria, BC V8W9N3
Fax 250 952-0600

Dear Mr. Fast,

Thank you for your letter of February 8 to Dr. Catherine Mateer with respect to support letters for the proposed Civil and Environmental Engineering program at the University of Victoria.

External support continues to broaden as evidenced by additional letters of support that we are receiving.

Thank you for your attention to this program, which is responsive to student demand as well as to the needs of the economy.

Sincerely,

[Signature]

Tom Tiedje
Dean of Engineering
2010-Jan-28

Professor Tom Tiedje, Dean
Faculty of Engineering
University of Victoria
P.O. Box 3055, Stn. C
Victoria, B.C.
V8W 3P6

Dear Professor Tiedje:

As a University of Victoria alumnus (BSc 1998), I have taken the initiative to write a note on behalf of the Engineering Department at the City of Nanaimo. The City of Nanaimo has a staff of at least 7 Civil Engineers, some of which are originally from the Island. We are pleased to learn that the University of Victoria is considering the development of a Civil Engineering program. We feel that a Civil Engineering program on the Island is long overdue.

It can be a challenge finding qualified Civil Engineers to work on the Island. The City has experienced this, also we have heard anecdotally from consultants that it is a major challenge for them as well. An Island based Civil Engineering program would go a long way to establishing a local presence and would allow local students interested in such a program to stay on the Island.

Given that there are a number of important aspects to consider in the development of a Civil Engineering program, we would be interested in providing input and perhaps helping shape it.

The City would endeavour to support this program and would consider bringing on qualified co-op students to assist and gain experience.

Yours truly,

Poul Rosen, BSc. BAsc. P.Eng.
Design Engineer

PR*sp
G1Design/2010-01-28-l/vic civil eng support letter-pr
February 4, 2010

Dean Thomas Tiedje
Faculty of Engineering
University of Victoria
PO Box 1700 STN CSC
Victoria BC V8W 2Y2

Attn: Dean Tiedje

Re: Letter of Support for UVic’s Civil Engineering Program

Dear Dean:

We’re pleased to have had the opportunity to review your Faculty of Engineering’s proposal to create a Bachelor of Engineering Program in Sustainable Civil Engineering.

We are a Vancouver Island based Civil and Structural Engineering firm of 45 employees including 14 structural engineers, 5 civil engineers, 22 technologists and 5 administrative staff. Many of our staff are Vancouver Islanders that have been educated out of Province because of lack of access to programs here.

We therefore note with interest that about 240 new Civil Engineers will be required per year in BC just to offset retirements. In addition, we agree that infrastructure renewal, new construction, energy conservation and the challenges of moving to a greener economy will create substantial additional demand here for Civil Engineers.

Given that UBC currently graduates about 125 Civil Engineers per year, it is clear that an additional source of supply is needed and so we welcome your initiative to graduate about 60 Bachelor’s graduates per year, plus Master’s and PhD graduates.

We also like your approach to marketplace differentiation, namely that:

- Sustainability is becoming a key driver at all levels of government and in the private sector. Your inclusion of environmental issues in the design process from the outset, rather than as afterthoughts or add-ons – the so-called Triple Bottom Line, is an opportunity for UVic to play a leadership role in what is a becoming an ever important issue.

- Emphasis on water, seismic design, green building design & retrofit, and integrated transportation systems is following industry trends we see appearing.
- Closer ties with work being done in your other Engineering Departments such as Mechanical and Electrical Engineering to foster experience in the kind of collaborative design environments we are now finding ourselves in as practicing Engineers.

- Practical work experience as an integral and essential part of the academic program, with a minimum of four co-op work terms required for graduation.

We would also encourage the development of complementary programs at Vancouver Island University, such as a Civil Technologist program which may be a vehicle for supplying potential students to the UVic Program and fulfill a similar need for Technologists to offset retirements.

We look forward to the possibility of employing your students both on co-op work terms and after graduation.

Please don’t hesitate to ask if we may be of further assistance.

Yours truly,

HEROLD ENGINEERING LIMITED

Lee Rowley P.Eng., MInstCE, MICE, LEED AP.
Principal

LR/Ir

Enclosure
April 5, 2011

Dr. Tom Tiedje
Dean, Faculty of Engineering
University of Victoria
PO Box 3055, EOW 248
Victoria, BC V8W 3P6

Dear Tom,

I am delighted to be able to write this letter in support of the Faculty of Engineering’s proposed degree program in Civil and Environmental Engineering.

We had opportunity to discuss this proposal in some detail at a recent lunch where we were joined by representatives from your Faculty as well as the Director of Environmental Studies and the Chair of Geography. Social Sciences hereby confirm that we view the proposal as timely and opportune. It offers the potential to add significantly to the already existing strengths of academic programming and scholarship in the environment and sustainability available across campus, by providing an engineering perspective.

At our lunch we reconfirmed that our Faculties have a number of joint academic programming initiatives, and that a number of our faculty members already collaborate on research projects of mutual interest. The proposed program in Civil and Environmental Engineering offers to broaden and strengthen these collaborations. We talked about possible opportunities for your students to access relevant courses presently offered in the Social Sciences especially as they relate to environmental stewardship, environmental policy, sustainability and geomatics. We see clear value in students from the Social Sciences gaining more access to relevant courses in Engineering, and vice versa. We explored that GEOG 308, Introduction to Geographic Information Systems, that is in the second year of the proposed new civil program is running at capacity, and that we therefore will need to develop agreements to put on extra sections which will require special funding arrangements. We recognize that the earliest that this course will be needed will be in academic year 2013/14. Similarly in the case of GEOG 209, Introduction to Resource Management, an elective course in your program, special funding arrangements may also be needed if significant numbers of students chose this elective.

Social Sciences congratulates the Faculty of Engineering on this exciting proposal and looks forward to working with you and your team as the details unfold.

With best wishes,

Peter Keller, Dean
Faculty of Social Sciences

cc: Dr. Phil Dearden, Chair-Department of Geography
    Dr. Peter Stephenson, Director, School of Environmental Studies
    Dr. Michael Webb, Associate Dean, Academic-Faculty of Social Sciences
Dear Dean Tiedje

The School of Environmental Studies welcomes the proposed degree program in Civil and Environmental Engineering. The School has already developed some interesting and fruitful links with the Engineering faculty, particularly in the area of energy (through IESVIC) and we would look forward to establishing more linkages with both faculty and students as the proposed new degree program unfolds. Our ability to assist at the curricular level is, of course, dependent upon the availability of resources to do that, but we certainly welcome the opportunity to participate in any way feasible and to developing new, meaningful links with the Faculty of Engineering in this important area. The proposal is innovative and we believe it will attract creative faculty and students alike to a field that is certain to grow in both importance, and influence in the immediate, and longer term.

Please share this letter of support with the Planning & Priorities committee.

With best wishes,

Peter H. Stephenson, Ph.D.,
Director, School of Environmental Studies.
Sooke, 21 January 2010

Dean Thomas Tiedje
Faculty of Engineering
UVic

Re: Proposed Bachelor of Engineering Program in Sustainable Civil Engineering

Dear Dean Tiedje,

I am pleased to have had the opportunity to review your Faculty of Engineering’s proposal to create a Bachelor of Engineering Program in Sustainable Civil Engineering.

As a new professor in the Electrical and Computer Department at UVic I am teaching the Electrical Power Systems course. This course came about on the express request from the BC Government which is aware that a lack of power engineers is hampering the government objective of developing green energy options. Green power development will create many jobs but it is essential that the required human resources be properly educated. As you so clearly pointed out there is a need for civil engineers to address environmental requirements and to interface with other engineering disciplines such as power systems. Planning and design of these power systems, especially for the high voltage transmission lines depend heavily on cost optimization techniques which rely on solid knowledge of structural and tower foundation design. Inclusion of environmental aspects in transmission line design is very important as regular public concerns with electromagnetic phenomena, audible noise and aesthetics come in the news.

I am thus very encouraged by your proposal and am looking forward to the realization of this strengthening of our engineering programs.

Yours truly

Guy Van Uytven, P.Eng.
Dept. of Electrical and Computer Engineering
UVic
2010 January 27

Mr. Tom Tiedje  
Dean, Faculty of Engineering  
University of Victoria  
PO Box 3055 Stn C  
Victoria, BC V8W 3P6

Dear Mr. Tiedje:

RE: Letter of Support for Establishing a Civil Engineering Program at the University of Victoria

I was very interested to learn of your proposal to establish a Civil Engineering program at the University of Victoria and fully support such an endeavour. It comes at a time when the City of Kamloops has had a very difficult time finding suitably qualified candidates to fill a number of engineering positions over the past several years.

I have been involved in engineering for over 40 years, more than 30 of those years in British Columbia. In fact, I was recruited from the UK by a consultant in the early 1970s because of a shortage of Canadian engineers at that time. The situation does not appear to have changed significantly.

As I and a number of other "baby boomer" era engineers start considering retirement, it seems even more critical that we boost the number of engineers entering the field, and I see your proposal as one that has an excellent chance of helping that happen.

I wish you luck with your proposal and look forward to the creation of this new program at the University of Victoria.

Yours truly,

M. E. Warren, P. Eng  
Engineering Manager

MEW/im

cc: R. H. Diehl, Chief Administrative Officer  
D. A. Trawin, Development and Engineering Services Director  
D. R. Duckworth, Public Works and Utilities Director

OUR CORPORATE MISSION IS... to provide the best possible services to our citizens that reflect the will of Council and provide a balance of benefits to the community.
March 23, 2011

Faculty of Engineering
University of Victoria
PO Box 3055 STN CSC
Victoria, BC
V9W 2Y2 Canada

Attention: Dr. Thomas Tiedje, P.Eng.

RE: Proposed Civil / Environmental Engineering Degree Program at the University of Victoria

Dear Dean Tiedje:

It is with great pleasure that we offer our support in the development of your proposed Civil / Environmental Engineering Degree Program at the University of Victoria.

As a major international engineering company our recruitment efforts have been noticeably hampered by the lack of engineers in the workplace that we are able to hire who can carry out the variety of leading edge engineering projects we undertake.

Therefore it is extremely important for a program of this magnitude to be developed to promote and encourage the growth of young, talented, and intellectually strong and technically trained individuals in the engineering profession to assist in the economic growth of BC and beyond.

Sincerely,

WorleyParsons Canada Services Ltd.

Stanley R. Cowell P.Eng.
Senior Vice President
Infrastructure & Environment Canada
SRC/6th
Dean T. Tiedje,
Faculty of Engineering,
3800 Finnerty Rd.,
UVIC
V8P 5C2

Dear Dr. Tiedje,

Thank you for developing a proposal for inclusion of Civil Engineering into the UVIC faculty.

As president of the Scholarship Society of the Vancouver Island Branch of the Engineering Institute of Canada off and on over the last 24 I have witnessed the problems that civil engineering students from Vancouver Island face in trying to obtain a degree "offshore".

Separated from the possibility of home residence and support and burdened with extra travel expenses they experience a particularly hard time in achieving their life's goal. Many do not make it.

The members of our small Branch have distributed some $70,000 to deserving engineering students from this area over the years and put an additional $35,000 into an endowment fund. No discipline needs this assistance more than do Civils.

Good luck with, and congratulations on, your proposal for a Victoria based Faculty.

Yours sincerely,

D. Murray Galbraith
1565 Brodick Cr.
Victoria, B.C.
V8N 1N3
January 21, 2010

Dr. Tom Tiedje, Dean
Faculty of Engineering
University of Victoria
3800 Finnerty Road (Ring Road)
Victoria, BC
V8P 5C2

Re: Proposed Bachelor of Engineering Program in Civil & Environmental Engineering

Dear Dean Tiedje

The Canadian Society for Senior Engineers (CSSE) is indeed privileged and honoured to have had the opportunity to review the University of Victoria Faculty of Engineering’s proposal to create a Bachelor of Engineering Program in Civil and Environmental Engineering.

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It is clear that there are many challenges in the future to redevelop much of our aging urban infrastructure using the best sustainable technologies available for Canada to meet its long term needs. I welcome your initiative to create a Civil and Environmental Engineering program at the University of Victoria to graduate some 60 Bachelor’s graduates per year, plus Master’s and PhD graduates that our increasingly economically-driven, environmentally sensitive society demands.

National Engineering enrollment data also indicates that Civil Engineering and Environmental Engineering undergraduate programs attract up to double the women students as a percentage of enrollment than do the current UVic Faculty of Engineering disciplines offered. The 2009 Engineering Leadership Summit, in the Montreal Declaration, noted that, “At a high level, we acknowledge that we must: ... Attract and retain women in much greater numbers”. The program UVic is proposing would do that.
I also like your approach to marketplace differentiation, namely

1. inclusion of environmental issues in the design process from the outset, rather than as afterthoughts or add-ons – the so-called Triple Bottom Line

2. emphasis on water, green building design & retrofit, and integrated transportation systems

3. close ties with work being done in your Department of Mechanical Engineering on renewable and integrated energy systems, in the Pacific Institute for Climate Solutions on mitigation and adaptation options for climate change, in the Department of Biology on water quality, in the Environmental Studies Department on ecological restoration and in the Environmental Law Program.

4. Practical work experience as an integral and essential part of the academic program, with a minimum of four co-op work terms required for graduation.

From the local CSSE Vancouver Island Branch perspective, we have experience that indicates that the proposed Civil and Environmental Engineering program will be welcomed by parents and students who will no longer have to leave Vancouver Island to pursue a Civil Engineering degree.

I am certain employers will look forward to the possibility of employing your students both on co-op work terms and after graduation.

Please don't hesitate to contact me if I may be of further assistance.

Yours sincerely,

Dr. Robin Black, Ph.D., P.Eng., C.C.E.
Owner, Robin Black & Associates

Member of the Canadian Society of Senior Engineers
Board Member of the Mid Island Science Technology and Innovation Council
Life Member of APEGGA, Member of APEGBC
Life Member of The Canadian Medical and Biological Engineering Society
Past President and Life Member of the Calgary Council for Advanced Technology
March 30, 2010

Professor Tom Tiedje, Dean
Faculty of Engineering
University of Victoria
PO Box 3055 Stn C
Victoria BC V8W 3P6

Dear Professor Tiedje:

I am writing in support of your proposed bachelor of engineering program for civil and environmental engineers, particularly since I understand the program will have a strong emphasis on sustainability as related to the built environment.

I am a registered professional engineer in BC and I am concerned about the significant number of my fellow professional engineers who are contemplating retiring from engineering, in the near future. This is at a time of great need for engineers to address the multitude of challenges that society will have to face in the coming years (i.e. increasing demand for energy and natural resources; climate change; reduced supply of fossil fuels; depletion of easy to extract resources; increasing levels of persistent organic compounds in the atmosphere; reduced natural systems to mitigate human generated pollution, etc.).

In order to address these issues, solutions will have to be developed, many of which will result in the development of new infrastructure, as well as the renewal or conversion of existing infrastructure. This infrastructure must establish and meet new standards of energy and resource efficiency and sustainability. This will require engineers who are trained in sustainability and triple bottom line analysis throughout their academic training.

I am also a member of faculty and the Education Chair for the Canada Green Building Council. In my travels across Canada teaching green building principles, I am often approached by recent engineering and architecture graduates about their frustration in not learning about green building principles while they were in school. Consequently, I urge you to ensure sustainability principles are a fundamental part of the curriculum and cooperative work terms. Further I would encourage you to include green building education as part of the electives offered to students. The CaGBC would be pleased to work with UVIC in this regard.

I believe a focus on sustainable development would further distinguish UVIC graduates from graduates from other universities who are not as enlightened. In my practice I have also seen a sea change to more integrated design (i.e. collaborative design), which has produced some remarkable solutions such as Dockside Green, right here in Victoria. Consequently, I highly recommend establishment of strong ties to other aligned UVIC engineering programs (i.e. mechanical, computing and electrical engineering) as well as non engineering disciplines such as psychology, law, biology, environmental studies, business, etc.

I applaud your proposal to create a civil engineering faculty at UVIC to address these challenges and would offer to assist in whatever way you think is practical.

Yours truly,

Jack Meredith, P.Eng. LEED AP
President

HGBC Healthy Green Buildings Consulting Ltd.

1003 McCaskill Street, Victoria, BC, V9A 4C1