The Senate of York University

Notice of Meeting

to be held at 3:00 pm. on Thursday, October 24, 2013
in the Senate Chamber, N940 Ross Building.

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H. Lewis, Secretary

The Senate of York University

Minutes

of the meeting held at 3:00 pm on Thursday, September 26, 2013
in the Senate Chamber, Ross Building.

R. Mykitiuk, *Chair*	M. Derayeh	C. Innes	R. Owston	J. Silver
M. Adriaen	S. Dimock	A. Karim	S. Pagiatakis	J. Simeon
M. Amegago	K. Dowler	M. Larochelle	S. Paradis	M. Singer
C. Archer	J. Elder	S. Lawrence	J. Parna	H. Skinner
S. Ariyarathnam	J. Foster	R. Lee	S. Parsons	B. Spotton Visano
A. Asif, *Vice-Chair*	R. Furgiuele	R. Lenton	M. Phuong	N. Sturgeon
M. Aubin	P. Giordan	H. Lewis, *Secretary*	D. Pinkerton	A. Tarc
P. Axelrod	D. Golemi-Kotra	D. Leyton-Brown	A. Pitt	G. Tourlakis
A. Belcastro	S. Grace	K. Little	B. Rahder	S. Tufts
K. Bhathal	T. Gulliver	W. Maas	A. Richins	G. Vanstone
K. Bird	E. Gutterman	A. MacLennan	M. Rioux	P. Walsh
G. Brewer	R. Haché	M. Martel	M. Roy	L. Weir
Y. Bukan	M. Hamadeh	M. McCall	P. Ryan	T. Wesson
D. Callison	S. Harwalkar	K. McRoberts	B. Ryder	K. White
H. Campbell	D. Hastie	K. Michasiw	I. Saleem	L. Wright
D. Cappadocia	B. Heron	A. Moakler	L. Sanders	H. Wu
G. Comninel	C. Heron	G. Monette	C. Sandilands	J. Yeomans
B. Crow	R. Hornsey	J. Morrison	A. Schrauwers	M. Yousaf
R. DeCosta	M. Hosale	R. Myers	L. Sergio	
P. Delaney	S. Husein	P. Ng	M. Shoukri	

1. Chair's Remarks

In her first meeting as Chair of Senate, Professor Roxanne Mykitiuk

- welcomed new and continuing Senators, and recognized the Chairs of Senate committees
- urged Senators to play an active role in collegial governance
- reminded Senators of the dates of Autumn Convocation ceremonies and in doing so encouraged them to join in the celebration of graduates
- expressed concern about the fate of Professor John Greyson of the Faculty of Fine Arts, held without charges in Cairo
- conveyed condolences on the passing of the partner of Professor Paul Wilkinson, who was until June one of Senate's nominees on the Board of Governors; and of Professor Jack McConnell, a member of the Tenure and Promotions Committee.

2. Minutes of the Meeting of June 27, 2013

With a correction to the list of those in attendance at the previous meeting, it was moved, seconded and *carried* "**that the minutes of the meeting of June 27, 2013 be approved**."

3. Business Arising from the Minutes

There was no business arising from the minutes.

4. Inquiries and Communications

4.1 Academic Colleague to the Council of Ontario Universities

Professor Axelrod described the Council of Ontario Universities and the role of academic colleagues. COU issue updates will be shared with Senators during the year, and he will highlight matters of special importance to the postsecondary system and York.

5. **President's Items**

President Mamdouh Shoukri lauded recent accomplishments and ranking successes, profiled recipients of major research grants, and commented on the following matters:

- his October 2 Town Hall on the topic of "York's Role in Transforming Post-Secondary Education"
- brand awareness campaign update
- the detention of Professor Greyson and the grave concern shared by the University community
- a recent article in *Toronto Life* and the University's response
- summer roundtables sponsored by the Ministry of Training, Colleges and Universities, and efforts to ensure that the University is rightly understood as research intensive
- the need for the community to be involved in Academic and Administrative Prioritization
- plans for maximizing student participation in the upcoming NSSE Survey
- honorary degree recipients at the Autumn Convocation ceremonies

At the request of the President, Vice-Provost Students Janet Morrison reported on the innovative approach taken to this year's orientation for new students.

In response to a question about consultations with graduate students about changes in support for printing, the University Librarian confirmed that meetings with the Graduate Student Association will be held.

6. **Committee Reports**

6.1 Executive

6.1.1 Candidates for Election to Senate Committees

A correction to the departmental affiliation of a candidate was *noted*. It was moved, seconded and *carried* "**that nominations be closed**." As a result, members were elected to the Appeals and Tenure and Promotions Committees.

6.1.2 Information Items

Senate Executive confirmed that it was not required to act under summer authority since the June meeting of Senate and reported on

- the process for establishing a committee to search for the next Chancellor
- the results of a survey of Senators conducted in June and July
- its approval of Faculty Council nominees for membership on Senate committees
- the result of an election to fill a vacancy on the Awards Committee

6.2 Academic Policy, Planning and Research

6.2.1 Program Prioritization

It was moved, seconded and *carried* "**that Senate move into Committee of the Whole for the purpose of discussing the Program Prioritization initiative**." Following a presentation by the Vice-President Academic and Provost describing the genesis, context, nature and timelines of Academic and Administrative Prioritization exercise, the following matters were raised:

- the development, review and approval of criteria
- the role of Senate and its committees in the process
- student involvement
- the relationship between program prioritization and previous initiatives such as PRASE

- the differential abilities of programs to prepare a submission that respond to the criteria, and the possibility of providing assistance
- the desirability of taking into account subjective criteria like reputation and history when units respond
- the extent to which the exercise will lead to cuts, and alternatives that may be found during the process
- the limitations of the *University Academic Plan 2010-2015*
- the particular vulnerability of interdisciplinary programs
- accessibility as a continuing value

It was *agreed* that the meeting would be extended by ten minutes. The Provost took note of issues raised and confirmed that they would be addressed during the consultation process.

It was moved and *carried* "**that Senate rise and report**." The Vice-Chair reported that Senate had concluded discussion of the item but could expect to be further engaged as the process unfolded.

6.2 Other Information Items

Academic Policy, Planning and Research's report identified members of its sub-committees and forecast priorities for 2013-2014.

6.3 Academic Standards, Curriculum and Pedagogy

6.3.1 Consent Agenda Item (Granting of Degrees, Certificates and Diplomas, Fall 2013 to Spring 2014

Senate approved by consent a recommendation by the Committee on *Academic Standards, Curriculum and Pedagogy* that:

i) Senate authorize the granting of degrees at the University's Convocations held from Fall 2013 to Spring 2014 to those students who have fulfilled the degree program requirements and who have been recommended by the Councils of the Faculties and Colleges for receipt of the degrees listed in Appendix A.

ii) Senate authorize the forwarding of recommendations for certification by the Faculty of Education to the Ontario College of Teachers for those students who have been deemed "recommended for certification" by the Council of the Faculty of Education; and that

iii) Senate authorize the granting of diplomas and certificates at the University's Convocations held from 2013 to Spring 2014 to those students who have fulfilled requirements and who have been recommended by the Councils of the Faculties for receipt of the diplomas and certificates listed in Appendix A.

6.3.2 Information Items

Academic Standards, Curriculum and Pedagogy advised that it had not been necessary for its Coordinating and Planning Sub-Committee to act under summer authority, and relayed the status of programs approved to commence by the Quality Council.

7. **Other Business**

There being no further business, Senate *adjourned.*

R. Mykitiuk, Chair _____

H. Lewis, Secretary _____

York University
Board of Governors
Synopsis of the 430th Meeting held on 30 September 2013

Remarks

Chair, Julia Foster, welcomed all on the Board to the new academic year, specifically the new governors who were in attendance Darnell Harris and Randy Williamson. It was announced that coincident with the new governance year, Susan Black will be chairing the *Governance & Human Resources Committee* and Henry Wu will be chair of the *Academic Resources Committee*. Appreciation was extended to Zahir Janmohamed and Sam Schwartz for their leadership in chairing these two committees respectively over the past several years. The President was congratulated for receiving the *Diversity Award in Education* from Diversity Magazine. And sympathy was expressed to his family on the recent passing of former governor and steadfast friend and supporter of the University, Phillip Lapp.

The President commented on:

- the highly successful student orientation this Fall
- the launch of the second phase of the brand awareness campaign
- the detention of Professor Greyson and the grave concern shared by the University community
- a recent article in *Toronto Life* and the University's response
- summer roundtables sponsored by the Ministry of Training, Colleges and Universities, and efforts to ensure that the University is rightly understood as research intensive
- the Academic and Administrative Prioritization exercise being led by the Vice-President Finance & Administration and the Provost to realize the UAP goals and ensure financial sustainability

Appointments

Governors

- Randy Williamson (Alumni nominee) for a four-year term commencing 1 October 2013

Pension Fund Board of Trustees

- Robert Wai (Osgoode nominee) for a three-year term commencing 1 October 2013
- Jane Rowe (YURA nominee) re-appointed for a three-year term commencing 1 October 2013
- Dale Domian (President's nominee) re-appointed for a three-year term commencing 1 October 2013

Approvals (*Taken since the last Board meeting by the Executive Committee on behalf of the Board*)

Student Centre Referendum
Permission for a student referendum to be held in October 2013, rather than in Spring 2014, on a proposed levy to fund a new (second) Student Centre on the Keele campus.

Labour Settlements
Concurrence of the Board Executive Committee with the negotiated agreement with the Osgoode Hall Faculty Association.

Approvals

- President's September 2013 report on appointments and tenure & promotion candidates

- Re-appointment of Ernst & Young LLP as the external auditors for the University for the 2013-14 fiscal year

- The building site at the north end of *The Green* (south of the Ross Building) on the Keele campus for a second Student Centre building.

- For the University to enter into a contribution agreement with the *Federal Economic Development Agency for Southern Ontario* for funding for two infrastructure projects on the Keele campus (rehabilitation of the Osgoode Green and upgrade of the natural turf soccer sports field).

Reports / Presentations

- Susan Webb, Executive Director Communications & Public Affairs, presented an overview of the Phase 2 of the "This is My Time" marketing campaign;

- Vice-Provost Morrison reported on the fresh approach taken for this year's student orientation;

- Bud Purves, President of the York University Development Corporation, reported on the PanAm Games stadium being constructed at York; and

- Each of the Academic Resources, Executive, Finance & Audit, Governance & Human Resources, Investment and Land & Property committees reported for information on matters discussed in their recent meetings.

The agenda for the meeting is posted on the Board of Governors website at
http://www.yorku.ca/secretariat/board/meetings.html

For further information on any of the above items contact the University Secretariat.

Harriet Lewis, Secretary

EXECUTIVE COMMITTEE

Report to Senate
at its Meeting of October 24, 2013

FOR ACTION

1. **Nominee for Election to a Senate Committee**

Senate Executive recommends the following candidate for nomination as a member of a Senate committee (non-designated seat) for a three-year term to begin immediately and ending June 30, 2016.

Nominations are also accepted from the floor of the Senate if the nominee has consented and is available for the published meeting time of the committee. Nominators are asked to report prospective nominees to the Secretary prior to the start of the meeting in order to determine their eligibility. Final approval for the slate of nominees is given by Senate on a motion "that nominations be closed" as moved by the Vice-Chair of Senate.

Academic Standards, Curriculum and Pedagogy (1 vacancy; full-time faculty member; three-year term)
(*Meets Wednesdays at 1:30, normally twice each month*)

Franck Van Breugel, Professor, Electrical Engineering and Computer Science, Lassonde

FOR INFORMATION

1. **Chancellor Search**

As reported to Senate last month, a search for the University's next Chancellor will be conducted in the months ahead. The Chair of Senate is an *ex officio* member of the search committee, and she will be joined by two other members of the Executive Committee: the Vice-Chair of Senate, Professor Amir Asif, and by Professor Ravi de Costa. A third member of Executive will be named in November.

2. **Approval of Student Members of Senate Committees**

Senate Executive has approved the following individuals nominated by student Senators to serve on committees this year:

Executive
David Cappadocia, PhD Candidate, Graduate Program Kinesiology and Health Studies
Sayjon Ariyarathnam, BA Candidate, Honours Double Major in Criminology and Human Rights and Equity Studies, LA&PS

Honorary Degrees and Ceremonials
Karanjit Bhanthal, BA Candidate, Honours Major/Minor in Human Rights and Equity Studies and Political Science, LA&PS

Academic Policy, Planning and Research
Alicia Richins, BA Candidate, Honours Social Science (Economy and Society), LA&PS

Iqra Saleem, BA Candidate, Honours Criminology, LA&PS

Academic Standards, Curriculum and Pedagogy
Alicia Richins, BA Candidate, Honours Social Science (Economy and Society), LA&PS
Safiya Hussein, York Federation of Students Member of Senate

Appeals
Sayjon Ariyarathnam, BA Candidate, Honours Double Major, Criminology / Human Rights and Equity Studies, LA&PS
Jon Silver, JD Candidate, Osgoode
Samuel Weiss, BA Candidate, Honours Political Science, LA&PS

Awards
Karanjit Bhanthal, BA Candidate, Honours Major/Minor in Human Rights and Equity Studies / Political Science, LA&PS
Melinda Phuong, BEd and BA Candidate, Intermediate and Senior Social Sciences / French Studies, Education

Tenure and Promotions
Tanya Gulliver, PhD Candidate, Graduate Program in Environmental Studies, Graduate Studies
Atifa Karim, BES Candidate, Environmental Studies

3. Committee Priorities for 2013-2014

Senate Executive has been advised of the priorities established by APPRC and ASCP for 2013-2014 and is in the process of finalizing its own priorities for the year. Information will be provided to Senate in November.

Roxanne Mykitiuk, Chair

YORK
UNIVERSITÉ
UNIVERSITY

The Senate of York University

COMMITTEE ON ACADEMIC STANDARDS, CURRICULUM AND PEDAGOGY

Report to Senate
at its meeting of 24 October 2013

Documentation for Information items will be provided upon request.

FOR ACTION

I. NEW PROGRAMS

6.2.1 Establishment of a Bachelor of Engineering (BEng) Degree Program in Civil Engineering • Department of Civil Engineering • Lassonde School of Engineering

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve the establishment of a BEng degree program in Civil Engineering, Department of Civil Engineering, Lassonde School of Engineering, effective FW'14.

Rationale
A full copy of the proposal, including the external reviewer's report, and the Dean's and Provost's statements of support, are attached as Appendix A. The proposed BEng program in Civil Engineering will be housed in the newly established Department of Civil Engineering, in the Lassonde School of Engineering.

The program requirements were developed to meet the Canadian Engineering Accreditation Board's (CEAB) criteria for professional accreditation. They were also informed by:

- Examining the curriculum of civil engineering programs in Canada and the US;
- Consultation with engineering faculty at universities across Canada;
- Discussion with graduates from Canadian civil engineering programs; and
- the needs of the industry in engineering graduates

The program model adopted for engineering at York has a common first-year curriculum for all programs with students commencing study of their chosen engineering field in their second year. The mission of the program is to graduate "Renaissance Engineers" – accredited engineers educated in the foundations of civil engineering, with broader complementary skills, disciplinary knowledge and global perspectives. In this regard, York's program distinguishes itself from those offered by peer universities in the province and the country.

In accordance with the New Degree Program Approval Protocol in the *York University Quality Assurance Procedures (YUQAP)*, an external review of the proposed new program was conducted. The reviewer endorsed the proposal. He found the Renaissance Engineering courses impressive, and believes the program will exceed the standards of a typical Civil Engineering curriculum.

Just one minor recommendation was made by the reviewer to enhance the program. The proponent's response to the reviewer's report sets out the changes made to the proposal in reply.

The decanal statement confirms that the resources for the new program have been developed in the context of the larger planning exercise for the expansion of Engineering at York and have met with the approval of the Provost. Two faculty members joined the Civil Engineering Department this academic year, with a search for a third currently underway and two further appointments authorized for the current recruitment cycle. The complement will increase coincident with the roll-out of the program and sustained enrolments over the next several years.

The enrolment data for engineering programs in Canada indicates a strong and sustained demand for Civil Engineering programs, which positions York well to attract students to the new program. The reviewer concluded that the case for an additional Civil Engineering program in the GTA is convincing.

With the concurrence of the Academic Policy, Planning and Research Committee, the strong support of the Dean and the Provost, the Senate Committee enthusiastically recommends the establishment of the BEng program in Civil Engineering. Upon Senate approval, the proposal will proceed to Quality Council for review.

Approved: Lassonde Faculty Council 26 September 2013 • ASCP 2 October 2013 • APPRC 10 October 2013

CONSENT AGENDA

II. MAJOR MODIFICATIONS

6.2.2 Changes to Communication & Culture Graduate Program Requirements • Faculty of Graduate Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve changes to the requirements for the Joint York-Ryerson MA and PhD programs in Communication & Culture, as set out in the proposal attached as Appendix B.

Rationale
The proposed changes stem from recommendations made by the last OCGS Program Appraisal in 2010 and issues identified by the joint program. The changes are intended to strengthen the overall academic curriculum, planning, and delivery of three core courses in both the MA and PhD programs. The revised requirements are also aimed at facilitating students' timely progression through the degree requirements. There are no changes to the total number of credits required. The program learning outcomes are articulated and mapped to the requirements in the documentation.

Approved by: FGS Council 19 June 2013 (summer authority) • ASCP 18 September 2013

III. OTHER CURRICULUM CHANGES

6.2.3 Changes to Admission Standards for Bachelor, Masters & Doctoral Programs • Faculty of Environmental Studies / Faculty of Graduate Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve the addition of equity criteria in the admission standards for the Bachelor (BES), Masters (MES) and Doctoral (PhD) programs anchored in the Faculty of Environmental Studies, as set out in Appendix C.

Rationale
The documentation in the appendix provides a detailed rationale in support of the admission changes. The primary purpose of the equity criteria is to enhance the diversity of students admitted to the Environmental Studies programs. The change illustrates the importance to the Faculty of diversity and open access to its programs, as well as the University's commitment to equity, diversity and community engagement.

As part of the applications process, graduate and undergraduate candidates will be invited to voluntarily provide information on whether they self-identify with an equity-seeking group and provide information on systemic barriers they have encountered. The relevant Admissions Sub-committees will consider the information provided by applicants in its review of applications, "with the goal of balancing individual and collective considerations, incorporating both academic excellence and social diversity, broadening the criteria of assessment and admitting a diverse and academic talented group of students."

The changes to the BES admission standards would take FW 2015-16 to accommodate the Ontario Universities Application Centre time lines. For the graduate programs, the changes would apply as of FW 2014-15.

Approved by: FES Council 23 May 2013 • FGS Council 19 June 2013 (summer authority) • ASCP 2 October 2013

6.2.4 Change in Name of an MBA Specialization • Faculty of Graduate Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve the change in name of the *Non-profit Management and Leadership* specialization within the MBA program to *Social Sector Management*.

Rationale
As a result of changes in the social sector in Canada and globally, the scope of the *Non-profit Management and Leadership* specialization has evolved to include a much broader range of organizations and activities in its curriculum. In addition to maintaining the commitment to nonprofit and charitable organizations, new courses and faculty include those in social enterprise, microfinance, impact investing, global poverty and market-based innovations. Updating the name to *Social Sector Management* better reflects changes in the external environment and in the Schulich curriculum.

Approved by: SSB Council April 2013 • FGS Council 19 June 2013 (summer authority) • ASCP 18 September 2013

6.2.5 Change in Name of an LLM Specialization • Faculty of Graduate Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve the change in name of the *Insolvency Law* specialization within the Professional LLM program to *Bankruptcy and Insolvency Law*.

Rationale
The proposed new title for this program better reflects the scope of this program. The word 'bankruptcy' refers to a legal process, whereas the word 'insolvency' refers to a financial state. Referring to the program as *Bankruptcy and Insolvency Law* reflects the breadth of the courses in this program, which includes a distinct examination of the legal process of bankruptcy, as well as the financial state of insolvency.

Approved by: FGS Council 21 August 2013 (summer authority) • ASCP 18 September 2013

FOR INFORMATION

IV. MINOR CURRICULUM CHANGES

1. Minor Curriculum Items Approved by ASCP *(effective FW 2014-15 unless otherwise stated)*
Copies of the full proposals are available on the Senate website.

a) Faculty of Fine Arts
   - New rubric for the Digital Media program (DATT)

b) Faculty of Graduate Studies
   - Minor changes to the requirements for the MA program in Psychology (Brain, Behaviour & Cognitive Sciences; and Developmental Science areas)
   - Minor changes to the requirements for the PhD program in Psychology (Clinical; Psychology Clinical Developmental; History and Theory of Psychology; Quantitative Methods; and Social and Personality Psychology areas)
   - Minor changes to the requirements for the MA program in International Development Studies
   - Minor changes to the requirements for the Master of Finance program
   - Minor changes to the requirements for the MA program in Art History and the PhD program in Art History and Visual Culture
   - Minor changes to the English Language Proficiency admission requirements for graduate programs
   - Updates to the policy and procedures for Academic Honesty for graduate programs offered through the Schulich School of Business
   - New rubric for the Social Sector Management specialization within the MBA program

c) Lassonde School of Engineering
   - New rubrics for the Mechanical (MECH) and Civil (CIVL) Engineering programs

2. Fall/Winter 2014-2015 Sessional Dates

The Sessional Dates for FW 2014-2015 are being finalized. The committee may be in a position to provide Senate information on the dates at its meeting this month.

Leslie Sanders
Chair, Academic Standards, Curriculum & Pedagogy

New Undergraduate and Graduate Degree Program
New Program Brief Template

The development of new undergraduate and graduate degree programs follows the protocol for new degree approvals as outlined in the York University Quality Assurance Process and also complies with the Quality Council's Quality Assurance Framework.

The Program Brief for new degree programs that require full approval includes two components for undergraduate programs and three components for graduate programs, as follows:

- program proposal, including letters of consultation/support and other relevant appendices
- curricula vitae of the faculty, including program-specific appointment criteria (for new graduate programs only)
- external reviewer nominations

To ensure that all of the evaluation criteria are addressed in the proposal under development, program proponents are required to submit the New Program Brief in the following format.

York University

New Program Brief
B.Eng. in Civil Engineering

Revised: October 5, 2013
Submitted: August 26, 2013

Prepared by:

Jitendrapal Sharma, Ph.D., P.Eng.
Professor and Chair, Department of Civil Engineering
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Dan Palermo, Ph.D., P.Eng.
Associate Professor, Department of Civil Engineering
dan.palermo@lassonde.yorku.ca

1. Introduction

1.1 *Provide a brief statement of the degree program(s) being proposed, including commentary on the appropriateness and consistency of the degree designation(s) and program name with current usage in the discipline or area of study.*

A four-year Bachelor of Engineering (B.Eng.) program in Civil Engineering is proposed with the first intake of students planned for September 2014. The program needs to be accredited by the Canadian Engineering Accreditation Board (CEAB) once the first cohort of students has successfully fulfilled all program requirements in June 2018. As such, the proposed program has been designed to ensure full compliance with CEAB accreditation requirements.

Civil Engineering is the oldest engineering discipline after Military Engineering[1] and, given its well-established nature, Civil Engineering is the ideal name for the proposed program. The name "Civil Engineering" (or its French equivalent Génie civil) is used by all the Canadian universities that offer a CEAB-accredited program in Civil Engineering, regardless of whether a program includes options, such as communications, entrepreneurship, business, management, computing, etc. in addition to core training in Civil Engineering.[2] As such, it is most appropriate to use the name Civil Engineering for the proposed program.

The title Civil Engineer was first coined by John Smeaton to distinguish the non-military aspects of engineering practice. The world's first engineering school – Laboratoire Nationale des Ponts et Chaussées (LNPC), opened in Paris in 1747 and exclusively taught Civil Engineering to its students at its inception. The world's first learned engineering society Institution of Civil Engineers (ICE) was established in London, England in 1828.[3] It is upon this solid foundation and history that the proposed Civil Engineering program will be delivered at York.

Civil Engineering is also the broadest engineering discipline in terms of its scope. Civil engineers are responsible for constructing and maintaining many of the essential things in our lives that we take for granted. Civil Engineering plays a pivotal role in the creation and upkeep of almost every infrastructure that the society needs for its day-to-day functioning. The following are just a few examples: residential and commercial buildings; dams and power stations for electricity generation; transportation infrastructure (roads, railroads, bridges, tunnels, seaports and airports); water and wastewater treatment infrastructure; infrastructure for conveyance of gas, electricity, water and sewage; waste management and environmental protection infrastructure; infrastructure needed for energy and mineral resources exploitation. In fact, almost all structures, small or large, require civil engineers for the design, planning and management of projects. In the past few years, the scope of Civil Engineering has expanded further. Now, civil engineers also play a key role in several new areas, such as asset management, life cycle assessment, smart structural systems, and space structures.[4] The proposed Civil Engineering program aims to train students not only in the traditional areas of Civil Engineering but it also aims to prepare them to work and provide leadership in new and emerging areas, such as sustainability, asset management, infrastructure rehabilitation, life cycle assessment, smart structures, climate-change-driven engineering and others.

According to Engineers Canada, Civil Engineering has the second highest enrolment of undergraduate students in Canada. In 2011, there were ~11,000 undergraduates enrolled in and ~2200 graduating from various CEAB-accredited Civil Engineering programs in Canada (representing ~17 % of total undergraduate enrolment and ~19% of graduates of all CEAB-accredited engineering programs). In terms of undergraduate student enrolment, Civil Engineering has shown the strongest gains since 2006 compared with all other programs and is projected to show further gains as discussed in Sections 3.1 and 3.2.[5]

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[1] History of Engineering. http://whatiscivilengineering.csce.ca/history_engineering.htm. Accessed Aug 15, 2013.
[2] Engineers Canada 2012a. Canadian Engineers for Tomorrow: Trends in Engineering Enrolment and Degrees Awarded 2007-2011. http://www.engineerscanada.ca/files/w_report_enrolment_eng.pdf. Accessed Aug 14, 2013.
[3] History of Engineering. Ibid.
[4] Civil Engineering. http://whatiscivilengineering.csce.ca/civil1.htm. Accessed Aug 15, 2013.
[5] Engineers Canada 2012a. Ibid.

Upon reviewing the Civil Engineering programs offered by other Canadian universities, it was found that nearly 50% of the programs award either a Bachelor of Engineering (B.Eng.) or a Bachelor of Science in Engineering (B.E.). Other less common degree names are: Bachelor of Applied Science (B.A.Sc) and Bachelor of Science (B.Sc.). A survey of students who were either enrolled in or had graduated from Civil Engineering programs at other Canadian universities revealed that the majority would prefer a degree title that included "Engineering" to distinguish it from pure and applied science degrees. This proposal is consistent with the award of Bachelor of Engineering (B.Eng.) degrees by other engineering programs at York University.[6]

1.2 *For graduate programs that wish to have a Quality Council endorsed field(s), please indicate the field(s) for each of the master's and PhD programs.*

Not Applicable.

1.3 *Provide a brief description of the method used of the development and preparation of the New Program Brief, including faculty and student input and involvement.*

The program development has adopted primarily a bottom up approach. That is, the content has been designed by the faculty members in the Civil Engineering Department at the Lassonde School of Engineering. In designing this program, the following have been considered:

- Requirements as outlined by the Canadian Engineering Accreditation Board (CEAB) and the Accreditation Board for Engineering and Technology (ABET).
- Ontario Council of Academic Vice-Presidents (OCAV) guidelines for University Undergraduate Degree Level Expectations (UUDLE).
- Resources available on the Engineering Graduate Attribute Development (EGAD) project website.
- Recent studies on the requirements and future trends of undergraduate programs in Civil Engineering by various learned engineering societies, such as the Canadian Society of Civil Engineers (CSCE), American Society of Civil Engineers (ASCE), and Institution of Civil Engineers (ICE).
- Curricular structure and course descriptions of Civil Engineering programs offered by a number of Canadian universities (e.g. University of Waterloo, McMaster University, University of Toronto, University of British Columbia, University of Alberta, University of Saskatchewan, University of Ottawa, Ryerson University, Western University).
- Various reports and updates on Engineering Labour Market Conditions commissioned by Engineers Canada.
- Publications related to pedagogical aspects of engineering education.
- Consultations and discussions with members of faculty from other universities (University of Saskatchewan, University of Ottawa, McMaster University, University of Waterloo, Western University, University of Manitoba and others).
- Consultations and discussions with industry contacts from Ontario, Saskatchewan, Alberta, and Manitoba).
- Consultations and discussions with colleagues from Lassonde School of Engineering, Faculty of Science and other Faculties at York.
- Discussions with students currently enrolled in Civil Engineering programs at various Canadian universities.
- Discussions with recent graduates from Civil Engineering programs at various Canadian Universities.
- Discussions with experienced instructional designers and on-line course developers.

1.4 *Indicate the Faculty/unit in which the program will be housed (for undergraduate programs) or anchored (for graduate programs).*

The proposed program will be housed in the newly-established Department of Civil Engineering at the Lassonde School of Engineering (LE), York University.

[6] York University Senate Documentation 2013. ASCP Report Appendix B: Changes in Nomenclature, Engineering Degree Type and Program Name, Lassonde. http://www.yorku.ca/secretariat/senate/agenda/2012-2013/20130328.pdf. Accessed Aug 16, 2013.

2. General Objectives of the Program

2.1 *Provide a brief description of the general objectives of the program.*

The main objective of the proposed Civil Engineering program is to graduate highly qualified civil engineers with the academic requirements and social responsibility necessary for registration as professional engineers. The program also aims to provide a unique educational experience through the Lassonde School of Engineering to create Renaissance Engineers^{TM} – engineers of the future instilled with a unique combination of five attributes: technical expertise, practical experience, a collaborative mindset, a creative culture and a global perspective. This program provides a solid foundation for those students wishing, not only to pursue graduate studies in engineering, but also for those wishing to enter other professional fields such as business administration, law or medicine. Graduates of this program can work as individuals and in teams to design solutions for challenging, interdisciplinary civil engineering problems. The program emphasizes both strong theoretical (classroom) and practical (laboratory) training in civil engineering theory, design, and practice. Further, all students receive training in the various sub-disciplines of civil engineering (structural, geotechnical, hydrotechnical, transportation, and environmental engineering), thus graduates of the proposed program are able to address the various facets of the civil engineering profession. Finally, these graduates are trained to communicate effectively (written and orally), and they are made aware of the responsibilities of professional engineers in today's goal of creating a more sustainable society. More specifically, the educational aims of the proposed program are to provide students with:

- Excellent theoretical and practical education in the areas of mathematics, mechanics, computer science, engineering science, engineering design, engineering law and economics. This education in core theory ensures that our graduates are aware of the state-of-the-art with new and future developments in civil engineering theory and practice;
- Comprehensive laboratory and field school experience so that upon graduation they are well prepared to work in the field in the many facets of civil engineering;
- Sound understanding of the economic, environmental, social, and cultural impacts of technology on society, and of the responsibilities that professional engineers have in this regard;
- Appreciation and understanding of the methodologies and thought processes of the humanities, the social sciences and the arts;
- Appreciation of the importance of being able to communicate effectively, and to enhance their written and oral presentation skills accordingly;
- Extensive instruction and training in the use, and underlying logic, of computers and computing techniques as tools in solving engineering problems;
- Ability to lead and to work collectively as part of an interdisciplinary team through laboratory exercises and open-ended projects;
- Understanding of sustainability of our infrastructure for future generations; and
- Awareness of safety issues and protocols through laboratory and field experiences and rules and regulations following Province of Ontario Health and Safety Act.

The above objectives are achieved by:

- Providing an intensive program that has many laboratories and computer experience, but it is strongly based on fundamentals;
- Modifying the course content over time as influenced by emerging trends so as to have continued relevance;
- Incorporating a capstone design course to introduce interdisciplinary team work, formal report writing and oral presentations, while introducing project planning, optimization, risk and assessment; and,
- By providing options that allow a greater degree of specialization and by integrating Complementary Studies into the curriculum.

These objective, which align closely with the vision of Lassonde School of Engineering, will be achieved using an innovative combination of traditional and modern pedagogical techniques, including traditional in-class as well as on-line lectures, laboratory sessions involving hands-on as well as virtual (simulated) training, problem-

solving sessions involving individual as well as group work, professional internship, field trips, participation in cutting-edge research and social activities.

2.2 *Describe how the general objectives of the program align with University and Faculty missions and academic plans.*

Engineering programs have been envisioned at York University since its establishment in 1959. The first phase of implementing this vision was undertaken more than 10 years ago with the establishment of Geomatics, Space and Computer Engineering programs, with a program in Software Engineering introduced in 2011. The second phase of expanding the engineering programs is currently under way with the establishment of Lassonde School of Engineering (LE) on May 1, 2013.

The 2010-2015 University Academic Plan (UAP) explicitly commits to the diversification of academic activities in line with creating a more comprehensive university, including teaching and research in engineering. Furthermore, it states that to achieve this objective establishment of new programs in engineering is needed. The proposed Civil Engineering program is part of the second wave of expansion in engineering program offerings.

This new program proposal is consistent with recent Senate approval for the creation of the Lassonde School of Engineering (LE). The Senate also approved the inclusion of the following five Departments: Department of Mechanical Engineering (established May 1, 2013); Department of Civil Engineering (established May 1, 2013); Department of Electrical Engineering and Computer Science (renamed May 1, 2013); Department of Earth and Space Science and Engineering; and, Department of Chemical Engineering (to be established in 2017). The proposed Civil Engineering program will allow York to achieve its academic plans for expansion of engineering and creation of a more comprehensive University. It will also further strengthen York's mission of achieving research and teaching excellence in applied and professional fields.

The general objectives of the proposed Civil Engineering program are very much in line with the 2010-2015 University Academic Plan. Like the UAP, the proposed Civil Engineering program aims to provide students with a more holistic education, one that extends beyond the core skills of the discipline and includes awareness and sensitivity to the needs of the society, effective communication skills, ability to work in inter-disciplinary and multi-cultural settings, fostering of life-long learning and bridging of the gap between theory and practice through a number of experiential learning initiatives.

3. Need and Demand

3.1 *Identify similar programs offered at York and/or by other Ontario universities, with special attention paid to any innovative and distinguishing aspects of the proposed program.*

Currently, York University does not offer a CEAB-accredited program in Civil Engineering or an engineering discipline closely related to Civil Engineering. There exists a dual credential program in Urban Sustainability[7] between Faculty of Environmental Studies and Seneca College, leading to a Bachelor of Environmental Studies degree from York and a Diploma in Civil Engineering Technology from Seneca; however, this dual credential program is not accredited by CEAB and does not lead to Professional Engineer license. The proposed Civil Engineering program will be the 28th CEAB-accredited Civil Engineering program in Canada and 12th in Ontario. The other 11 Civil Engineering programs in Ontario are at Carleton, Lakehead, McMaster, Ottawa, Queen's, Royal Military College, Ryerson, Toronto, Waterloo, Western, and Windsor. While this may seem like a lot of capacity to train civil engineers, there is still a very strong demand for training of more civil engineers – in Ontario as well as nationally; this is explained in the next section.

Civil Engineering programs that are currently offered by Ontario's universities can be categorized into two groups: general programs and programs with options outside of Civil Engineering discipline. In the case of general Civil Engineering programs, the emphasis is on providing solid technical training in all the key areas of

[7] Faculty of Environmental Studies, York University 2013. York/Seneca Joint Program in Urban Sustainability. http://fes.yorku.ca/students/current/bes/joint/urban-sustain-seneca. Accessed Aug 16, 2013.

Civil Engineering along with a small number of advanced-level technical electives in Year 4 (final year) of the program that allow the students to "specialize" in one of these key areas. These programs also require their students to take the minimum credits of complementary studies as stipulated in CEAB accreditation requirements; however, students normally choose complementary studies courses ad hoc just so that accreditation requirements are met. That is, there is limited provision of structured training in soft skills areas, such as communications, business, economics, management, etc. Civil Engineering programs at Queen's, Waterloo and Windsor are good examples of a general Civil Engineering program.

In the case of Civil Engineering programs with options, the focus is divided between providing core technical training in Civil Engineering and that in another discipline. The students are required to choose a small number of electives (typically 4 to 6 electives) in another discipline. For example, McMaster offers programs in Civil Engineering & Computer Systems and Civil Engineering & Engineering Mechanics in addition to a general Civil Engineering program. Western also offers a number of options with its general Civil Engineering program, such as Structural Engineering, Environmental Engineering, Business, Law, and Medicine options. Typically, Civil Engineering programs with options take longer than 4 years (often as long as 7 years in case of Western's Law and Medicine options) to complete. While such programs may appeal to a small number of highly-motivated students, they generally have limited appeal for most students because of the additional financial burden of staying in the school for several more years and face tough competition from the general programs that can typically be completed in 4 years.

The proposed Civil Engineering program at York aims to take a novel and innovative approach. It adopts a general approach to delivering core Civil Engineering content, but combines it with a much more structured approach to exposing the students to a much wider knowledge base in terms of professional communication, economics, business, management, law and societal aspects of Civil Engineering. This approach aligns really well with the philosophy of the Lassonde School of Engineering that is partially inspired by the following quote from Patricia Galloway: "In the 21st century, an ever increasing need will emerge for a holistic breed of engineer – one who can work across borders, cultural boundaries, and social contexts and who can work effectively with non-engineers. …The subjects of globalization, diversity, world cultures and languages, communications, leadership, and ethics must constitute core components of the overall engineering education just as physics and mathematics do."[8] At the Lassonde School of Engineering, the above breed of engineer is called the Renaissance Engineer™, who has a unique combination of five attributes: technical expertise, practical experience, a collaborative mindset, a creative culture, and a global perspective.

Students will experience the above educational components from Year 1 of the program through focused engineering courses and projects, and in Years 2, 3 and 4 of the program in collaboration with other Faculties at York (Schulich School of Business, Osgoode-Hall Law School, Faculty of Environmental Studies). Through experiential education (including possibility of internships) and dynamic extracurricular activities, students will gain hands-on knowledge of business, leadership and technology. Even the new home of Lassonde School of Engineering is being designed from the ground up to reflect these core values.

3.2 *Provide brief description of the need and demand for the proposed program, focusing as appropriate on student interest, social need, potential employment opportunities for graduates, and/or needs expressed by professional associations, government agencies or policy bodies.*

The need and demand for the proposed Civil Engineering program was assessed primarily using the Engineers Canada (EC) 2010 report on Engineering Labour Market Conditions 2009-2018[9] and its 2012 update[10]. The EC 2010 report evaluates the engineering labour market on the basis of four components: expansion; replacement demand; post-secondary programs; and, immigration. Engineering labour markets are ranked on a scale of 1 to 5 with 1 representing a very weak market (significant excess of supply over demand) and 5 representing a tight market (supply constraints).

[8] Galloway, Patricia D. 2008. The 21st-Century Engineer: A Proposal for Engineering Education Reform. Reston, VA: American Society of Civil Engineers.
[9] Engineers Canada 2010. Engineering Labour Market Conditions 2009 – 2018. Final report, September 1, 2010. http://www.engineerscanada.ca/files/engineering_labour_market_conditions_report_2010.pdf. Accessed Aug 16, 2013.
[10] Engineers Canada 2012b. The Engineering Labour Market in Canada: Projections to 2020. Final report, October 2012. http://www.engineerscanada.ca/files/w_Engineering_Labour_Market_in_Canada_oct_2012.pdf. Accessed Aug 16, 2013.

As per the EC 2010 report and its 2012 update, the engineering labour market for Civil Engineering and closely-related disciplines is given a rank of 4 (significant supply pressures) up to the year 2020, indicating that there is going to be a strong demand for civil engineers across Canada in the next several years. As seen in Figure 3.2a (taken from EC 2010 report), such demand is fueled by "investment and employment in professional, scientific, and management services (including engineering consulting services), government services and construction." [11] In fact, the EC 2010 report projects a shortfall in number of civil engineers entering the labour market for 2018, the year when the first cohort of students will graduate from the proposed Civil Engineering program (Figure 3.2b).

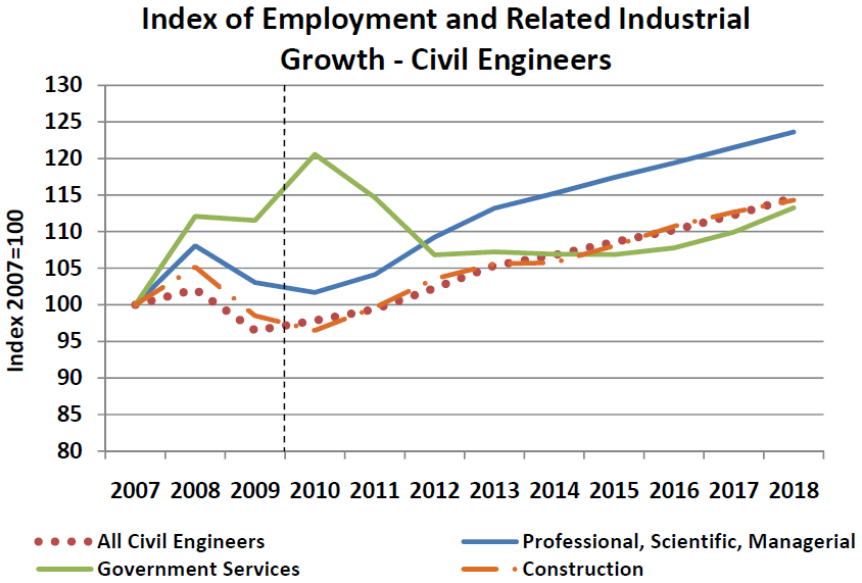

Figure 3.2a: Employment and related industrial growth – civil engineers, Canada
(Extracted from EC 2010 report[12])

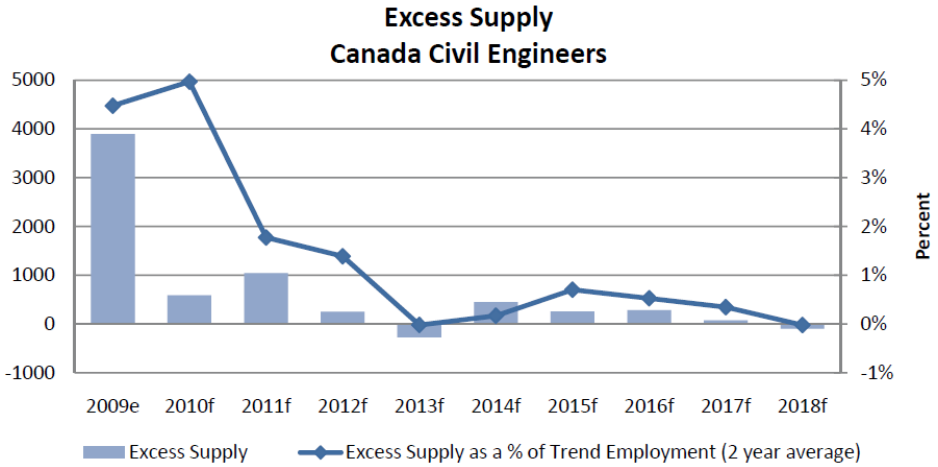

Figure 3.2b: Excess supply of civil engineers across Canada as a percent of trend employment
(Extracted from EC 2010 report[13])

[11] Engineers Canada 2010. Ibid. p 27.
[12] Engineers Canada 2010. Ibid. p 27.
[13] Engineers Canada 2010. Ibid. p 29.

The Civil Engineering labour market projections for Ontario are very much in line with the national projections, with rankings of 3 and 4 (moderate to significant supply pressures) up to the year 2020, indicating that there is going be a steady to strong demand for civil engineers in Ontario. Figure 3.2c (taken from EC 2010 report) clearly shows a growth of more than 10% in the employment index over the next 5 years for civil engineers in Ontario. Consistent with the national projections, the excess supply of civil engineers in Ontario as percent of trend employment is projected to be less than 1% (Figure 3.2d).

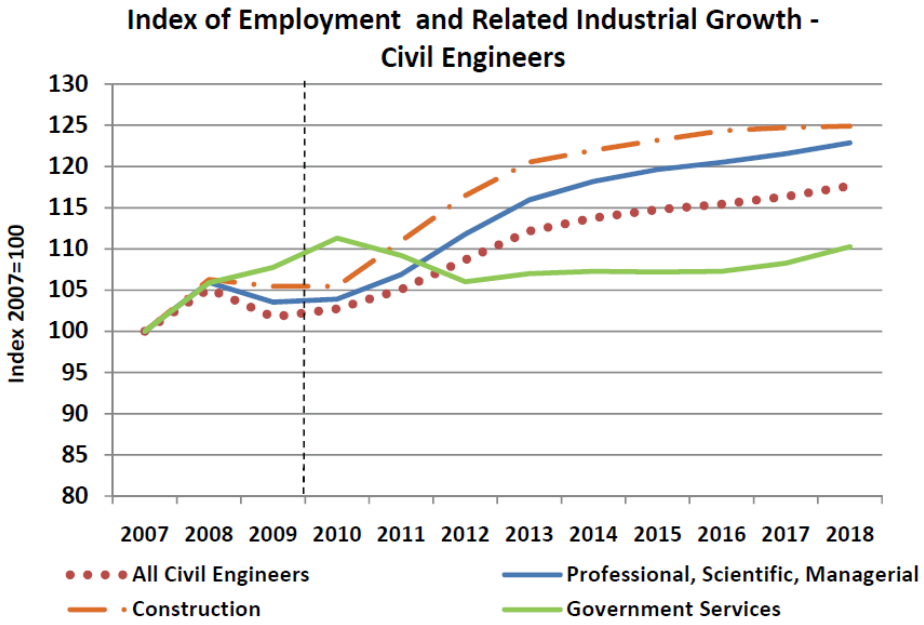

Figure 3.2c: Employment and related industrial growth – civil engineers, Ontario (Extracted from EC 2010 report[14])

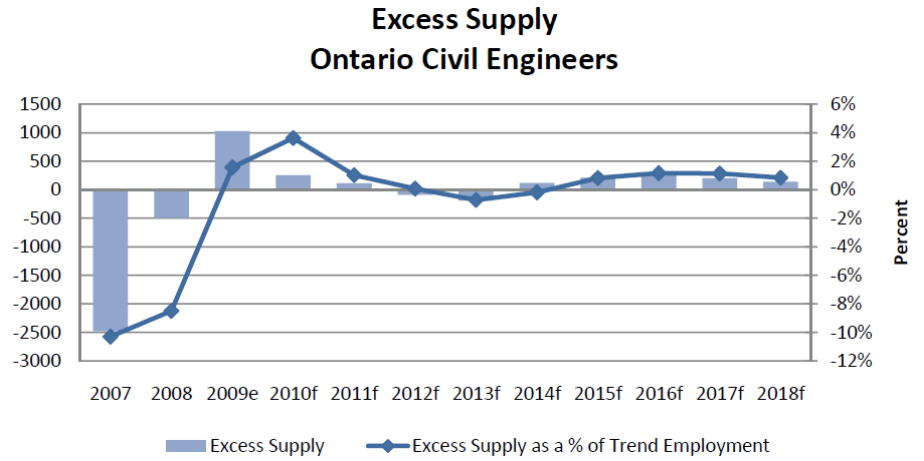

Figure 3.2d: Excess supply of civil engineers in Ontario as a percent of trend employment (Extracted from EC 2010 report[15])

The prognosis gets even better for the proposed Civil Engineering program when the projections for Quebec are considered. The growth in employment for civil engineers in Quebec is projected to be stronger than that in Ontario (Figure 3.2e). According to the EC 2010 report, this growth will be fueled by increased infrastructure spending on roads, bridges and other construction projects. The EC 2010 report also projects a shortfall in number of civil engineers entering the Quebec labour market for the year 2018, the year during which first batch of students will graduate from the proposed Civil Engineering program (Figure 3.2f).

[14] Engineers Canada 2010. Ibid. p 91.
[15] Engineers Canada 2010. Ibid. p 93.

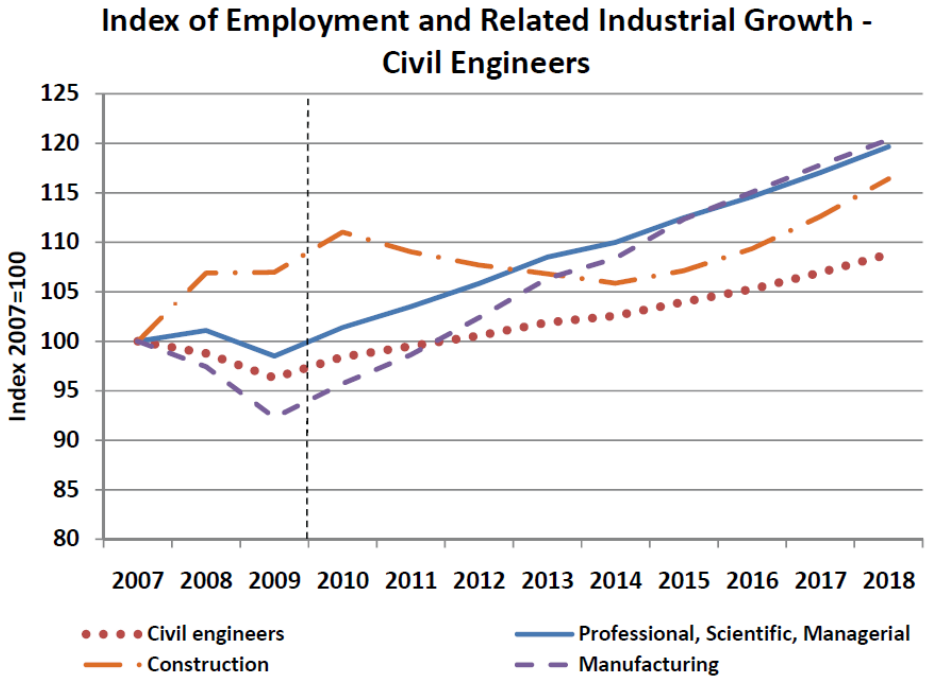

Figure 3.2e: Employment and related industrial growth – civil engineers, Quebec
(Extracted from EC 2010 report[16])

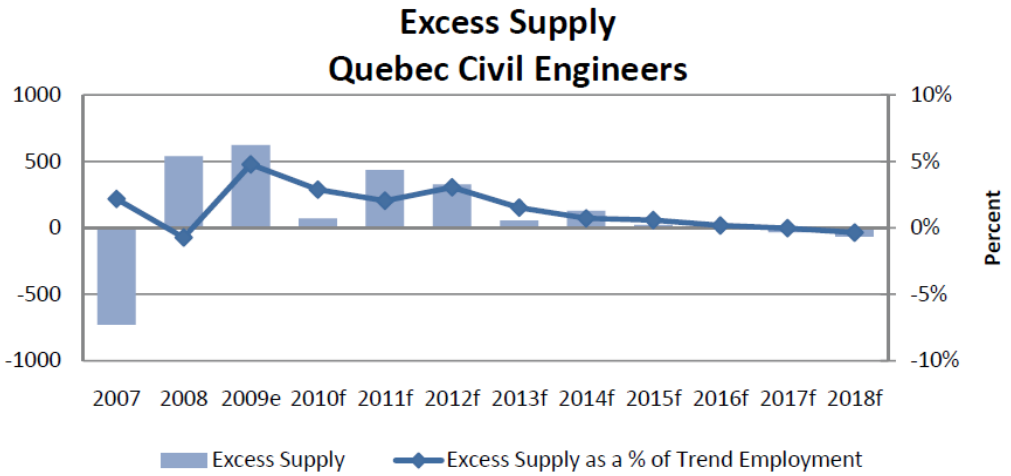

Figure 3.2f: Excess supply of civil engineers in Quebec as a percent of trend employment
(Extracted from EC 2010 report[17])

The 2012 update of the EC 2010 report tracks the proportion of each province's population under the age of 34 entering Engineering undergraduate programs. It shows that the proportion of undergraduates entering engineering programs is on the rise, even for the most pessimistic (discouraged youth) scenario (Figure 3.2g), which can only be considered good news for the engineering profession and the economy. It also confirms that the addition of new engineering programs, including the proposed Civil Engineering program, at York University is indeed very timely.

[16] Engineers Canada 2010. Ibid. p 112.
[17] Engineers Canada 2010. Ibid. p 114.

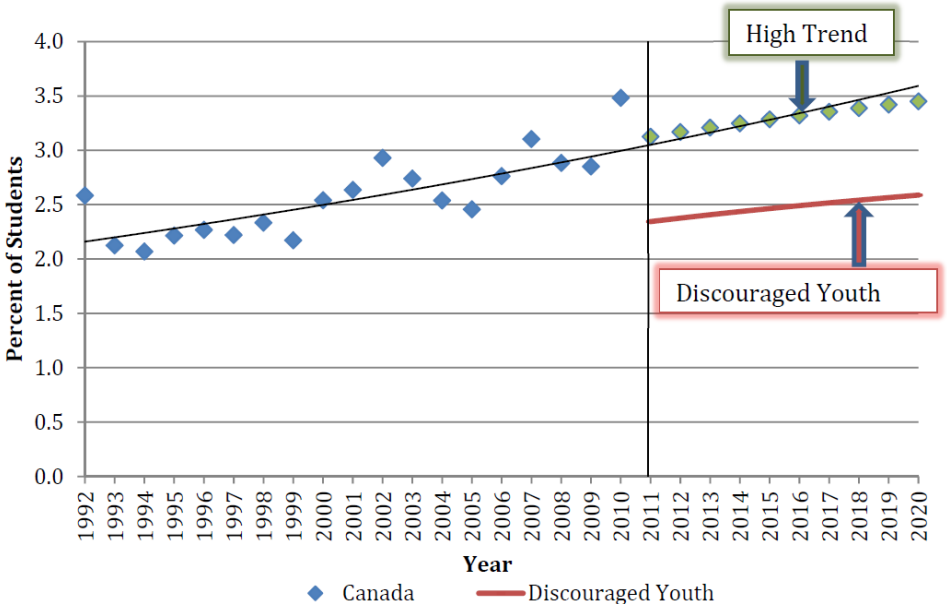

Figure 3.2g: Enrolments in Canadian undergraduate Engineering programs as a percentage of the population under the age of 34: Canada, all Engineering programs (extracted from 2012 update of EC 2010 report[18].

In recent years, students' interest in Civil Engineering program has been on the rise. In addition to being Canada's second-largest program in terms of student enrolment, Civil Engineering has "shown the strongest gains since 2006 relative to other Engineering programs."[19] Enrolment in Civil Engineering programs has increased by more than 32% since 2006. Across Canada, Civil Engineering programs have attracted the highest percentage (more than 20%) of women undergraduate students from 2007 to 2011.[20] When combined with other Engineering disciplines that are closely related to Civil Engineering (Geological, Environmental, Mining and Minerals), the share of women undergraduate students becomes more than 28%.[21] Given the consensus in the engineering community on the need to encourage more women to take up Engineering as a profession, these statistics lend tremendous support to the proposed Civil Engineering program.

The rise in students' interest in Civil Engineering programs can also be attributed to their increased awareness of the current state of infrastructure and huge infrastructure deficit in Canada and the US. The students have come to realize that there is strong need for urgent action and intervention to address the crumbling infrastructure problem and that this would most certainly lead to increase in demand for civil engineers in future. A spate of recent climate-change-related natural disasters has also reinforced the need to revisit the design and construction practices for houses, commercial buildings and other civil infrastructure. When one combines these issues other pressing issues, such as water security and sustainability, one can easily be convinced of the need to train more civil engineers.

4. Program Content and Curriculum

4.1 Describe the program requirements, including the ways in which the curriculum addresses the current state of the discipline or area of study. Identify any unique curriculum or program innovations or creative components.

The Engineering profession is regulated by independently-governed provincial licensing bodies established through each province's Engineering/Geoscience Act. The academic requirements and criteria for obtaining a Professional Engineer (P.Eng.) license are stipulated by the Canadian Engineering Accreditation Board

[18] Engineers Canada 2012b. Ibid. p 26.
[19] Engineers Canada 2012a. Ibid. p 2.
[20] Engineers Canada 2012a. Ibid. p 22.
[21] Ibid. p 22.

(CEAB). As such, it is essential in practice for the curriculum of the proposed Civil Engineering program to align with the accreditation requirements set forth by CEAB. These requirements are described in detail in the document CEAB Accreditation Criteria and Procedures[22], published by Engineers Canada in 2012. A brief overview of these requirements is given below:

1. The development and the control of the program must be under a person licensed to practice engineering in Canada.
2. There must be a minimum of 1950 academic units (AUs) in the program of which at least 825 AUs must be taught by instructors holding Professional Engineer license. One hour of lecture (corresponding to 50 minutes of classroom activity) is taken as 1 AU. One hour of laboratory or scheduled tutorial is equivalent to 0.5 AU. Equivalent AUs for lectures or labs that are of longer duration can be estimated proportionally.
3. Curriculum components that constitute the minimum 1950 AUs must be as follows:
   - Mathematics: Minimum 195 AUs
   - Natural Sciences: Minimum of 195 AUs
   - Mathematics and Natural Sciences Combined: Minimum 420 AUs
   - Engineering Science: Minimum 225 AUs
   - Engineering Design: Minimum 225 AUs
   - Engineering Science and Engineering Design combined: Minimum 900 AUs
   - Complementary Studies: Minimum 225 AUs
   - Laboratory experience and safety procedures instructions
4. The program must culminate in a significant design experience conducted under the professional responsibility of faculty licensed to practice engineering in Canada.
5. The program must ensure that a set of 12 program outcomes (learning attributes) are met.
6. The program must also have a system in place to continuously evaluate and improve the program.

The proposed Civil Engineering program is designed to meet the first 5 of the above-mentioned requirements; this is explained in detail in Section 5. The Lassonde School of Engineering is implementing a continuous evaluation system (#6) for all its programs starting in 2013 and it will be fully integrated into the Civil Engineering curriculum by September 2015 when first cohort of program-specific courses will be offered. It should be noted that the existence and efficacy of such a system must be demonstrated at the time of CEAB accreditation visit, which is scheduled for the year 2017-18.

The two unique features of the proposed Civil Engineering program at York U are as follows:

1. As explained in Section 3.1, the proposed Civil Engineering program aims to educate Renaissance Engineers™. That is, the graduates of the program will have an array of soft skills, such as good oral and written professional communication, independent thinking, leadership, and working in inter-disciplinary and multi-cultural team environment. They will also be familiar with engineering economics, business, management, and ethical, legal and environmental issues. These graduates will be system-level original thinkers with a deep sense of their role in an increasingly global engineering profession. The curriculum for the proposed Civil Engineering program has been designed with this mission in mind. A structured approach to delivering complementary studies education has been adopted and explained in Section 4.2. This approach is aligns perfectly with the complementary studies framework stipulated by Lassonde School of Engineering (Figure 4.1).
2. The proposed Civil Engineering program aims to train students not only in the traditional areas of Civil Engineering but it also aims to prepare them to work and provide leadership in new and emerging areas, such as sustainability, asset management, infrastructure rehabilitation, life cycle assessment, smart structures, climate-change-driven engineering and others.

[22] Engineers Canada 2012c. Canadian Engineering Accreditation Board Accreditation Criteria and Procedures. http://www.engineerscanada.ca/files/w_Accreditation_Criteria_Procedures_2012.pdf. Accessed Aug 16, 2013.

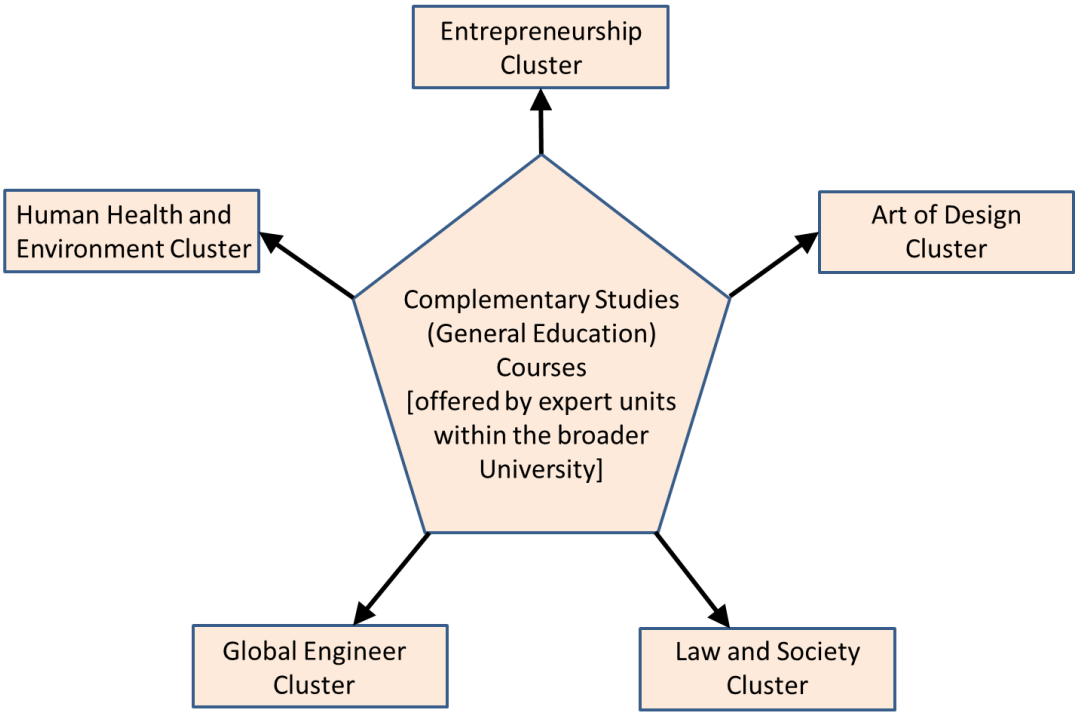

Figure 4.1: Complementary studies framework to foster the development of Renaissance Engineer™
[Note: The complementary studies component is equivalent to the general education component of York's undergraduate degrees.]

4.2 Provide a list of courses that will be offered in support of the program. The list of courses must indicate the unit responsible for offering the course (including cross-lists and integrations, as appropriate), the course number, the credit value, the short course description, and whether or not it is an existing or new course. For existing courses, the frequency of offering should be noted. For new courses, full course proposals are required and should be included in the proposal as an appendix. (The list of courses may be organized to reflect the manner in which the courses count towards the program requirements, as appropriate; e.g. required versus optional; required from a list of specified courses; specific to certain concentrations, streams or fields within the program, etc.)

A term-by-term list of all the courses that will be offered in support of the proposed Civil Engineering program is provided in Table 4.2a. Table 4.2b lists all the Year 4 technical electives that will be offered under the proposed program. All the courses with prefix LE/CIVL in their codes will be offered by the Department of Civil Engineering; all such courses are new courses. Please note that the use of CIVL rubric for all courses offered by Department of Civil Engineering was approved by the Lassonde School of Engineering's Curriculum & Academic Standards Committee at its September 4, 2013 meeting and by the Lassonde School of Engineering's Faculty Council at its September 10, 2013 meeting. All the Year 1 courses and courses with Renaissance Engineering in their titles are new courses that are being developed by the Engineering Core (ECORE) committee. Courses with various other prefixes in their codes are existing courses that will be offered by other Departments within Lassonde School of Engineering or by other Faculties at York. Appendix A provides outlines (including credit counts, pre- and co-requisites) for all the courses listed in Table 4.2a and Table 4.2b. A one-page calendar description of the proposed Civil Engineering program is provided in Appendix B.

Table 4.2a: List of courses offered in the proposed Civil Engineering program

Yr	Term	Courses	Credits
1	1	SC/MATH 1018 Calculus (full year course)	6
		SC/PHYS 1110 Physics and Statics for Engineers (full year course)	6
		LE/ESSE 10XX The Earth Environment	3
		SC/MATH 1020 Linear Algebra	3
		LE/EECS 1011 Computational Methods for Engineers	3
		LE/ENG 1001 Renaissance Engineering 1 – Ethics, communications and problem-solving	4
	2	SC/MATH 1018 Calculus (full year course)	6
		SC/PHYS 1110 Physics and Statics for Engineers (full year course)	6
		SC/CHEM 10XX Chemistry and Material Science for Engineers	4
		SC/MATH 1028 Discrete Mathematics	3
		LE/EECS 1021 Computer Programming for Engineers	3
		LE/ENG 1002 Renaissance Engineering 2 – Principles of Engineering Design	4
2	1	LE/CIVL 2110 Engineering Geology	3
		LE/CIVL 2120 Civil Engineering Materials	3
		LE/CIVL 2130 Probability and Statistics for Civil Engineers	3
		LE/CIVL 2140 Introduction to Environmental Engineering	3
		LE/CIVL 2150 Civil Engineering Graphics and CADD	3
		LE/ENG 2001 Renaissance Engineering 3 – Principles of Business and Economics	3
	2	LE/CIVL 2210 Fluid Mechanics	3
		LE/CIVL 2220 Mechanics of Materials	3
		SC/MATH 2271 Differential Equations for Scientists and Engineers	3
		LE/CIVL 2250 Fundamentals of Surveying	3
		LE/CIVL 2260 Effective Professional Communication	3
		LE/CIVL 2000 / LE/ENG 2402 Renaissance Engineering 4 – Mini Design Project	3
	S/S	LE/CIVL 2350 Survey Field School (2 weeks in spring/summer)	3
3	1	LE/CIVL 3110 Soil Mechanics	3
		LE/CIVL 3120 Hydraulics	3
		LE/CIVL 3130 Structural Analysis	3
		LE/CIVL 3140 Applied Mathematics and Numerical Methods for Civil Engineers	3
		ES/ENVS 2150 Environment, Technology and Sustainable Society	3
		Complementary Studies Elective #1	3
	2	LE/CIVL 3210 Foundation Engineering	3
		LE/CIVL 3220 Hydrology	3
		LE/CIVL 3230 Introduction to Structural Design	3
		LE/CIVL 3240 Sanitary and Environmental Engineering	3
		LE/CIVL 3250 Transportation Engineering	3
		LE/ENG 3000 Renaissance Engineering 5 – Professional Engineering Practice	3
4	1	LE/CIVL 4000 Capstone Design Project (full year course)	6
		LE/CIVL 4110 Project Engineering and Management	3
		LE/CIVL 4XXX Technical Elective (Groups A to E; Table 4.2b)	3
		LE/CIVL 4XXX Technical Elective (Groups A to E; Table 4.2b)	3
		Technical Elective (Group F; Table 4.2b) or Complementary Studies Elective #2‡	3
		Complementary Studies Elective #3	3
	2	LE/CIVL 4000 Capstone Design Project (full year course)	6
		LE/CIVL 4210 Civil Engineering for a Sustainable Future	3
		LE/CIVL 4XXX Technical Elective (Groups A to E; Table 4.2b)	3
		LE/CIVL 4XXX Technical Elective (Groups A to E; Table 4.2b)	3
		Technical Elective (Group F; Table 4.2b) or Complementary Studies Elective #2‡	3
		Complementary Studies Elective #4	3
LE/CIVL 3900 / LE/ENG 3900 Professional Internship (Optional; taken after completing Year 3)			0
		Total Credits	**150**

Note: Cross-listing of several Year 2 courses possible with equivalent LE/MECH and LE/ESSE courses; however, such cross-listing is not shown in the above table for the sake of clarity of the curriculum structure. ‡ Students who have taken a Technical Elective from Group F in Term 1 must take a Complementary Studies Elective in Term 2 and vice versa.

Table 4.2b: List of Year 4 technical electives offered in the proposed Civil Engineering program

Year 4 Technical Electives		Credits
Group A: Structural Engineering	LE/CIVL 4001 Advanced Structural Analysis LE/CIVL 4002 Reinforced Concrete Design LE/CIVL 4003 Structural Steel Design LE/CIVL 4004 Structural Dynamics	3 3 3 3
Group B: Geotechnical Engineering	LE/CIVL 4011 Geotechnical Modelling LE/CIVL 4012 Mechanics of Unsaturated Soils LE/CIVL 4013 Advanced Hydrogeology LE/CIVL 4014 Rock Mechanics	3 3 3 3
Group C: Hydrotechnical Engineering	LE/CIVL 4021 Hydraulic Structures LE/CIVL 4022 Water Resources Engineering	3 3
Group D: Transportation Engineering	LE/CIVL 4031 Pavement Materials and Design LE/CIVL 4032 Urban Transportation Planning	3 3
Group E: Environmental Engineering	LE/CIVL 4041 Geoenvironmental Engineering LE/CIVL 4042 Environmental Impact Assessment and Sustainability LE/CIVL 4043 Advanced Sanitary and Environmental Engineering	3 3 3
Group F: Other Engineering Disciplines**	SC/EATS 3300 GIS and Spatial Analysis SC/ENG 4110 Global Positioning Systems (GPS) SC/ENG 4140 Digital Terrain Modelling SC/EATS 4220 Remote Sensing of the Earth's Surface SC/ENG 4150 Hydrography	3 3 3 3 3

[** Only Geomatics Engineering courses listed for now; more courses will be added subsequently.]

Complementary Studies (General Education) Course Clusters

It is important to note that a set of complementary studies courses are required by CEAB. The complementary studies component, which is equivalent to the general education component of York's undergraduate degrees, will be in line with the Lassonde School of Engineering's adopted philosophy as shown in Figure 4.1. For the Civil Engineering program students are advised to consider taking complementary studies (general education) courses offered by other Faculties at York in the areas such as: Cross-Cultural Management, Science and Technology Issues in Global Development, and language proficiency to fit into Global Engineer Cluster; or courses in areas such as: The Science of Pollution: Impacts on the Environment and Human Health, Environmental Politics and Advocacy, and Life Sciences in Modern Society to fit into Human health and Environment Cluster; or courses in areas such as: Introductory Marketing, Leadership and Management Skills, and Entrepreneurship and New Venture Creation to fit into Entrepreneurship Cluster; or courses in areas such as: Science Technology and Public Policy, Communities and Public Law, and Science Policy in Context to fit into Law and Society Cluster; or courses in areas such as: Design and Image, Design Thinking, and Visual Language to fit into The Art of Design Cluster.

4.3 *For undergraduate programs, comment on the anticipated class sizes. For graduate programs, comment on how the course offerings will ensure that each graduate student in the program will take a minimum of two-thirds of the course requirements from among graduate level courses.*

The Year 1 courses are common to all Engineering programs at York University. In addition, Year 2 courses in mathematics, statistics, engineering economics and business, engineering graphics, and professional communications may also be common to two or more Engineering programs at York University. As such, up to 400 students are anticipated for Year 1 common courses. These courses may be taught in two sections to bring the class size to around 200. Multiple laboratory and tutorial sections may also be required for these courses. Year 2 common courses may typically have approximately 150 students and may also have multiple laboratory and tutorial sections. Year 3 and Year 4 courses core may typically have between 50 and 100 students. Year 4 technical electives may have between 20 and 50 students.

4.4 As an appendix, provide a copy of the program requirements as they will appear in the Undergraduate Calendar or Graduate Calendar, as appropriate.

Appendix A provides outlines (including credit counts, pre- and co-requisites requirements) for all the courses listed in Table 4.2a and Table 4.2b. A one-page calendar description of the proposed Civil Engineering program is provided in Appendix B.

5. Program Structure, Learning Outcomes and Assessment

5.1 Provide a detailed description of the program learning outcomes and indicate how the program learning outcomes are appropriate and align with the relevant degree level expectations.

The proposed Civil Engineering program must achieve the 12 program outcomes (learning attributes) stipulated by CEAB (Table 5.1a) while ensuring that the University Undergraduate Degree Level Expectations (UUDLEs) developed by Ontario Council of Academic Vice-Presidents (OCAV)[23] are also met.

Table 5.1a: Twelve program outcomes mandated by CEAB for Engineering programs in Canada

Program Outcome (Learning Attributes)	Description
1. A knowledge base for engineering	Demonstrated competence in university level mathematics, natural sciences, engineering fundamentals, and specialized engineering knowledge appropriate to the program.
2. 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.
3. 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.
4. 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, and economic, environmental, cultural and societal considerations.
5. 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.
6. Individual and team work	An ability to work effectively as a member and leader in teams, preferably in a multi-disciplinary setting.
7. Communication skills	An ability to communicate complex engineering concepts within the profession and with society at large. Such ability includes 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.
8. 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.
9. Impact of engineering on society and the environment	An ability to analyze social and environmental aspects of engineering activities. Such ability includes 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.
10. Ethics and equity	An ability to apply professional ethics, accountability, and equity.
11. Economics and project management	An ability to appropriately incorporate economics and business practices including project, risk, and change management into engineering practice and to understand their limitations.
12. Life-long learning	An ability to identify and to address their own educational needs in a changing world in ways sufficient to maintain their competence and to allow them to contribute to the advancement of knowledge.

[23] Council of Ontario Universities 2011. Ensuring the Value of University Degrees in Ontario: A Guide to Learning Outcomes, Degree Level Expectations and the Quality Assurance Process in Ontario. http://cou.on.ca/publications/reports/pdfs/ensuring-the-value-of-university-degrees-in-ontari.pdf . Accessed Aug 16, 2013.

It was felt that this dual compliance can be achieved by first establishing correlations between the UUDLEs and the CEAB program outcomes and then examining the contents of all the courses in order to group them in terms of their satisfying a particular UUDLE. The results of this exercise are presented in Table 5.1b. [Please note that Table 5.1b extends over three pages.] It should be pointed out that although the proponents undertook fairly detailed mapping of every course in the proposed program (using methods described in Section 5.3), a more comprehensive and complete mapping of each course would be required to demonstrate the proposed program's full compliance with CEAB requirements at the time of the proposed program's accreditation (scheduled for 2017-18).

[Table 5.1b starts from the next page.]

Table 5.1b: Results of Civil Engineering program course mapping to ensure achievement of CEAB program outcomes and meeting of the UUDLEs

UUDLE	**Name of degree:** B.Eng. (Civil Engineering) *This degree is awarded to students who have demonstrated:*	**Correspondence to CEAB Graduate Attributes**	**Courses that contribute towards fulfilling the expectation**
1. Depth and Breadth of Knowledge	<u>Pure science</u> 1. Explain and demonstrate the use of the scientific principles underlying their branch of engineering; such as mathematics, physics, chemistry, geology, probability and statistics <u>Engineering</u> 2. Explain and demonstrate the use of subject-specific fundamentals of civil engineering like building materials and geo materials, environmental sciences, building physics, surveying, fundamentals of planning, structural theory, engineering drawing, and computer techniques. 3. Explain and demonstrate the use of subject-specific design of civil engineering such as: a. geotechnical b. water resources c. structural d. transportation e. environmental f. construction and project management 4. Describe and explain how emerging issues may affect their branch of engineering 5. Explain how business and economics concepts apply in civil engineering projects or activities	3.1.1 A knowledge base for engineering: Demonstrated competence in university level mathematics, natural sciences, engineering fundamentals, and specialized engineering knowledge appropriate to the program. (1) (2) (3) 3.1.9 Impact of engineering on society and the environment: An ability to analyze social and environmental aspects of engineering activities. (4) 3.1.11 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. (5)	Mathematics, Probability, and Statistics: SC/MATH 1018, SC/MATH 1020, SC/MATH 1028, SC/MATH 2271, LE/CIVL 2130, LE/CIVL 3140 Physics, Chemistry, and Geology: SC/PHYS 1110, SC/CHEM 10XX, LE/ESSE 10XX Computing: LE/EECS 1011, LE/EECS 1021, LE/CIVL 3140 Civil Engineering Fundamentals: LE/CIVL 2110, LE/CIVL 2120, LE/CIVL 2140, LE/CIVL 2150, LE/CIVL 2210, LE/CIVL 2220, LE/CIVL 2250, LE/CIVL 3110, LE/CIVL 3120, LE/CIVL 3130, LE/CIVL 3210, LE/CIVL 3220, LE/CIVL 3230, LE/CIVL 3240, LE/CIVL 3250 Civil Engineering Design: LE/CIVL 2000, LE/CIVL 3210, LE/CIVL 3230, LE/CIVL 4000, LE/CIVL 4110, LE/CIVL 4210 Technical Electives (Groups A – E) Business, economics, emerging issues: ES/ENVS 2150, LE/ENG 2001, LE/ENG 3000, LE/CIVL 2000, LE/CIVL 4000, LE/CIVL 4110, LE/CIVL 4210
2. Knowledge of Methodologies	6. Identify, formulate and solve engineering problems using applicable methods, with an understanding of the methodologies' limitations 7. Select and use appropriate experimental and or modelling methods	3.1.5 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. (6) (7)	LE/EECS 1011, LE/EECS 1021, LE/CIVL 3140, SC/PHYS 1110, LE/ESSE 10XX, LE/CIVL 2110, LE/CIVL 2120, LE/CIVL 2140, LE/CIVL 2150, LE/CIVL 2210, LE/CIVL 2220, LE/CIVL 2250, LE/CIVL 3110, LE/CIVL 3120, LE/CIVL 3130, LE/CIVL 3210, LE/CIVL 3220, LE/CIVL 3230, LE/CIVL 3240, LE/CIVL 3250, LE/CIVL 2000, LE/CIVL 4000, LE/CIVL 4110, LE/CIVL 4210, Technical Electives (Groups A – F)

3. Application of Knowledge	8. Investigate complex problems by methods that include appropriate experiments, analysis and interpretation of data, and synthesis of information, in order to reach valid conclusions. 9. Identify, formulate, analyze, and solve complex engineering problems in order to reach substantiated conclusions. 10. Analyse engineering materials, products, and processes and methods; 11. Design components and systems that meet defined, specified requirements by combining theory and state of the art practice 12. Demonstrate laboratory skills, integrating safety procedures 13. Incorporate environmental issues, sustainability, information management, project management and business aspects into engineering practice.	3.1.3 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. (8) 3.1.2 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. (9) 3.1.5 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. (10) 3.1.4 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, and economic, environmental, cultural and societal considerations. (11) 3.1.9 Impact of engineering on society and the environment: An ability to analyze social and environmental aspects of engineering activities. (13)	LE/EECS 1011, LE/EECS 1021, LE/CIVL 3140, SC/PHYS 1110, LE/CIVL 2350, LE/CIVL 2110, LE/CIVL 2120, LE/CIVL 2140, LE/CIVL 2150, LE/CIVL 2210, LE/CIVL 2220, LE/CIVL 2250, LE/CIVL 3110, LE/CIVL 3120, LE/CIVL 3130, LE/CIVL 3210, LE/CIVL 3220, LE/CIVL 3230, LE/CIVL 3240, LE/CIVL 3250, LE/CIVL 2000, LE/CIVL 4000, LE/CIVL 4110, LE/CIVL 4210 Technical Electives (Groups A – F)
4. Communication Skills	14. Communicate effectively orally and in writing with the engineering community and with society at large;	3.1.7 Communication skills: An ability to communicate complex engineering concepts within the profession and with society at large. Such ability includes 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. (14)	Courses dealing with teaching of communication skills: LE/ENG 1001, LE/ENG 1002, LE/CIVL 2260, LE/ENG 3000, ES/ENVS 2150, Non-science Complementary Studies Electives. Courses dealing with application of communication skills: LE/CIVL 2000, LE/CIVL 4000, LE/CIVL 2350, LE/CIVL 2120, LE/CIVL 2210, LE/CIVL 2220, LE/CIVL 3110, LE/CIVL 3120, LE/CIVL 3210, LE/CIVL 3230, LE/CIVL 3240 Technical Electives (Groups A – F)

5. Awareness of Limits of Knowledge	15. Use data bases and other sources of information to conduct literature and information searches 16. Identify the limits of one's knowledge and be able to get help and appropriate expertise. 17. Recognise the need for and engage in independent life-long learning;	3.1.12 Life-long learning: An ability to identify and to address their own educational needs in a changing world in ways sufficient to maintain their competence and to allow them to contribute to the advancement of knowledge. (16) (17)	LE/CIVL 2000, LE/CIVL 4000, LE/CIVL 2350, LE/CIVL 3110, LE/CIVL 3120, LE/CIVL 3130, LE/CIVL 3140, LE/CIVL 3210, LE/CIVL 3220, LE/CIVL 3230, LE/CIVL 3240, LE/CIVL 3250, LE/CIVL 4110, LE/CIVL 4210 Technical Electives (Groups A – F)
6. Autonomy and Professional Capacity	18. Incorporate health, safety and legal issues in projects and professional practice 19. Determine the impact of engineering solutions in a societal and environmental context, 20. Practice according to professional ethics, responsibilities and norms of the engineering profession 21. Function effectively as a member of a team and independently	3.1.8 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. (18) (20) 3.1.9 Impact of engineering on society and the environment: An ability to analyze social and environmental aspects of engineering activities. (19) 3.1.10 Ethics and equity: An ability to apply professional ethics, accountability, and equity. (20) 3.1.6 Individual and team work: An ability to work effectively as a member and leader in teams, preferably in a multi-disciplinary setting. (21)	Health, safety and legal issues: LE/CIVL 2000, LE/CIVL 4000, LE/ENG 3000, LE/CIVL 4110 Impact of Engineering Solutions on Society and Environment: LE/ENG 1002, LE/CIVL 2000, LE/CIVL 4000, LE/CIVL 4210 Professional Practice and Ethics: LE/ENG 1001, LE/ENG 1002, LE/ENG 3000 Team work: LE/CIVL 2000, LE/CIVL 4000, LE/CIVL 2350, LE/CIVL 2120, LE/CIVL 2210, LE/CIVL 2220, LE/CIVL 3110, LE/CIVL 3120, LE/CIVL 3210, LE/CIVL 3230, LE/CIVL 3240 Technical Electives (Groups A – F)

5.2 Address how the program curriculum and structure supports achievement of the program learning outcomes. For research-focused graduate programs, comment on the nature and suitability of the major research requirement(s) for degree completion. For undergraduate programs, comment on the nature and suitability of students' final-year academic achievement in the program.

Table 5.1b provides compelling evidence that the proposed Civil Engineering program achieves the twelve CEAB program outcomes while meeting the UUDLEs.

In their final year of study, students must successfully complete a 6 credits full-year course LE/CIVL 4000 Capstone Design Project, which represents the culmination of all their learning experience. LE/CIVL 4000 involves students' working on a realistic open-ended civil engineering design project. Students work in small groups and implement a systematic approach in terms of defining the problem, outlining of project's objectives and scope, acquiring suitable data and resources, generating alternatives and selecting the optimal alternative, and completing a detailed design of the chosen alternative.

5.3 Address how the methods and criteria for assessing student achievement are appropriate and effective relative to the program learning outcomes and Degree Level Expectations.

The Department of Civil Engineering is developing a continuous evaluation system to be in place by September 2014. The system will be integrated into the curriculum by September 2015 when the first set of program-specific courses will be offered. It should be noted that the existence and efficacy of such a system must be proved at the time of CEAB accreditation visit, which is scheduled for the year 2017-18. Student's progress through the program will be assessed using a range of evaluation/assessment tools; these are listed in Table 5.3a. Tools such as tests, quizzes, written assignments, and exams are more appropriate for Year 1 and Year 2 courses and a few Year 3 courses. Most upper-year courses have group work, report writing and oral presentation components. As such, these courses require additional evaluation/assessment tools.

The extent up to which a particular course meets a particular learning outcome can be assessed using the rubric presented in Table 5.3b. This rubric is based on the material presented at the June 17, 2013 EGAD workshops on Graduate Attributes Assessment & Accreditation.[24] Indicator **I** (introduction) applies to all Year 1 courses and some Year 2 courses. Indicator **R** (reinforcement) applies to most Year 2 and Year 3 courses. Indicator **A** (advanced) applies to Year 4 courses.

Table 5.3a: Tools used in course evaluation/assessment

	EVALUATION/ASSESSMENT
1	Test/Quiz/Exam
2	Project (group)
3	Participation (in class)
4	Participation (on-line discussions)
5	Oral presentation, performance
6	Journal / lab notebook / portfolio
7	Poster or graphics (maps, blueprints, schematics, etc.)
8	Self or peer evaluation
9	Written assignment
10	Case studies analysis
11	Experiential learning (internships, site visits, etc.)
12	Other (report, etc.)

[24] EGAD Project 2013. Resources for recent EGAD workshops on Graduate Attributes Assessment & Accreditation. http://egad.engineering.queensu.ca/?page_id=859. Accessed Aug 16, 2013.

Table 5.3b: Rubric to assess the extent to which a course achieves a particular program learning outcome

INCLUSION LEVEL	
I = Introductory	Students are working at a basic level, working with the foundational elements, techniques or methodologies of the learning outcome.
R = Reinforcement	Students are performing at an intermediate level (when measured against the final outcome). They are using the Introductory skills and knowledge of the outcome to evolve towards greater competency.
A = Advanced	Students are learning how to perform the learning outcome as written, at a level that is expected of someone who is completing their degree.

5.4 *For graduate programs, indicate the normal full-time program length (i.e. the length of time in terms in which full-time students are expected to complete the program) including a description of how students' time-to-completion will be supported and managed to ensure that the program requirements can be reasonably completed within the proposed time period. Indicate if the program will be available on a part-time basis, and, if applicable, explain how students' time-to-completion will be supported and managed to ensure that the program requirements can be reasonably completed on a part-time basis.*

Not applicable.

5.5 *Describe the proposed mode(s) of delivery, including how it/they are appropriate to and effective in supporting the program learning outcomes.*

A range of pedagogical tools will be employed by instructors to foster the culture of independent and life-long learning in students. Some examples include:

- a combination of in-class and on-line lectures along with instructor-guided problem-solving (tutorial) sessions involving group work and hands-on laboratory and computer modelling sessions
- the flipped classroom, wherein students will engage in self-directed learning of course materials outside of regular in-class contact hours blended with instructor-guided in-class discussions, design studios, problem-solving sessions, hands-on laboratory sessions and computer modelling activities.

Students in upper-year courses will also be given ample opportunities for experiential learning (via internships, fieldwork and hands-on practicum sessions) and working with industry professionals. This mode of delivery will be particularly relevant for LE/CIVL 2000 Mini Design Project and LE/CIVL 4000 Capstone Design Project where the students will learn to apply the knowledge, skills and tools that they have acquired through other courses. One Year 2 course (LE/CIVL 2000 Mini Design Project) and several upper-year courses (e.g. LE/CIVL 4000 Capstone Design Project, Technical Electives from Groups A-F, LE/CIVL 4110 Project Engineering and Management, LE/CIVL 4210 Civil Engineering for a Sustainable Future) will have components such as formal report writing and formal oral presentation in front of peers that will provide additional training in communication skills over and above that provided by complementary studies clusters (Figure 4.1).

6. Admission Requirements

6.1 *Describe the program admission requirements, including how these requirements are appropriately aligned with the program learning outcomes.*

The minimum admission requirement to the Civil Engineering program is the completion of the Ontario Secondary School Diploma (OSSD), or equivalent. For Ontario students, the admission requirements are:

12U Requirements (No required courses below 70%)

- English
- Chemistry
- Physics
- Advanced Functions
- Calculus & Vectors

The admissions cut-off average over six courses (inclusive of the five courses itemized above plus one additional 12U course) is currently set in the low 80%.

High school students from outside Ontario are expected to complete the same requirements as for university study in their home province: completion of grade 12 and a secondary school diploma. In addition, they must satisfy the equivalent of the 12U course and cutoff requirements as specified above.

High school students from abroad are expected to complete the same requirements as for university entrance in their home country: successful graduation from an academic secondary school program or equivalent. In addition, they must satisfy the equivalent of the 12U course and cutoff requirements as specified above.

Civil Engineering curriculum as described in Section 4 relies heavily on understanding of basic concepts and skills in physics, mathematics and chemistry to achieve its learning outcomes. As such, appropriate preparation of the entering students in the areas of physics, mathematics, and chemistry is paramount. Furthermore, given the emphasis of Civil Engineering curriculum on structured training in soft skills areas, English language skills are important. English language proficiency requirements can be found at http://futurestudents.yorku.ca/requirements/docs_language. Admissions and language proficiency requirements for international students are outlined at http://futurestudents.yorku.ca/requirements/intl.
.

6.2 *Explain any alternative requirements, if any, for admission into an undergraduate, graduate or second-entry program, such as minimum grade point average, additional languages or portfolios, along with how the program recognizes prior work or learning experience.*

Not applicable.

7. Resources

7.1 Comment on the areas of strength and expertise of the faculty who will actively participate in delivering the program, focusing on its current status, as well as any plans in place to provide the resources necessary to implement and/or sustain the program.

The Department of Civil Engineering is a brand new Department at York University. It has officially existed since May 1, 2013. Currently, it has two faculty members – Dr. Jitendrapal Sharma, Professor and Department Chair; and, Dr. Dan Palermo, Associate Professor; both these professors joined York University on July 1, 2013. The Department of Civil Engineering has planned for the faculty complement resources as outlined in Table 7.1a. It is worth pointing out that the current faculty complement is consistent with the faculty and staff complement plan for Department of Civil Engineering stipulated in Lassonde School of Engineering planning document (Table 7.1a).

Table 7.1a: Student enrolment and faculty and staff complement plan for Department of Civil Engineering

Category	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Undergraduate Students	0	0	50	106	159	**225**	292	345	389	424
Graduate Students	0	0	8	17	38	**55**	68	83	96	113
Faculty Complement	0	3	5	8	10	**12**	15	17	20	22
Staff Complement	0	1	3	4	5	**6**	8	9	10	11

Dr. Sharma's area of expertise is geotechnical engineering whereas the area of expertise of both Dr. Palermo and the new faculty member is structural engineering. As such, a small capacity will be in place by the end of September 2014 as far as delivery of the proposed Civil Engineering program is concerned. Recruitment of faculty in accordance with the complement plan shown in Table 7.1a is currently ongoing. Two new positions have recently been advertised in the areas of geotechnical/geoenvironmental engineering and environmental/water resources engineering. Recruitment in these two areas is being targeted so that by September 2015, the Department of Civil Engineering will have the faculty complement to deliver its Year 2 courses. Hiring for subsequent faculty positions will focus on the areas of transportation materials/planning, sanitary engineering, and structural engineering, keeping in mind the need to build capacity to deliver Year 3 and Year 4 of the curriculum. By 2017-18, the year during which the first cohort of Civil Engineering students will be graduating and the proposed Civil Engineering program will undergo CEAB accreditation assessment, twelve faculty members in various sub-disciplines of civil engineering will have been recruited.

The Department of Civil Engineering will also utilize partnerships that are being established with Schulich School of Business and Osgoode-Hall Law School to enhance elements of the core curriculum and to deliver complementary studies courses in business, entrepreneurship and law (Section 3.1; Figure 4.1). In this regard, the Department also intends to work closely with Bergeron Chair in Engineering Entrepreneurship that is being established under the Bergeron Entrepreneurs in Science and Technology (BEST) initiative.

The Department is also planning to hire by July 2015 at least one Alternate Stream (teaching-only positions) faculty member who will be expected to lead the pedagogical development and delivery of experiential learning and e-learning components of the proposed Civil Engineering program as well as the teaching of several lower-year courses dealing with Civil Engineering fundamentals (e.g. LE/CIVL 2110, LE/CIVL 2120, LE/CIVL 2140, LE/CIVL 2210, LE/CIVL 2220).

7.2 Comment on the anticipated role of retired faculty and contract instructors in the delivery of the program, as appropriate.

The proposed Civil Engineering program is a new program housed in a brand new Department of Civil Engineering within the newly formed Lassonde School of Engineering. As such, there are no retired or retiring faculty members in the Department of Civil Engineering. Consultations and curriculum planning agreements are in place for the delivery of a majority of courses from common Year 1 of the program by Departments of Mathematics, Chemistry and Physics within the Faculty of Science at York University. It is expected that all surveying-related courses (LE/CIVL 2250 Fundamentals of Surveying and LE/CIVL 2350 Surveying Field School) will be delivered by professors in Geomatics Engineering area of the Department of Earth and Space Science and Engineering. Depending on the outcome of the faculty complement plan described in Section 7.1, there may be an occasional need to avail the services of contract instructors (sessional lecturers) for the delivery of a few Civil Engineering core courses (depending on sabbatical leave plans, success in hiring processes, etc.).

7.3 As appropriate, identify major laboratory facilities/equipment that will be available for use by undergraduate and/or graduate students and to support faculty research, recent acquisitions, and commitments/plans (if any) for the next five years.

The Lassonde School of Engineering along with the Department of Civil Engineering and other Departments will be housed in a brand-new purpose-built 167,500 ft^2 engineering building that is expected to be ready by September 2015 when the first cohort of Civil Engineering students begin Year 2 of their program. All specialized facilities required by the Civil Engineering program (e.g. undergraduate laboratories, computer lab, project area, workshop, etc.) will be fully operational inside the new engineering building. Laboratories under the jurisdiction of Department of Civil Engineering are: high-bay structural engineering lab, transportation and construction materials testing lab, geotechnical engineering lab, environmental engineering lab, and computer modelling lab. The fluid mechanics and hydraulics lab will be shared between the Department of Civil Engineering and the Department of Mechanical Engineering. Existing equipment and facilities at the Department of Earth and Space Science and Engineering (ESSE) will be used for LE/CIVL 2350 Surveying Field School. It is anticipated that more surveying equipment may need to be procured by ESSE to cater to the needs of Civil Engineering students.

A list of equipment for each of the laboratories has been prepared and submitted to the facilities manager for Lassonde School of Engineering, who has been working with the group responsible for designing and constructing the new engineering building to ensure that all these laboratories are fully functional by September 2015. The following items have been considered in the preparation of equipment list and specifications for the laboratories:

- Pedagogical needs of the curriculum;
- Compliance with CEAB requirements to ensure full accreditation of the proposed Civil Engineering program; and,
- Provision of a rich, experiential learning environment for the students.

The last item is implicitly woven into the design of the new engineering building to facilitate and encourage collaboration, creative thinking and effective communication.

In addition to laboratory equipment, four main categories of software, that is computer-aided drawing and design (CADD), simulation and modelling, data acquisition and analysis, and office and teamwork productivity, will be installed in the laboratories and maintained by the information technology personnel within Lassonde School of Engineering.

7.4 As appropriate, provide information on the office, laboratory and general research space available that will be available for faculty, undergraduate and/or graduate students; the availability of common rooms for faculty and graduate students; administrative space; as well as any commitments/plans (if any) for the next five years.

As stated in Section 7.3, the new engineering building that will be ready by September 2015 will have all the teaching and laboratory space needed by the proposed Civil Engineering program. The new building will also have a number of meeting rooms and project spaces where out-of-class learning can take place. Such spaces are complemented by a number of social learning spaces where students can interact with each other or with faculty and staff. The new engineering building will also house Lassonde School of Engineering's Student Service Center, which is being designed as a "one-stop shop" for all things important to undergraduate and graduate students. Technical support staff will have offices next to undergraduate laboratories so that they are able to support and supervise the students effectively. The new building will also have office space for the entire faculty hired by the Department.

During the next two years leading up to the completion of the new engineering building, the faculty members hired by the Department will be temporarily located in the Life Sciences Building (LSB). These faculty members will also have their research lab space housed either in the LSB or in the Petrie Science and Engineering building (PSE). The first cohort of Civil Engineering students will use the existing classroom and facilities at PSE and the Lassonde building. Existing common lecture halls within the University pool will be used for the teaching of Year 1 courses in the 2014-15 academic year. According to University's Physical Resources Department, a sufficient number of such common lecture halls are available for this purpose.

7.5 As appropriate, comment on academic supports and services, including information technology, that directly contribute to the academic quality of the program proposed.

The high level academic administration of the program will be led by a faculty member who will be appointed as the Associate Chair for Undergraduate Studies. This faculty member will receive teaching relief as per the terms of the York University Faculty Association Collective Agreement to allow dedicated time for performing the duties (e.g. continuous improvement of the program as per CEAB requirements).

The required academic supports and services can be grouped into four categories: information technology (IT) support; technical support; secretarial/office support; and, library and archival/digital resources.

The IT support is primarily provided through staff at the Faculty level. As per agreement between the Department and the Faculty, the IT staff of the Lassonde School of Engineering will be responsible for license purchase and maintenance/service of the following four categories of software: computer-aided drawing and design (CADD), simulation and modelling, data acquisition and analysis, and office and teamwork productivity. Furthermore, the Lassonde IT staff will be responsible for networking and related issues. It is also anticipated that the Lassonde IT staff together with the University IT and Teaching Services personnel will be responsible for providing solutions and technical support for online and e-learning activities of the Department. The Department will use the services of webmaster/communication personnel on a need-for basis.

Two technical support staff will be hired in the Department by September 2014. One of them will be a Civil Engineering Technologist with skills in the structural engineering, geotechnical engineering, hydraulics, and construction materials. The other technical support staff will be an Electronics Engineering technologist with skills in strain gauging, instrumentation, data logging systems and software. The main tasks of the technical support staff are: setting-up, operational maintenance, upgrading and assistance with demonstration of experiments (mainly supervision) in the laboratory courses for undergraduate students. They will also be responsible for safety aspects of the laboratories and training of teaching assistants and student users.

In terms of support staff for delivery of the proposed Civil Engineering program, administrative support in terms of student recruitment, admissions, summer internships, and graduation list, etc. will be provided by the Lassonde School of Engineering Student Service Centre. Staffing plans for this Centre are well under way and it is already partly operational (e.g. recruitment) and housed in Lassonde building. The Department of Civil Engineering does require additional support staff as stipulated in the Lassonde School of Engineering complement plan (Table 7.1a) to achieve a faculty to staff ratio of 2 to 1. One "department manager" will be

hired in 2013 to handle the financial aspects of the program delivery (note that the Department will be operating on an Activity Base Budgeting model). This position is currently shared 50-50 between Department of Civil Engineering and Department of Mechanical Engineering. Additional support personnel are being hired to assist in administrative matters regarding the delivery of the program (e.g. record keeping for CEAB accreditation and continuous improvement of the program, appeals, marks reports, scheduling, etc.).

In terms of library and archival/digital resources, York University is relatively well stocked in terms of resources suitable for civil engineering and closely-related disciplines. There are a few items that need to be acquired by September 2014; a list of these items has been forwarded to University Librarian via Lassonde School of Engineering's Assistant Dean, Finance and Budget Strategy Mr. Fred Zhu and the resource plans for the necessary acquisitions are being developed.

7.6 For graduate programs, indicate financial support that will be provided to master's and/or PhD students, including how this support will be sufficient to ensure adequate quality and numbers of students. Comment on how supervisory loads will be distributed, as appropriate. Special attention should be paid to supervisory capacity for new PhD programs.

Not applicable.

7.7 For undergraduate programs, indicate anticipated class sizes and capacity for supervision of experiential learning opportunities, as appropriate.

Considering the discussion on class sizes in Section 4.3, this Section will focus on teaching assistant (TA) support for supervision of hands-on laboratory and computer modelling sessions and instructor-assisted group-based problem-solving sessions.

TAs will be sought from two main pools: (a) graduate students being supervised by faculty members in Civil Engineering; and, (b) graduate students from other engineering and science programs at York U.
All new faculty members in the Department are expected to take graduate students as soon as they begin their appointment. It is anticipated that within 2 years of their appointment, each faculty member will have an average of 4 graduate students and/or postdoctoral fellows (PDFs).

It is anticipated TAs for the Year 1 courses (2014/15) will be sourced from graduate students in science (e.g. Department of Mathematics for math courses) or other engineering graduate students (e.g. Computer Engineering for computer courses). In 2015/16, when students enter in Year 2 of the program, there should be a contingent of approximately 17 graduate students in Department of Civil Engineering to help with Year 2 courses. As more faculty members are recruited, the pool of graduate students to draw upon for TA positions will grow and Year 3 and Year 4 courses can draw from this pool for TA support. PDFs may be provided with TA opportunities whenever required or possible. It is also anticipated to have a number of TAs from Department of English, Schulich School of Business and Osgoode-Hall Law School for courses that would benefit from such expertise.

Table 1 – Listing of Faculty

For undergraduate programs: Identify all full-time faculty who will actively participate in delivering the program, as follows.

Faculty Name & Rank	Home Unit	Area(s) of Specialization
Jitendrapal Sharma, Professor and Chair	Civil Engineering	Geotechnical Engineering
Dan Palermo, Associate Professor	Civil Engineering	Structural Engineering
TBA, Associate Professor*	Civil Engineering	Structural Engineering

[*Expected to start Fall 2014.]

For graduate programs: Identify all full-time faculty, retired faculty, adjuncts and contract instructors who will be appointed to and who will actively participate in delivering the program, as follows:

Not Applicable.

Table 2 – Graduate Supervision

For graduate programs: Identify the supervisorships of master's major research papers/projects (MRP), master's theses, doctoral dissertations, and post-doctoral students (PDF) by each faculty member who will be appointed to the proposed program completed within the past eight years and currently in progress.

Not Applicable.

Table 3 – Research Funding Received by Faculty

For graduate programs: Identify the research funding received for each of the past eight years by members who will be appointed to the proposed program. This table is intended to show the amount of funding available to support faculty research and potentially available to support students' work, either through the provision of stipends or materials for the conduct of the research. For this reason, grants for travel and publication awarded to faculty should not be included in this table. Major equipment grants, which provide important resources for the work of faculty and students, may be listed separately.

Not Applicable.

8. Enrolment Projections

8.1 *Indicate the anticipated implementation date (i.e. year and term of initial in-take), and provide details regarding the anticipated yearly in-take and projected steady-state enrolment target, including when steady-state will be achieved.*

The enrolment projections for the proposed Civil Engineering program are shown in Table 8.1a. These projections are based on the Lassonde School of Engineering planning document approved by the York University Senate and on the assumptions made in the Faculty and Staff complement plan (Table 7.1a). The start date of the proposed Civil Engineering program is September 2014 with an intake of 50 students.

Table 8.1a: Student enrolment projections for the proposed Civil Engineering program

	Year 1			Year 2	Year 3	Year 4	Annual
	New	Continuing	Total	Continuing	Continuing	Continuing	Total
Nov-13	0	0	0	0	0	0	0
Nov-14	50	0	50	0	0	0	50
Nov-15	75	7	82	24	0	0	106
Nov-16	86	11	97	50	11	0	159
Nov-17	106	13	119	70	30	6	225
Nov-18	118	16	134	91	48	19	292
Nov-19	118	18	136	107	67	35	345
Nov-20	118	19	137	116	84	53	389
Nov-21	118	19	137	121	96	71	424

As explained in Section 3.2, there exists a very strong demand for civil engineers, nationally as well as in Ontario and Quebec. As such, these enrolment projections are realistic and achievable.

9. Support Statements

Support statements are required from:

- relevant Dean(s)/Principal, with respect to the adequacy of existing human (administrative and faculty), physical and financial resources necessary to support the program, as well as the commitment to any plans for new/additional resources necessary to implement and/or sustain the program
- Vice-President Academic and Provost, with respect to the adequacy of existing human (administrative and faculty), physical and financial resources necessary to support the program, as well as the commitment to any plans for new/additional resources necessary to implement and/or sustain the program
- University Librarian confirming the adequacy of library holdings and support
- University Registrar confirming the implementation schedule and any administrative arrangements
- relevant Faculties/units/programs confirming consultation on/support for the proposed program, as appropriate
- professional associations, government agencies or policy bodies with respect to the need/demand for the proposed program, as appropriate

Appendix A – List of Courses for Calendar

Year 1; Term 1

SC/MATH 1018 Calculus (full-year course)	6 Credits
Prerequisite(s): One or more high-school calculus courses.	
Introductory theory and application of differential and integral calculus; limits; derivatives of algebraic and trigonometric functions; Riemann sums; definite integrals; Fundamental Theorem of Calculus; logarithms and exponentials; extreme value problems; related rates; area and volume; calculus in polar coordinates; integration techniques; indeterminate forms; improper integrals; sequences; infinite and power series; approximations; introduction to ordinary differential equations.	

SC/PHYS 1110 Physics and Statics for Engineers (full-year course)	6 Credits
Prerequisite(s): One 12U or OAC physics course or equivalent.	
Linear, rotational and oscillatory motion; Newtonian mechanics; gravitation; electrostatics; magnetostatics; electric current and induction; heat; optics; analysis of static equilibrium and stresses in structures, points, 2D and 3D bodies with applications to engineering systems; external and internal and reaction forces analysis; loading types and dry friction.	

LE/ESSE 10XX The Earth Environment	3 Credits
Prerequisite(s): None.	
The course provides essential topics in earth science, atmospheric science, and geology and explores the role played by global- and local-scale processes in shaping our planet. Topics include: Earth formation; inner structure of the Earth; global-scale Earth processes; plate tectonics; volcanoes; earthquakes; gravity and geomagnetism; composition of the Earth's atmosphere; Earth-Sun system; physical and chemical atmospheric processes; radiation; solar flux and albedo; airborne and satellite-based remote sensing; the rock cycle; igneous, sedimentary and metamorphic rocks; identification and properties of rock-forming minerals; thermo-mechanical properties of rocks; geological processes and their role in formation of landforms; geological time scale; stratigraphy; radio carbon dating; basic structural geology; introductory geomatics; the Earth as a geoid and ellipsoid; global and local coordinate systems; introduction to Global Navigation Satellite Systems (e.g., GPS), remote sensing, and Geographical Information Systems (GISs).	

SC/MATH 1020 Linear Algebra	3 Credits
Prerequisite(s): One 12U or OAC mathematics course or equivalent. Co-requisite: EECS 1011.	
Linear equations, matrices, Gaussian elimination, determinants and vector spaces. Topics include spherical and cylindrical coordinates in Euclidean 3-space, general matrix algebra, determinants, vector space concepts for Euclidean n-space (e.g. linear dependence and independence, basis, dimension, linear transformations etc.), an introduction to eigenvalues and eigenvectors.	

LE/EECS 1011 Computational Methods for Engineers	3 Credits
Prerequisite(s): None. Co-requisite: SC/MATH 1020.	
Environment workspace: built-in functions, debugger, unit testing, plots, etc; variables and expressions: types, operators, precedence, rounding off errors; Control Structures: selection and iteration; encapsulation: script files, functions, classes; computational thinking: process-based problem solving, unit tests as specification; applications: mathematical and numerical techniques for finding roots of equations; solution of linear algebraic equations; curve fitting, differentiation and integration; optimization; solution of ordinary differential equations.	

LE/ENG 1001 Renaissance Engineering 1 – Ethics, communications and problem-solving	4 Credits
Prerequisite(s): None.	
The three main themes are: Who is an engineer? What are the ethical and academic integrity obligations of an engineer? Communications strategies for technical subjects in oral and written forms; ambiguity, uncertainties, and open ended problems in a technical context; problem definition strategies.	

Year 1; Term 2

SC/MATH 1018 Calculus (full-year course)	6 Credits
Prerequisite(s): One or more high-school calculus courses.	
Introductory theory and application of differential and integral calculus; limits; derivatives of algebraic and trigonometric functions; Riemann sums; definite integrals; Fundamental Theorem of Calculus; logarithms and exponentials; extreme value problems; related rates; area and volume; calculus in polar coordinates; integration techniques; indeterminate forms; improper integrals; sequences; infinite and power series; approximations; introduction to ordinary differential equations.	

SC/PHYS 1110 Physics and Statics for Engineers	6 Credits
Prerequisite(s): OAC or 12U physics or equivalent.	
Linear, rotational and oscillatory motion; Newtonian mechanics; gravitation; electrostatics; magnetostatics; electric current and induction; heat; optics; analysis of static equilibrium and stresses in structures, points, 2D and 3D bodies with applications to engineering systems; external and internal and reaction forces analysis; loading types and dry friction.	

SC/CHEM 10XX Chemistry and Material Science for Engineers	4 Credits
Prerequisite(s): OAC or 12U chemistry or equivalent.	
Thermodynamic quantities (heat, work, internal energy), enthalpy of formation and reaction; chemical bonds and bond energies, intermolecular forces; crystal structure and structural defects: vacancies, dislocations, and grain boundaries; and phase equilibria for alloys and pure substances (including phase transformations); introduction to materials selection in design; natural and artificial polymer properties and behavior including biologically relevant polymers; of structure-property relationships in metals, ceramics, and polymers; introduction to silicon chemistry and properties.	

SC/MATH 1028 Discrete Mathematics	3 Credits
Prerequisite(s): SC/MATH 1190 or both of 12U Advanced Math courses.	
Functions and Introductory Calculus and 12U Geometry and Discrete Mathematics Topics covered include: Introduction to abstraction. Use and development of precise formulations of mathematical ideas; informal introduction to logic; introduction to naïve set theory; induction; relations and functions; big O-notation; recursive definitions, recurrence relations and their solutions; graphs and trees.	

LE/EECS 1021 Computer Programming for Engineers	3 Credits
Prerequisite(s): LE/EECS 1011	
Introduction to programming; interfacing with the external world; software design and development by delegation; input and output; using APIs and objects; complex control; control structures; software development; aggregation and inheritance; exception handling.	

LE/ENG 1002 Renaissance Engineering 2 – Principles of Engineering Design	4 Credits
Prerequisite(s): LE/ENG 1001.	
The three main themes are: Engineering design methodology; features and elements of good design with environment and human interface considerations; aesthetics in design and idea communication using graphics including preliminaries on technical drawings.	

Year 2; Term 1

LE/CIVL 2110 Engineering Geology	3 Credits
Prerequisite(s): LE/ESSE 10XX.	
Properties of soils and rocks and their engineering significance; geological processes and landforms; structural geology fundamentals; applied geomorphology; site investigation techniques; geophysics; air photo interpretation.	

LE/CIVL 2120 Civil Engineering Materials	3 Credits
Prerequisite(s): SC/CHEM 10XX; LE/ESSE 10XX.	
Chemical, physical and mechanical properties of common civil engineering materials, such as cement, concrete, metals and alloys, wood, soils, asphalt, ceramics, polymers, and polymer composites; phenomenological basis for the properties of these materials; introduction to material characterization and quality control.	

LE/CIVL 2130 Probability and Statistics for Civil Engineers	3 Credits
Prerequisite(s): SC/MATH 1018; SC/MATH 1028.	
Basic introduction to probability and statistics with applications in civil engineering and related disciplines; probability models; combinatorics; random variables; continuous and discrete probability distributions; testing of hypothesis; statistical estimation and testing; confidence intervals; linear regression.	

LE/CIVL 2140 Introduction to Environmental Engineering	3 Credits
Prerequisite(s): LE/ESSE 10XX; SC/CHEM 10XX.	
Mass and energy balance of environmental systems; environmental pollution and its causes; contaminant transport through air, water and solids; application of environmental engineering principles to water and wastewater treatment, water resources management, environmental impact assessment; environmental ethics; greenhouse effect; ozone depletion; acid precipitation; sustainable development and life cycle assessment; overview of environmental quality objectives, standards and guidelines.	

LE/CIVL 2150 Civil Engineering Graphics and CADD	3 Credits
Prerequisite(s): LE/ENG 1001; LE/ENG 1002.	
Introduction to computer-aided design and drafting (CADD) with applications in civil engineering and related disciplines; introduction to Civil 3D.	

LE/ENG 2001 Renaissance Engineering 3 – Principles of Business and Economics	3 Credits
Prerequisite(s): LE/ENG 1001; LE/ENG 1002.	
Introductory engineering economics and decision analysis; fundamental economic concepts; cost concepts; time value of money; cash flow; comparison of alternatives; depreciation and income tax; economic analysis of projects in the public and private sectors; break-even analysis; sensitivity and risk analysis; decision models.	

Year 2; Term 2

LE/CIVL 2210 Fluid Mechanics	3 Credits
Prerequisite(s): SC/MATH 1018; SC/PHYS 1110.	
Properties of fluids and their measurement; fluid statics; kinematics of fluid flow; laminar and turbulent flow through pipes; measurement of pressure, velocity and discharge; conservation of mass, momentum and energy; Bernoulli's equation and its applications.	

LE/CIVL 2220 Mechanics of Materials	3 Credits
Prerequisite(s): SC/MATH 1018; SC/PHYS 1110.	
Mechanical properties of materials, stress and strain, and torsion of thin-walled sections. Bending moment and shear force diagrams, stresses and deformations in members subjected to tension, compression, shear and torsion; flexural and shearing stresses in beams; deflection of beams; and combined stresses. Properties of plane sections, moment-area theorems, and analysis of stress and strain with Mohr's circle construction.	

SC/MATH 2271 Differential Equations for Scientists and Engineers	3 Credits
Prerequisite(s): SC/MATH 1018.	
Introduction to ordinary and partial differential equations, including their classification, boundary conditions, and methods of solution. Equations, methods, and solutions relevant to science and engineering are emphasized, and exploration is encouraged with the aid of software.	

LE/CIVL 2250 Fundamentals of Surveying	3 Credits
Prerequisite(s): LE/CIVL 2150.	
Coordinate systems, conventions and transformations. First and second geodetic problem: trig sections, traverses, eccentricities, areas. Distance measurements, angular measurements, heights. Topographic mapping and property surveys. Route surveying. Introduction to other surveys: alignment, deformation surveys for buildings, bridges, dams, tunnels, pipelines.	

LE/CIVL 2260 Effective Professional Communication	3 Credits
Prerequisite(s): LE/ENG 1001; LE/ENG 1002.	
Political, rhetorical, ethical and interpersonal challenges of communicating in a professional environment; technical correspondence and report writing; techniques for effective informal and formal oral communication; illustrative use of case studies to foster communicative judgment in students.	

LE/CIVL 2000 (LE/ENG 2402) Renaissance Engineering 4 – Mini Design Project	3 Credits
Prerequisite(s): LE/ENG 1001, LE/ENG 1002 and at least 30 credits from Engineering Common Year 1 and Civil Engineering Year 2. Co-requisite: LE/CIVL 2260 Effective Professional Communication.	
Introduction to principles of engineering design via application to a suitable civil engineering project. Students work in groups of 3 or 4, with periodic monitoring of group interaction and performance. Deliverables include a formal design report and a formal oral presentation in front of peers and invited guests. Students' learning experience is enhanced through guest lectures from prominent member of civil engineering industry and academia.	

Year 2; Spring/Summer

LE/CIVL 2350 Survey Field School (2 Weeks in spring/summer)	3 Credits
Prerequisite(s): LE/CIVL 2250.	
Setting-up, adjustment and use of modern surveying equipment; survey field work involving collection, analysis, interpretation and visual representation of data associated with civil engineering projects.	

Year 3; Term 1

LE/CIVL 3110 Soil Mechanics	3 Credits
Prerequisite(s): LE/CIVL 2110; LE/CIVL 2210; LE/CIVL 2220.	
The course presents essential topics in soil mechanics, including compaction, seepage theory, groundwater flow nets, stresses and strains in soils, effective stress concept, consolidation, shear strength of soils, and earth pressure theory. Emphasis is on learning of fundamental soil mechanics concepts, which are reinforced through their application to geotechnical engineering. Laboratory practicum component of the course provides hands-on experience of laboratory tests that are commonly used for determination of physicochemical and engineering properties of soils.	

LE/CIVL 3120 Hydraulics	3 Credits
Prerequisite(s): LE/CIVL 2210.	
Fundamentals of hydrostatics and hydrodynamics; flow potential; dimensional analysis; boundary layer development; transient and steady-state flow conditions; flow of water through open and closed conduits, notches, orifices, and weirs; flow of water past objects.	

LE/CIVL 3130 Structural Analysis	3 Credits
Prerequisite(s): LE/CIVL 2220.	
The course emphasizes the application of basic structural analytical techniques and their verification using computer-aided analytical techniques. Topics include: determination of axial forces, shear forces and bending moments in statically determinant structures due to applied loads; methods for estimating deflections; introduction of computer-aided structural analysis using the stiffness method and its application to 2-D trusses; manual analysis methods for statically indeterminate structures.	

LE/CIVL 3140 Applied Mathematics and Numerical Methods for Civil Engineers	3 Credits
Prerequisite(s): LE/EECS 1011; LE/EECS 1021; SC/MATH 2271.	
The course deals with the use of analytical and numerical techniques for solving civil engineering problems. Topics include: matrix solution methods for systems of coupled equations, eigenvalue problems, and coordinate transformations; optimization and linear programming; and the solution of differential equations describing non-stationary physical systems using analytical, finite difference and finite element methods.	

ENVS 2150 Environment, Technology and Sustainable Society	3 Credits
Prerequisite(s): Second-year standing or permission of the instructor.	
This course introduces the various technical, socio-political and philosophical issues associated with the concept of sustainable society. Emphasis is placed on the analysis of the complex relationship between humans, technology, nature, ideology and the social infrastructure.	

Complementary Studies Elective #1	3 Credits
Prerequisite(s): As per the selected course.	
To be selected from the five complementary studies clusters shown in Figure 4.1.	

Year 3; Term 2

LE/CIVL 3210 Foundation Engineering	3 Credits
Prerequisite(s): LE/CIVL 3110.	
The course focuses on practical application of soil mechanics concepts to the analysis and design of foundations, excavations, slopes, earthworks and earth-retaining systems. Topics include: design and construction of shallow foundations on soils and rocks based on bearing capacity and settlement analysis; design and installation of deep foundations including driven and bored piles; design and construction of earth retaining systems; slope stability; geosynthetics and soil reinforcement; ground improvement; and, special construction techniques. Practicum component includes hands-on experience in extracting design parameters from results of site investigation and laboratory tests and preparing a geotechnical design report.	

LE/CIVL 3220 Hydrology	3 Credits
Prerequisite(s): LE/CIVL 2130; LE/CIVL2210; SC/MATH 2271.	
The course introduces basic hydrological processes such as precipitation, evapotranspiration, runoff, infiltration, interception, and depression storage. It also covers engineering applications such as stream flow and storm hydrographs, flood routing, hydrological analyses and design, and watershed simulation.	

LE/CIVL 3230 Introduction to Structural Design	3 Credits
Prerequisite(s): LE/CIVL 2130; LE/CIVL 3130.	
The course provides a review of behaviour and applications of basic structural systems, including beam and column systems, arches and cable systems, trusses, braced systems and rigid frames. It also introduces principles of Limit States Design (LSD) as a way of dealing with uncertainty in design as per the National Building Code of Canada (NBCC). It also covers the estimation of building loads, including dead and live loads, snow and rain loads, and loads due to wind and provides an overview of the characteristics of commonly-used structural materials, such as steel, reinforced concrete and wood.	

LE/CIVL 3240 Sanitary and Environmental Engineering	3 Credits
Prerequisite(s): SC/CHEM 10XX; LE/CIVL 3120.	
Topics in this introductory sanitary and environmental engineering course include: the design of municipal water distribution and wastewater collection systems; basic water chemistry and water quality assessment; physical and chemical treatment processes involved in water and wastewater treatment; brief overview of urban storm water collection systems.	

LE/CIVL 3250 Transportation Engineering	3 Credits
Prerequisite(s): LE/CIVL 2350.	
Planning, design, operation, and safety of road transportation systems; fundamentals of traffic flow theory; highway capacity analysis; geometric design; intelligent transportation systems; travel demand forecasting methods; safety analysis.	

ENG 3000 Renaissance Engineering 5 – Professional Engineering Practice	3 Credits
Prerequisite(s): Engineering Three Year Common Core and 45 credits of Years 3 and 4 courses.	
An introduction to the legal and ethical frameworks of the engineering profession, preparing students for the Professional Practice Examination required for certification as a professional engineer. Also covered are associated professional issues such as entrepreneurship, intellectual property and patents.	

Year 4; Term 1

LE/CIVL 4000 Capstone Design Project (full-year course)	6 Credits
Prerequisite(s): LE/CIVL 2000. Co-requisite: LE/CIVL 4110; LE/CIVL 4210; 6 credits from Technical Electives A to F.	
This course builds on the design fundamentals introduced in LE/CIVL 2000 and introduces the students to advanced design principles through their application to a realistic civil engineering project. Students work in small groups and implement a systematic approach in terms of defining the problem, outlining of project's objectives and scope, acquiring suitable data and resources, generating alternatives and selecting the optimal alternative, and completing a detailed design of the chosen alternative. As with LE/CIVL 2000, there is periodic monitoring of group interaction and performance. Deliverables include a formal design report and a formal oral presentation in front of peers and invited guests. Students' learning experience is enhanced through guest lectures from prominent member of civil engineering industry and academia.	

LE/CIVL 4110 Project Engineering and Management	3 Credits
Prerequisite(s): LE/ENG 2001; Engineering Three Year Common Core; 39 credits of senior courses.	
Engineer's role in industry, construction and the economy; work planning; marketing of engineering services; construction project control; quality assurance and quality control; construction tendering; bidding and estimation; preparation of instructions to bidders, general and supplementary conditions and specifications; receiving of tenders and awarding of contracts; discussions on construction claims, professional liability, arbitration and in- and out-of-court dispute settlement; computerized precedence network scheduling.	

LE/CIVL 4XXX Technical Elective (Groups A to E)	3 Credits
Prerequisite(s): As per the selected course.	
One technical elective selected from the following five groups of technical electives: Group A – Structural Engineering; Group B – Geotechnical Engineering; Group C – Hydrotechnical Engineering; Group D – Transportation Engineering; Group E – Environmental Engineering. The students may take a maximum of 2 technical electives from any one Group.	

LE/CIVL 4XXX Technical Elective (Groups A to E)	3 Credits
Prerequisite(s): As per the selected course.	
One technical elective selected from the following five groups of technical electives: Group A – Structural Engineering; Group B – Geotechnical Engineering; Group C – Hydrotechnical Engineering; Group D – Transportation Engineering; Group E – Environmental Engineering. The students may take a maximum of 2 technical electives from any one Group.	

Technical Elective (Group F) or Complementary Studies Elective #2	3 Credits
Prerequisite(s): As per the selected course.	
One Technical Elective selected from Group F – Geomatics Engineering or one course selected from the five complementary studies clusters shown in Figure 4.1. If a student chooses to take a Complementary Studies Elective in Term 1 instead of taking a Technical Elective, the student must take a Technical Elective from Group F in Term 2.	

Complementary Studies Elective #3	3 Credits
Prerequisite(s): As per the selected course.	
To be selected from the five complementary studies clusters shown in Figure 4.1.	

Year 4; Term 2

LE/CIVL 4000 Capstone Design Project (full-year course)	6 Credits
Prerequisite(s): LE/CIVL 2000. Co-requisite: LE/CIVL 4110; LE/CIVL 4210; 6 credits from Technical Electives A to F.	
This course builds on the design fundamentals introduced in LE/CIVL 2000 and introduces the students to advanced design principles through their application to a realistic civil engineering project. Students work in small groups and implement a systematic approach in terms of defining the problem, outlining of project's objectives and scope, acquiring suitable data and resources, generating alternatives and selecting the optimal alternative, and completing a detailed design of the chosen alternative. As with LE/CIVL 2000, there is periodic monitoring of group interaction and performance. Deliverables include a formal design report and a formal oral presentation in front of peers and invited guests. Students' learning experience is enhanced through guest lectures from prominent member of civil engineering industry and academia.	

LE/CIVL 4210 Civil Engineering for a Sustainable Future	3 Credits
Prerequisite(s): ES/ENVS 2150; Third-year standing; 39 credits of senior courses.	
Essential components of sustainable development framework; review of completed and on-going civil engineering projects using such a framework; discussions on environmental, socio-economic impacts and costs of these projects; sustainable development strategies in the light of infrastructure deficit, adaption of infrastructure to climate change, and water security; ways of building sustainable engineering capacity in the developing world.	

LE/CIVL 4XXX Technical Elective (Groups A to E)	3 Credits
Prerequisite(s): As per the selected course.	
One technical elective selected from the following five groups of technical electives: Group A – Structural Engineering; Group B – Geotechnical Engineering; Group C – Hydrotechnical Engineering; Group D – Transportation Engineering; Group E – Environmental Engineering. The students may take a maximum of 2 technical electives from any one Group.	

LE/CIVL 4XXX Technical Elective (Groups A to E)	3 Credits
Prerequisite(s): As per the selected course.	
One technical elective selected from the following five groups of technical electives: Group A – Structural Engineering; Group B – Geotechnical Engineering; Group C – Hydrotechnical Engineering; Group D – Transportation Engineering; Group E – Environmental Engineering. The students may take a maximum of 2 technical electives from any one Group.	

Technical Elective (Group F) or Complementary Studies Elective #2	3 Credits
Prerequisite(s): As per the selected course.	
One Technical Elective selected from Group F – Geomatics Engineering or one course selected from the five complementary studies clusters shown in Figure 4.1. If a student chose a Complementary Studies Elective in Term 1 instead of taking a Technical Elective, the student must take a Technical Elective from Group F in Term 2.	

Complementary Studies Elective #4	3 Credits
Prerequisite(s): As per the selected course.	
To be selected from the five complementary studies clusters shown in Figure 4.1.	

Year 4 Technical Electives

Group A: Structural Engineering

LE/CIVL 4001 Advanced Structural Analysis	3 Credits
Prerequisite(s): LE/CIVL 3230; LE/CIVL 3140.	
Modern methods of structural analysis related to statically indeterminate structures. The flexibility and stiffness methods of analysis. Matrix formulation and computer analysis. Analysis of structural systems including continuous beams, frames, and trusses. Introduction to the finite element method.	

LE/CIVL 4002 Reinforced Concrete Design	3 Credits
Prerequisite(s): LE/CIVL 3230.	
Behaviour and design of reinforced concrete members subjected to biaxial bending, torsion, lateral loads and two-way action. Limit States and ultimate strength methods for beams and one-way slabs (singly and doubly reinforced) in flexure and shear. Two-way slab systems. Strip method, direct design approach and equivalent frame analysis of two-way slabs. Yield-line theory of slabs. Moment re-distribution. Design of short beam-columns. Deflection, cracking and vibration control. Design of footings.	

LE/CIVL 4003 Structural Steel Design	3 Credits
Prerequisite(s): LE/CIVL 3230.	
Properties of structural steel. Introduction to design of structural steel members and connections according to CSA S16 Design of Steel Structures. Limit states design principles. Design of tension members, compression members, and beam-columns. Composite design. Local and lateral torsional buckling. Strength and stability of columns. Shear and tension strength of bolts, prying action, and design of base plates.	

LE/CIVL 4004 Structural Dynamics	3 Credits
Prerequisite(s): LE/CIVL 3230; LE/CIVL 3140.	
Review of kinematics and dynamics of particles and rigid bodies. Introduction to structural dynamics. Single-degree-of-freedom systems including equation of motion, free- and forced-vibration, damped and undamped response. Multiple-degree-of-freedom systems. Seismic response of structures and response spectrum for earthquake motions.	

Group B: Geotechnical Engineering

LE/CIVL 4011 Geotechnical Modelling	3 Credits
Prerequisite(s): LE/CIVL 3210; LE/CIVL 3140.	
Topics include: embankments, geosynthetic reinforced steep slopes and retaining walls, earth and mine tailings dams, deep excavations and tunnels. The role of instrumentation to ensure the safety of earth structures and to determine their performance during their service life is also presented. Application of key concepts is emphasized during hands-on computer sessions based on the state-of-the-art geotechnical software.	

LE/CIVL 4012 Mechanics of Unsaturated Soils	3 Credits
Prerequisite(s): LE/CIVL 3110.	
Unsaturated soil as a four-phase material; total, matric and osmotic suctions; soil water characteristic curves (SWCCs); drying, wetting and scanning SWCCs; fitting SWCC data; flow through unsaturated soils; unsaturated hydraulic conductivity functions; shear strength of unsaturated soils.	

LE/CIVL 4013 Advanced Hydrogeology	3 Credits
Prerequisite(s): LE/CIVL 3110.	
Groundwater flow on a regional scale; aquifers, aquitards and aquicludes; interconnectivity of surface water and groundwater systems; contaminant transport via groundwater; hydrogeology of oil extraction; groundwater flow modeling.	

LE/CIVL 4014 Rock Mechanics	3 Credits
Prerequisite(s): LE/CIVL 3110.	
Index and physical properties of rocks; stress-deformation behaviour and failure of rocks; elastic and inelastic constitutive models; rock mass classification; rock quality designation (RQD), rock mass rating (RMR) and Rock Tunnel Quality Index (Q); laboratory and in-situ testing of rocks.	

Group C: Hydrotechnical Engineering

LE/CIVL 4021 Hydraulic Structures	3 Credits
Prerequisite(s): LE/CIVL 3120.	
Application of fluid mechanics fundamentals to design of hydraulic structures; concrete gravity dam and spillway; hydraulic structures used in flood control, irrigation, hydropower generation, navigation, water supply, drainage, watershed preservation, and water parks.	

LE/CIVL 4022 Water Resources Engineering	3 Credits
Prerequisite(s): LE/CIVL 3120; LE/CIVL 3220; LE/ENG 2001.	
Watershed analysis and simulation using state-of-the-art modeling software, such as HEC-HMS; watershed runoff in rural and urban settings; road drainage systems and storm water storage ponds; determination of peak runoffs for hydrological design; water usage analysis for irrigation, hydropower generation and drought management; flood control systems and management of excess water; economics of water resources management.	

Group D: Transportation Engineering

LE/CIVL 4031 Pavement Materials and Design	3 Credits
Prerequisite(s): LE/CIVL 3110; LE/CIVL 3250.	
Properties and usage of soil and rock as pavement materials; selection and characterization of subgrade, sub-base and base materials; properties and usage of bitumen and asphalt; manufacture and use of bituminous concrete; mix design; use of recycled construction materials in road construction; prediction and characterization of traffic loadings; stress distribution in flexible and rigid pavements; principles of mechanistic design; assessment and prediction of pavement condition; measurement and reporting of physical distress including cracking, rutting and roughness.	

LE/CIVL 4032 Urban Transportation Planning	3 Credits
Prerequisite(s): LE/CIVL 3250.	
Major components of urban transportation systems; transportation planning process; land use and relative costs across various modes of transport; planning of public transit systems; social implications of transportation planning; effect of climate change on transportation planning; strategies for reducing travel demand and associated policy issues.	

Group E: Environmental Engineering

LE/CIVL 4041 Geoenvironmental Engineering	3 Credits
Prerequisite(s): LE/CIVL 3110.	
Introduction to waste containment and management; contaminant transport processes in the ground; natural and engineered barrier systems; containment of municipal, mining and industrial wastes; use of geosynthetics for waste containment; techniques for remediation of ground contamination; technical challenges associated with reclaiming of land after closure of landfills.	

LE/CIVL 4042 Environmental Impact Assessment and Sustainability	3 Credits
Prerequisite(s): LE/CIVL 3110; LE/CIVL 3250.	
The course introduces the process of environmental impact assessment (EIA) in the context of sustainable development associated with Canadian agricultural and industrial settings. The role of the EIA process in engineering design and control of adverse environmental effects is illustrated using a number of case studies. The concept of integrated management of resources is used to emphasize the need to achieve a sustainable balance between environmental protection and economic development.	

LE/CIVL 4043 Advanced Sanitary and Environmental Engineering	3 Credits
Prerequisite(s): LE/CIVL 3240.	
This course introduces advanced topics in the discipline of sanitary/environmental engineering, including design of lime soda ash softening in drinking water treatment, design of biological wastewater treatment systems, and sludge and residual solids management in water and wastewater treatment. An introduction to tertiary wastewater treatment is also provided along with a discussion of wastewater disposal issues.	

Group F: Other Engineering Disciplines
[Only Geomatics Engineering courses listed below for now; more courses to be added subsequently.]

SC/EATS 3300 GIS and Spatial Analysis	3 Credits
Prerequisite(s): Permission of the instructor or ESSE Department Chair.	
The fundamental concepts and techniques of GIS are presented along with detailed discussion of computer implementation. The emphases include database management and map analysis/spatial modelling. PC ArcView with Spatial Analyst extension GIS programs are used for hands-on exercises.	

SC/ENG 4110 Global Positioning Systems (GPS)	3 Credits
Prerequisite(s): Permission of the instructor or ESSE Department Chair.	
Positioning by space vehicles. Coordinate systems and transformations. GPS, GLONASS, GALILEO, Satellite Laser Ranging, Very Long Baseline Interferometry. Positioning of moving vehicles and platforms: marine, land, airborne and space vehicles. GPS/INS integration. Real time kinematic applications.	

SC/ENG 4140 Digital Terrain Modelling	3 Credits
Prerequisite(s): Permission of the instructor or ESSE Department Chair.	
Digital Terrain Modeling concepts. Mathematical techniques in data acquisition, processing, storage, manipulation and applications. DTM. Surface representation using moving averages, linear projection and Kriging techniques. Grid resampling methods and search algorithms. DTM derivatives and applications. LIDAR systems and applications.	

SC/EATS 4220 Remote Sensing of the Earth’s Surface	3 Credits
Prerequisite(s): Permission of the instructor or ESSE Department Chair.	
Principles used in extracting physical information about the Earth's surface using remote sensing. Remote sensing in the visible, short-wave infrared, thermal infrared and microwave regions is discussed in terms of potential applicability to forestry, agriculture, water resources and geology.	

SC/ENG 4150 Hydrography	3 Credits
Prerequisite(s): Permission of the instructor or ESSE Department Chair.	
Hydrography and its role in offshore management. Elements of oceanography, tides and water levels, seabed and sea water properties. Underwater acoustics. Bathymetric and imaging methods. Marine positioning and navigation.	

Professional Internship (Optional)

LE/CIVL 3900 (LE/ENG 3900) Engineering Professional Internship	0 Credits
Prerequisite(s): Completion of a minimum of 60 credits in Engineering.	
Optional internship of minimum 13 weeks duration can be taken during summer after the completion of Year 3 of the program. The student should be employed at a place where engineering is practiced; this can be in government, private sector or not-for-profit organizations (including university research labs). Deliverable includes a formal report outlining engineering experience gained with a Pass/Fail grade assigned. The internship should be supervised by a faculty licensed to practice engineering in Canada.	

Year 3 and Year 4 Complementary Studies Electives

According to the Canadian Engineering Accreditation Board (CEAB), complementary studies include humanities, social sciences, arts, management, engineering economics and communications to complement the technical content of the curriculum. While considerable latitude is provided in the choice of suitable content for the complementary studies component of the curriculum, some areas of study are essential in the education of an engineer. Accordingly, the curriculum must include studies in the following:

- Engineering economics
- The impact of technology on society
- Subject matter that deals with central issues, methodologies, and thought processes of the humanities and social sciences
- Oral and written communication
- Health and safety
- Professional ethics, equity and law
- Sustainable development and environmental stewardship

The proposed Civil Engineering program at York must fulfill the CEAB requirements above. As such, there are a number of mandatory complementary studies courses in the program; these are: ENG 1001, ENG 2001, ENVS 2150, LE/CIVL 2260, LE/ENG 3000, and LE/CIVL 4210. In addition to these mandatory complementary studies courses, students in Civil Engineering program will take four complementary studies electives during Year 3 and Year 4 of the program. These four electives will be chosen from the five clusters of complementary studies: Global Engineer, The Art of Design, Entrepreneurship, Law and Society, and Human Health and Environment (Figure 4.1). It is anticipated that these electives will come from undergraduate courses offered by Schulich School of Business, Osgoode-Hall Law School, Faculty of Fine Arts, and Faculty of Environmental Studies.

Appendix B – Calendar Description of the Program

The Lassonde School of Engineering offers Bachelor of Engineering (BEng) degree. After completion of a common first-year program, students will choose one of seven available programs: electrical engineering, civil engineering, computer engineering, geomatics engineering, mechanical engineering, software engineering or space engineering.

i) All BEng degree candidates must complete the new engineering program core:

- SC/MATH 1018 6.0, SC/MATH 1020 3.0, SC/MATH 1028 3.0, SC/PHYS 1110 6.0, LE/CSE 1011 3.0, LE/CSE 1021 3.0, LE/ENG 1001 4.0, LE/ENG 1002 4.0, SC/CHEM 10xx 4.0, LE/ESSE 10XX 3.0.

ii) All BEng degree candidates must complete 15 non-science complementary studies/general education credits including ES/ENVS 2150 3.0 (refer to General Education Requirements Regulations Governing Undergraduate Degree Requirements section).

iii) All BEng degree candidates, in accordance with their declared major program, must satisfy the academic standing and course requirements below.

To graduate in the BEng program, students require successful completion of all Faculty requirements and program major required courses and a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all courses completed.

Civil Engineering

The engineering program core:

- SC/MATH 1018 6.0, SC/MATH 1020 3.0, SC/MATH 1028 3.0, SC/PHYS 1110 6.0, LE/CSE 1011 3.0, LE/CSE 1021 3.0, LE/ENG 1001 4.0, LE/ENG 1002 4.0, SC/CHEM 10xx 4.0, LE/ESSE 10XX 3.0.

Civil Engineering Major:

- LE/ENG 2401 3.0, LE/ENG 2402 3.0 (LE/CIVL 2000 3.0), LE/ENG 3000 3.0
- SC/MATH 2271 3.0
- ES/ENVS 2150 3.0
- LE/CIVL 2110 3.0, LE/CIVL 2120 3.0, LE/CIVL 2130 3.0, LE/CIVL 2140 3.0, LE/CIVL 2150 3.0, LE/CIVL 2210 3.0, LE/CIVL 2220 3.0, LE/CIVL 2250 3.0, LE/CIVL 2260 3.0, LE/CIVL 2350 3.0
- LE/CIVL 3110 3.0, LE/CIVL 3120 3.0, LE/CIVL 3130 3.0, LE/CIVL 3140 3.0, LE/CIVL 3210 3.0, LE/CIVL 3220 3.0, LE/CIVL 3230 3.0, LE/CIVL 3240 3.0, LE/CIVL 3250 3.0
- LE/CIVL 4000 6.0, LE/CIVL 4110 3.0, LE/CIVL 4210 3.0, four Technical Electives from Groups A to E with a maximum of 2 Electives from the same Group, one Technical Elective from Group F

Group A – Structures: LE/CIVL 4001 3.0, LE/CIVL 4002 3.0, LE/CIVL 4003 3.0, LE/CIVL 4004 3.0
Group B – Geotechnical: LE/CIVL 4011 3.0, LE/CIVL 4012 3.0, LE/CIVL 4013 3.0, LE/CIVL 4014 3.0
Group C – Hydrotechnical: LE/CIVL 4021 3.0, LE/CIVL 4022 3.0
Group D – Transportation: LE/CIVL 4031 3.0, LE/CIVL 4032 3.0
Group E – Environmental: LE/CIVL 4041 3.0, LE/CIVL 4042 3.0, LE/CIVL 4043 3.0
Group F – Geomatics: SC/EATS 3300 3.0, SC/ENG 4110 3.0, SC/ENG 4140 3.0, SC/EATS 4220 3.0, SC/ENG 4150 3.0

A non-credit, 4 to 16 months internship program LE/ENG 3900 0.0 (LE/CIVL 2020 0.0) is highly recommended for all engineering students, but is not a degree requirement.

York University Quality Assurance Procedures (YUQAP)
New Program Appraisal

External Appraisal Report on the Proposed New B. Eng in Civil Engineering

Please provide feedback, as appropriate, on the evaluation criteria provided below.

External Reviewer(s) (Name, rank, university and unit/department/program)
Ram Balachandar, PhD., PEng
Associate Vice Provost
Professor, Civil and Environmental Engineering
University of Windsor, Ontario

1. Outline of the Visit

- Who was interviewed
- What facilities were seen
- Any other activities relevant to the appraisal

Not applicable.

2. General Objectives of the Program

- Is/are the program name and degree designation(s) appropriate?
  Program name and degree designations are very appropriate
- For graduate programs that wish to have a Quality Council endorsed field(s), are the fields indicated in the proposal appropriate?
  Not applicable
- Are the general objectives of the program clear and are they consistent with University and Faculty missions and academic plans?
  The objectives are well defined and appears consistent the Faculty's mission. The objectives are also consistent with that of a typical CEAB accredited program.

3. Need and Demand

- Is there sufficient explanation of need/demand for the program?
  The authors of the report have made a good effort to bring forth the present and future demand of the program. Civil Engineering programs have seen a good growth in recent years.

4. Program Content and Curriculum

- Does the curriculum reflect the current state of the discipline or area of study? If applicable, comment on the appropriateness of any unique curriculum or program innovations or creative components.
  The curriculum presented in the report reflects a typical Civil Engineering program with some variations from that seen in other universities. I am impressed with the 'Renaissance Engineering' courses. The proposed curriculum aims to deliver core Civil Engineering content, but also expose students to a much wider knowledge base in terms of professional communication, economics, business, management, law and societal aspects of Civil Engineering.
- For undergraduate programs, comment on the appropriateness of the anticipated class sizes. For graduate programs, is there adequate evidence that each graduate student in the program will take a minimum of two-thirds of the course requirements from among graduate level courses?
  The anticipated class sizes in Years 2 to 4 appear to be very good. The first year, being general in nature and combined with other York Engineering programs, have larger classes. This is quite normal in all Civil Engineering programs across Canada.

5. Program Structure, Learning Outcomes and Assessment

- Are the program requirements and learning outcomes clear, appropriate and in alignment with the relevant degree level expectations?
  The learning outcomes are well detailed in the report and are appropriate with CEAB requirements.
- Comment on the appropriateness of the program curriculum and structure to support the program learning outcomes. For undergraduate programs, comment on the nature and suitability of students' final-year academic achievement in the program. For research-focused graduate programs, comment on the nature and suitability of the major research requirement(s).
  The technical electives provided in the final year combined with the Capstone course support the learning outcomes, which are consistent with Civil Engineering programs across Canada. Some rethinking of elective offerings in each of the sub-disciplines of Civil Engineering may be required to provide exposure to all sub-disciplines.
- Are the methods and criteria for assessing student achievement appropriate and effective relative to the program learning outcomes?
  Yes.
- For graduate programs, comment on the appropriateness of the program length, including on how students' time-to-completion will be supported and managed to ensure that the program requirements can be reasonably completed within the proposed time period.
  Not applicable.
- Comment on the appropriateness of the proposed mode(s) of delivery to meet the program learning outcomes.
  The suggested delivery modes (lectures, laboratories etc) have been established to meet the learning outcomes.

6. Admission Requirements

- Are the admission requirements appropriately aligned with the program learning outcomes?
  Yes.
- Is there sufficient explanation of any alternative requirements, if any, for admission into an undergraduate, graduate or second-entry program, such as minimum grade point average, additional languages or portfolios, along with how the program recognizes prior work or learning experience?
  This is difficult to interpret from the report.

7. Resources

For all programs

- Adequacy of the administrative unit's planned utilization of existing human, physical and financial resources, and any institutional commitment to supplement those resources, to support the program.
  The report provides the details.

- Appropriateness of the collective faculty expertise to contribute substantively to the program.
  At the present time, there are two faculty members in place. The report suggests a systematic hiring process has been established.

- Participation of a sufficient number and quality of faculty who are competent to teach and/or supervise in the program, including qualifications, research, innovation and scholarly record.
  The senior faculty member, who is also the Head, has very good experience supported by a good record. I anticipate that he will provide effective leadership in developing a solid department.

- Evidence that there are adequate resources (e.g. library, laboratory) to sustain the quality of scholarship produced by undergraduate students as well as graduate students' scholarship and research activities.
  The report and the letters of support provide details some of the resources.

Additional criteria for undergraduate programs only

- Evidence of and planning for adequate numbers and quality of: (a) faculty and staff to achieve the goals of the program; or (b) of plans and the commitment to provide the necessary resources in step with the implementation of the program; (c) planned/anticipated class sizes; (d) provision of supervision of experiential learning opportunities (if required); and (e) the role of adjunct and contract faculty.

The report provides a good plan to support the achievement of the goals and objectives of the program. A hiring plan appears to be in place to establish a fully working department by the time the first cohort graduates from the program.

Additional criteria for graduate programs only

- Evidence that faculty have the recent research or professional/clinical expertise needed to sustain the program, promote innovation and foster an appropriate intellectual climate.
- Where appropriate to the program, evidence that financial assistance for students will be sufficient to ensure adequate quality and numbers of students.
- Evidence of how supervisory loads will be distributed, and the qualifications and appointment status of faculty who will provide instruction and supervision.
  Not applicable.

8. Quality of Student Experience

- Is the evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience?

Presently, there are two faculty members identified in the report. With the hiring of additional faculty members (anticipated to reach a steady state of 12 faculty members), I am confident that the students will be well-served.

Note: Reviews are urged to avoid using references to individuals. Rather, they are asked to assess the ability of the faculty as a whole to deliver the program and to comment on the appropriateness of each of the areas/fields of the program that the university has chosen to emphasize, in view of the expertise and scholarly productivity of the faculty.

11. Other Issues

I anticipate that most minor curriculum issues will be addressed by the committee. It is implicit in the report that senior administration is in support of the program and the development of a new department.

12. Summary and Recommendations (*Note: The responsibility for arriving at a recommendation on the final classification of the program belongs to the Appraisal Committee. Individual reviewers are asked to refrain from making recommendations in this respect.*)

The report is well written and clearly identifies the goals and objectives of the program. The learning outcomes are well laid out. The justification for commencing a new program in the GTA area is very convincing. A faculty-hiring plan is in place and a fully functioning department should be in place by the time the first cohort of students graduate. Having served on CEAB visiting teams, I find that the curriculum will meet the overall outcomes of an accredited program. In summary, I do not see any drawbacks and with the anticipated hiring of additional faculty members, the program will exceed the standards of a typical Civil Engineering curriculum.

New Program Brief: B.Eng. in Civil Engineering

Response to External Appraisal Report

Date: September 22, 2013

Prepared by:

Jitendrapal Sharma, Ph.D., P.Eng.

Professor and Chair, Department of Civil Engineering

jit.sharma@lassonde.yorku.ca

Overview

The Department of Civil Engineering acknowledges and appreciates the comments and suggestions of the External Reviewer in the External Appraisal Report on the proposed new B.Eng. in Civil Engineering at York University. This document outlines the changes made in the New Program Brief in response to these comments and suggestions. Overall, the External Appraisal Report is extremely positive and fully supportive of the proposed program. It is worth highlighting the following statements made by the External Reviewer in the Summary and Recommendation section of the Report, which offers tremendous support and credibility to the proposed program:

- Having served on CEAB visiting teams, I find that the curriculum will meet the overall outcomes of an accredited program.
- I do not see any drawbacks and with the anticipated hiring of additional faculty member, the program will exceed the standards of a typical Civil Engineering curriculum.

The Department of Civil Engineering is also grateful for the thoughtful comments and suggestions made by several members of the Lassonde School of Engineering's Faculty Council at the September 10, 2013 meeting of the Council. This document also provides an itemized list of amendments to the New Program Brief in response to these comments and suggestions.

Response to External Reviewer's Comments and Suggestions

1. Outline of the Visit

No response is required.

2. General Objectives of the Program

No response is required.

3. Need and Demand

No response is required.

4. Program Content and Curriculum

No response is required.

5. Program Structure, Learning Outcomes and Assessment

The External Reviewer has raised a concern that the proposed structure of Year 4 Technical Electives in various sub-disciplines of Civil Engineering may not provide adequate exposure to all sub-disciplines. The following changes have been made to the curriculum structure to address this concern:

- The maximum number of Technical Electives that students can take from any one sub-discipline Group has been reduced from 3 to 2. Given that there are 4 Technical Electives placeholders in Year 4 (2 in each term) of the program, this will ensure that the students will have to take the other 2 Technical Electives from different sub-disciplines Groups. It should be noted that the students do get exposed to all sub-disciplines of Civil Engineering in Year 3 of the program. As such, the students will have the required background knowledge to decide which Year 4

Technical Electives they should take. It is also worth pointing out that the students are also required to choose one Technical Elective from Group F, which includes courses from other Engineering disciplines. Thus, the students will also have the opportunity to explore other Engineering disciplines, which is very much in line with the Renaissance Engineering philosophy of the Lassonde School of Engineering.

6. Admissions Requirement

No response required.

7. Resources

No response required.

8. Quality of Student Experience

No response required.

11. Other Issues

No response required.

12. Summary and Recommendation

No response required.

List of Amendments to the New Program Brief in Response to the Comments and Suggestions of Members of the Lassonde School of Engineering's Faculty Council

- Table 4.2a and Appendix A: Replaced SC/MATH 2270 Differential Equations by SC/MATH 2271 Differential Equations for Engineers and Scientists. Related course description also updated in Appendix A.

- Table 4.2a: Corrected error in Professional Internship description to reflect that Optional Professional Internship must be taken after completing Year 3.

- Table 4.2a: Moved LE/ENG 3000 from Year 4 Term 2 to Year 3 Term 2 to make it consistent with other LE Engineering programs. This would enable Civil Engineering students to take a bunch of business and law courses from Schulich and Osgoode-Hall for which LE/ENG 3000 is a prerequisite.

- Table 4.2a: Moved Complementary Studies Elective placeholder from Year 3 Term 2 to Year 4 Term 2 and renumbered the four Complementary Studies Elective placeholders. Doing so has the added advantage of providing more flexibility to students in Year 4 of the program in terms of taking courses from the five Complementary Studies clusters shown in Figure 4.1.

- Table 4.2b and Appendix A: Renamed Technical Elective Group F from Geomatics Engineering to Other Engineering Disciplines with a footnote that only Geomatics Engineering courses are listed under this group for now and that more courses from other Engineering disciplines will be added to this group subsequently.

MEMO

FROM THE OFFICE OF THE DEAN AT THE
LASSONDE SCHOOL OF ENGINEERING

LASSONDE SCHOOL OF ENGINEERING | YORK UNIVERSITE UNIVERSITY
150 ATKINSON BUILDING - 4700 KEELE STREET
TORONTO, ONTARIO, CANADA M3J 1P3

TO: Chair, Academic Standards, Curriculum and Pedagogy Committee

FROM: Janusz Kozinski, Dean, Lassonde School of Engineering

SUBJECT: BEng Program in Civil Engineering

DATE: September 25, 2013

It gives me great pleasure to offer my enthusiastic support for the proposal for a new BEng program in Civil Engineering. This new program plays a pivotal role in the series of new programs that the Lassonde School of Engineering will be introducing under its transformative plans for engineering at York. It represents a natural next step in the expansion of York's accredited engineering programs (Computer, Geomatics, and Space Engineering) and newer programs (Software, Electrical and Mechanical Engineering) into one of the high-demand, mainstream disciplines.

I was pleased to read Dr. Balachandar's positive review of the Civil Engineering proposal. In particular I appreciated his comments about the high quality of the learning outcomes and the strong demand in the GTA for a new Civil Engineering program. The relatively few areas for improvement suggested by the reviewer have been addressed in the revised proposal, together with feedback arising from collegial discussions within the Faculty.

The initiative is fully aligned with the strategic directions of the Lassonde School of Engineering and the University. Our strategic planning envisions a multi-phase development plan for Engineering at York, in which Civil Engineering features prominently as a cornerstone of the expansion. The proposal is also aligned with the principal goals of the most recent University Academic Plan and the Provostial White Paper, which call for expansion of the scope of the University's teaching and research activities in the areas of engineering and applied science.

The resources for the new program in Civil Engineering have been developed in the context of the larger planning exercise for the expansion of Engineering at York and have met with the approval of the Provost. The academic financial resources and planning processes will be subject to a very stringent planning and accountability framework, as would be expected with any project of the magnitude and size as envisioned for the Lassonde School of Engineering. The initial start-up phase of this new program calls for three new faculty members this year, which included the Department Chair. This number is intended to grow by approximately two to three per year for the next five years. These initial positions are dedicated to leading and supporting the development of the program and to shepherding in this first phase of substantial growth and transformational academic programming that is underway in the Lassonde School of Engineering. The on-going faculty complement and enrolment plans that are envisioned for this new program have been established within the context of a series of planning parameters that strike the essential balance between professional and academic standards, with the average student-to-faculty ratios aligning with comparable programs of similar size. Relevant resources for the appropriate staff and student supports have already been factored into the plans for expansion and will be allocated as the new program comes online.

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Memorandum

To: Paul Axelrod, Chair, Senate APPRC

From: Rhonda Lenton, Provost

Date: September 20, 2013

Subject: Proposal for a Civil Engineering BEng Program in LSE

I have reviewed the proposal from the Lassonde School of Engineering to introduce a Bachelor of Engineering (BEng) program in Civil Engineering. This proposed degree program is a significant step in the development and expansion of engineering at York, as set out in the proposals leading up to the creation of the new Faculty and the establishment of its units. These developments contribute to the advancement of York's priorities in relation to enhancing our comprehensiveness through expansion of programming in the sciences, engineering, health and the professions. They are also consistent with Ontario government objectives with regard to postsecondary programming; as a result York has received a significant infusion of government funding for capital costs associated with engineering growth, and the University expects to receive full per student funding for undergraduate enrolments to fund the operating costs of growth.

Civil Engineering is a fundamental area within Engineering, encompassing traditional elements as well as new directions such as sustainability, asset management, and climate change-driven engineering. It is an area in which enrolments have traditionally been strong, and demand is expected to grow, in relation to both applications and career opportunities in engineering fields and beyond. The program has been designed in accordance with LSE's "Renaissance Engineer" vision and therefore combines a core curriculum in civil engineering with the development of skills and knowledge in communication, collaboration, business, social issues, and technology. Some of the courses will be part of a common engineering core and some will be developed specifically for this program; students will also have access to courses offered by other departments and Faculties. A range of pedagogies will be employed, including eLearning and opportunities for experiential education. The program is designed to meet professional accreditation requirements.

It is anticipated that the first students will be admitted to the program in 2014, with an initial intake of 50 new students; total enrolments of 225 are expected by 2017-18 (the year of an accreditation review), with over 400 by 2021.

Discussions with regard to the detailed financial, enrolment, and complement planning for the School and its units have been undertaken involving my office and colleagues in LSE, and are ongoing. Two faculty appointments, including the Department Chair, were made as of July 1, 2013, and a further appointment for 2013-14 is still in progress. Two additional appointments have been authorized in the current recruitment cycle. The proposal and the Dean's letter refer to projected future appointments, including the possibility of Alternate Stream appointments, beyond 2014-15 in order to support the phasing in of the curriculum. Financial, faculty complement and enrolment plans going forward continue to be developed within principles set out for engineering planning, including the understanding that approval of additional future appointments will be contingent on the achievement of enrolment targets, and plans will be subject to Provostial review and approval.

I am pleased to record my support for this proposal.

Cc: Dean J. Kozinski
C. Underhill for ASCP

Change to Program/Graduate Diploma Academic Requirements Proposal

1. Program/Graduate Diploma:

Communication and Culture, MA and PhD

2. Effective Session of Proposed Change(s):

September 2014

3. Proposed Change(s) and Rationale

a) A description of the proposed change(s) and rationale, including alignment with academic plans.
A detailed description of the proposed changes follows below. All changes are intended to address observations and recommendations made by the OCGS Program Appraisal (2010); the Joint Program Curriculum Committee (2011) and Curriculum Review (2012); and new GPD's (2013). The changes are made to strengthen the overall academic curriculum, planning, and delivery of three core courses including: interdisciplinary theories; research methodologies; and area specialization and practices. This addresses the academic plan in terms of its general interdisciplinary nature, and attends to program-specificities in the three areas of specialization: media and culture; politics and policy; and technology in practice: applied perspectives.

Please note there will be *no change* in current total number of credit requirements for students.

Please also note, that because of the requirements of scheduling with Ryerson, this will only go into effect for new students in September 2014 (if approved prior to 31 August 2013); it approval is anytime later, then it will not go into effect until September 2015.

Proposed Changes (1 through 4) as follows

Change 1:

General Description: Change MA and PhD: Change from non-credit to for-credit (3.0) core course requirements, and change numbers and titles of courses:

1(a) MA Description: Delete (non-credit) CMCT 6003 0.0 "Seminar in Communication Research and Practice" and replace with (for credit) CMCT 6005 3.0 "Research Specialization and Practice"; and

1(b) PhD Description: Delete (non-credit) CMCT 7300 0.0 "Seminar in Communication Research and Practice" and replace with (for credit) CMCT 7005 3.0 "PhD Field Seminar: Disciplinary Practices".

Rationale 1a: MA Program:
(i) To strengthen and improve delivery of a program and discipline-specific seminar in terms of consistency, academic and practical rigour; (Previous seminar was semi-voluntary, students needed only to attend 8/12 seminars, there was too much of sporadic student engagement, and not enough academic rigour to ensure attendance, participation and consistency in evaluation; making it a credit course requires attendance in all seminars, and students are evaluated and graded (as per the FGS grading scale) on course requirements that are intended to address rationale's (ii) through (iv) below:

(ii) To facilitate timely progression through degree requirements: for example, informed and evaluated selection and process delivery of program options: thesis, project, or Master's Research Paper (MRP);

(iii) To facilitate student's ability to academically legitimize independent research specialization in one or more of the three areas of the program: media and culture, politics and policy, or technology and practice; and to address area requirements for research integrity and ethics review;

(iv) To assist and evaluate the student in professional development and transferrable skills that are general in principle, but specific to communication and culture including: peer review, grant- writing, conference and publication submission which may include applied research in submissions to government or organizational policy papers, and public forums or hearings on communication and culture, or area-specific service or employment in university, government, non-for-profit, or business sectors.

Rationale 1b: PhD Program:
(i) same as 1(a) (i) above;

(ii) To facilitate timely progression through degree requirements and to better formalize and ensure quality standards are met in relation to scheduled completion of qualifying (comprehensive) exams and thesis proposal submission;

(iii) same as 1(a) (iii) above; and

(iv) same as 1 (a) (iv) above, including the addition of teaching and evaluating both the 'how' and 'why' of critical pedagogy and socially-engaged research and teaching, as related to: course design and directorship, curriculum design, and service and/or employment in university, government, non-for-profit, or business sectors.

Change 2:
General Description:
MA Program: Remove two core courses – CMCT 6000 3.0 "Core Issues in Communication Studies" and CMCT 6001 3.0 "Core Issues in Cultural Studies" – and substitute with Change (1) above and Change (2) as new course requiring course number and title change: CMCT 6004 3.0 "Communication and Culture: an Interdisciplinary Approach"

Rationale MA Program:

The primary aim of the course is to ensure students – whatever their undergraduate degree – have an introduction to the three areas of the program (Media and Culture, Politics and Policy, and Technology in Practice) at the graduate level, and obtain a foundational understanding specific to each area (its history, philosophy, theory, and principle concepts or issues). The objective is that students will develop a more comprehensive understanding of the heterogeneous but interdependent nature of the approaches to research and practices of communication and culture (i.e. its interdisciplinary nature as per the academic plan), and be better equipped to make informed decisions before embarking on independent research.

These changes intend to address observations made by OCGS Program Appraisal (2010) in the following specific areas:

(i) To eliminate unnecessary overlap and gaps in delivery of core courses; and

(ii) To directly attend to lack of consistency in core-course attention to each of the three areas of study which distinguishes the Joint program from others of its kind in Canada; (this also intends to avoid an otherwise skewing by individual course directors who may focus on favorite areas rather than attend directly to curriculum consistency and interdisciplinary program development).

Change 3
General Description: MA and PhD, Remove Foundation Requirement:

3(a) Masters: Remove Foundation course requirements for M.A.; substitute by building-in foundational requirements in (new) research specialization (as in above change 1a), (new) core course (as in above change 2), together with a (redesigned) research methodologies course (Change 4 below); *and* by requiring that students must take at least one elective IN PROGRAM in EACH of the three areas of concentration (M&C, P&P, and TinP).

3(b) PhD: Remove Foundation course requirements for Ph.D.; and substitute by building-in foundational requirements in (new) area specialization (as in above change 1b) and (redesigned) core (no change to course title or number required) and research methodologies courses (Change 4); and by requiring 2 electives in MAJOR IN PROGRAM, and 1 elective in MINOR.

Change 3
(MA and PhD: Remove Foundation Requirement)

Rationale applicable to both:

Previously, all M.A. and Ph.D. candidates were required to take a foundation course in two of three areas (also known as areas of study or concentration). Candidates were to select a major area from those offered by the program and a minor area, either from the program offerings, or in a related program (with permission of the GPD). The program's areas of concentration include: Media & Culture (M&C), Politics & Policy (P&P); and Technology in Practice: Applied Perspectives (TinP).

At both graduate levels, program history indicates that a combination of resource limitations (ensuring even distribution of courses in the three areas) and challenges of scheduling (both internal and with Ryerson University), resulted in students continually requesting courses outside of the program, with the majority of students requesting substitutions for majors and minors with individually-directed readings. The OCGS Program Appraisal (2010) highlighted the latter in particular as problematic for curriculum development and program integrity. Together with the combined program changes, this allows the students (and the program) to maintain core standardization while allowing flexibility in program electives, reducing reliance on directed readings, and facilitating timely progression through degree requirements.

b) An outline of the changes to requirements and the associated learning outcomes, including how the proposed requirements will support the achievement of program/graduate diploma learning objectives.

All of the above changes are made to strengthen the overall planning and delivery of three core program courses at both the MA and PhD levels. The general content of these three core courses will be designed in relation to each other (prior to their delivery each year) by Area- Specialization Working Groups (led by Area Representatives of the Executive Committee) who will advise the course directors in consultation with the Curriculum Committee (which includes student representatives) and the GPDs. The intention is to encourage and facilitate greater faculty and student input into each of the three core courses and area specializations of the program towards establishing a critical standard, yet dynamic and topical curriculum structure. In accordance with the academic plan, the ultimate goal is to develop a shared intellectual and research culture for critical and socially-engaged research and scholarly development.

Change 4:
General Description: Change title of Communication & Culture 6002 3.0 “Research Methods Workshop” to “Research Methodologies” and change title of Communication & Culture 7200 3.0 “Advanced Research Methods Workshop” to “Advanced Research Methodologies”.

Rationale: To prioritize and distinguish the (old) *genera*l (qualitative and quantitative) research methodologies and theoretical contexts as a distinct course from the (new) *specific* (area specialization and practice) course (i.e. to avoid confusion or overlap).

c) An overview of the consultation undertaken with relevant academic units and an assessment of the impact of the modifications on other programs/graduate diplomas.

Not Applicable at York. Otherwise, York/Ryerson joint program consultation occurred through Joint Curriculum Committee (2011, 2012), both GPD and Program Administrator’s consults (2013), followed by an all-program faculty and student general town hall (19 April 2013). Changes were passed by Executive Committee vote immediately following the town hall.

d) A summary of any resource implications and how they are being addressed.

Not Applicable

Appendix A
CMCT Master's Degree Requirement and Changes
Summary Comparison Chart

M.A. Current Requirements	M.A. Proposed Requirements
CMCT 6003 0.0 Seminar in Communication Research and Practice (Pro-Seminar) Non-credit	**CMCT 6005 3.0** MA Research Specialization and Practice **CREDIT 3.0**
CMCT 6000 3.0 Core Issues in Cultural Studies Credit 3.0	**CMCT 6004 3.0** Communication & Culture: An interdisciplinary Approach Credit 3.0
CMCT 6001 3.0 Core Issues in Communication Studies Credit 3.0	
CMCT 6002 3.0 Research Methods Workshop Credit 3.0	**CMCT 6002 3.0** Research Methodologies [Title change only]
Major Field Foundation Course 3.0	Elective in Media & Culture 3.0
Minor Field Foundation Course 3.0	Elective in Politics & Policy 3.0
Elective in Major Field 3.0	Elective in Technology in Practice 3.0
Elective outside Major Field 3.0	Elective in program required 3.0
Elective 3.0	Elective 3.0
(if MRP) Elective 3.0	(if MRP) Elective 3.0
Up to a maximum of TWO courses from outside the program COULD be substituted for either a foundation or elective course.	Up to a maximum of TWO courses from outside the program may be substituted for the two (Project or Thesis) or three (MRP) open electives.

Appendix B
CMCT Ph.D. Degree Current Requirement and Proposed Changes
Summary Comparison Chart

PhD Current Requirements	**PhD Proposed Requirements**
CMCT 7300 0.0 Seminar in Communication Research and Practice (Pro-Seminar) Non-credit	**CMCT 7005 3.0** PhD Field Seminar: Disciplinary Practices **CREDIT 3.0**
CMCT 7000 3.0 Perspectives in Comm/Culture Credit 3.0	**CMCT 7000 3.0** Perspectives in Comm/Culture Credit 3.0
CMCT 7200 3.0 Advanced Research Methods Credit 3.0	**CMCT 7200 3.0** Advanced Research Methodologies [Title change only] Credit 3.0
Major Field Foundation Course Credit 3.0	Elective in Major in program Credit 3.0
Elective in Major Credit 3.0	Elective in Major in program Credit 3.0
Minor Field Foundation Course Credit 3.0	Elective in Minor Credit 3.0
Elective Credit 3.0	
Electives in Major must be from within the program.	Electives in Major must be from within the program.

DATE: June 14, 2013

TO: Sarah Hildebrandt, Academic Affairs Officer
Faculty of Graduate Studies

Barbara Crow, Interim Dean
Faculty of Graduate Studies (as applicable below *)

FROM: Patricia Mazepa, Interim Graduate Program Director
York/Ryerson Joint Program in Communication and Culture (CMCT)

RE: PROTOCOL FOR MAJOR MODIFICATIONS TO EXISTING PROGRAM
under the YUQAP (Quality Assurance Protocol)

I have been asked by Sarah Hildebrandt, Academic Affairs Officer to address the above protocol for major modifications to existing programs as related to the attached three New Course Proposal Templates for CMCT. I have complied with this request as below, on Page 2 and 3.

However, I would also like to take this opportunity to clarify that upon review of the Protocol 5.1 "Definitions" available at http://yuqap.info.yorku.ca/files/2012/08/modification_protocol.pdf, it does not appear that what is being proposed falls under the items listed at 5.1 (a) to (l), because, for example: there are no changes in program requirements in terms of credits required; no additional area of specialization; no additional new options in terms of MRP, diploma or thesis; no deletion or creation of new field; and, there are no "significant changes to the learning outcomes." Although there are some additional *clarifications* of learning outcomes (as below, Page 2/3); there are no "additions to learning outcomes that constitute new categories of degree level expectations beyond those previously specified."

What the proposed changes aim to address is to *restructure* existing courses such that they fulfill the existing learning outcomes more clearly, and directly address the observations and recommendations made by the OCGS Program Appraisal (2010); the Joint Program Curriculum Committee (2011); Curriculum Review (2012); and the new GPD's (2013). The changes are made to strengthen the overall academic curriculum, planning, and delivery of three core courses including: (1) area specialization and practices; (2) interdisciplinary theories; and (3) research methodologies.

This addresses the academic plan in terms of its general interdisciplinary nature, and attends to program-specificities in the three areas of specialization: media and culture; politics and policy; and technology in practice: applied perspectives.

In regards to the proposed changes; where applicable, the course changes and specified learning outcomes are listed below in accordance with the Ontario Council of Universities (2011).[1]

1. Area Specialization and Practices: Course Changes: CMCT 6005 3.0 "Master's Research Specialization and Practice" and CMCT 7005 3.0 "PhD Field Seminar: Disciplinary Practices" (Changes made to name, number and status from 0.0 credit to 3.0 'for credit', evaluated courses):

Specified Learning Outcomes:

a. developed *communication skills* and demonstrated *breadth* of understanding of *field-specific* professional skills in communication and culture which may include: peer and project reviews, grant writing, formal oral presentations, professional conference and publication submissions;

b. understanding and demonstration of *applied research* in, for example: composing and producing submissions to government, professional briefs, organizational policy papers, public forums or hearings on communication and culture; or critical evaluation of the practices (use and development) of media or technology [which may (or may not) be related to the research proposals (f) below];

c. *knowledge of general research methodologies and practices* used in the field of communication and culture in terms of a developed understanding (the how and why) of its critical and interdisciplinary nature, as well as its critical pedagogy;

d. *general knowledge of field-specific practices and application of knowledge* as related to service and/or employment in university, government, non-for-profit, or business sectors; and, for the Doctoral level, also includes application in terms of course design and directorship, curriculum design, and working and teaching philosophies;

e. a general understanding and development of *autonomy and professional capacity*, including socially-engaged research, applied ethics and research integrity together with 1(a) through (d) above; and

f. ability to embark on *independent research and scholarship*, to distinguish, choose and complete a proposal in one or more program areas, at the Master's level (thesis, Master's Research Paper or Project), or at the PhD level (thesis).

[1] Ontario Council of Universities (2011) *Ensuring the Value of University Degrees in Ontario: A Guide to Learning Outcomes, Degree Expectations and the Quality Assurance Process in Ontario*. Available from: http://www.cou.on.ca/publications/reports/pdfs/ensuring-the-value-of-university-degrees-in-ontario

2. Interdisciplinary Theories. Course change: CMCT 6004 3.0 "Communication & Culture: An Interdisciplinary Approach"

Specified Learning Outcomes:

a. *breadth* understanding of interdisciplinary nature of communication and culture, and program-specific areas of specialization, particularly in terms of being able to compare similarities and differences in and between each area's (intellectual) history, philosophy (its epistemologies and ontologies), theory (major approaches and theorists), including an *awareness* of key ongoing and current issues in each area;

b. ability to compare, evaluate and consider congruence between philosophy, theory and research methodology in *application of knowledge* to ongoing and current issues; and

c. *awareness of the limits of knowledge* in terms of the ability to identify and academically justify the choice of major and minor areas of research or professional specialization; with the addition for Doctoral students to also do so in terms of proposed qualifying exams (also called comprehensive exams).

3. Research Methodologies (Name change only). No change in learning outcomes.

5.3 Internal Protocol Procedures

Please note that the proposed changes have met the first stage of the Internal Protocol Procedures via: (1) York/Ryerson Joint Graduate Program consultation through the Joint Curriculum Committee (2011, 2012); (2) both GPD and Program Administrator's consults (2013), followed by (3) a general email proposal with the identified changes and rationales sent to CMCT faculty and students as background and preparation for a general Town Hall (12 April and 17 April 2013 reminder); followed by (4) Town Hall (19 April 2013).

During the Town Hall participants were presented with the list of changes and justifications with open discussion of each proposal. Immediately following the meeting, a quorum of the Executive further discussed and voted on each change. All changes were passed by Executive Committee vote.

As there are no changes to the credit or degree requirements, the Registrar's Office or External Stakeholders were not consulted.

*This memo is also addressed to Dean Crow FGS to comply with the Internal Protocol which requires, please: "a full statement of support by the anchor Dean".

Thank you for your consideration.

FOR CONSIDERATION BY FES Committee of Instruction on May 9, 2013

"Open Access" in FES Admissions: Motion for consideration by the FES Committee of Instruction, FES Council, and York University Senate

Add the following article (d) to FES Policies and Procedures, section C10.2.

BES applicants will be invited as part of the normal applications process to voluntarily provide information on whether they self-identify with one or more equity-seeking groups, and to include in their application letters reference to any individual or systemic barriers they have encountered.

AND: Add the following article (d) to FES Policies and Procedures, section C10.3. The current articles (d) and (e) will become articles (e) and (f).

"The Undergraduate Academic Review and Admissions Subcommittee will consider the self-identification and diversity information provided by applicants in its review of applications, with the goal of balancing individual and collective considerations, incorporating both academic excellence and social diversity, broadening the criteria of assessment, and admitting a diverse and academically talented group of students."

As shown below:

C10. UNDERGRADUATE ACADEMIC REVIEW AND ADMISSIONS SUBCOMMITTEE	C10. UNDERGRADUATE ACADEMIC REVIEW AND ADMISSIONS SUBCOMMITTEE
C10.1 MANDATE OF THE SUBCOMMITTEE	C10.1 MANDATE OF THE SUBCOMMITTEE
(a) The Undergraduate Academic Review and Admissions Subcommittee shall:	(a) The Undergraduate Academic Review and Admissions Subcommittee shall:
i. review and approve/reject special admissions "Subcommittee Files" received from the York Central Admissions Office;	i. review and approve/reject special admissions "Subcommittee Files" received from the York Central Admissions Office;
ii. adjudicate undergraduate student awards;	ii. adjudicate undergraduate student awards;
iii. adjudicate undergraduate student Academic Integrity cases referred to after the initial Academic Integrity hearing;	iii. adjudicate undergraduate student Academic Integrity cases referred to after the initial Academic Integrity hearing;
iv. review student academic petitions, on the advice of the Undergraduate Program Director.	iv. review student academic petitions, on the advice of the Undergraduate Program Director.
v. make decisions by the majority of voting members	v. make decisions by the majority of voting members
C10.2 BES ADMISSION REQUIREMENTS	C10.2 BES ADMISSION REQUIREMENTS

(a) To be considered for admission to the BES program in Environmental Studies, the applicant normally must have: Ontario Secondary School Diploma (OSSD) and six 4U or 4M courses including English 4Uan average of 70% or better; and credits in mathematics and biology being recommended.	(a) To be considered for admission to the BES program in Environmental Studies, the applicant normally must have: Ontario Secondary School Diploma (OSSD) and six 4U or 4M courses including English 4Uan average of 70% or better; and credits in mathematics and biology being recommended.
(b) English is the language of instruction of the Faculty. Students whose first language is not English must provide evidence of competence in English to the satisfaction of the University, as follows:	(b) English is the language of instruction of the Faculty. Students whose first language is not English must provide evidence of competence in English to the satisfaction of the University, as follows:
i. At the time of application for admission, an applicant who is not a Canadian Citizen or a Landed Immigrant in Canada must provide results of the International English Language Testing Services (IELTS) or of the York English Language Test (YELT) or of the Test of English as a Foreign Language (TOEFL) as may be approved by the University for the particular applicant. Applicants whose first language is English may be exempted from this requirement or students who have completed YUELI Intensive Program Level 6.	i. At the time of application for admission, an applicant who is not a Canadian Citizen or a Landed Immigrant in Canada must provide results of the International English Language Testing Services (IELTS) or of the York English Language Test (YELT) or of the Test of English as a Foreign Language (TOEFL) as may be approved by the University for the particular applicant. Applicants whose first language is English may be exempted from this requirement or students who have completed YUELI Intensive Program Level 6.
ii. The Undergraduate Academic Review and Admissions Subcommittee shall determine whether further instruction in English and further evidence of competence in English is needed by an applicant who is otherwise admissible.	ii. The Undergraduate Academic Review and Admissions Subcommittee shall determine whether further instruction in English and further evidence of competence in English is needed by an applicant who is otherwise admissible.
(c) An application for admission to the BES program consists of material as required by the Admissions Office for undergraduate admission.	(c) An application for admission to the BES program consists of material as required by the Admissions Office for undergraduate admission.
C10.3 BES ADMISSION PROCEDURES	**(d) BES applicants will be invited as part of the normal applications process to voluntarily provide information on whether they self-identify with one or more equity-seeking groups, and to include in their application letters reference to any individual or systemic barriers they have encountered.**
(a) Decision on admission to the BES degree program is made by the Admission Office.	C10.3 BES ADMISSION PROCEDURES
(b) The Undergraduate Program Director acts on the advice of the Undergraduate Academic Review and Admissions Subcommittee on Subcommittee files.	

(c) When all required admissions information has been received for Subcommittee decision, each file is reviewed by members of the subcommittee and discussed at a formal meeting of the subcommittee. The subcommittee may provide advice to the Undergraduate Program Director at that point or require that further information be provided by the applicant. (d) Applicants are notified in writing by the Admissions Office of the results. (e) The subcommittee uses the following admissions criteria: i. intellectual capacity (e.g., grades) ii. learning potential (e.g., successful completion of test of language skills) iii. appropriateness to FES of intended study program	(a) Decision on admission to the BES degree program is made by the Admission Office. (b) The Undergraduate Program Director acts on the advice of the Undergraduate Academic Review and Admissions Subcommittee on Subcommittee files. (c) When all required admissions information has been received for Subcommittee decision, each file is reviewed by members of the subcommittee and discussed at a formal meeting of the subcommittee. The subcommittee may provide advice to the Undergraduate Program Director at that point or require that further information be provided by the applicant. **(d) The Undergraduate Academic Review and Admissions Subcommittee will consider the self-identification and diversity information provided by applicants in its review of applications, with the goal of balancing individual and collective considerations, incorporating both academic excellence and social diversity, broadening the criteria of assessment, and admitting a diverse and academically talented group of students.** (e) Applicants are notified in writing by the Admissions Office of the results. (f) The subcommittee uses the following admissions criteria: i. intellectual capacity (e.g., grades) ii. learning potential (e.g., successful completion of test of language skills) iii. appropriateness to FES of intended study program

Explanation:

These additions to the FES Policies and Procedures authorize the use of equity criteria in the admissions process in order to enhance the diversity of each incoming BES, MES, and PhD class. The new language acknowledges the importance of diversity and open access to FES academic programs for all qualified candidates. We will include equity criteria in the admissions process

on the basis of information provided on a voluntary basis by student applicants. Adapting long-standing practices followed at the York University Faculty of Education[1] and at Osgoode Hall Law School[2], we will invite applicants to voluntarily self-identify as a member of one or more of these categories:

- Aboriginal (First Nations, Métis, Inuit, Status, Non-Status, Aboriginal Ancestry)
- Person with disabilities
- Racialized Person (A racialized person may experience social inequities on the basis of their perceived common racial background, colour and/or ethnicity, or faith and may be subjected to different treatment in society and its institutions. Examples may include: people of African descent, people of Asian descent, people of Latin American descent)
- Other Minoritized Person (please specify other identity categories that apply to you and have affected your educational experience. For example: working class / low income; sexual orientation, gender identification, and/or gender presentation; English Language Learner; Refugee or impacted by the refug ee experience)

We will also invite applicants to include in their application statements information on individual and systemic barriers they may have faced, in describing their interest and aptitude for study at FES.

Rationale:

(1) This policy follows from the general and often-stated commitment of the Faculty of Environmental Studies and York University to principles of equity and diversity.

(2) York University has placed equity, diversity, and community engagement at the forefront of its academic goals. The University Academic Plan (2010-2015) states, "The University's Mission Statement captures York's character as a dynamic, innovative, and diverse academic community that both reflects and is embedded in the local community and is open to the world. It expresses institutional commitments to the advancement of knowledge across the full spectrum of disciplinary and interdisciplinary activities and to the promotion of excellence and critical exploration, as well as to academic freedom, social justice, accessible education, and collegial self-governance .....
York .... has a number of values that help to distinguish us from other universities. These include: .... a commitment to social justice and equity which includes a profound desire to make post-secondary education accessible to the various individuals and communities we serve....
It bears mentioning that a commitment to equity at York University has been a hallmark of academic excellence and the fulfillment of the University's mission. By equity we mean fair and respectful treatment of all persons, in relation to gender, gender identity, sexual orientation, race, ancestry, place of origin, colour, ethnic origin, creed, religion, sex, age, marital status, disability, and family status. Accordingly, in present academic structures, processes, programs and environments, attention should focus on eradicating systemic and structural discrimination, including barriers to access, and on promoting equity ....
Equity is embedded in our planning processes and evaluation measures. It is our shared

[1] http://edu.yorku.ca/program/bachelor-of-education/access-initiative/

[2] http://www.osgoode.yorku.ca/prospective-students/jd-program/applying/admissions-policy

responsibility to create the conditions for all to achieve their potential and participate fully in the academic community" (York University Academic Plan, pp. 3-4).

(3) Within the Faculty of Environmental Studies, diversity is one of the pillars of the Faculty's Vision and Mandate: "Our vision is to direct and combine the diverse energies, assets and activities of the Faculty of Environmental Studies to become the premier location for interdisciplinary, analytical and collaborative research, education and action on critical and changing environmental issues. Our Mandate is to provide unsurpassed opportunities for interdisciplinary teaching, learning and research about natural, built, social, cultural, and political-economic environments and the dynamic relationships between these. Dedicated to inspiring active learners and engaged citizens, we are a community that respects and values insight, creativity, justice, and diversity and that works to promote significant social and environmental change toward the creation of a more equitable and sustainable world through imaginative and critical thought and concerted action" (FES Vision and Mandate).

(4) The FES Strategic Plan (2009-2014) includes these goals: "Increase the diversity of the applicant pool: promote the FES emphasis on social justice issues to encourage applicants from local, as well as more distant, disadvantaged groups; ... Advertise instructors and specific courses that focus on equity issues and promote further development of these in the curriculum; Make better use of York's satellite campus at Jane & Finch as a recruitment venue; Explore the development of bridging programs for applicants without the requisite degree for admission to FES; and Seek funding opportunities and sources for applicants who do not qualify for regular funding at York University" (FES Strategic Plan 2009-2014, p. 11).

(5) FES has the University's most progressive Affirmative Action and Equity Plan for faculty hiring (http://fes.yorku.ca/gov/section-e#sectione1) and has established an Equity Committee of faculty, staff, and students to advance these issues on an ongoing basis (http://fes.yorku.ca/gov/section-h). The FES Research Plan (2008-2014) explains, "FES is committed to carrying out interdisciplinary, innovative and collaborative research that promotes equitable and sustainable environments by collaborating with academic and other community partners both at the local and international levels" (FES Strategic Research Plan 2008-2014, p. 1). The Plan sets out a detailed group of goals to "encourage research that values interdisciplinarity and diversity" (p. 6).

(6) These equity and diversity principles are also embodied in affirmative action appointments policies in both the CUPE 3903 and YUFA Collective Agreements.

(7) For all these reasons, "Open Access" is a logical and necessary expression of York University's academic priorities and goals, as well as those of the Faculty of Environmental Studies. Valuing political, racial, gender and ethnocultural diversity in our student population is crucial for the faculty to be consistent with its stated vision and mandate. Reflecting this commitment through FES admissions policy is a key component of building a true interdisciplinary environment where students are introduced to diverse viewpoints, enriching discussions, varied pedagogical models and are provided the opportunity for rewarding collaborative research. Diversity deepens critical engagement with the natural, built, social, cultural, and political-economic environments which is necessary for the engaged and active student population that FES aims to nurture.

(8) Improving the diversity of our student body will enrich the academic and research networks in which these students participate, therefore increasing the diversity of the applicant pools from which professors are recruited. Equity in admissions can thus be seen as a modest attempt to diversify the composition of leadership positions in the

education sector - and society at large. This process of diversification has a long way to go and is fraught with many obstacles, according to research undertaken for Diverse City.[3]

(9) A lack of representation of students from equity-seeking groups in the learning community at FES results in problems similar to those created by a lack of representation among tenure-stream faculty. It creates imbalanced classroom dynamics and student-advisor relationships. There is now a significant research literature about the ways in which a lack of representation of particular social groups is one factor inhibiting attempts to counteract racist, sexist and other discriminatory practices in academic settings. For a few particularly prominent examples, see D. Smith (1990), The Conceptual Practices of Power: A Feminist Sociology of Knowledge; D. Mihesuah and A. Wilson, eds. (2004), Indigenizing the Academy; and H. Frances and C. Tator (2009), Racism in the Canadian University: Demanding Social Justice, Inclusion, and Equity.

(10) In particular, it is important to note that while applicants to the PhD program are only assessed as future students, our Faculty (and the university at large) depends institutionally on the labour of PhD candidates as teaching assistants and course directors. Increasing the diversity of the PhD student body will thus improve the capacity of the Faculty (and the University) to maximize its capacity to teach undergraduate students effectively.

(11) Issues of equity in admissions take on particular salience when it comes to Planning education. On average, about a third of our yearly intake of Masters students (40-50 per 120) are students who want to become professionally accredited Planning professionals. Research shows that women and visible minorities are significantly or seriously underrepresented in the Planning profession (as organized by the Canadian Institute of Planners (CIP) and the Ontario Professional Planners Institute (OPPI)). In the Toronto region, the underrepresentation of ethnoracial groups other than European Canadians in Planning departments is particularly acute. (See for example, B. Milroy and M. Wallace, "Ethnoracial Diversity and Planning Practice in the Greater Toronto Area: A Final Report," (Toronto: Joint Centre for Excellence for Research on Immigration and Settlement, 2002); I. Skelton, "CIP and affiliates by the numbers," Plan Canada, Fall 2010, pp. 26-29.) Incorporating equity as a criterion in our admission process for the MES students is thus an important step towards diversifying the profession. Such diversification would remove one of the various obstacles that stand in the way of incorporating considerations of gender, indigeneity, race, sexuality and class more organically into both Planning education and Planning practice. It would allow us, in other words, to catch up with the latest developments in Planning theory. (For some Canadian interventions, see K. Goonewardena, K. Rankin, S. Weinstock, "Diversity and Planning Education: A Canadian Perspective," Canadian Journal of Urban Research 13.1 (2004) pp. 1-26; L. Viswanathan, "Integrated, Equitable, and Transformative: A Hopeful Future for Planning" Plan Canada, Fall 2010, pp. 33-35; Barbara Rahder and Richard Milgrom, "The uncertain city: making space(s) for difference," Canadian Planning and Policy 13.1, 2004, pp. 27-45.)

(12) Students face differential access to post-secondary education in Canada which is related to their identity and background. See the Canadian Federation of Students Report, The Racialized Impact of Tuition Fees: Assessing the Social Cost of Post-Secondary Education (http://cfsontario.ca/downloads/CFS-Racialised%20Impact%20of%20Tuition%20Fees.pdf); the Canadian Centre for Policy Alternatives June 2010 report Ontario's Growing Gap: The Role of Race and Gender

[3] http://diversecitytoronto.ca/. For the latest report on the underrepresentation of visible minorities and visible minority women in government, the education sector, non-government organizations, and the corporate world, see http://diversecitytoronto.ca/wp-content/uploads/DiverseCity-Inbrief-2011-Web.pdf.

(http://www.policyalternatives.ca/publications/reports/role-race-and-gender-ontarios-growing-gap); and the 2012 Canadian Centre for Policy Alternatives report by D. Macdonald and E. Shaker, Eduflation and the High Cost of Learning (http://www.osstf.on.ca/adx/aspx/adxGetMedia.aspx?DocID=21c70e68-03ba-4f15-b3a5-f0928a51f77f&MediaID=093361e7-9235-4ace-a8b5-f84e56fa2bc7&Filename=eduflation-and-cost-of-learning.pdf&l=English).

(13) The legal basis of this initiative is provided by Canadian human rights law. The Ontario Human Rights Code states that "every person has a right to equal treatment with respect to services, goods and facilities, without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or disability". Accordingly, section 14 of the Ontario *Human Rights Code* expressly protects so-called "affirmative action" or "positive discrimination" programs.[4] Section 15(2) of the *Charter* provides a similar protection for such initiatives.[5]

(14) The extension of equity policy at the admissions level is part of a growing development of education equity policy committed to increasing the participation of persons of equity-seeking groups in Canada. Precedents for the use of such equity principles in admission, recruitment and outreach processes are found not only at York University's Faculty of Education[6] and Osgoode Hall Law School[7] but also at the Faculties of Law at the University of Ottawa[8], Dalhousie University[9], and the University of Windsor[10], the Bachelor of Social Work programme at St. Thomas University,[11] and the School of Physiotherapy at Dalhousie University.[12] Typically, these special admission provisions were developed to ensure that all students have equal opportunities to participate in academia, enter professional practice, and occupy leadership positions.

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[4] Special programs ' 14. (1) A right under Part I is not infringed by the implementation of a special program designed to relieve hardship or economic disadvantage or to assist disadvantaged persons or groups to achieve or attempt to achieve equal opportunity or that is likely to contribute to the elimination of the infringement of rights under Part I. R.S.O. 1990, c. H.19, s. 14 (1).

[5] Affirmative action programs: (2) Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

[6] http://edu.yorku.ca/program/bachelor-of-education/access-initiative/
[7] http://www.osgoode.yorku.ca/node/2494
[8] http://www.commonlaw.uottawa.ca/en/admissions/education-equity/education-equity-office.html
[9] http://law.dal.ca/Prospective_Students/Indigenous%20Blacks%20&%20Mi'kmaq%20Initiative/
[10] http://www.uwindsor.ca/law/our-admissions-criteria
[11] http://w3.stu.ca/stu/futurestudents/requirements/canadian/req_bachelor_social_work.aspx
[12] http://physiotherapy.dal.ca/Prospective%20Students/Affirmative_Action_P.php

Change to Program/Graduate Diploma Academic Requirements Proposal Template

The following information is required for all proposals involving a change to program/graduate diploma academic requirements, including admission requirements. To facilitate the review/approval process, please use the headings below (and omit the italicized explanations below each heading).

1. Program/Graduate Diploma: Masters in Environmental Studies

2. Effective Session of Proposed Change(s): Fall 2013

3. Proposed Change(s) and Rationale

The description of and rationale for the proposed change(s) should provide information with respect to each of the following points. Please provide:

a) A description of the proposed change(s) and rationale, including alignment with academic plans.

These additions to the FES Policies and Procedures authorize the use of equity criteria in the admissions process in order to enhance the diversity of each incoming BES, MES, and PhD class. The new language acknowledges the importance of diversity and open access to FES academic programs for all qualified candidates. We will include equity criteria in the admissions process on the basis of information provided on a voluntary basis by student applicants. Adapting long-standing practices followed at the York University Faculty of Education[1] and at Osgoode Hall Law School[2], we will invite applicants to voluntarily self-identify as a member of one or more of these categories:

- Aboriginal (First Nations, Métis, Inuit, Status, Non-Status, Aboriginal Ancestry)
- Person with disabilities
- Racialized Person (A racialized person may experience social inequities on the basis of their perceived common racial background, colour and/or ethnicity, or faith and may be subjected to different treatment in society and its institutions. Examples may include: people of African descent, people of Asian descent, people of Latin American descent)
- Other Minoritized Person (please specify other identity categories that apply to you and have affected your educational experience. For example: working class / low income; sexual orientation, gender identification, and/or gender presentation; English Language Learner; Refugee or impacted by the refugee experience)

[1] http://edu.yorku.ca/program/bachelor-of-education/access-initiative/

[2] http://www.osgoode.yorku.ca/prospective-students/jd-program/applying/admissions-policy

We will also invite applicants to include in their application statements information on individual and systemic barriers they may have faced, in describing their interest and aptitude for study at FES.

Rationale:

(1) This policy follows from the general and often-stated commitment of the Faculty of Environmental Studies and York University to principles of equity and diversity.

(2) York University has placed equity, diversity, and community engagement at the forefront of its academic goals. The University Academic Plan (2010-2015) states, "The University's Mission Statement captures York's character as a dynamic, innovative, and diverse academic community that both reflects and is embedded in the local community and is open to the world. It expresses institutional commitments to the advancement of knowledge across the full spectrum of disciplinary and interdisciplinary activities and to the promotion of excellence and critical exploration, as well as to academic freedom, social justice, accessible education, and collegial self-governance .....

York .... has a number of values that help to distinguish us from other universities. These include: .... a commitment to social justice and equity which includes a profound desire to make post-secondary education accessible to the various individuals and communities we serve....

It bears mentioning that a commitment to equity at York University has been a hallmark of academic excellence and the fulfillment of the University's mission. By equity we mean fair and respectful treatment of all persons, in relation to gender, gender identity, sexual orientation, race, ancestry, place of origin, colour, ethnic origin, creed, religion, sex, age, marital status, disability, and family status. Accordingly, in present academic structures, processes, programs and environments, attention should focus on eradicating systemic and structural discrimination, including barriers to access, and on promoting equity .... Equity is embedded in our planning processes and evaluation measures. It is our shared responsibility to create the conditions for all to achieve their potential and participate fully in the academic community" (York University Academic Plan, pp. 3-4).

(3) Within the Faculty of Environmental Studies, diversity is one of the pillars of the Faculty's Vision and Mandate: "Our vision is to direct and combine the diverse energies, assets and activities of the Faculty of Environmental Studies to become the premier location for interdisciplinary, analytical and collaborative research, education and action on critical and changing environmental issues. Our Mandate is to provide unsurpassed opportunities for interdisciplinary teaching, learning and research about natural, built, social, cultural, and political-economic environments and the dynamic relationships between these. Dedicated to inspiring active learners and engaged citizens, we are a community that respects and values insight, creativity, justice, and diversity and that works to promote significant social and environmental change toward the creation of a more equitable and sustainable world through imaginative and critical thought and concerted action" (FES Vision and Mandate).

(4) The FES Strategic Plan (2009-2014) includes these goals: "Increase the diversity of the applicant pool: promote the FES emphasis on social justice issues to encourage applicants from local, as well as more distant, disadvantaged groups; ... Advertise instructors and specific courses that focus on equity issues and promote further

development of these in the curriculum; Make better use of York's satellite campus at Jane & Finch as a recruitment venue; Explore the development of bridging programs for applicants without the requisite degree for admission to FES; and Seek funding opportunities and sources for applicants who do not qualify for regular funding at York University" (FES Strategic Plan 2009-2014, p. 11).

(5) FES has the University's most progressive Affirmative Action and Equity Plan for faculty hiring (http://fes.yorku.ca/gov/section-e#sectione1) and has established an Equity Committee of faculty, staff, and students to advance these issues on an ongoing basis (http://fes.yorku.ca/gov/section-h). The FES Research Plan (2008-2014) explains, "FES is committed to carrying out interdisciplinary, innovative and collaborative research that promotes equitable and sustainable environments by collaborating with academic and other community partners both at the local and international levels" (FES Strategic Research Plan 2008-2014, p. 1). The Plan sets out a detailed group of goals to "encourage research that values interdisciplinarity and diversity" (p. 6).

(6) These equity and diversity principles are also embodied in affirmative action appointments policies in both the CUPE 3903 and YUFA Collective Agreements.

(7) For all these reasons, "Open Access" is a logical and necessary expression of York University's academic priorities and goals, as well as those of the Faculty of Environmental Studies. Valuing political, racial, gender and ethnocultural diversity in our student population is crucial for the faculty to be consistent with its stated vision and mandate. Reflecting this commitment through FES admissions policy is a key component of building a true interdisciplinary environment where students are introduced to diverse viewpoints, enriching discussions, varied pedagogical models and are provided the opportunity for rewarding collaborative research. Diversity deepens critical engagement with the natural, built, social, cultural, and political-economic environments which is necessary for the engaged and active student population that FES aims to nurture.

(8) Improving the diversity of our student body will enrich the academic and research networks in which these students participate, therefore increasing the diversity of the applicant pools from which professors are recruited. Equity in admissions can thus be seen as a modest attempt to diversify the composition of leadership positions in the education sector - and society at large. This process of diversification has a long way to go and is fraught with many obstacles, according to research undertaken for Diverse City.[3]

(9) A lack of representation of students from equity-seeking groups in the learning community at FES results in problems similar to those created by a lack of representation among tenure-stream faculty. It creates imbalanced classroom dynamics and student-advisor relationships. There is now a significant research literature about the ways in which a lack of representation of particular social groups is one factor

[3] http://diversecitytoronto.ca/. For the latest report on the underrepresentation of visible minorities and visible minority women in government, the education sector, non-government organizations, and the corporate world, see http://diversecitytoronto.ca/wp-content/uploads/DiverseCity-Inbrief-2011-Web.pdf.

inhibiting attempts to counteract racist, sexist and other discriminatory practices in academic settings. For a few particularly prominent examples, see D. Smith (1990), The Conceptual Practices of Power: A Feminist Sociology of Knowledge; D. Mihesuah and A. Wilson, eds. (2004), Indigenizing the Academy; and H. Frances and C. Tator (2009), Racism in the Canadian University: Demanding Social Justice, Inclusion, and Equity.

(10) In particular, it is important to note that while applicants to the PhD program are only assessed as future students, our Faculty (and the university at large) depends institutionally on the labour of PhD candidates as teaching assistants and course directors. Increasing the diversity of the PhD student body will thus improve the capacity of the Faculty (and the University) to maximize its capacity to teach undergraduate students effectively.

(11) Issues of equity in admissions take on particular salience when it comes to Planning education. On average, about a third of our yearly intake of Masters students (40-50 per 120) are students who want to become professionally accredited Planning professionals. Research shows that women and visible minorities are significantly or seriously underrepresented in the Planning profession (as organized by the Canadian Institute of Planners (CIP) and the Ontario Professional Planners Institute (OPPI)). In the Toronto region, the underrepresentation of ethnoracial groups other than European Canadians in Planning departments is particularly acute. (See for example, B. Milroy and M. Wallace, "Ethnoracial Diversity and Planning Practice in the Greater Toronto Area: A Final Report," (Toronto: Joint Centre for Excellence for Research on Immigration and Settlement, 2002); I. Skelton, "CIP and affiliates by the numbers," Plan Canada, Fall 2010, pp. 26-29.) Incorporating equity as a criterion in our admission process for the MES students is thus an important step towards diversifying the profession. Such diversification would remove one of the various obstacles that stand in the way of incorporating considerations of gender, indigeneity, race, sexuality and class more organically into both Planning education and Planning practice. It would allow us, in other words, to catch up with the latest developments in Planning theory. (For some Canadian interventions, see K. Goonewardena, K. Rankin, S. Weinstock, "Diversity and Planning Education: A Canadian Perspective," Canadian Journal of Urban Research 13.1 (2004) pp. 1-26; L. Viswanathan, "Integrated, Equitable, and Transformative: A Hopeful Future for Planning" Plan Canada, Fall 2010, pp. 33-35; Barbara Rahder and Richard Milgrom, "The uncertain city: making space(s) for difference," Canadian Planning and Policy 13.1, 2004, pp. 27-45.)

(12) Students face differential access to post-secondary education in Canada which is related to their identity and background. See the Canadian Federation of Students Report, The Racialized Impact of Tuition Fees: Assessing the Social Cost of Post-Secondary Education (http://cfsontario.ca/downloads/CFS-Racialised%20Impact%20of%20Tuition%20Fees.pdf); the Canadian Centre for Policy Alternatives June 2010 report Ontario's Growing Gap: The Role of Race and Gender (http://www.policyalternatives.ca/publications/reports/role-race-and-gender-ontarios-growing-gap); and the 2012 Canadian Centre for Policy Alternatives report by D. Macdonald and E. Shaker, Eduflation and the High Cost of Learning (http://www.osstf.on.ca/adx/aspx/adxGetMedia.aspx?DocID=21c70e68-03ba-4f15-b3a5-

f0928a51f77f&MediaID=093361e7-9235-4ace-a8b5-f84e56fa2bc7&Filename=eduflation-and-cost-of-learning.pdf&l=English).

(13) The legal basis of this initiative is provided by Canadian human rights law. The Ontario Human Rights Code states that "every person has a right to equal treatment with respect to services, goods and facilities, without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or disability". Accordingly, section 14 of the Ontario *Human Rights Code* expressly protects so-called "affirmative action" or "positive discrimination" programs.[4] Section 15(2) of the *Charter* provides a similar protection for such initiatives.[5]

(14) The extension of equity policy at the admissions level is part of a growing development of education equity policy committed to increasing the participation of persons of equity-seeking groups in Canada. Precedents for the use of such equity principles in admission, recruitment and outreach processes are found not only at York University's Faculty of Education[6] and Osgoode Hall Law School[7] but also at the Faculties of Law at the University of Ottawa[8], Dalhousie University[9], and the University of Windsor[10], the Bachelor of Social Work programme at St. Thomas University,[11] and the School of Physiotherapy at Dalhousie University.[12] Typically, these special admission provisions were developed to ensure that all students have equal opportunities to participate in academia, enter professional practice, and occupy leadership positions.

b) An outline of the changes to requirements and the associated learning outcomes, including how the proposed requirements will support the achievement of program/graduate diploma learning objectives.
N/A

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[4] Special programs ' 14. (1) A right under Part I is not infringed by the implementation of a special program designed to relieve hardship or economic disadvantage or to assist disadvantaged persons or groups to achieve or attempt to achieve equal opportunity or that is likely to contribute to the elimination of the infringement of rights under Part I. R.S.O. 1990, c. H.19, s. 14 (1).

[5] Affirmative action programs: (2) Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

[6] http://edu.yorku.ca/program/bachelor-of-education/access-initiative/
[7] http://www.osgoode.yorku.ca/node/2494
[8] http://www.commonlaw.uottawa.ca/en/admissions/education-equity/education-equity-office.html
[9] http://law.dal.ca/Prospective_Students/Indigenous%20Blacks%20&%20Mi'kmaq%20Initiative/
[10] http://www.uwindsor.ca/law/our-admissions-criteria
[11] http://w3.stu.ca/stu/futurestudents/requirements/canadian/req_bachelor_social_work.aspx
[12] http://physiotherapy.dal.ca/Prospective%20Students/Affirmative_Action_P.php

c) An overview of the consultation undertaken with relevant academic units and an assessment of the impact of the modifications on other programs/graduate diplomas. (*Where and as appropriate, the proposal must include statements from the relevant program/graduate diplomas confirming consultation/support*.)
N/A

d) A summary of any resource implications and how they are being addressed. (*Attention should be paid to whether the proposed changes will be supported by a reallocation of existing resources or if new/additional resources are required. If new/additional resources are required, the proposal must include a statement from the relevant Dean(s)/Principal.*)
N/A

e) A summary of how students currently enrolled in the program/graduate diploma will be accommodated.
N/A

4. Calendar Copy

Using the following two-column format, provide a copy of the relevant program/graduate diploma requirements as they will appear in the graduate Calendar.

Existing Program/Graduate Diploma Information (change from)	Proposed Program/Graduate Diploma Information (change to)
C4.2 MES ADMISSION REQUIREMENTS (a) To be considered for admission to the MES program in Environmental Studies, the applicant normally must have an honours (or four-year) undergraduate degree from an accredited university with an academic standing of at least “B+” or equivalent (b) An applicant for admission who does not have a previous degree or whose undergraduate record is below the minium requirements outlined in (a) above must provide evidence, acceptable to the MES Admissions Subcommittee, of equivalent qualifications. (c) English is the language of instruction of the Faculty. Applicants whose first language is not English must provide evidence of competence in English to the satisfaction of the MES Admissions Subcommittee (d) An application for admission to the MES program consists of: i. An application for admission to the	***C4.2 MES ADMISSION REQUIREMENTS*** (a) To be considered for admission to the MES program in Environmental Studies, the applicant normally must have an honours (or four-year) undergraduate degree from an accredited university with an academic standing of at least “B+” or equivalent (b) An applicant for admission who does not have a previous degree or whose undergraduate record is below the minium requirements outlined in (a) above must provide evidence, acceptable to the MES Admissions Subcommittee, of equivalent qualifications. (c) English is the language of instruction of the Faculty. Applicants whose first language is not English must provide evidence of competence in English to the satisfaction of the MES Admissions Subcommittee (d) An application for admission to the MES program consists of: i. An application for admission to the

Faculty of Graduate Studies;

ii. official transcripts of all previous university work;

iii. at least three academic/professional letters of recommendation (with academic letters strongly preferred);

iv. a curriculum vitae;

v. a statement of educational and career objectives;

vi. additional information or administrative forms as required.

(e) Application deadlines for entry into the Fall term will be set the preceding Fall and will be posted on the FES website. Normally, applications will be considered for admission in the Fall term only.

(f) For admission to the MES program the application must be accepted by the Faculty of Environmental Studies and the Faculty of Graduate Studies.

C4.3 MES ADMISSION PROCEDURES

(a) Decision on admission to the MES degree program is made by the Graduate Program Director.

(b) Recommendation for admission to the Faculty of Graduate Studies is made by the Graduate Program Director. The Graduate Program Director's decision is not subject to appeal by the applicant.

(c) The Graduate Program Director acts on the advice of the MES Admissions Subcommittee.

Faculty of Graduate Studies;

ii. official transcripts of all previous university work;

iii. at least three academic/professional letters of recommendation (with academic letters strongly preferred);

iv. a curriculum vitae;

v. a statement of educational and career objectives;

vi. additional information or administrative forms as required.

(e) **MES applicants will be invited as part of the normal applications process to voluntarily provide information on whether they self-identify with one or more equity-seeking groups, and to include in their Personal Statements reference to any individual or systemic barriers they have encountered.**

(f) Application deadlines for entry into the Fall term will be set the preceding Fall and will be posted on the FES website. Normally, applications will be considered for admission in the Fall term only.

(g) For admission to the MES program the application must be accepted by the Faculty of Environmental Studies and the Faculty of Graduate Studies.

C4.3 MES ADMISSION PROCEDURES

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(b) Recommendation for admission to the Faculty of Graduate Studies is made by the Graduate Program Director. The Graduate Program Director's decision is not subject to appeal by the applicant.

(c) The Graduate Program Director acts on the advice of the MES Admissions Subcommittee.

(d) When the required admission information has been received, each file is reviewed by members of the subcommittee. The subcommittee may provide advice to the Graduate Program Director at that point or require that further information be provided by the applicant.	(d) When the required admission information has been received, each file is reviewed by members of the subcommittee. The subcommittee may provide advice to the Graduate Program Director at that point or require that further information be provided by the applicant.
(e) In the case of an applicant not recommended for admission, notification is sent by the Graduate Program Director. In the case of an applicant recommended for admission, notification of recommendation for admission to the MES program is sent by the Dean of FES to the applicant and to the Faculty of Graduate Studies.	(e) **The MES Admissions Subcommittee will consider the self-identification and diversity information provided by applicants in its review of applications, with the goal of balancing individual and collective considerations, incorporating both academic excellence and social diversity, broadening the criteria of assessment, and admitting a diverse and academically talented group of students.** (f) In the case of an applicant not recommended for admission, notification is sent by the Graduate Program Director. In the case of an applicant recommended for admission, notification of recommendation for admission to the MES program is sent by the Dean of FES to the applicant and to the Faculty of Graduate Studies.

Change to Program/Graduate Diploma Academic Requirements Proposal Template

The following information is required for all proposals involving a change to program/graduate diploma academic requirements, including admission requirements. To facilitate the review/approval process, please use the headings below (and omit the italicized explanations below each heading).

1. Program/Graduate Diploma: PhD in Environmental Studies

2. Effective Session of Proposed Change(s): Fall 2013

3. Proposed Change(s) and Rationale

The description of and rationale for the proposed change(s) should provide information with respect to each of the following points. Please provide:

a) A description of the proposed change(s) and rationale, including alignment with academic plans.

These additions to the FES Policies and Procedures authorize the use of equity criteria in the admissions process in order to enhance the diversity of each incoming BES, MES, and PhD class. The new language acknowledges the importance of diversity and open access to FES academic programs for all qualified candidates. We will include equity criteria in the admissions process on the basis of information provided on a voluntary basis by student applicants. Adapting long-standing practices followed at the York University Faculty of Education[1] and at Osgoode Hall Law School[2], we will invite applicants to voluntarily self-identify as a member of one or more of these categories:

- Aboriginal (First Nations, Métis, Inuit, Status, Non-Status, Aboriginal Ancestry)
- Person with disabilities
- Racialized Person (A racialized person may experience social inequities on the basis of their perceived common racial background, colour and/or ethnicity, or faith and may be subjected to different treatment in society and its institutions. Examples may include: people of African descent, people of Asian descent, people of Latin American descent)
- Other Minoritized Person (please specify other identity categories that apply to you and have affected your educational experience. For example: working class / low income; sexual orientation, gender identification, and/or gender presentation; English Language Learner; Refugee or impacted by the refug ee experience)

We will also invite applicants to include in their application statements information on individual and systemic barriers they may have faced, in describing their interest and aptitude for study at FES.

[1] http://edu.yorku.ca/program/bachelor-of-education/access-initiative/

[2] http://www.osgoode.yorku.ca/prospective-students/jd-program/applying/admissions-policy

Rationale:

(1) This policy follows from the general and often-stated commitment of the Faculty of Environmental Studies and York University to principles of equity and diversity.

York University has placed equity, diversity, and community engagement at the forefront of its academic goals. The University Academic Plan (2010-2015) states, "The University's Mission Statement captures York's character as a dynamic, innovative, and diverse academic community that both reflects and is embedded in the local community and is open to the world. It expresses institutional commitments to the advancement of knowledge across the full spectrum of disciplinary and interdisciplinary activities and to the promotion of excellence and critical exploration, as well as to academic freedom, social justice, accessible education, and collegial self-governance ...York ....has a number of values that help to distinguish us from other universities. These include: … a commitment to social justice and equity which includes a profound desire to make post-secondary education accessible to the various individuals and communities we serve... It bears mentioning that a commitment to equity at York University has been a hallmark of academic excellence and the fulfillment of the University's mission. By equity we mean fair and respectful treatment of all persons, in relation to gender, gender identity, sexual orientation, race, ancestry, place of origin, colour, ethnic origin, creed, religion, sex, age, marital status, disability, and family status. Accordingly, in present academic structures, processes, programs and environments, attention should focus on eradicating systemic and structural discrimination, including barriers to access, and on promoting equity ... Equity is embedded in our planning processes and evaluation measures. It is our shared responsibility to create the conditions for all to achieve their potential and participate fully in the academic community" (York University Academic Plan, pp. 3-4).

(2) Within the Faculty of Environmental Studies, diversity is one of the pillars of the Faculty's Vision and Mandate: "Our vision is to direct and combine the diverse energies, assets and activities of the Faculty of Environmental Studies to become the premier location for interdisciplinary, analytical and collaborative research, education and action on critical and changing environmental issues. Our Mandate is to provide unsurpassed opportunities for interdisciplinary teaching, learning and research about natural, built, social, cultural, and political-economic environments and the dynamic relationships between these. Dedicated to inspiring active learners and engaged citizens, we are a community that respects and values insight, creativity, justice, and diversity and that works to promote significant social and environmental change toward the creation of a more equitable and sustainable world through imaginative and critical thought and concerted action" (FES Vision and Mandate).

(3) The FES Strategic Plan (2009-2014) includes these goals: "Increase the diversity of the applicant pool: promote the FES emphasis on social justice issues to encourage applicants from local, as well as more distant, disadvantaged groups; ... Advertise instructors and specific courses that focus on equity issues and promote further development of these in the curriculum; Make better use of York's satellite campus at Jane & Finch as a recruitment venue; Explore the development of bridging programs for applicants without the requisite degree for admission to FES; and Seek funding opportunities and sources for applicants who do not qualify for regular funding at York University" (FES Strategic Plan 2009-2014, p. 11).

(4) FES has the University's most progressive Affirmative Action and Equity Plan for faculty hiring (http://fes.yorku.ca/gov/section-e#sectione1) and has established an Equity Committee of faculty, staff, and students to advance these issues on an ongoing basis (http://fes.yorku.ca/gov/section-h). The FES Research Plan (2008-2014) explains, "FES is committed to carrying out interdisciplinary, innovative and collaborative research that promotes equitable and sustainable environments by collaborating with academic and other community partners both at the local and international levels" (FES Strategic Research Plan 2008-2014, p. 1). The Plan sets out a detailed group of goals to "encourage research that values interdisciplinarity and diversity" (p. 6).

(5) These equity and diversity principles are also embodied in affirmative action appointments policies in both the CUPE 3903 and YUFA Collective Agreements.

(6) For all these reasons, "Open Access" is a logical and necessary expression of York University's academic priorities and goals, as well as those of the Faculty of Environmental Studies. Valuing political, racial, gender and ethnocultural diversity in our student population is crucial for the faculty to be consistent with its stated vision and mandate. Reflecting this commitment through FES admissions policy is a key component of building a true interdisciplinary environment where students are introduced to diverse viewpoints, enriching discussions, varied pedagogical models and are provided the opportunity for rewarding collaborative research. Diversity deepens critical engagement with the natural, built, social, cultural, and political-economic environments which is necessary for the engaged and active student population that FES aims to nurture.

(7) Improving the diversity of our student body will enrich the academic and research networks in which these students participate, therefore increasing the diversity of the applicant pools from which professors are recruited. Equity in admissions can thus be seen as a modest attempt to diversify the composition of leadership positions in the education sector - and society at large. This process of diversification has a long way to go and is fraught with many obstacles, according to research undertaken for Diverse City.[3]

(8) A lack of representation of students from equity-seeking groups in the learning community at FES results in problems similar to those created by a lack of representation among tenure-stream faculty. It creates imbalanced classroom dynamics and student-advisor relationships. There is now a significant research literature about the ways in which a lack of representation of particular social groups is one factor inhibiting attempts to counteract racist, sexist and other discriminatory practices in academic settings. For a few particularly prominent examples, see D. Smith (1990), The Conceptual Practices of Power: A Feminist Sociology of Knowledge; D. Mihesuah and A. Wilson, eds. (2004), Indigenizing the Academy; and H. Frances and C. Tator

[3] http://diversecitytoronto.ca/. For the latest report on the underrepresentation of visible minorities and visible minority women in government, the education sector, non-government organizations, and the corporate world, see http://diversecitytoronto.ca/wp-content/uploads/DiverseCity-Inbrief-2011-Web.pdf.

(2009), Racism in the Canadian University: Demanding Social Justice, Inclusion, and Equity.

(9) In particular, it is important to note that while applicants to the PhD program are only assessed as future students, our Faculty (and the university at large) depends institutionally on the labour of PhD candidates as teaching assistants and course directors. Increasing the diversity of the PhD student body will thus improve the capacity of the Faculty (and the University) to maximize its capacity to teach undergraduate students effectively.

(10) Issues of equity in admissions take on particular salience when it comes to Planning education. On average, about a third of our yearly intake of Masters students (40-50 per 120) are students who want to become professionally accredited Planning professionals. Research shows that women and visible minorities are significantly or seriously underrepresented in the Planning profession (as organized by the Canadian Institute of Planners (CIP) and the Ontario Professional Planners Institute (OPPI)). In the Toronto region, the underrepresentation of ethnoracial groups other than European Canadians in Planning departments is particularly acute. (See for example, B. Milroy and M. Wallace, "Ethnoracial Diversity and Planning Practice in the Greater Toronto Area: A Final Report," (Toronto: Joint Centre for Excellence for Research on Immigration and Settlement, 2002); I. Skelton, "CIP and affiliates by the numbers," Plan Canada, Fall 2010, pp. 26-29.) Incorporating equity as a criterion in our admission process for the MES students is thus an important step towards diversifying the profession. Such diversification would remove one of the various obstacles that stand in the way of incorporating considerations of gender, indigeneity, race, sexuality and class more organically into both Planning education and Planning practice. It would allow us, in other words, to catch up with the latest developments in Planning theory. (For some Canadian interventions, see K. Goonewardena, K. Rankin, S. Weinstock, "Diversity and Planning Education: A Canadian Perspective," Canadian Journal of Urban Research 13.1 (2004) pp. 1-26; L. Viswanathan, "Integrated, Equitable, and Transformative: A Hopeful Future for Planning" Plan Canada, Fall 2010, pp. 33-35; Barbara Rahder and Richard Milgrom, "The uncertain city: making space(s) for difference," Canadian Planning and Policy 13.1, 2004, pp. 27-45.)

(11) Students face differential access to post-secondary education in Canada which is related to their identity and background. See the Canadian Federation of Students Report, The Racialized Impact of Tuition Fees: Assessing the Social Cost of Post-Secondary Education (http://cfsontario.ca/downloads/CFS-Racialised%20Impact%20of%20Tuition%20Fees.pdf); the Canadian Centre for Policy Alternatives June 2010 report Ontario's Growing Gap: The Role of Race and Gender (http://www.policyalternatives.ca/publications/reports/role-race-and-gender-ontarios-growing-gap); and the 2012 Canadian Centre for Policy Alternatives report by D. Macdonald and E. Shaker, Eduflation and the High Cost of Learning (http://www.osstf.on.ca/adx/aspx/adxGetMedia.aspx?DocID=21c70e68-03ba-4f15-b3a5-f0928a51f77f&MediaID=093361e7-9235-4ace-a8b5-f84e56fa2bc7&Filename=eduflation-and-cost-of-learning.pdf&l=English).

(12) The legal basis of this initiative is provided by Canadian human rights law. The Ontario Human Rights Code states that "every person has a right to equal treatment with respect to services, goods and facilities, without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, age, marital status, family status or disability". Accordingly, section 14 of the Ontario *Human Rights Code* expressly protects so-called "affirmative action" or "positive discrimination" programs.[4] Section 15(2) of the *Charter* provides a similar protection for such initiatives.[5]

(13) The extension of equity policy at the admissions level is part of a growing development of education equity policy committed to increasing the participation of persons of equity-seeking groups in Canada. Precedents for the use of such equity principles in admission, recruitment and outreach processes are found not only at York University's Faculty of Education[6] and Osgoode Hall Law School[7] but also at the Faculties of Law at the University of Ottawa[8], Dalhousie University[9], and the University of Windsor[10], the Bachelor of Social Work programme at St. Thomas University,[11] and the School of Physiotherapy at Dalhousie University.[12] Typically, these special admission provisions were developed to ensure that all students have equal opportunities to participate in academia, enter professional practice, and occupy leadership positions.

b) An outline of the changes to requirements and the associated learning outcomes, including how the proposed requirements will support the achievement of program/graduate diploma learning objectives.
N/A

c) An overview of the consultation undertaken with relevant academic units and an assessment of the impact of the modifications on other programs/graduate diplomas. (*Where and as appropriate,*

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[4] Special programs ' 14. (1) A right under Part I is not infringed by the implementation of a special program designed to relieve hardship or economic disadvantage or to assist disadvantaged persons or groups to achieve or attempt to achieve equal opportunity or that is likely to contribute to the elimination of the infringement of rights under Part I. R.S.O. 1990, c. H.19, s. 14 (1).

[5] Affirmative action programs: (2) Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

[6] http://edu.yorku.ca/program/bachelor-of-education/access-initiative/
[7] http://www.osgoode.yorku.ca/node/2494
[8] http://www.commonlaw.uottawa.ca/en/admissions/education-equity/education-equity-office.html
[9] http://law.dal.ca/Prospective_Students/Indigenous%20Blacks%20&%20Mi'kmaq%20Initiative/
[10] http://www.uwindsor.ca/law/our-admissions-criteria
[11] http://w3.stu.ca/stu/futurestudents/requirements/canadian/req_bachelor_social_work.aspx
[12] http://physiotherapy.dal.ca/Prospective%20Students/Affirmative_Action_P.php

the proposal must include statements from the relevant program/graduate diplomas confirming consultation/support.)
N/A

d) A summary of any resource implications and how they are being addressed. (*Attention should be paid to whether the proposed changes will be supported by a reallocation of existing resources or if new/additional resources are required. If new/additional resources are required, the proposal must include a statement from the relevant Dean(s)/Principal.*)
N/A

e) A summary of how students currently enrolled in the program/graduate diploma will be accommodated.
N/A

4. Calendar Copy

Using the following two-column format, provide a copy of the relevant program/graduate diploma requirements as they will appear in the graduate Calendar.

Existing Program/Graduate Diploma Information (change from)	Proposed Program/Graduate Diploma Information (change to)
C3.3 PhD ADMISSION PROCEDURES	***C3.3 PhD ADMISSION PROCEDURES***
(a) Recommendation for admission to the Faculty of Graduate Studies is made by the Graduate Program Director. The Graduate Program Director's decision is not subject to appeal by an applicant.	(a) Recommendation for admission to the Faculty of Graduate Studies is made by the Graduate Program Director. The Graduate Program Director's decision is not subject to appeal by an applicant.
(b) The Graduate Program Director acts on the advice of the PhD Program, Curriculum and Admissions Subcommittee.	(b) The Graduate Program Director acts on the advice of the PhD Program, Curriculum and Admissions Subcommittee.
(c) When the required admission information has been received, each file is reviewed by members of the Subcommittee and discussed at a meeting of the Subcommittee. The Subcommittee may recommend admission to the Graduate Program Director at that point or require that further information be provided by the applicant.	(c) When the required admission information has been received, each file is reviewed by members of the Subcommittee and discussed at a meeting of the Subcommittee. The Subcommittee may recommend admission to the Graduate Program Director at that point or require that further information be provided by the applicant.
(d) In the case of an applicant not recommended for admission, notification is sent by the Graduate Program Director. In the case of an applicant recommended for admission, notification of the recommendation is sent to the applicant by the FES Dean and the Faculty of Graduate Studies.	(d) In the case of an applicant not recommended for admission, notification is sent by the Graduate Program Director. In the case of an applicant recommended for admission, notification of the recommendation is sent to the applicant by the FES Dean and the Faculty of Graduate Studies.
(e) The subcommittee uses the following admissions criteria: i. intellectual capacity (e.g., grades, letters of recommendation, sample of written work),	(e) The subcommittee uses the following admissions criteria: i. intellectual capacity (e.g., grades, letters of recommendation, sample of written work),

ii. learning potential (e.g., statement of) proposed research, letters of recommendation, iii. appropriateness of proposed research to FES of intended study program (e.g., statement of proposed research).	ii. learning potential (e.g., statement of) proposed research, letters of recommendation, iii. appropriateness of proposed research to FES of intended study program (e.g., statement of proposed research). (f) **Applicants will be invited as part of the normal applications process to voluntarily provide information on whether they self-identify with one or more equity-seeking groups, and to include in their Personal Statements reference to any individual or systemic barriers they have encountered. The PhD Program, Curriculum, and Admissions Subcommittee will consider this information in its comprehensive review of applications, with the goal of balancing individual and collective considerations, incorporating both academic excellence and social diversity, broadening the criteria of assessment, and admitting a diverse and academically talented group of students.**
(f) Before issuing offers of admission, the PhD Program, Curriculum, and Admissions Subcommittee will confirm an appropriate Faculty member who is willing to serve as the student's Interim Advisor.	(g) Before issuing offers of admission, the PhD Program, Curriculum, and Admissions Subcommittee will confirm an appropriate Faculty member who is willing to serve as the student's Interim Advisor.

ACADEMIC POLICY, PLANNING AND RESEARCH COMMITTEE

Report to Senate
at its meeting of October 24, 2013

FOR INFORMATION

1. **Program Prioritization Update**

APPRC has accepted advice from its Technical Sub-Committee that its role at this stage in Program Prioritization should be as follows: as appropriate, designate a Committee member on the Academic Task Force; facilitate frequent progress reports and input at Senate; review and make recommendations on documents provided by the Provost such as Task Force membership criteria or program templates, provide timely advice on matters pertaining to collegial processes; monitor developments as they relate to the University Academic Plan's objectives and the Committee's mandate.

APPRC meets on the morning of October 24. The agenda that day will feature a full discussion of matters relating to Program Prioritization, such as Task Force membership criteria and draft templates. APPRC will inform Senators of decisions and outcomes at the meeting, and the Provost will have a progress report.

APPRC took note of comments, questions and answers about Program Prioritization at the Senate meeting of September 26, and undertakes to ensure that Senators are well informed as the process unfolds. The Committee understands that a Program Prioritization Website will be mounted soon, and that consultations will be open and continuous. No changes in academic programming will be made without the approval of the applicable governing bodies.

2. **Recent Items from the Vice-President Research and Innovation / Autumn Report**

Vice-President Haché has briefed the Committee on a number of initiatives at recent Committee meetings:

- the number of re-chartering applications and notice of intent to file a new charter application, and next steps in the process (the Sub-Committee on ORUs of APPRC will be closely involved throughout and will report to Senate via APPRC in November)
- searches for new ORU directors underway
- the likely allocation from the Innovation Fund (formerly Large Scale CFI) of approximately $10 million, and the timelines for preparing a final slate of proposals
- the nature of the NSERC "Research Tools and Instruments" program and the process by which applications will be determined and supported institutionally

3. **Priorities for 2013-2014**

APPRC has signaled to Senate Executive that it will pursue the following priorities for the coming year set against the backdrop of the *University Academic Plan*'s priority areas and overarching themes of quality, student success, and engagement / outreach:

- participate effectively in Program Prioritization (UAP objective of promoting effective

governance)
- consider Faculty of Graduate Studies initiatives, including possible structural changes (UAP objective of promoting effective governance)
- engagement of Faculty and York University Library planners (UAP objective of promoting effective governance; implementation and monitoring of UAP objectives)
- promote understanding of the linkages between wider public policy initiatives and trends and academic planning at York (UAP objectives associated with outreach and engagement, and promoting effective governance)
- follow up on strategic enrolment management within the scope of Senate's mandate (UAP objectives of enhancing the student experience)
- amendments to the Senate / Board Policy on Chairs and Professorships and consideration of any proposal to establish an internal research program (UAP objectives associated with research)

4. MTCU University Differentiation Framework

As President Shoukri and the Academic Colleague to the Council of Ontario Universities have reported to Senate, the Ministry of Training, Colleges and Universities has launched an initiative concerning the differentiation of universities. MTCU's exercise, which included a summer roundtable, was informed by a discussion paper issued by the Higher Education Quality Council of Ontario ("The Benefits of Greater Differentiation of Ontario's University Sector," Weingarten and Deller, 2013; available online) and is closely related to the ongoing Strategic Mandate Agreement consultations. In mid-September, MTCU asked Executive Heads of COU to respond to a draft differentiation framework. The draft suggested metrics by which universities would be sorted in various categories. APPRC had a brief opportunity to preview the University's submission, which was prepared in consultation with the Deans and Principal, at its meeting of October 10. York's responses to proposed and alternative indicators are more inclusive and refined than the original set of metrics, and APPRC advised Provost Lenton that it agreed with the thrust of the submission. Due regard is paid to UAP priorities and the University's distinctive mission, history and values.

Paul Axelrod, Chair

Senate Committee on Tenure and Promotions

Report to Senate
at its meeting of 24 October 2013

FOR INFORMATION

1. Tenure and Promotions Data, 2012-2013

A total of 78 files were completed in 2012-2013, 18 fewer than in 2011-12. Of these cases, 8 were reviewed by a panel of the Senate Committee on Tenure and Promotions, with the rest being reviewed at Faculty-based Senate Review Committee meetings.

The statistical report of files reviewed in 2012-13, with the 2011-12 data for comparison, is appended as **Appendix A**. As was noted in previous years, the hires in the early to mid 2000's are for the most part through the tenure process so the number of tenure files has decreased over the last several years. As expected, in 2013-2014, when those advanced in 2011-12 are expected to apply for tenure, the number of files will be much reduced, with only 23 Candidacy 1 and Candidacy 2 files for consideration. However, the number of advancements to Candidacy has begun to increase again, with 33 expected in 2013-14 as opposed to 18 in 2012-13.

Of the files completed this year, 6 had been referred back by Review Committees, adding to the length of time to completion. The Senate committee and its secretary continue to provide information and advice on the process through memoranda, the T&P Toolkit and presentations, with the aim of improving file preparation and adjudication.

2. Unit-level standards

The Senate committee continues to review unit-level standards and a status report is appended as **Appendix B.** As the *Tenure and Promotions Policy, Criteria and Procedures* require units to provide unit-level standards and to submit them to the Senate committee for review, in 2012-13 the Senate committee chairs wrote to all Deans, Faculty Council Chairs and Faculty Tenure Committees emphasizing the importance not only of completing development of unit-level standards this year but also of providing a plan for regular review of these standards. This memorandum is attached as **Appendix C**. Units are invited to contact the secretary of the committee (tcarter@yorku.ca) with any questions about the preparation of standards.

3. Senate Tenure and Promotion Sub-committees

In addition to panels of the Senate committee regularly discussing issues that arise at Faculty-based Senate Review Committees, the Senate Committee annually requests reports from these committees, asking for a short comment on general problems and recommendations on the review procedures. As noted in last year's report, there are six Senate Review Committees. Five of these are Subcommittees of the Senate Committee on Tenure and Promotions, based in the departmentalized Faculties (Fine Arts, Glendon, Health, Liberal Arts and Professional Studies and Science), and consist of the Faculty Tenure and Promotions Committee plus two members of the Senate committee; the sixth is a panel of the Senate committee, which reviews files from non-departmentalized Faculties (Education, Environmental Studies, Osgoode and Schulich). With the establishment of the Lassonde School of Engineering, there are now seven sub-committees.

Sub-committee reports

The sub-committees and Senate committee continue to note many of the same issues as last year. In general, these related to a lack of clarity in the Adjudicating Committee reports as to the application of the standards to the evidence, to how this was reflected in the voting, and to lacunae in file preparation. The Sub-committees also had more suggestions as to where the Policy could be clarified.

One issue that deserves particular mention is the use of abstentions by several adjudicating committees. Review committees did not view this as sound practice. While the *Policy* does not expressly prohibit this, it is expected that members of a committee will fulfill their responsibilities by making a recommendation on a file. If there is insufficient evidence on which to base a recommendation, then the file can be returned to the File Preparation Committee (FPC).

The Senate committee notes that continuing education on tenure and promotion is important for those preparing files and for the adjudicative committees. Some Faculties arrange workshops to assist in the improvement of file preparation and adjudication and we encourage all Faculties to do so. Units are invited to contact the secretary of the committee for assistance in facilitating such workshops. The Senate committee is also reviewing the information in the T&P Toolkit and, in response to queries from Faculties, is updating and adding to the FAQs. (http://www.yorku.ca/secretariat/senate/committees/tandp/index-tandp.html)

Appendix A

TENURE AND PROMOTION COMPARATIVE STATISTICS

2012-2013 AND 2011-2012

Table 1
Number of Cases Completed
By Type of Application and Gender

Application Type:	Full Professor/ Sr Lecturer		T&P to Associate Professor/Lecturer		Tenure only		Promotion to Associate only		Total Number	
	12-13	11-12	**12-13**	11-12	**12-13**	11-12	**12-13**	11-12	**12-13**	11-12
Number of Applications	**21**	25	**56**	67	**1**	3	**0**	1	**78**	96
Female Candidates	**7**	14	**27**	34	**0**	0	**0**	0	**34**	48
Male Candidates	**14***	11	**29**	33	**1**	3	**0**	1	**44**	48

***1 application was for tenure and promotion to Full Professor**

Table 2
Summary of Positive Recommendations to the President
by Recommendation and Gender

Positive Recommendations	**Number**	
	12-13	11-12
Full Professor/ Sr Lecturer	**21/21 – 7 female candidates – 14 male candidates**	25/25 – 14 female candidates – 11 male candidates
Tenure and promotion to Associate Professor/Lecturer	**49/56 – 23 female candidates – 26 male candidates**	63/67 - 34 female candidates - 29 male candidates
Tenure without Promotion to Associate Professor/Lecturer	**1/56 – 1 male candidate**	
Tenure only	**1/1 – 1 male candidate**	3/3 - 3 male candidates
Promotion to Associate only		1/1 – 1 male candidate

Table 3
Summary of Negative Recommendations to the President
By Recommendation and Gender

Negative Recommendations on Tenure and/or promotion to Associate Professor	**Number**	
	12-13	11-12
Denial	**1/56 – 1 male candidate**	0/67
Delay	**5/56 – 4 female candidates – 1 male candidate**	4/67 - 4 male candidates

Explanatory notes

Of the 78 completed files, the Adjudication and Senate Review Committees recommendations were in accord with the exception of two cases. The Review Committee dissented from one delay recommendation, recommending promotion to Full Professor, and from one deny recommendation, recommending tenure and promotion.

The President concurred in the recommendations of the Senate Committee in all but two cases. In both cases, the Senate Review Committee recommended tenure and promotion and the President's decision was to delay tenure in one case and to deny tenure in the other.

The data are for decisions made between September 1, 2012 and August 31, 2013.

APPEALS OF DENIAL OF ADVANCEMENT TO CANDIDACY

There were no appeals of denial of advancement to Candidacy in 2012-13.

Senate Committee on Tenure and Promotions Review of Unit-level Standards
Status Report August 31, 2013

UNIT	Latest Senate Review	Status	Notes
Faculty of Education	May-05	**In accord**	Revision in progress
Faculty of Environmental Studies	Aug-06	**In accord** with minor revisions	Revision in progress
Faculty of Fine Arts: submitted Faculty-wide standards	Sep-09	**In accord**	
Glendon College			
Economics	Oct-10	**In accord**	
English	Mar-13	Revision required	
French Studies	Jun-08	**In accord**	
Hispanic Studies	Jun-08	Requires clarification	
History	May-05	Revision required	
International Studies			
Mathematics		None submitted	
Multidisciplinary Studies		None submitted	
Philosophy	Oct-08	**In accord**	
Political Science	May-12	**In accord**	
Psychology		None submitted	
Sociology		None submitted	
Translation	May-05	Revision required	
Women's Studies		None submitted	
Osgoode Hall Law School	Mar -13	In accord	
Schulich School of Business	Jun-03	**T&P in accord**	
	May-08	**Full Professor in accord**	
Faculty of Science and Engineering			
Biology	Dec-09	**T&P in accord;** Full Prof requires minor revision.	
Chemistry	Jun-08	Revision required	
Computer Science & Engineering	Apr-11	**In accord**	
Earth and Space Science & Engineering	Jun-08	Revision required	
Mathematics and Statistics	Dec-10	**In accord** with minor revisions	
Physics and Astronomy	May-08	Revision required	
Natural Science	Jun-10	**In accord**	
Faculty of Health			
Health Policy and Management	Oct-08	**In accord**	
Kinesiology and Health Science	Feb-13	**In accord**	
Nursing	Dec-10	**In accord**	
Psychology	Nov-08	**T&P only in accord** with minor revisions.	
NOTES:			
In accord = in accord with University criteria and procedures.			
None submitted means they have not yet been submitted for review by the Senate Committee on Tenure and Promotions.			

Senate Committee on Tenure and Promotions Review of Unit-level Standards
Status Report August 31, 2013

UNIT	Latest Senate Review	Status	Notes
Faculty of Liberal Arts and Professional Studies	**Arts/Atkinson status**	**Current status**	
Administrative Studies	**In accord**	**In accord**	The Senate T&P Committee understands these are under revision per suggestions from Faculty T&P Committee 2009-10.
Anthropology		Senate review May-10- needs revision	
Communication Studies		None submitted	
Economics	Arts: May 05 minor revisions only; ATK: Sep 06 as part of SASIT - minor revisions only		
English		**In accord - Jun 10** with minor revisions	
Equity Studies		None submitted	
French Studies	Arts: Jul 08 - minor revisions only	Under review at Faculty committee	
Gender, Sexuality and Women's Studies	Feb-13	Some revision required	
Geography	Arts: Jun 08 - minor revisions		
History	Arts: Jun 08 - minor revisions		
Human Resource Management		None submitted	
Humanities	Arts: Jun 08 - minor revisions		
Information Technology	ATK: May 08 - ratings require clarification		
Languages, Literatures and Linguistics	Arts: Feb 04 revision required		
Philosophy	**Arts: In accord Oct 08**		
Political Science	Arts: Oct 03 - revision required		
Public Policy & Administration	ATK: Apr 09- minor revisions	Dec-10 - **In accord** with minor revisions	
Social Science	Arts: May 05 - revision required; ATK: Jun 08 - ratings require clarification		
Social Work	ATK: Apr 09- minor revisions		
Sociology	Arts: May 05- revision required		
Writing Department	Arts: CAW **in accord** Oct 07	alternate stream only	
NOTE: current status indicates if has been reviewed since LA&PS established (Jul 1/09) or if found to be in accord and was previously in accord and is not a combined unit, e.g. SAS			

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Memo

To: Deans
Faculty Council Chairs
Faculty Tenure and Promotion Committees

From: Deborah Britzman and Livy Visano, Co-chairs
Senate Committee on Tenure and Promotions

Date: April 2, 2013

Subject: Unit-level Standards

As we are now in the tenth year of the new tenure and promotions procedures, we are writing to ask for your assistance in strengthening the University Tenure and Promotion policy. One of the significant responsibilities of every Faculty is to specify unit criteria and review them periodically with the larger goal of assessing their relevancy. While the units have autonomy to articulate their criteria and assess the tenure and promotion of their colleagues, *Tenure and Promotions Policy, Criteria and Procedures* (hereafter the *Policy*) establishes the framework within which this autonomy is to be exercised. Although the Senate Committee on Tenure and Promotions is charged with overseeing this process, the Faculty Committees, Faculty Councils and Deans hold a key responsibility. It is this role we are asking you to strengthen.

Faculties, Departments and Schools are required to provide explicit standards for tenure and promotion and that the Senate Committee on Tenure and Promotions will review these standards (*Policy,* Section A., final paragraph, and Section B.4.). This has been part of tenure and promotion policy at York since at least 1973. With the approval of the current *Policy* in 2002, a new effort began to ensure that all units had unit-level standards that adhere to Senate regulations and are approved by the Senate Committee. Attached is the record of those units that have standards approved by Senate, those that have standards require some revision and resubmission to Faculty and Senate committees, and those that have yet to submit standards to Senate. We are writing to encourage all units in your Faculty to complete this work this academic year and to provide a plan for regular review of these standards.

All standards must be in accord with the Senate criteria as set out in Section B of the *Policy*. The Preamble (Section A) reminds us that "…in granting a continuing career appointment to a candidate, the University is entrusting itself to his/her care in concert with his/her tenured colleagues; …" And it also notes

that “no committee on tenure and promotions could seriously entertain the notion that a grey competence is sufficient for tenure.” The unit’s recommendations and the work of the adjudicating committees can be strengthened by attention to the articulation of standards which are not only in accord with the University criteria, but also with the spirit of the criteria as set out in the Preamble.

The purpose of standards as set out in the *Policy,* establishes why the unit-level standards are so important:

> The initiating unit shall advise faculty members in writing of the standards expected of members of their initiating unit, at the time or their appointment and again when they are advanced to candidacy for tenure. The Chair of each Department or the Dean of the Faculty in non-departmentalized faculties, shall write to each candidate advising of his/her advancement to candidacy and shall in that correspondence, assess the candidate's career to that time and indicate as specifically as possible what expectations will have to be met if tenure and promotion are to be awarded. (*Policy,* Section H.2.)

Not only do the standards give new faculty, from the time they are hired, a clear understanding of the unit and university expectations for tenure and promotion, the standards guide the evaluation of external referees and then adjudicating committees. They provide a framework for evaluating the candidate’s career.

The Policy gives responsibility for Faculty tenure and promotion policy to the Faculty Committee to make recommendations to Faculty Council and the Dean (F.2.12). To safeguard the quality of the professoriate at York and the integrity of the process, we urge all who have a role to actively promote the completion of unit-level standards and to plan for regular review of these standards. Such discussions, the Senate Committee believes, involve the collegium in reflecting on one of the most significant tasks in our academic life, namely protecting the integrity of the tenure and promotion and academic freedom it accords.

cc: D. Mutimer, Chair, APPRC
R. Everett, Secretary, APPRC

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The Senate of York University

COMMITTEE ON ACADEMIC STANDARDS, CURRICULUM AND PEDAGOGY

Supplemental Report to Senate
at its meeting of 24 October 2013

FOR INFORMATION

1. Fall/Winter 2014-2015 Sessional Dates

Attached are the Sessional Dates for FW 2014-2015 which ASCP is transmitting to Senate for information. Senators will note that the start of the Fall term will be on Monday, 8 September 2014. This marks the second year that the start date has been set at the Monday following Labour Day. The *Senate Policy on Sessional Dates and the Scheduling of Examinations* allows for this later start after Labour Day "if a 12 week teaching term and appropriate examination schedule is maintained." The examination period will be from 9 December to 22 December, with 23 December reserved for a make-up day. As described in the covering memorandum from the University Registrar and Vice-Provost Students, the later start accommodates the delivery of the new student orientation program the week before the start of classes.

When the term starts at a later date, the end of the examination period gets pushed later as well; this is an issue to be monitored going forward. ASCP concurred with the sessional dates for FW 2014-15. It has requested that the Vice-Provost Students review and report on the contribution this orientation model makes to enhancing retention. Based on the evidence received from that exercise later this year, the Committee will review the Senate Sessional Dates policy to identify any necessary amendments to the guidelines for setting term dates and examination periods.

The Senate Executive Committee inquired about the study day set on Tuesday, 2 December 2013, citing concern that the timing of the study day might generate confusion and could also de-synchronize lecture courses with Tuesday tutorials. After careful deliberation with the Registrar and the Vice-Provost Students on alternative scenarios, ASCP confirmed that maintaining the study day on 2 December is the best available option.

Leslie Sanders
Chair, Academic Standards, Curriculum & Pedagogy

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Registrar's Office

Student Services Centre
4700 Keele Street
Toronto Ontario
Canada M3J 1P3
Tel 416.650.8002
Fax 416.650.8124

Memorandum

To: Lesley Sanders, Chair, Senate ASCP

Date: October 11, 2013

From: Julie Parna, Acting University Registrar
Janet Morrison, Vice Provost Students

cc: Cheryl Underhill, Secretary, Senate ASCP

Subject: **Sessional Dates: Fall/Winter 2014-2015**

Attached are the planned sessional dates shared for information purposes with Senate ASCP and the Senate of York University.

Fall/Winter 2014-2015:
The start of classes will be Monday, September 8, 2014; Labour Day of 2014 falls on Monday, September 1. The last day of exams for the fall term will be December 22, 2014, one day earlier than the current year. Co-curricular days will be Wednesday, October 29 to Friday October 31. The first day of the Winter term will be Monday, January 5, 2015.

The schedule for Fall/Winter 2014 dates will follow the model used for Fall/Winter 2013, permitting a comprehensive and coordinated Orientation program for new students. As is affirmed in the literature, such programming can have a significant, positive impact on persistence and academic performance. The Council for the Advancement of Standards in Higher Education holds that orientation programs (i) facilitate the transition of new students into the institution; (ii) prepare students for the institution's educational opportunities and student responsibilities; (iii) initiate the integration of new students into the intellectual, cultural and social climate of the institution; and, support the parents, partners, and children of the new student. A theoretically-informed and evidence-based approach to Orientation is particularly important for students who commute, spend less time on campus, are the first in their family to attend at the post-secondary level, speak a language other than English in their family of origin, and/or are enrolled part-time. This describes a significant percentage of the York undergraduate student population. Assessment data that speaks to York's modified approach to Orientation for Fall 2013 will be available in January, 2014.

The University of Toronto will also begin classes on September 8, 2014.

Religious policy:
To assist the community, the Registrar's Office publishes the University's religious policy and maintains a listing of religious observance days online:
https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs

FW 2014 - 2015 SESSIONAL DATES (DRAFT)
As of October 7, 2013

FALL 2014		
Labour Day		Monday, September 01, 2014
Fall & Y Term Begins		**Monday, September 08, 2014**
Thanksgiving		University Closed Monday, October 13, 2014
Co-curricular Days	**No Classes, exams or tests can be held from Wednesday October 29 - Friday October 31, 2014** **NOTE: No Classes, exams or tests can be held on Saturday November 1 & Sunday November 2, 2014**	Wednesday, October 29 - Friday, October 31, 2014 Inclusive
Fall Term Ends		**Sunday, December 07, 2014**
Length of Term	60	
Number of Class "Meets"	M12 / T12 / W12 / R12 / F12 / S12 / Su 12	
Make Up Days		N/A
Study Day(s)	**No classes, exams or tests can be held on this day**	Tuesday, December 02, 2014 and Monday, December 08, 2014
Fall Exams Begin		Tuesday, December 09, 2014
Fall Exams End		Monday, December 22, 2014
Monday-Friday Exam Periods	30 (10 Days X 3 Timeslots Per Day)	9:00am - 12:00noon 2:00pm - 5:00pm 7:00pm - 10:00pm
Saturday Exam Periods	6 (2 Days X 3 Timeslots Per Day)	9:00am - 12:00noon 2:00pm - 5:00pm 7:00pm - 10:00pm
Sunday Exam Periods	4 (2 Days X 2 Timeslots Per Day)	2:00pm - 5:00pm 7:00pm - 10:00pm
Total Exam Periods	40	
Christmas		Thursday, December 25, 2014
WINTER 2015		
Winter & Y Term Begins/Resumes		**Monday, January 05, 2015**
Family Day		University Closed Monday, February 16, 2015
Winter Term Reading Week	**No Classes, exams or tests can be held from Saturday February 14 - Friday February 20, 2015**	Saturday, February 14 - Friday, February 20, 2015 Inclusive
Good Friday		University Closed Friday, April 03, 2015
Make Up Days		Monday, April 06, 2015 (Make-Up Day for 12th Friday Class)
Winter & Y Term Ends		**Monday, April 06, 2015**
Length of Term	60	
Number of Class "Meets"	M12 / T12 / W12 / R12 / F12 / S12 / Su 12	
Study Day(s)	**No classes, exams or tests can be held on this day**	Tuesday, April 07, 2015
Exams Begin		Wednesday, April 08, 2015
Exams End		Friday, April 24, 2015
Monday-Friday Exam Periods	39 (13 Days X 3 Timeslots Per Day)	9:00am - 12:00noon 2:00pm - 5:00pm 7:00pm - 10:00pm
Saturday Exam Periods	6 (2 Days X 3 Timeslots Per Day)	9:00am - 12:00noon 2:00pm - 5:00pm 7:00pm - 10:00pm
Sunday Exam Periods	4 (2 Days X 2 Timeslots Per Day)	2:00pm - 5:00pm 7:00pm - 10:00pm
Total Exam Periods	49	

Term WS	
Start Date	Monday, January 05, 2015
End Date	Saturday, August 01, 2015
Family Day	Monday, February 16, 2015
Winter Term Reading Week	Saturday February 14 - Friday February 20, 2015 Inclusive
Good Friday	Friday, April 03, 2015
Victoria Day	Monday, May 18, 2015
Canada Day	Wednesday, July 01, 2015