The Senate of York University

Notice of Meeting

to be held at 3:00 pm. on Thursday, April 26, 2012
in the Senate Chamber, N940 Ross Building.

AGENDA

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H. Lewis, Secretary

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1. Change to Requirements for the MA Program in Humanities, Graduate Studies
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4. Change to the Admission Requirements for the PhD Program in Environmental Studies, Graduate Studies

The Senate of York University

Minutes

of the meeting held at 3:00 pm on Thursday, March 22, 2012
in the Senate Chamber, Ross Building.

W. van Wijngaarden, *Chair*
M. Adriaen
Joan Allen
Julie Allen
K. Anderson
A. Asif
M. Aubin
A. Belcastro
M. Biehl
G. Brewer
D. Cohn
S. David
M. Deamude
S. Dranitsaris
S. Drummond
J. Edmodson
C. Ehrlich
J. Elder
M. Figueredo
R. Furgiuele
L. Gilbert
P. Giordan
S. Grace
E. Gutterman
N. Habib
R. Hache
D. Hastie
S. Hem
C. Heron
C. Hibbs
E. Honarparvar
R. Hornsey
D. Horvath
J. Huang
C. Hudak
A. Hutchinson
C. Innes
R. Irving
N. Israelite
M. Jacobs
J. Johnson
A. Karim
A. Kim
J. Knight
T. Knight
J. Kowal
R. Lenton
S. Lewis
H. Lewis, *Secretary*
D. Leyton-Brown
K. Little
L. Lo
M. Lockshin
S. MacDonald
A. Macpherson
J. Magee
G. Malfatti
C. Mallette
K. McRoberts
G. Mianda
K. Michasiw
P. Monahan
V. Monty
B. Morgan
A. Mukherjee- Reed
R. Myers
R. Mykitiuk
A. Naipaul
R. Nariani
P. Ng
J. O'Hagan
C. Oliver
S. Pagiatakis
J. Pichini
A. Pitt
J. Podur
B. Rahder
A. Redding
A. Ricci
M.Rioux
J. Rudolph
P. Ryan
B. Ryder
L. Sanders
S. Schoenfeld
S. Schrauwers
J. Schwarz
B. Sellers- Young
R. Sheese
M. Shoukri
M. Singer
P. Singh
D. Skinner
H. Skinner
J. Smith
S. Snow
A. Solis
Y. Sorokin
L. Sossin
B. Spotton Visano
R. Tiffin
R. Webb
T. Wesson
P. Wilkinson
S. Winton
J. Yeomans
A. Zalik

1. Chair's Remarks

The Chair confirmed that matters related to a proposed collaboration between York and the Centre for International Governance Innovation would be addressed at the meeting, and reported that two motions had been received after the agenda had been distributed.

A Senator sought to put a motion addressing the York-CIGI collaboration. The Chair ruled that motions of this kind must be dealt with under the item "Other Business for Which Due Notice Has Not Been Received." It was moved and seconded "**that the ruling of the Chair is challenged**." The Vice-Chair assumed the Chair. The mover explained that it was important for Senate to have sufficient time to discuss the motion at the meeting. The Chair indicated that his ruling was based on the need for items to come up in the order listed on the agenda as approved by the Executive Committee. On a vote, the challenge was *defeated.* The Chair resumed presiding.

2. Minutes

It was moved, seconded and *carried* "**that Senate approve the minutes of the meeting of February 16, 2012**."

3. Business Arising from the Minutes

3.1 Centre for the Support of Teaching

In response to questions posed at the February meeting, the Provost confirmed that all CST workshops scheduled for 2011-2012 had been held, and that graduate students will be able to complete their practica.

4. Inquiries and Communications

4.1 Senators on the Board of Governors

Senator Wilkinson presented a synopsis of the February meeting of the Board of Governors.

4.2 Academic Colleague to the Council of Ontario Universities

Documentation in the form of the most recent COU issues as forwarded by Senator Sanders was *noted.*

4.3 Osgoode Hall Faculty Council Documentation

The Chair confirmed that documents forwarded by the Chair of the Osgoode Hall Faculty Council related to the Council's deliberations under the title of a "Proposed Centre on International Law in the Global Economy (CILGE), Collaboration between York/Osgoode-CIGI" had been received by APPRC and posted on the Senate Website.

4.4 Open Letter on the York-CIGI Initiative

The Chair acknowledged receipt of an open letter on the York-CIGI collaboration, signed by faculty members and dated March 22.

4.5 Provincial Audit of Teaching Evaluations

The Chair reported receiving a question concerning the Auditor-General's "value for money audit" of teaching evaluations, and confirmed that the first institution under scrutiny is the University of Ontario Institute of Technology.

5. President's Items

5.1 Internal and External Developments

President Shoukri commented on the following matters in the course of his remarks:

- continuation of the Ontario government's current tuition fee framework (of up to 5 per cent increases) and the tuition fee rebate program
- the wider public policy context for postsecondary education in Ontario
- the University's campaign to encourage enrolments in an expanded summer program
- notable accomplishments by members of the University community, and reminded Senators that the University's fifty-third anniversary would be celebrated on March 26

The President referred Senators to a Website listing recipients of honorary degrees at the Spring Convocations.

5.2 Overview of the York-CIGI Collaborative Initiative

At the request of the President, Vice-President Academic and Provost Monahan briefed Senate on the terms of a proposed collaboration between the University and CIGI in the area of international law. He reported that APPRC had agreed to work with him in the development of an academic governance framework for the collaboration that would be presented to Senate for approval in April.

It was moved, seconded and *carried* "**that Professor Jody Berland be permitted to address Senate**." It was moved, seconded and *carried* "**that Professor Ricardo Grinspun be permitted to address Senate**." It was moved, seconded and *carried* "**that Professor Gus van Harten be permitted to address Senate**."

The following matters were among those raised during the course of a wide-ranging discussion:

- deliberations undertaken by the Osgoode Hall Faculty Council, the lapsing of a draft protocol, and the possibility of a revived effort to facilitate Osgoode participation in the collaboration
- the scope of Senate jurisdiction over donor agreements and aspects of the York-CIGI agreement
- the role of the proposed Steering Committee in the overall administration of the collaboration and specifically with regard to appointments, and alternative processes
- the nature and role of an Experts Panel in terms of candidate selection
- past alleged involvement by CIGI's principal donor in academic decision-making
- the differences between a draft protocol on academic freedom developed within Osgoode and the more recent version reviewed by APPRC
- the extent to which protections set out in supplementary or amended protocols were enforceable
- collegial processes in further deliberations

6. **Senate Committee Reports**

6.1 Senate Executive

6.1.1 Information Items

The Executive Committee presented a draft Policy on the Awarding of Degrees, Certificates and Diplomas in Extraordinary Circumstances for feedback, and also informed Senate on

- the issuing of the annual call for expressions of interest in service on Senate committees, for one of two Senators on the Board of Governors, and Academic Colleague to the Council of Ontario Universities
- its review of the temporary changes to the membership of its tenure and promotions committee approved by to Faculty of Liberal Arts and Professional Studies Council
- members of Senate absent for three or more consecutive meetings

6.2 Academic Standards, Curriculum and Pedagogy

6.1 Establishment of a Master of Conference Interpreting (MCI) Degree Program (Faculty of Graduate Studies)

It was moved, seconded and *carried* "**that Senate approve the establishment of a Master of Conference Interpreting degree program**."

6.2 Establishment of a Graduate Diploma (Type 1) in General Interpreting (Faculty of Graduate Studies)

It was moved, seconded and *carried* "**that Senate approve the establishment of a (Type 1) Graduate Diploma in General Interpreting, effective Fall-Winter 2011-2012**."

6.3.3 Establishment of a Master of Conference Interpreting (MCI) Degree (Faculty of Graduate Studies) [Statutory Motion]

Senate received notice of ASCP's intention to move a statutory motion establishing a Master of Conference Interpreting Degree.

6.4 Consent Agenda Items

Senate approved by consent ASCP recommendations to

- change the requirements for the Graduate Diploma in Financial Engineering (Faculty of Graduate Studies)
- change the Accelerated (second-degree, two year) BA in Translation from a 90-credit BA to an Honours BA effective Fall-Winter 2013.

6.3 Academic Policy, Planning and Research

6.3.1 Senate Policy on ORUs

It was moved, seconded and *carried* "**that Senate approve the *Senate Policy on Organized Research Units*, as set out in Appendix A, to replace the current *Senate Policy, Guidelines, and Procedures on the Chartering and Review of Research Centres / Institutes at York.*"**

6.3.2 Strategic Research Plan

Vice-President Haché briefed Senate on consultations and timelines leading to the approval of a new strategic research plan.

6.3.3 Other Information Items

APPRC provided Senate with information on the following items:

- the Committee's endorsement of a York-CIGI collaborative
- consultations with the Provost on the expansion of Summer 2012 course offerings

6.4 Awards

6.4.1 University Professors

Senators joined the Chair of the Awards Committee in congratulating the 2012 recipients of University Professorships, Professor Jan Rehner and Professor Stanley Tweyman.

7. Other Business for Which Due Notice Had Not Been Given

The Chair noted that the two motions submitted after the setting of the meeting agenda read as follows:

"Senate affirms York University's unwavering commitment to academic freedom and institutional autonomy and its understanding and expectation that the Initiative will be implemented in accordance with rigorous adherence to these commitments; and in light of Senate's interest with respect to academic freedom matters, Senate requests that the Provost report regularly to APPRC on the implementation of the Initiative, and particularly with respect to any concerns or issues of any kind relating to academic freedom that may arise, and requests that APPRC report to Senate on this matter at least annually" (submitted by P. Monahan, March 14)

"that any agreement with CIGI must be presented to Senate for formal approval" (submitted by C. Heron)

The Chair stated that, as the motions may not be entirely compatible, he wished to seek the advice of the Senate Executive and would report back to Senate at its next meeting.

_____ _____

W. van Wijngaarden, Chair H. Lewis Secretary

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EXECUTIVE COMMITTEE

Report to Senate
at its Meeting of April 26, 2012

FOR ACTION

1. Policy on the Awarding of Degrees, Certificates and Diplomas in Extraordinary Circumstances

Senate Executive recommends

> that Senate approve the Policy on the Awarding of Degrees, Certificates and Diplomas in Extraordinary Circumstances as set out in Appendix A.

In 2011, the then-Chair of Senate set in motion a process aimed at developing a clear, comprehensive framework for awarding degrees, certificates and diplomas in special circumstances.

There is currently no integrated Senate policy on the awarding of degrees, certificates and diplomas in special circumstances. Degrees may be awarded on the basis of aegrotat standing. In addition, Senate-approved "Guidelines for the Consideration of Petitions / Appeals by Faculty Committees" (last amended 1999) do provide for "Petition(s) to Grant A Degree On The Basis Of Mortal Illness/Permanent Incapacitation" (York is one of few Canadian universities that provides for the possibility of granting degrees in the extraordinary circumstances described in the Guidelines). The "emergency measures" clause of the Guidelines was added in 1999 following an improvised arrangement to accommodate the family of a student who was in the final stages of a terminal illness. It assigns a specific role to the Chair of Senate. The relevant documents are not well known, and there is uncertainty about options available and applicable procedures.

The truly new feature of the draft Policy is the creation of forms of *in commemoration non-academic* recognition for deceased or permanently incapacitated students who are ineligible for a degree, diploma, or certificate through aegrotat standing. Both Carleton and Nipissing provide for recognition of this kind. The Registrar's Office estimates that an average of 1 to 2 students per year would be eligible for a non-academic "in commemoration" degree.

All Senate Committees, Faculty Councils, and the Deans/Principal were invited to comment on a draft policy and responses were received from APPRC, ASCP, and the FGS Faculty Council (their feedback was shared with Senate in March). Correspondents were generally supportive of the proposed policy.

Documentation is attached as Appendix A.

FOR INFORMATION

1. Working Group on External Partnerships

At its meeting of April 17 the Committee established a Working Group on External Partnerships. This decision was informed by APPRC's express willingness to consider the academic dimensions of external partnerships in the context of the *University Academic Plan's* emphasis on outreach, community engagement, and collaboration with other bodies (see APPRC's report to Senate this month). Context

was also supplied by correspondence, circulated on Senate-L, calling for the establishment of such a group. Although this communication was deemed to be unready for Senate because it lacked the specificity and clarity required of a motion for Senate, the Executive Committee felt it would be timely to strike a small group along these line to review current policies and frameworks. The mandate is as follows:

> The Working Group is asked to consider whether or not it would be advisable to develop a statement, guidelines, or framework on external partnerships given the UAP's emphasis on such relationships and the likelihood that a trend toward University-private donor partnerships would continue. The Working Group must be respectful of the University's governance framework and the responsibilities set out in policies, guidelines and collective agreements.

Membership details have not been finalized. The Chair of Senate will preside over a working group that will include two additional members of Senate Executive and two members of APPRC. It is proposed that five others be invited to join, among them a graduate student and one member suggested by the President. The Executive Committee welcomes additional suggestions so as to ensure that the membership of the working group is broadly based.

It is expected that the working group will complete its deliberations by the autumn of this year.

2. Preparation for a Possible Disruption of Academic Activities

In view of the possibility that academic activities might be disrupted if a settlement was not reached between the University and CUPE 3903, the Committee held a special meeting on April 10 to review the *Senate Policy on Academic Implications of Disruptions or Cessations of University Business Due to Labour Disputes or Other Causes*. The Committee also received preliminary assessments of the likely impact on classes and examinations from the Provost, Vice-Provost Academic Registrar, and agreed to a communications plan in the event that a disruption appeared imminent.

William van Wijngaarden, Chair

Appendix A
Policy on the Awarding of Degrees, Certificates and Diplomas in Extraordinary Circumstances

Policy Statement

Senate supports appropriate forms of recognition or commemoration of students who are unable to complete their studies owing to untimely permanent incapacitation or untimely death. Permanent incapacitation means the student will never be able to continue their studies even with assistance. Recognition may take the form of

- an earned academic degree, certificate or diploma that is awarded posthumously
- an academic degree, diploma or certificate for which incomplete requirements are fulfilled by the granting of aegrotat standing
- a non-academic degree, certificate, or diploma "In Commemoration."*

Categories and Eligibility

1. An academic degree, diploma or certificate may be awarded posthumously if all requirements were completed prior to death.

2. An academic degree, diploma or certificate may be awarded to students who were a) unable to complete a program owing to death or permanent incapacitation and b) normally had completed at least 75 per cent of the requirements with the balance fulfilled through the awarding of aegrotat standing by a duly authorized Faculty committee.

3. A non-academic degree, diploma or certificate "In Commemoration" may be awarded to students who were enrolled at the University but had not completed their studies at the time of their death or permanent incapacitation, and are not eligible for aegrotat standing.

4. Students are not eligible if death or incapacitation resulted from their commission of illegal activities.

*Example: Bachelor of Arts in Commemoration

Procedures

Requests for fully earned or in commemoration degrees, diplomas and certificates shall normally be addressed directly to the University Registrar, who shall be responsible for confirming enrolment, processing requests, and notifying the applicable Faculty's Council Office and Dean/Principal.

Requests for aegrotat standing may be addressed to the Registrar, or to the student's major department or home Faculty in the first instance. The Registrar is responsible for confirming the enrolment of students and progress at the time of death or incapacitation. Faculties shall be responsible for notifying the Registrar of decisions to award degrees, diplomas or certificates through aegrotat standing.

Formal requests must be in writing and must provide authoritative documentation concerning the death or permanent incapacitation.

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The Senate of
York University

COMMITTEE ON ACADEMIC STANDARDS, CURRICULUM AND PEDAGOGY

Report to Senate at its meeting of 26 April 2012

Documentation for Consent items is available online.
Documentation for Information items will be provided upon request.

FOR ACTION

1. Establishment of a Master of Conference Interpreting (MCI) Degree • Faculty of Graduate Studies [Statutory Motion]

At the Senate meeting of 22 March 2012 ASCP provided notice of its intention to propose the establishment of a new Master of Conference Interpreting Degree at the Senate meeting in April. Accordingly, ASCP recommends,

> that Senate approve the establishment of the degree of Master of Conference Interpreting (MCI).

Rationale

To refresh Senators' memory, the Master of Conference Interpreting (MCI) degree, which will be administratively housed in the School of Translation at Glendon, is a two-year professionally oriented degree which will equip students with interpreting skills toward the goal of becoming practicing professional conference interpreters. The MCI degree is the credential recognized in the industry. Currently only two other post-secondary institutions in North America offer the degree: the University of Ottawa and the Monterey Institute of International Studies in California.

The MCI degree program will be comprised entirely of coursework that will provide students with the opportunity to acquire the knowledge, skills and abilities needed to practice in local, national and international settings, including: the courts, healthcare system, government and private conference sectors, and international organizations. The degree requirement structure is as follows:

- Successful performance on the Entrance Exam for admission to the program
- 30 credits in Year 1
- Successful performance on the Transition Exam (summer term of year 1) to be eligible to continue to Year 2
- Minimum of 24 credits in Year 2
- Two internship placements - one in a healthcare/courtroom setting and one in a government conference setting
- Successful performance on the Exit Exam (summer term of Year 2)

Statements from the *University Health Network* (UHN), the *Ministry of the Attorney General of Ontario*, and the *Access Alliance Multicultural Health and Community Services* express their keen interest in collaborating with York to provide the work placement opportunities for the program.

The primacy of practical skills development in the MCI program makes it absolutely essential that students be taught by people who are first and foremost interpreters who hold recognized qualifications and who are regularly engaged in professional practice. To that end, most of the practical interpreting courses will be taught by working interpreters who will teach on a part-time basis. This compares favorably with other programs in the field: 90% to 100% of courses in the MCI at the University of Ottawa are taught by part-time instructors, and

roughly 70% of courses in the Glendon School of Translation's undergraduate programs in written translation are taught by contract faculty.
There is already a high degree of interest to teach in this program among interpreters locally, nationally and even internationally, including staff from the Government of Canada and a former Deputy Director of interpreting services at the United Nations in New York. It is expected that five course directors, each taking on the equivalent of a six-credit load, would suffice to cover the practical courses in interpretation during both years of the program. The professorial faculty at the School of Translation will teach some of the practical interpreting courses and others across the University will be involved in teaching the background courses in areas such as law, finance, and healthcare.

The proposal and supporting statements from external agencies confirm there is a pressing need for qualified professional interpreters worldwide as the industry is facing a significant labour shortage, and that the new program at York would be filling an area of demand. The importance and promise of the program to address the need for trained professionals is reflected in the considerable amount of funding - approximately $3 million - provided by both federal and provincial sources for it. In addition, concrete discussions about support for the program from the United Nations and the European Commission continue to advance.

Consistent 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 following summary was provided by the reviewers:

> *The two-tiered program is a welcome addition to existing offerings in an industry where demand for interpretation is growing, while capacity building remains limited and there is a continuing dearth of qualified interpreters. The program is well structured, and covers all aspects of the body of skills and knowledge that interpreters must acquire if they are to meet interpretation market needs once they begin work. The laboratory facilities planned will be state-of-the-art, and the technology envisaged will provide an innovative approach to delivering instruction, particularly in year 1. The admission requirements are entirely suitable, as are the methods that will be used to assess performance. The mix of faculty members and working interpreters who will teach the courses is also well thought out.*

The Senate Committee concluded that the three issues raised by the external reviewers (enrolment targets; a direct entry to Year 2 option; and pedagogical support for working interpreters who will be instructors in the program) have been satisfactorily addressed. Principal McRoberts, as the resource Dean, has confirmed that the planned facilities for the program will be provided and, together with Vice-Provost Lenton, that a financial model to resource the program has been developed. On the basis of the strength of the proposal, the Senate Committee enthusiastically supports the establishment of the MCI degree and degree program.

The full proposal and statements of support were provided to Senate in March when related proposals were approved by Senate (documentation filed with March Senate agenda package).

Approved: FGS Faculty Council 2 February 2012 • ASCP 7 March 2012 • Concurrence of APPRC 8 March 2012

2. Establishment of a Master of Conference Interpreting (MCI) Degree Program • Faculty of Graduate Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve the establishment of a Master of in Conference Interpreting degree program, effective FW'12.

Rationale
In March Senate approved the establishment of a graduate program in Conference Interpreting. The intention was to formally classify the program in Conference Interpreting as an MCI degree program following Senate's approval of the establishment of the new MCI degree type. Subject to Senate's

approval of the degree type as above in item 1, ASCP is recommending the approval of the program as an MCI degree program. See the Rationale in Item 1 above for further information on the program.

3. Establishment of Graduate Diplomas (Type 2 & Type 3) in Language & Literacy Education • Faculty of Graduate Studies.

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve the establishment of:

- A Type 2 (concurrent) Graduate Diploma in Language & Literacy Education, awarded in conjunction with a Master's (MEd) or Doctoral (PhD) degree in the Graduate Program in Education; and
- A Type 3 (direct entry, stand-alone) Graduate Diploma in Language & Literacy Education

Both diplomas would be effective FW'13.

Rationale

The full proposal is attached as Appendix A. The field of language, culture and teaching has emerged as an area of strength within the graduate program in Education. It houses the largest concentration of language and literacy researchers in Ontario and the third largest concentration of language and literacy researchers in Canada. Coincidently student interest in the field has grown at York. The proposed diplomas will marry the strengths of the graduate program with strong student interest in language and literacy education in both the public and private education systems. The proposed diplomas will be the only ones of their kind in the province of Ontario.

The Type 2 Graduate Diploma will formalize the already established focus on language and literacy education within the Doctoral and Masters degrees in Education, and is expected to attract students who are interested in further specialization in language, culture and teaching related research. The Type 3 Graduate Diploma is designed to provide opportunities for graduate level study of theory and research in language and literacy for practicing teachers, school administrators, people working in community organizations and cultural institutions, and for advocacy groups. It is likely to attract persons who are employed in either public or private education, social agencies and business sectors. This diploma may also be used by teachers to enhance their qualifications with the Ontario College of Teachers.

The program requirements of the diplomas exceed the minimum Senate requirements for graduate diplomas, and the learning outcomes for each have been clearly articulated. Dean Pitt has confirmed that the diplomas are aligned with Faculty plans and will be adequately resourced.

The Senate Committee recommends the approval of the proposed Diplomas. With Senate's approval the proposal will be submitted to Quality Council for approval.

Approved: FGS Faculty Council 2 February 2012 • ASCP 7 March 2012 • APPRC 22 March 2012

4. **Establishment of a Bachelor of Applied Science (BASc) Degree Program in Electrical Engineering • Department of Computer Science & Engineering • Faculty of Science & Engineering**

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve the establishment of a BASc degree program in Electrical Engineering, Department of Computer Science & Engineering, Faculty of Science & Engineering, effective FW'13.

Rationale

A full copy of the proposal, including the external reviewers' report, the Dean's and Vice-Provost's statements of support, are attached as Appendix B.

The expansion of Engineering at York has long been a goal articulated in academic plans over the years, including the most recent ones, the 2010 *White Paper* and the *2010-2015 University Academic Plan*. Along

with other key milestones that are coming to fruition, the establishment of the Electrical Engineering program is a concrete step towards that objective.

The proposed new BASc program in Electrical Engineering will be housed in the Department of Computer Science & Engineering, currently in the Faculty of Science & Engineering. It will include specializations in:

- Electronics
- Power
- Communications and Signal Processing
- Medical and Assistive Devices

The program requirements were developed to meet the Canadian Engineering Accreditation Board's (CEAB) criteria for professional accreditation. Moreover, the degree and admission requirements are consistent with those of the existing Engineering programs in Space Engineering, Geomatics Engineering, Computer Engineering and Software Engineering, such that Electrical Engineering will also share a common first-year engineering curriculum. There are also new, unique features of the Electrical Engineering program; they are as follows:

- It will offer four areas of specialization (noted above) for students
- All new courses for the program will be 4-credit courses to provide three extra hours of tutorials (2 hours) and laboratories (1 hour) to enhance the teaching and learning experience for students
- It will integrate portions of the necessary mathematics curriculum with core electrical engineering curriculum to strengthen the mathematics foundation;
- There will be a future collaboration with Osgoode Hall Law School and Schulich School of Business to provide a rich, interdisciplinary program of study

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 reviewers' recommendation is that the program be approved. They highlighted the following findings:

- the proposal lays a foundation for a quality Electrical Engineering program
- it is distinguished by its strong laboratories component
- it is original in its commitment to creating an engineering program based on the concept of a *renaissance engineer* – a well versed engineer with deep knowledge of an engineering discipline that is also well aware of the associated social, economic, and legal issues.

A series of recommendations were made by the reviewers to strengthen the program. The proponents implemented nearly all of the recommendations, and revised the proposal to reflect the changes made.

As the reviewers noted, Engineering programs are resource intensive. 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. Both government funding and the significant donation to the University from Mr Lassonde are considerably aiding the expansion of Engineering. Three new faculty positions in Electrical Engineering have been approved for the current recruitment cycle, and the complement will increase coincident with the roll-out of the program and sustained enrolments over the next several years.

With the concurrence of the Academic Policy, Planning and Research Committee, the strong support of the Dean and Vice-Provost Academic, the Senate Committee enthusiastically recommends the establishment of the BASc program in Electrical Engineering.

Approved: FSE Faculty Council 10 April 2012 • ASCP 4 April 2012 • APPRC 5 April 2012

5. Approval of a New Professional Certificate in Financial Planning • School of Administrative Studies • Faculty of Liberal Arts & Professional Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve a Professional Certificate in Financial Planning to be offered by the School of Administrative Studies, Faculty of Liberal Arts & Professional Studies, effective FW'13.

Background

Separate proposals to establish Certificates in *Financial Planning* and *Investment Management* within the School of Administrative Studies, Faculty of Liberal Arts & Professional Studies were first presented to Senate at its meeting in February 2012. The question of whether Bachelor of Administrative Studies (BAS) students should be eligible to pursue the certificates was an issue discussed at considerable length in the design of the certificate programs. The proposals that ASCP recommended to Senate ultimately included BAS students among those eligible for the certificates. Following a request at the Senate meeting from the Dean and Associate Dean in LA&PS to permit the LA&PS Faculty Council an opportunity to review the implications of BAS students enrolling in the certificates, Senate passed a motion to refer the proposals back to ASCP for the purpose of conducting further consultations with the Council.

In March the Senate Committee received a communication from the Chair of Faculty Council, Christopher Innes, advising that Council, on the recommendation of the Faculty Executive Committee, had approved a "twin-track" approach. That is it wished to proceed with the establishment of the two Certificates in *Financial Planning* and *Investment Management* as originally approved by Faculty Council in January 2012 (which excluded BAS students from the certificates), while the Faculty concurrently reviews the practical and resource implications of extending the certificates to BAS students. ASCP concurred with the proposed direction, agreeing that offering the certificates to students outside of the BAS program – particularly the stand-alone option for those who already hold a degree – should not be held up while the one remaining issue is duly considered. It is hoped that LA&PS will report back to ASCP on the matter by May 31 to be considered by ASCP during this academic year.

Rationale

Being proposed is a 36-credit professional **Certificate in Financial Planning** offered by the School of Administrative Studies (SAS) through the Faculty of Liberal Arts and Professional Studies (LA&PS). It may be completed concurrently with York undergraduate degrees or as a direct-entry, stand-alone program. BAS students are not eligible to pursue the Certificate.

The new Certificate has been designed for those working or interested in working in the financial services industry in financial planning firms, banks, credit unions and investment advising firms. The School anticipates that the Certificate will appeal to individuals currently working in the financial planning field or in the financial sector in general. The CFP designation is the internationally-recognized professional certification for a financial planner. The Canadian Financial Planning Standards Council, which administers the Certificated Financial Planner (CFP) designation program in Canada, has approved the Certificate requirements as meeting the Core Curriculum program requirements necessary for candidates who wish to write the two CFP examinations. Several Bachelor of Administrative Studies (BAS) graduates who completed all of the courses in the proposed Certificate as part of their degree have successfully written the CFP examinations in recent years.

Feedback on the certificate was received from several Faculties, with all those consulted now providing support.

Having confirmed that the proposed Certificate meets the Senate undergraduate certificate criteria, and noting the support from several Faculties and Vice-President Academic and Provost, ASCP recommends that Senate approve the Professional Certificate in *Financial Planning*. A copy of the proposal is attached as Appendix C.

With the approval of Senate, the new Certificate will be included in the Annual Report to the Quality Council by the Vice-Provost Academic.

Approved by: LA&PS Faculty Council 12 January 2012 • ASCP 25 January 2012 • Concurrence of APPRC 2 February 2012
Reconsidered and Approved: LA&PS Faculty Council 8 March 2012 • ASCP 21 March 2012

6. Approval of a New Professional Certificate in Investment Management • School of Administrative Studies • Faculty of Liberal Arts & Professional Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve a Professional Certificate in Investment Management to be offered by the School of Administrative Studies, Faculty of Liberal Arts & Professional Studies, effective FW'13.

Rationale

This is a proposal for a new 42-credit professional **Certificate in Investment Management** offered by the School of Administrative Studies (SAS) within the Faculty of Liberal Arts and Professional Studies. A copy of the proposal is attached as Appendix D. The Certificate exceeds the minimum standards defined by Senate undergraduate certificate legislation. It may be completed concurrently with York undergraduate degrees or as a direct-entry, stand-alone program. BAS students are not eligible to pursue the Certificate.

The program of study will appeal to current students who wish to acquire more specialized knowledge about the field of investment management and those currently working in the field who are planning to pursue the Chartered Financial Analyst (CFA) designation. The Certificate will provide both insightful analysis of the global financial industry and in-depth preparation for the holder to pursue the CFA designation. The current global economic environment makes this Certificate a timely offering to help address the need for well-educated investment managers.

Consultation with Faculties on this Certificate was done concurrently with the Certificate in Financial Planning, item 5 above. With the approval of Senate, the new Certificate will be included in the Annual Report to the Quality Council by the Vice-Provost Academic.

Approved by: LA&PS Faculty Council 12 January 2012 • ASCP 25 January 2012
• Concurrence of APPRC 2 February 2012
Reconsidered and Approved: LA&PS Faculty Council 8 March 2012 • ASCP 21 March 2012

CONSENT AGENDA

1. Change to Requirements for the MA Program in Humanities • Faculty of Graduate Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve the addition of the 6-credit mandatory course "Core Practices and Methodologies in Humanities Research" to the degree requirements for the MA program in Humanities, Faculty of Graduate Studies, effective FW'12

Rationale

Currently, there are no mandatory courses for Humanities graduate students, with the exception of the "Humanities Graduate Seminar", a non-credit-bearing seminar hosted once a month by different faculty members teaching in the program. While the Seminar was initially conceived to give incoming students an overview of methodologies used in Humanities research, the seminar has evolved to fulfill different functions: it gives incoming students a chance to get to know each other and faculty, share experiences, and familiarize themselves with the work of faculty in Humanities research. It has become a valuable part of the program, but it does not provide students with a sufficiently structured methodological foundation for their own work. This gap is particularly felt by MA students, who, due to the short time frame of their degree (one year) and their often very diverse academic backgrounds, have expressed the desirability of a more structured course on interdisciplinary Humanities research and methodology on which they can base their own research, specifically for their MRP. The new required course for MA students is expected to provide the research methodology knowledge they need. The course will be an option for PhD students.

The proposed changes do not affect the overall number of courses students are required to take. One of the three full graduate courses that students must take to fulfill the coursework component of the program will be the research methodology course.

Approved: FGS Faculty Council 1 March 2012 • ASCP 21 March 2012

2. Changes to the Requirements for MA and PhD Programs in Theatre • Graduate Program in Theatre • Faculty of Graduate Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve changes to the degree requirements for the MA and PhD programs in Theatre, Faculty of Graduate Studies, as follows:

- addition of THST 6100 3.0, Theatre Research and Methodology and THST 6200 3.0, Issues in Canadian Theatre History as required courses (MA and PhD programs)
- Elimination of the praxis requirement (MA and PhD programs)
- Change in the published normal program length from 4 terms to 3 terms (MA program)
- Inclusion of a detailed description of the purpose, structure and timing of the comprehensive exam (PhD program)
- Replacement of the Major Research Paper requirement with an enhanced Prospectus (Dissertation Proposal) requirement and new Sample Chapter requirement (PhD program)

The proposed changes are effective FW'12.

Rationale

The Graduate Program in Theatre Studies (MA/PhD) is a relatively new program. It was approved by Senate in February 2006 and by OCGS in April 2006. Since the first cohort of students were admitted to the program, it has been playing close attention to how well the program structure and requirements have worked in supporting the program's academic and learning objectives It is from its close assessment of the functioning of the MA and PhD program requirements and its subsequent identification of enhancements that the series of changes to the programs are proposed.

With regard to the new courses, all students in both MA and PhD programs will be required to complete them as part of the specified number of required coursework credits. In other words, the total number of required coursework credits will not increase. THST 6100 and THST 6200 will work in tandem to provide students with a strong grounding in research methodologies and the history of Canadian theatre. In this respect, they are central to the program's goal of turning out strong, rigorous scholars with an understanding of the history of theatre in Canada.

Currently, students in both graduate programs are required to complete a 75-hour praxis requirement. Many of the students entering the program already have a strong background in theatre practice/ praxis. The program has been continually waiving this requirement for students and therefore decided that it should no longer be a requirement. The Program was also concerned that the requirement might prevent students from completing their coursework and other requirements in a timely manner. It nevertheless maintains a strong belief in the importance of praxis and offers a number of courses that encourage students to develop performance-based projects. Further, students in the program will still be required to complete an internship, which supports the program's commitment to ensuring that students have some applied, professionally-oriented work experience.

The MA program in Theatre Studies has been operating as a 3 term program, including with respect to graduate student funding, for a number of years. This 3 term normal program length is consistent with the program's time-to-completion rates.

Regarding the existing description of the comprehensive exam requirement, it is extremely short and vague, with an emphasis on theatre history and textual and theoretical analysis that is not relevant for all students entering the doctoral program nor consistent with the program's overall learning objectives. The program has developed a much more detailed description of the purpose, structure and timing of the comprehensive exam.

Currently, students in the PhD program are required to complete a major research paper of no more than 50 pages on some aspect of study related to the proposed dissertation area in one of the program's fields of specialization. It has been the experience of the program that the MRP requirement does not provide the type of structural support initially intended, and may in fact unduly delay students from timely completion of the dissertation. An enhanced prospectus (dissertation proposal) and new sample chapter instead of an MRP is proposed as a constructive change to the program structure. The program believes that students would benefit from preparing a prospectus in conjunction with the comprehensive exam requirement. More specifically, one month prior to sitting for the comprehensive exam, students will be required to submit a prospectus of no more than 3,500 words. Consideration of the prospectus will also take place in conjunction with the comprehensive exam process. Approximately two weeks after completion of the comprehensive exam, students will meet with the supervisor and supervisory committee to discuss both the prospectus and the results of the comprehensive exam. The proposed sample chapter requirement is also intended to provide support for the completion of the dissertation.

Approved: FGS Faculty Council 1 March 2012 • ASCP 21 March 2012

3. **Additional Advanced Standing Option for the MBA Program • Faculty of Graduate Studies**

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve that advanced standing for the MBA program be offered to Canadian Chartered Accountants who have obtained both their undergraduate honours degree and their CA designation from a Canadian institute/order of Chartered Accountants within the last 10 years and have met all the other graduate admissions requirements for the Schulich School of Business. CAs without undergraduate business degrees who have not taken courses in Marketing, Organizations and/or Operations Management will be required to take Schulich's core courses in those subjects, replacing the equivalent number of elective credits.

Rationale

Under long-standing practice, MBA applicants who have been awarded an honours business undergraduate degree from an accredited business school within ten years of entering the MBA may be granted advanced standing for the full first year of the MBA program. For students deemed qualified on the basis of their past undergraduate work, the advanced standing process offers them admissions directly into the candidacy year of the MBA program. Students thus admitted are enrolled in the "Accelerated MBA Program", which simply consists of the full second year of the regular MBA program.

The Accelerated Program has been very successful, attracting excellent students from many leading business schools, including Schulich. Given the success of this program, it is proposed that this advanced standing policy be extended to a new class of applicants - those who hold an undergraduate honours degree (in any field) and who also have earned the designation of
Chartered Accountant (CA) in Canada.

Canadians can attain the CA designation only by satisfactorily meeting all the following requirements:

- Completion of a 120-credit hour bachelor's degree.
- Completion of 51-credit hours of courses in management, management accounting, financial accounting, income taxation, and auditing.
- Successful performance on the 4-day, case-based Uniform Final Examination administered annually by the Canadian Institute of Chartered Accountants.
- Satisfactory performance during a two- to three-year internship program following the granting of their undergraduate honours degree.

Most CA candidates satisfy the 51-credit hour requirement within an undergraduate BCom or BBA program. Typically, approximately 85% of CA candidates possess an honours BCom or BBA undergraduate degree; such students automatically qualify for the accelerated program. However, the chartered accountancy program also welcomes candidates who have pursued a *non-business* undergraduate degree. Indeed, non-business degree holders are especially welcome because they often bring a broader societal perspective to professional

practice. To remedy their lack of business and accounting studies, holders of non-business degrees must acquire the 51 credit-hours following conferral of their honours degree by taking courses offered within a CA-accredited Canadian university degree program. Students must obtain a minimum B average in these courses.

Approved: FGS Faculty Council 1 March 2012 • ASCP 21 March 2012

4. Change to the Admission Requirements for the PhD Program in Environmental Studies • Faculty of Graduate Studies

The Committee on *Academic Standards, Curriculum and Pedagogy* recommends that Senate approve a change in the admission requirements for the PhD program in Environmental Studies such that in addition to the existing requirement that candidates normally have a Masters degree, they must have an academic standing of at least a "B+" or equivalent in their MA program from an accredited university.

Rationale

This proposed change is in line with the Faculty's strategy to increase the quality and qualifications of its incoming PhD candidates. It formalizes the Faculty's current practice. It is very rare for the graduate program to admit candidates with grade transcripts that average below B+. Moreover given the self-directed character of the PhD program in Environmental Studies, it needs to ensure that incoming students are prepared well enough to develop their program plans and comprehensive areas to a significant extent with their own initiative.

Approved: FGS Faculty Council 2 February 2012 • ASCP 21 March 2012

FOR INFORMATION

1. Minor Curriculum Items Approved by ASCP

a) **Fine Arts**: approval of a change in the Visual Arts course rubric from VISA to ARTH for courses with Art History content. The change is coincident with the change in name of the Department of Visual Arts to the Department of Art and Art History (proposed by APPRC)

Amir Asif, Chair, ASCP

YORK UNIVERSITY

FACULTY OF GRADUATE STUDIES

GRADUATE PROGRAM IN EDUCATION

PROPOSAL FOR GRADUATE DIPLOMAS (TYPE 2 AND TYPE 3)

in

LANGUAGE AND LITERACY EDUCATION

January 2012

YORK UNIVERSITY
FACULTY OF GRADUATE STUDIES
GRADUATE PROGRAM IN EDUCATION

Proposal for Graduate Diplomas (Type 2 and Type 3)
in
Language and Literacy Education

1. INTRODUCTION

1.1. Two Graduate Diplomas in Language and Literacy are proposed effective Fall 2013:

- A Type 2 (concurrent) Graduate Diploma, awarded in conjunction with a Master's (MEd) or Doctoral (PhD) degree in the Graduate Program in Education
- A Type 3 (direct entry, stand-alone) Graduate Diploma

1.2. The name the Graduate Diploma is consistent with the current usage in the area of study, Language and Literacy Education. The term is sufficiently broad to cover the multi-dimensional character of the field.

1.3. The Type 2 Graduate Diploma will be awarded in conjunction with a Master's (MEd) or Doctoral (PhD) degree in the Graduate Program in Education.

2. General Objectives of the Graduate Diploma

2.1. The general objectives of the proposed Graduate Diplomas are:

a. to develop a complement of future researchers in language and literacy;
b. to afford educators in the areas of language and literacy an opportunity for specialization in this area;
c. to create a focus within the Graduate Program of Education at York and provide the capacity of educators to develop citizens whose personal, economic and intellectual lives are enhanced by advancing their skills in language and literacy.

2.2 The proposed Graduate Diplomas are consistent with the Faculty of Education's stated mission to "engage students, stimulate their interests, and raise their awareness of their environment and communities. In a world of difference, it encourages graduates to make a difference in the world."[1]

In keeping with the York University White Paper, this proposal is directly targeted at increasing engagement by developing a program that is directly related to societal interest.

2.3 The Type 2 Graduate Diploma is wholly integrated within the Graduate Program in Education's curriculum, and it is integral to the interdisciplinary field of Language, Culture and Teaching, representing a sub-specialization within that field.

3. Need and Demand

3.1 There are no comparable or similar diplomas offered at other Ontario universities. These proposed Graduate Diplomas are unique in several respects.

1 Paragraph one on the Faculty of Education's web site http://edu.yorku.ca

Since its inception in the mid-1980s, York's Graduate Program in Education, with its field of language, culture and teaching, has been the site of work in the area of language and literacy research and education. As the program has grown over the past several years, the faculty complement has increased such that the Graduate Program in Education now houses the largest concentration of language and literacy researchers in Ontario and the third largest concentration of language and literacy researchers in Canada. This faculty complement, developed over a period of years, is strategically poised to lead in the development of focused study in an area nationally recognized as a priority for our country as well as for the Province of Ontario.

3.2. Facility in language and literacy is central to the educative process. The desire to broaden and strengthen the language and literacy foundation among the population at large has intensified as Canada has moved towards a knowledge-based economy in a multi-lingual society, and as the technologies used within our society embed within them the demand to work creatively with varied language and textual forms. The dilemmas inherent in such a desire are represented in an August, 2010 Ipsos Reid poll conducted for ABC Life Literacy Canada which indicated that on the one hand 93% of Canadians see literacy as important for the quality of life; yet almost half of parents report being worried about supporting their child in the completion of homework. The relevance of language and literacy to one's life course is profound given that literacy, and by default the language that underpins it, has been found to be directly related to overall health status, mental health status, lifestyle, income and living and working conditions (Ronson & Rootman, 2008 [2]; Schecter & Lynch, 2011 [3]).

At the national level, two developments have occurred in response to this context. In 1987, Human and Resource Development Canada created the National Literacy Secretariat which has the following purposes: project development, grants administration, research, policy analysis, the support of promotion and awareness materials and events, and the support of symposia. Secondly, in 2001, the Canadian Language and Literacy Research Network was established through the National Centres of Excellence program. With goals such as the creation of knowledge with a view to helping "improve the language and literacy skills of Canadian Children," the CCLRN drew upon interdisciplinary research to pursue its objectives; however, its funding ceased in 2009 and the network ceased operations in 2010 creating a void on the national scene with respect to language and literacy research.

The proposed Type 2 and Type 3 Graduate Diplomas in Language and Literacy Education will help to meet longstanding graduate student interest in language and literacy education in both the public and private education systems and can be used as catalysts for moving literacy to the top of the agenda on the national scene. The proposed Graduate Diplomas, offered by the Graduate Program in Education, will be the only ones of their kind in the province of Ontario.

The Type 2 Graduate Diplomas will formalize the already established focus on language and literacy education within the Doctoral and Masters degrees in the Graduate Program in Education.

The Type 3 Graduate Diploma is designed to provide opportunities for graduate level study of theory and research in language and literacy for practicing teachers, school administrators, people working in community organizations and cultural institutions, and for advocacy groups.

The Graduate Diploma in Language and Literacy will be housed in the Graduate Program in Education. This program has a unique interdisciplinary field, Language, Culture and Teaching. The Graduate

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2 Ronson, B., & Rootman, I. (2008). Literacy and health literacy: New understandings about their impact on health. In D. Raphael (Ed.), *Social determinants on health: Canadian perspectives* (2nd ed., pp. 170-185). Toronto: Canadian Scholars; Press Inc.

3 Schecter, S.R., & Lynch, J (2011).Health learning and adult education: In search of a theory of practice. *Adult Education Quarterly 61*(3), 207-224.

Diploma in Language and Literacy represents a sub-specialization of the field of Language, Culture and Teaching in that it identifies those areas of study which focus specifically on language and literacy. The Graduate Program in Education currently offers the following Type 2 (concurrent) and Type 3 (direct entry) Graduate Diplomas: Early Childhood Education, Mathematics Education, Environmental/ Sustainability Education, Post-Secondary Education and Education in Urban Environments.

Within the Graduate Program in Education, courses in language and literacy are among those courses that are in high demand. In addition, interest in the development of programs with a language and literacy focus has come from school districts within the York University catchment area and, given the anticipated increase in the percentage of Canadian adults with low literacy[4], it is anticipated that considerable interest will also come from the field of adult and community education. It is anticipated that many of those currently pursuing courses with a focus in language and literacy will likely pursue the Graduate Diploma in Language and Literacy (Type 2). Average enrolments in language and literacy courses is approximately 12 students and it is anticipated that the establishment of the proposed diploma will help to grow this enrolment both from within the current graduate student cohort and from interest in the area of study/diploma by potential master's and doctoral applicants.

3.3. The Type 2 Graduate Diploma is likely to attract students who are interested in a further specialization in Language, Culture and Teaching related research.

The Type 3 Graduate Diploma is likely to attract persons who are employed in either public or private education, social agencies and business sectors. This diploma may also be used by teachers to enhance their qualifications with the Ontario College of Teachers.

4 **Low-literacy adults to increase 25% by 2031: report. URL:** http://www.cbc.ca/canada/story/2010/09/08/adult-literacy-report.html#ixzz1BOqnn9AE

4. Curriculum, Structure and Learning Outcomes

4.1. The requirements for the proposed Type 2 and Type 3 Graduate Diplomas in Language and Literacy are outlined in Table 1, and the diploma learning outcomes are outlined in Table 2.

Table 1: Diploma Requirements

PhD	MEd (Thesis Option)	MEd (Research Project)	MEd (Course based)	Type 2 Diploma Requirements	Type 3 Diploma
7 half courses (21 credits)	6 half courses (18 credits)	8 half courses (24 credits)	10 half courses (30 credits)	For the Type 2 diploma, students must complete the diploma core course, EDUC 5315 6.0, in addition to their degree program coursework requirements, plus three half courses or their equivalent (9 credits) chosen from the approved Language and Literacy list of courses (which may count toward both the degree program coursework requirements and the graduate diploma coursework requirements).	For the Type 3 diploma, students must complete the diploma core course, EDUC 5315 6.0, plus three half courses or their equivalent (9 credits) chosen from the approved Language and Literacy list, of courses, for a total of 15 coursework credits.
Comprehensive/ Proposal Paper (2 to 3 terms to complete) Dissertation (4 or 5 terms to complete)	Thesis (usually 3 to 4 terms to complete)	Research project (usually 2 or 3 terms to complete)	.	PhD or MEd Thesis or research project on language and literacy topic	No thesis or research project

For the Type 2 Graduate Diploma, students must successfully complete as part of their MEd or PhD coursework requirements 3 half courses or their equivalent (9 credits) chosen from the approved courses listed below (or other courses as approved by the diploma coordinator) plus the diploma core course, EDUC 5315 6.0 (which must be completed in addition to the MEd or PhD coursework requirements). With the exception of students in the coursework-only MEd, students pursuing the Type 2 diploma must also undertake their major research paper/project, thesis or dissertation on a topic in language and literacy as approved by the diploma coordinator.

For the Type 3 Graduate Diploma, students must successfully complete 5 half courses or their equivalent (15 credits) from the approved list below, including the diploma core course, EDUC 5315 6.0.

Table 2: Diploma Learning Outcomes

Degree Level Outcomes	Type 2 Graduate Diploma	Type 3 Graduate Diploma
Depth & Breadth of Knowledge	Understanding of historical and contemporary issues within language and literacy as informed by theory, research and professional practice as a result of: (a) the specific language and literacy focus of more than half of the MEd or PhD degree requirements, and (b) the research component of the MEd or PhD degree being on an approved language and literacy topic	Understanding of historical and contemporary issues within language and literacy as informed by theory, research and professional practice as a result of: (a) the specific focus of diploma requirements, and (b) the in-class requirements of courses being the same as that of students completing degrees
Conceptual & Methodological Awareness/ Research & Scholarship	• Understanding of the breadth of theoretical and research approaches within language and literacy (core course requirement for all students) • Evaluate, critique and extend understanding of theories and research approaches in language and literacy through the specific diploma electives chosen, and through the completion of the research project • Ability to craft sustained arguments in oral and written form in the area of language and literacy as demanded by course requirements and, for the thesis/dissertation, to undertake an original research project	• Understanding of the breadth of theoretical and research approaches within language and literacy (core course requirement for all students) • Evaluate, critique and extend understanding of theories and research approaches in language and literacy through the specific diploma electives chosen • Ability to craft sustained arguments in oral and written form in the area of language and literacy as demanded by course requirements
Communication Skills	Ability to form sustained arguments about language and literacy topics orally and in written form for varied purposes and audiences	Ability to form sustained arguments about language and literacy topics orally and in written form for varied purposes and audiences
Application of Knowledge	Competence in applying research and theory in language and literacy to new problematics and professional contexts encountered	Competence in applying research and theory in language and literacy to new problematics and professional contexts encountered
Professional Capacity/ Autonomy	• Initiative and independence in thinking about language and literacy issues in education and in society in general • Skills for seeking out, critically analyzing and using academic and processional resources in the conduct of academic and professional responsibilities	• Initiative and independence in thinking about language and literacy issues in education and in society in general • Skills for seeking out, critically analyzing and using academic and processional resources in the conduct of academic and professional responsibilities
Awareness of Limits of Knowledge	Understanding that education is complex and that language and literacy education and other disciplines may offer different interpretations and contributions to understanding language and literacy issues	Understanding that education is complex and that language and literacy education and other disciplines may offer different interpretations and contributions to understanding language and literacy issues

4.2. For all diploma students, the methods and criteria for assessing achievement of the diploma learning objectives will be determined by the course requirements. The diploma core course, Education 5315 6.0: Frameworks for Language and Literacy, introduces students to areas of debate within the field of language and literacy, and considers how these debates are represented within the range of research approaches used in the field. The course assignments of the diploma courses require a variety of modes of engagement – standard academic papers reviewing literature and research, responses to professional and societal issues, application of theories and methods to specific language and literacy problems, oral and media presentations using a variety of technological supports (e.g., Powerpoint, Prezi, video, wikis, blogs, mixed media) – which relate to depth and breadth of knowledge as well as communication skills developed, application of knowledge and the development of professional capacity/autonomy. The diploma courses were reviewed recently (April/May 2011) by a team of arms-length reviewers as part of the Graduate Program in Education's periodic review. With the exception of students in the coursework-only MEd, students pursuing the Type 2 Graduate Diploma must also undertake their major research paper/project, thesis or dissertation on a topic in language and literacy as approved by the diploma coordinator.

4.3. List of Diploma Courses

As noted above, the diploma courses were reviewed recently (April/May 2011) by a team of arms-length reviewers as part of the Graduate Program in Education's periodic review.

Course #	Credit	Course Title	Cross-listed	Home	Frequency of offering
EDUC 5315	6.0	Frameworks for Language and Literacy Theory and Research (required)	No		Yearly
EDUC 5300	3.0	Oral Language Learning in the Classroom	No		Every 2nd year
EDUC 5310	3.0	Literacy as Social Practice	No		Every 2nd year
EDUC 5311	3.0	Language in the Cosmopolis: Theory and Method	No		Yearly
EDUC 5320	3.0	Reading, Writing and Critical Literacy	No		Every 2nd year
EDUC 5330	3.0	Reading Theories -- A Critical Analysis	No		Every 2nd year
EDUC 5340	3.0	Adolescent and Children's Literature	No		Yearly
EDUC 5341	6.0	Children's Literature: Approaches and Issues	ENG	ENG	Occasional
EDUC 5360	6.0	African-American Literature	ENG	ENG	Occasional
EDUC 5370	3.0	Indigeneity and Territory in Cultural Traditions	ENVS	EDUC	Every 2nd year
EDUC 5380	3.0	Second Language Instruction	LING	EDUC	2 x a year
EDUC 5381	3.0	Reading and Writing in a Second Language: Theory to Practice	LING	LING	Yearly
EDUC 5382	3.0	Listening and Speaking in a Second Language; Theory to Practice	LING	LING	Yearly
EDUC 5383	3.0	Multilingual Education	LING	EDUC	Yearly
EDUC 5385	3.0	Multimodal literacies	LING	EDUC	Yearly
EDUC 5520	3.0	Teaching Writing	No		Every 2nd year
EDUC 5521	3.0	Research on Writing	LING	EDUC	Every 2ndyear
EDUC 5525	3.0	The Act of Writing	No		Every 2ndyear
EDUC 5527	3.0	Creative Writing Pedagogy	No		Every 2nd/ 3rd year

EDUC 5530	3.0	Emergent Literacy	No		Yearly
EDUC 5535	3.0	Family Literacy	No		Yearly
EDUC 5550	3.0	Play, Language and Learning	No		Yearly
EDUC 5730	3.0	Issues in Language and Literacy Education for Special Populations.	No		Ever 2nd or 3rd year

Note: With the permission of their advisor or supervisor, students may substitute up to two other half courses (outside of the approved list) relevant to language and literacy, including courses in the Graduate Program in Education or other graduate courses at York University. The total number of courses taken outside the approved listing may not exceed two half courses (6 credits). Admission into these courses is at the discretion of the course director.

Note: For PhD students, depending upon their preparation in language and literacy, the required course, EDUC 5315 6.0 Frameworks for Language and Literacy Theory and Research, may be waived at the recommendation of the student's supervisor and replaced by two half courses (6 credits) from the approved listing of Language and Literacy courses.

Calendar Course Descriptions of Diploma Courses

Education 5300 Cr=3.0: Oral Language Learning in the Classroom. This course provides a critical examination of the theoretical positions and research findings on oral language learning. Discourse analysis of classroom transcripts allows for close examination of the impact of oral language patterns, and their implications for assessment and pedagogy.

Education 5310 Cr=3.0: Literacy as Social Practice. The theorization of literacy as a social practice is considered in terms of contexts such as family, school, new media, workplace, and cultural communities. Through contrastive analyses of exemplars of such contexts, principles are developed about what literacy is as it is occurs in everyday contexts.

Education 5311 Cr=3.0: Language in the Cosmopolis. Theory and Method. The course provides training in the conceptualization and conduct of language-related research in urban contexts characterized by transnational migration, transience, and flux. Intended for advanced Master's and doctoral students, the course addresses problems in and approaches to both discourse-based and empirical inquiry.

Education 5315 Cr=6.0: Frameworks for Language and Literacy. Organized into four modules, this course introduces students to areas of debate within the field of language and literacy and considers how these debates are represented within the range of research approaches used in the field.

Education 5320 Cr=3.0: Reading, Writing and Critical Literacy. This course consists of a critical examination of both the theoretical positions and research findings concerning reading and writing. This examination functions as a basis for evaluating current assessment and instructional practices used with children who do and don't learn well in schools. The course elaborates on theory and research findings that are conducive to making the classroom more facilitative of literacy acquisition for all learners. The course facilitates student inquiry into practice by exploring literacy issues from theoretical, personal, political and professional perspectives.

Education 5330 Cr=3.0: Reading Theories — A Critical Analysis. Several major theoretical perspectives on learning to read are used to critically consider how they deal with the following questions: What counts as text? Who is the reader? What is context? What is (a) reading?

Education 5340 Cr=3.0: Adolescent and Children's Literature. This course explores child/adolescent literature from theoretical, artistic, cultural, historical, pedagogical and political perspectives, examining literary examples as contextually constructed. Attention to race, class and

gender and aesthetic and moral questions promotes critical readings of texts old and new.

Education 5341 6.0: Children's Literature: Approaches and Issues. An exploration of approaches taken in the creation, interpretation and application of children's literature in the modern western world, this course focuses on the recent emergence of critical approaches to the literature, emphasizing the growth and significance of multicultural theory. *Same as English 6091 6.0.*

Education 5360 6.0: African-American Literature. A study of African American writers, their literary and extra-literary influences and their historical and cultural contexts. *Same as English 6630 6.0.*

Education 5370 Cr=3.0: Indigeneity and Territory in Cultural Traditions. This course examines theories of traditional territory in narrative primacy and methodology in oral and literate cultures; the primacy of voice and story in First Nations nature traditions; the relationship of 'place' and story in the heritage of North American nature/environmental education. *Same as Environmental Studies 6154 Cr=3.0.*

Education 5380 Cr=3.0: Second Language Instruction. This course critically analyzes issues prominent in the research, theoretical and pedagogical literature on second language learning and teaching. Selected readings emphasize linguistic, social, psycholinguistic and educational perspectives on second language instruction. Emphasis is placed on English and French as Second/Foreign languages. *Same as Linguistics 5670 Cr=3.0.*

Education 5381 Cr=3.0: Reading and Writing in a Second Language: Theory to Practice. This course examines theoretical constructs relevant to reading and writing in a second language and reviews existing empirical research in order to draw implications and applications for second language pedagogy (i.e. curriculum and materials development, effective classroom practice and assessment). *Same as Linguistics 6230 Cr=3.0.*

Education 5382 Cr=3.0: Listening and Speaking in a Second Language: Theory to Practice. This course examines theoretical constructs relevant to listening and speaking (including pronunciation) in a second language and reviews empirical research in order to draw implications and applications for second language pedagogy: curriculum, materials development, effective classroom practice and assessment. *Same as Linguistics 6250 Cr=3.0.*

Education 5383 Cr=3.0: Multilingual Education. This course considers multilingual education within the competing forces of multiculturalism and globalization, exploring language policy and human rights, the teaching of community and international languages locally, nationally and overseas, evolving multiliteracies, language use in virtual space, and the internationalization of education. *Same as Linguistics 6290 Cr=3.0.*

Education 5385 Cr=3.0: Multimodal Literacies. This course examines the changing face of literacy in our networked worlds, exploring contemporary literacy shapes, sites and practices. The course invites diverse theoretical and pedagogical perspectives on multimodal literacies, and contemplates new basics in 21st century literacy education. *Same as Linguistics 6300 Cr=3.0.*

Education 5520 Cr=3.0: Teaching Writing. This course develops understanding of writing and writing instruction through involvement in the writing process, observation and discussion of classroom writing and instructional practices and through critical examination of writing research and theory. Instructors present and examine key aspects of writing process, pupils' development as writers, curriculum and research. Candidates are expected to engage in personal writing regularly, both in and out of class. Candidates are also expected to present to the class an examination of a particular aspect of the development of writing in the classroom through a critical application of current research and theory.

Education 5521 Cr=3.0: Research on Writing. This course examines theoretical and methodological perspectives on researching the learning, teaching and assessment of writing in academic and non-academic settings. It considers learning to write, writing to learn, and the relationships between reading and writing in L1 and L2. *Same are LING 6285 Cr=3.0.*

Education 5525 Cr=3.0: The Act of Writing. This workshop course generates writing and explores the art and craft of fiction, creative nonfiction (memoir, essay) and/or poetry. Students consider authorial stance and technical features in range of literary works. Genre focus will depend on the expertise of instructor(s) and student interest.

Education 5527 Cr=3.00: Creative Writing Pedagogy. This course investigates creative writing pedagogy through both theory and practice. As creative writing is a process-based discipline, students will first develop a deep engagement with their own creative writing practice within a learning community. Theoretical readings will then inform reflections upon this experience as well as critical inquiry into the creative process, the workshop model, instructional guides and strategies, and institutional contexts to construct a polytheistic understanding of the learning and teaching of creative writing. *By permission of the instructor(s). While there are no specific prerequisites, this course presumes very high levels of fluency and literacy in English. It is not a course in basic academic writing.*

Education 5530 Cr=3.0: Emergent Literacy. This course analyzes how children become literate. It focuses particularly on the literacy knowledge children have prior to and during the first years of schooling. A range of theoretical positions is explored and critiqued.

Education 5535 Cr=3.00 Family Literacy. Family literacy practices are explored in this course in terms of their relationship to school practices and children's literacy development. The types of programs schools offer to families to promote school-like literacy practices as well as community-based programs are examined.

Education 5550 Cr=3.0: Play, Language and Learning. Classic and contemporary theoretical perspectives on the role of play in language and learning are explored. Examples of contemporary research on the intersections of play, language and learning in school and non-school contexts are also considered.

Education 5730 Cr=3.0: Issues in Language and Literacy Education for Special Populations. This course examines some of the key questions, debates and controversies surrounding language and literacy education, with a special focus on analyzing theories, policies and practices in language and literacy education for students who have disabilities which affect communication and language learning.

4.4. Unless otherwise specified, all courses are offered in-class seminars and supplemented as required with online resources. Maximum enrollment in a Graduate Program in Education course is set at 20. Modes of delivery support degree level outcomes in the following ways:

(a) class sizes are consistent with that of a seminar and, as such, support discussion and critical engagement of material studied which supports students' conceptual and methodological awareness as well as the development of a research and scholarship community,

(b) course assignments require a variety of modes of engagement – standard academic papers reviewing literature and research, responses to professional and societal issues, application of theories and methods to specific language and literacy problems, oral and media presentations using a variety of technological supports (e.g., Powerpoint, Prezi, video, wikis, blogs, mixed media) – which relate to depth and breadth of knowledge as well as communication skills developed, application of knowledge and the development of professional capacity/autonomy.

5. Admission Requirements

5.1. Admission to the Type 2 Diploma

Registration for the Type 2 diploma occurs after the candidate has been admitted to the Master's or Doctoral degree in the Graduate Programs in Education. Any student admitted to the MEd or PhD degree may register for the Type 2 Graduate Diploma in Language and Literacy within the first year of the degree program in which they are registered, if their interest corresponds to this subject area. Admissions to the Diploma are subject to approval by the Diploma Co-ordinator.

The requirements for admission to the MEd and the PhD are outlined in the calendar of York University and at http://www.edu.yorku.ca

Admission requirements align with diploma outcomes in that they require:

(a) an established level of breadth and depth of knowledge (as indicated by baccalaureate education and letters of reference),
(b) an articulation of conceptual awareness of the field of language, culture and teaching, of which the diploma in language and literacy forms an integral part,
(c) an illustration of the ability to communicate to specialist and non-specialist audiences through the statement of interest and the sample of writing on an area of interest,
(d) professional capacity in the form of the curriculum vitae, the statement of interest which describes how the program may serve academic and/or professional interests, and letters of reference which may come from professional sources.

5.2. Admission to the Type 3 Diploma

The Type 3 diploma is offered as a direct-entry diploma, in the Graduate Program in Education, as a sub-specialization within the field of *Language, Culture, and Teaching.* This diploma option permits part-time study.

The admissions requirements for the direct-entry Graduate Diploma in Language and Literacy are the same as requirements for entry into the MEd program, with one exception - the statement of interest for direct entry applicants must address issues in language and literacy. Normally, applicants are required to have an acceptable undergraduate degree with at least a B+ average. Admissions to the Type 3 diploma are subject to approval by the Diploma Co-ordinator.

Admission requirements align with diploma outcomes in that they require:

(a) an established level of breadth and depth of knowledge (as indicated by baccalaureate education and letters of reference),
(b) an articulation of conceptual awareness of the field language and literacy through the statement of interest,
(c) an illustration of the ability to communicate to specialist and non-specialist audiences through the statement of interest and the sample of writing on an area of interest,
(d) professional capacity in the form of the curriculum vitae, the statement of interest which describes how the program may serve academic and/or professional interests, and letters of reference which may come from professional sources.

6. Resources

Administration of the Graduate Diploma in Language and Literacy

The Diploma will be administratively housed in the Graduate Program in Education, Faculty of Education. A diploma coordinator will be appointed, who will be responsible for academic oversight of the diploma.

6.1. Faculty Resources

Faculty members with an interest in this Diploma from the Graduate Program in Education include, but may not be limited to:

Faculty Member & Rank	Home Unit	Primary Graduate Program	Area(s) of Specialization
Khaled Barkaoui, Assistant Professor	Education	Education	Assessment in education; program evaluation; research methods in education; second language learning; second-language writing; second-language assessment; English for academic purposes.
Jill Bell, Professor	Education	Education	Second language acquisition; literacy and culture; teacher development; adult learners; narrative, experiential and ethnographic research methodologies; oral language patterns in classroom settings; relationship between alphabetic and non-alphabetic literacies.
Nombuso Dlamini, Associate Professor	Education	Education	Literacy and critical sociolinguistics; critical Pedagogy; postcolonial theory and de-colonizing research methodologies; studies in youth social identities; socio-cultural studies in education; migration and diaspora studies; gender matters.
Rishma Dunlop, Associate Professor	Education/ English	Education/ English	Literary studies and fine arts; English education; literary theory; contemporary fiction and poetry; creative writing; writing pedagogy; postcolonial and diasporic literatures; literacy and human rights education; literature and art of witness; critical and cultural literacies; aesthetics and imagination; visual art; women artists in higher education.
Esther Fine, Associate Professor	Education	Education	Critical literacy, complexities of conflict resolution and peacemaking; urban schooling; collaborative teaching and learning; reading and writing creative non-fiction; child and adolescent literature; video research; narrative inquiry and social identity.
John Ippolito, Assistant Professor	Education	Education	Teacher education in contexts of linguistic and cultural diversity; relationships between mainstream education & minority families; school-based university partnerships; linguistic diversity & ethics; languages representation & research.
Karen Krasny, Associate Professor	Education	Education	Literary theory and reader response; theoretical models and processes of reading; adolescent and children's literature; K-12 language arts and English education; gender and literacy; writing women's lives; curriculum theory; Hermeneutics; bakhtinian dialogism; American pragmatism.
Heather Lotherington, Professor	Education	Education	Language and literacy education in multicultural societies; multiliteracies; digital literacies; epistemologies and pedagogies; language and technology; multiple language acquisition, maintenance, shift; language policy issues.
Jacqueline Lynch, Associate Professor	Education	Education	Early literacy development and achievement; family literacy; parents' and teachers' literacy beliefs; sociocultural and socio cognitive approaches to teaching and learning literacy; early childhood education and development.
Connie Mayer, Associate Professor	Education	Education	Language and literacy development in learners at risk (e.g., deaf and hard of hearing); emergent literacy; early intervention; bilingualism; the role of signed language in educating D/HH learners; classroom discourse.
Sharon Murphy, Professor	Education	Education	Literacy assessment; portrayal of literacy in the media; literacy theories; classroom discourse during literacy events; assessment practices in non-school contexts; literacy learning and the arts

Razika Sanaoui, Associate Professor	Education	Education	English as a second Language education; French as a second language education; language education for linguistic minorities; second language acquisition/ instruction/assessment processes; lexical development; writing development; computer communications in multilingual education; teacher education and certification.
Sandra R. Schecter, Professor	Education	Education	First and second language acquisition and learning; bilingualism; language socialization; language and global processes; language policy and planning; community-referenced education; linguistic minority students' acquisition of academic literacy.

Additional Required Resources
A diploma coordinator will be appointed and modest secretarial/ administrative support for the diploma will be needed in the Graduate Program in Education. Should enrolment in the program grow, additional courses may need to be offered.

6.2. Laboratory facilities - NA

6.3. Space
All students in the Graduate Program in Education (MEd and PhD) as well as Graduate Program in Education Diploma Programs have available space in 030 Winters College where they have access to computers, the internet, 24/7. They can also book a room in that area for private meetings. Also, all teaching and research assistants have available shared office space on the second floor of Winters College.

7. Support Statements- Appendix A
- Alice Pitt, Dean, Faculty of Education
- Rhonda Lenton, Vice Provost Academic
- Peggy Warren, Liaison Librarian/Education, York University Libraries
- Joanne Duklas, Assistant Vice-President, Enrolment Management & University Registrar

APPENDIX A

YORK
UNIVERSITÉ
UNIVERSITY

FACULTY OF
GRADUATE STUDIES

**Graduate Program
in Education**

4700 Keele St.
Toronto ON
Canada M3J 1P3

October 25, 2011

To whom it may concern,

I am pleased to write this letter in support of the Graduate Program in Education's proposal for graduate diplomas (Type 2 and Type 3) in Language and Literacy Education.

Since these proposed diplomas draw on existing course offerings (with the exception of a new proposed core course in language and literacy), faculty teaching resources are already in place. As for the new course, required teaching resources will be drawn from a realignment of multiple sections of an existing course not connected to the proposed diplomas. This arrangement means that no new faculty or physical resources will be required to support the graduate diplomas. With respect to administrative resources, advising in the graduate diplomas will be carried out by a diploma program coordinator. As is the case in other diploma programs, the coordinator will receive an administrative stipend. All other administrative functions will be channeled through the graduate program office.

While I currently foresee no need for new or additional resources, save for the diploma coordinator's administrative stipend, I am committed to providing these resources should the need arise.

Yours sincerely,

Alice Pitt, Dean
Faculty of Education

YORK
UNIVERSITÉ
UNIVERSITY

OFFICE OF THE VICE PROVOST ACADEMIC

4700 Keele St.
Toronto Ontario
Canada M3J 1P3
Tel 416 736 5396
Fax 416 736 5876

Memorandum

To: Lauren Sergio, Chair, Faculty of Graduate Studies Academic Planning and Policy Committee

From: Rhonda Lenton, Vice Provost Academic

Date: November 9 2011

Subject: Graduate Diplomas (Type 2 & Type 3) in Language and Literacy Education

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On behalf of the Office of the Vice-President Academic & Provost, I am writing to provide a statement on the proposal brief for the Graduate Diplomas (Type 2 and Type 3) in Language and Literacy Education (dated September 2011). The proposal brief has been developed following the protocol for new programs for expedited approval under the York University Quality Assurance Procedure (YUQAP).

The diplomas will be unique in Ontario and build on the considerable language and literacy research strengths in the Faculty of Education. The proposal brief addresses government and societal priorities and presents a sound rationale for the need and demand for language and literacy education at the graduate level. Focused study in this area will afford future researchers, educators and community practitioners opportunities for specialization.

Dean Pitt has indicated that the resources required to launch the diplomas are minimal, given that they draw largely on existing offerings. With reference to the development of the new core course required for the diplomas, Dean Pitt has confirmed her commitment to realign existing resources to fund it.

I am happy to record my support for this initiative.

The Proposal Brief for Graduate Diplomas (Type 2 and Type 3) in Language and Literacy Education may proceed to the next stage of the YUQAP.

Cc.
Alice Pitt, Dean, Faculty of Education
Sandra Schecter, Director, Graduate Program, Faculty of Education
Paul Tonin, Academic Affairs Officer, Faculty of Graduate Studies
Patrick Monahan, Provost

York University Libraries
Scott Library
4700 Keele Street
Toronto, ON
M3J 1P3

MEMO

To: Elizabete Petersons, Graduate Coordinator, Faculty of Education

From: Peggy Warren, Liaison Librarian / Education, York University Libraries

Date: 31 October 2011

Re: Library statement in support of Graduate Diploma in *Language & Literacy Education*

Thank you for forwarding the proposal outlining a new graduate diploma in Language and Literacy Education, to be offered either as a stand-alone diploma or in conjunction with the masters or doctoral programs in the Faculty of Education. Library collections, both print and digital, are very strong in these areas and continue to grow; students have access to a large array of monographs, journals, databases, government documents, data & statistics and visual materials pertaining to language(s) and literacy.

York University Libraries is well able to support a graduate diploma in Language and Literacy Education.

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ASSISTANT VICE-PRESIDENT, ENROLMENT MANAGEMENT AND UNIVERSITY REGISTRAR

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

Memorandum

To: Sandra Schecter, Director program in Education, Faculty of Education

Date: November 7, 2011

From: Joanne Duklas, Assistant Vice-President, Enrolment Management & University Registrar

C.C.: Julie Parna, Director, Admissions; Cheryl Underhill, Secretary, ASCP

Subj.: Proposal for a Graduate Diploma in Language and Literacy Education

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Thank you for the opportunity to comment on this proposal for Graduate Diplomas (Type 2 and Type 3) in Language and Literacy Education. These diplomas clearly respond to a demand for expertise in this area as well as builds on the existing strengths of the graduate program in Education.

The implementation date for the graduate diplomas didn't appear to be explicitly identified in the proposal. Having noted this, there are no concerns from our end regarding implementation. We are assuming this initiative will be fully approved after this admission cycle – ie that the intention is this will be in place for Fall 2013. To assist you, I have copied Cheryl Underhill in the Secretariat who can provide details on the new quality approval process.

We are happy to discuss any further implementation details as the need arises.

Proposal for a BASc Degree in Electrical Engineering

Department of Computer Science and Engineering

Proposal for a Bachelor's Degree in Electrical Engineering

(A new program in the Faculty of Science and Engineering)

Executive summary: Electrical engineering, which deals with the electrical, electronic, and wireless infrastructure that enables our modern life, is both an important discipline within engineering, and a typical degree program within engineering schools in Canada and beyond. The Department of Computer Science and Engineering at York University proposes to launch a new bachelor's degree program in electrical engineering, which will include specializations in power systems, electronics, communications and signal processing, and medical and assistive devices. Considerable resources will be required to launch this new degree program, including additional faculty member positions and new undergraduate laboratories. However, it is essential that a strong electrical engineering program be part of York University's engineering expansion.

1. Context

1.a. Statement of purpose

Electrical engineering (EE) is a broad, important and widely-recognized discipline within the field of engineering. Historically, industrial interest in EE arose from the increasing use of both telegraphy and electrical power generation in the mid-19th century.[1] As an academic discipline, EE has its roots in applied physics, with the physics department at the Massachusetts Institute of Technology offering the first course in EE in 1882.[2] Modern EE departments are also typically concerned with telecommunications and power generation, but many other specialties are also considered EE, including electromagnetism, microelectronics, control systems, photonics, and signal processing, among others. EE in the 21st century can also include multidisciplinary, collaborative specialties such as nanotechnology and biomedical engineering, which adapt the analytical techniques from more traditional branches of EE to new applications.

The Department of Computer Science and Engineering (CSE) at York University proposes to launch a new bachelor's degree program in EE. This proposal builds on CSE's long history of involvement with engineering: new EE stream would complement the engineering streams of Computer Engineering (CE) and Software Engineering (SoftE) already administered by CSE. Further, as we discuss in this proposal, there exists a substantial overlap in the typical curricula of computer science, CE, SoftE, and EE, as well as in the expertise required to teach them; indeed, many current faculty members in CSE hold either bachelor's or graduate degrees in EE. Finally, CSE is a natural department in which to host a new program in EE: in nearly every engineering faculty in Canada, EE and CE are housed in the same department; considering programs both in Canada and the United States, it is also common for EE, CE, and computer

[1] "History of IEEE," http://www.ieee.org/about/ieee_history.html

[2] F. C. Berry, P. S. DiPiazza, and S. L. Sauer, "The future of electrical and computer engineering education," *IEEE Trans. Education*, vol. 46, no. 4, pp. 467—566, Nov. 2003.

science to be combined in a single department (examples include MIT, the University of California at Berkeley, the University of Ottawa, and many others).[3]

1.b. University Undergraduate Degree Level Expectations (UUDLEs)

A) Program objective: The graduates of the program will be well prepared in the fundamental electrical engineering concepts to be successful in applied sciences and engineering industries and in graduate schools. This is achieved through rigorous electrical engineering education (including but not limited to the areas of mathematics, basic sciences, engineering sciences, and engineering design), and by acquisition of problem solving skills, laboratory experience, and effective communication and teamwork skills. The graduates will understand the limitations of knowledge in the field of electrical engineering as well as their technical and ethical responsibilities to the society, in general.

B) Depth and Breadth of knowledge, Knowledge of Methodologies, and Application of knowledge: The design of the program is based on the Ontario Council of Academic Vice-Presidents (OCAV) Guidelines for the undergraduate degree level expectations. In addition, it covers the major categories of program level outcomes listed in the Accreditation Board for Engineering and Technology (ABET) guidelines and fulfils the Canadian Engineering accreditation Board (CEAB) requirements. In this section, we explain the UUDLEs for the first three areas specified in the Ontario Council of Academic Vice-Presidents (OCAV) Guidelines for undergraduate degree level expectations. Where applicable, the related ABET guidelines and graduate attributes specified by CEAB are specified in parenthesis immediately following the listed items.

C) Breadth and depth of knowledge: The graduate of this program will:

- Be able to use knowledge of basic and engineering sciences to analyze and design complex devices and systems in the field of electrical engineering ABET Program Outcome (m) and CEAB Graduate Attribute 3.1.3: Investigation).
- Have the ability to use understanding of probability, statistics and advanced mathematics (use of differential equations and complex variables) appropriately in solving analysis and design problems in the field of Electrical Engineering (ABET Program Outcome (a), (n), and (l), and CEAB Graduate Attribute 3.1.4: Design).

D) Methods: The graduate of this program will:

- Be able to use the techniques, skills and modern engineering tools required for professional practice in Electrical Engineering (ABET Program Outcome (k) and CEAB Graduate Attribute 3.1.5: Use of Engineering Tools).

E) Applications of Knowledge, Skills, and Tools: The graduate of this program will:

- Be able to formulate and solve Electrical Engineering problems (ABET Program Outcome (e) and CEAB Graduate Attribute 3.1.2: Problem Analysis).

[3] Departments combining EE, CE, and computer science normally take the name Electrical Engineering and Computer Science (EECS). The CSE department has already agreed to change its name to EECS, assuming that the EE program proposal is approved.

- Be able to design systems or processes to meet desired specifications in the field of Electrical Engineering (ABET Program Outcomes (b) and (c), and CEAB Graduate Attribute 3.1.4: Design).
- Have the ability to function in multidisciplinary teams. (ABET Program Outcome (d) and CEAB Graduate Attribute 3.1.6: Individual and teamwork).

F) Communication Skills: The graduates of the program will:

- Be able to communicate about engineering issues and projects in a variety of written and oral formats used by practicing professionals in Electrical Engineering (ABET Program Outcome (g) and CEAB Graduate Attribute 3.1.7: Communication Skills).

G) Limits of Knowledge: The graduates of the EE program will:

- Recognize the significance of physical and (current) technical limits in the field of Electrical Engineering.
- Be able to critically assess advances in the field of Electrical Engineering.
- Use appropriate strategies to keep current in theoretical and practical knowledge and skills.
- Proactive in identifying, and responsive to, multi-disciplinary perspectives on the societal and global impacts of engineering solutions (ABET Program Outcome (h) and (j), and CEAB Graduate Attribute 3.1.9: Impact of engineering on society and environment).

H) Autonomy and Professional Capacity: The graduates of the EE program will:

- Recognize and be able to demonstrate fulfillment of professional and ethical responsibilities as an Electrical Engineer (ABET Program Outcome (f) and CEAB Graduate Attribute 3.1.10: Ethics and Equity).
- Be capable of contributing productively as a member of a professional and/or multi-disciplinary team working on an Electrical Engineering project (CEAB Graduate Attribute 3.1.8: Professionalism).
- Fulfill responsibilities associated with technical leadership roles
- Have the ability to engage in a life-long learning. (ABET Program Outcome (i) and CEAB Graduate Attribute 3.1.12: Life-long learning).

I) Project Management: The graduates of the EE program will:

- Integrate economic and business practices (including project, risk and change management) into professional practice as an Electrical Engineer (CEAB Graduate Attribute 3.1.11: Economics and Project Management).

J) Tools that realize the program level Expectations: In this section, we describe the courses in our program that achieves the program level expectations. A tabular representation is included in Fig. 1.

- Knowledge of mathematics and basic science is achieved by a sequence of mathematics and science courses in the first 2 years (MATH 1013, MATH1014, MATH1019, MATH1025, MATH2015, CHEM1000, EATS1010, PHYS1010, PHYS2020, and PHYS2211).
- Knowledge of probability is achieved by MATH2030: Introduction to Probability.

- Computer skill is an important component of engineering education. A sequence of courses (CSE1010, CSE1020, and CSE2601) helps the students to gain understanding and experience in a variety of programming paradigms including Java, C, and Linux. The computer organization course CSE2021 introduces assembly language programming (MIPS) to the students. In addition, several courses including CSE2602 and CSE3602 familiarize students with Matlab, the de-facto standard of programming in the engineering industry.
- Technical writing is emphasized in all four years of the curriculum. A course in technical writing (ENG1001) introduces technical writing to students and helps students in improving their written communication skills in the first year. Report writing and presentations in project courses (ENG1000, ENG2001, ENG3000, and ENG4000) spread across all four years of the curriculum further builds on the technical writing and oral communication skills of the students. In particular, the senior design project includes a series of technical reports (design specification report, preliminary design report, critical design report, and final report), which documents design and technical aspects of the project from project specification, background research, analysis, testing, and final system design.
- Professional engineering practice and ethics are covered in ENG3000: Professional Engineering Practice. The course also provides students with an understanding of the impact of engineering solutions in a global and societal context.
- Team work is enforced in many course projects throughout the program and in the senior design project ENG4000. Interdisciplinary teams with members from different engineering disciplines are encouraged in the senior design project to resemble the work place environment.
- Comprehensive knowledge and experience in the design of system and processes in the Electrical Engineering field is achieved through a sequence in required courses (ENG1000, ENG2001, CSE3202, ENG3215, and a number of elective courses in the fourth year) and is culminated with the senior design project ENG4000.
- A majority of courses in the proposed curriculum contain a compulsory lab component. These include experimental labs as in Physics courses (PHYSC1010, PHYS2020, and PHYS2211) as well as specialized hardware labs in core electrical engineering courses (CSE3201, ENG2200, ENG2210, and CSE3602). The lab experience helps students achieve practical experience in system, processes, and device implementations.
- Project management skills are honed in the design courses (ENG1000, ENG2001, and ENG4000), where students work in teams. In the senior design project ENG4000, for example, students specify, design, and implement a complex engineering project in a professional manner. The format is intended to resemble engineering projects in practice with strict deadlines. Team members develop the project design, identify individual roles and execution phases, and manage the design through each of the project execution planning phases and finally through the execution phase to meet the specified project objectives. Furthermore, these skills are also acquired during optional co-op/internship terms.

Fig. 1: Courses contributing to expected learning outcomes of the Program

Breadth and depth of knowledge:
Mathematical and scientific foundations:

MATH 1013	CHEM1000
MATH1014	EATS1010
MATH1019	PHYS1010
MATH1025	PHYS2020
MATH2015	PHYS2211
MATH2030	

Engineering Sciences and Methods:

CSE1010	ENG1000	PHYS2020
CSE1020	ENG2001	PHYS2211
CSE2601	CSE3202	CSE3201
CSE2021	ENG3215	ENG2200
CSE2602	ENG4000	Year IV Electives
CSE3602	PHYS1010	

Application of knowledge:

ENG1000
ENG2001
ENG4000

Communication skills:

ENG1001
ENG1000
ENG2001
ENG3000
ENG4000

Limits of knowledge; Autonomy and professional capacity:

ENG3000
ENG4000

Project Management:

ENG1000
ENG2001
ENG4000

1.c. Consistency with unit plans

Unit plans explicitly include the development of an EE program as the leading new program in the proposed Lassonde School of Engineering, and it is assumed that the first students will be admitted for the 2013-14 academic year. Engineering is a high priority for both the Faculty of Science and Engineering, and for the university as a whole: the recent announcements of $50 million from the Ontario government for a new engineering building, as well as a private donation of $25 million from Pierre Lassonde, have added resources and urgency to the engineering expansion project. It is expected that EE will be followed by Civil Engineering and Mechanical Engineering in the 2014-15 academic year, and by Chemical Engineering in the 2015-16 academic year.

For the university as a whole, engineering expansion is a key objective in achieving the university's strategic targets over the next decade. The draft University Academic Plan (written prior to the recent financial investments) states, "Engineering has featured in academic plans since the University's founding, and expansion will be pursued when the necessary, dedicated funding is secured."[4] The plan further states that the university's planning over the next several years is grounded in "an ongoing commitment to the diversification of academic activities in line with creating a more comprehensive university, including teaching and research in … engineering."[5] The draft Provostial White Paper states (as an objective) that the university should "create a more comprehensive university, by expanding the scope of the University's teaching and research activities in … engineering," and as an initiative to achieve this objective, "dependent on appropriate funding, establish new programs in … engineering."[6]

1.d. Admission requirements

Admission requirements for the EE program will be identical to the admission requirements for the Computer Engineering program. It should be noted that all engineering programs at York University have a common first year, and it is the intention to maintain this common first year in the new EE program. Thus, there is no need for specialized admission requirements.

1.e. Consultation

The Ontario Council of Academic Vice-Presidents (OCAV) Quality Assurance Framework requires external consultations to ensure the quality of our proposed program. We undertook this consultation in February 2012, and the reviewers' report is attached.

[4] *University Academic Plan 2010—2015: Enhancing Academic Quality in a Globalized World*, p. 10, http://www.yorku.ca/univsec/senate/committees/APPR/UAPConsultationDraftJan2011.pdf
[5] ibid., p. 6.
[6] *Canada's Engaged University: Strategic Directions for York University 2010—2020,* p. 79, http://vpacademic.yorku.ca/whitepaper/docs/February_Draft_White_Paper.pdf

1.f. Need and demand

Demand for engineering programs is expected to increase significantly over the next 10 years. Enrolment in the proposed Lassonde School of Engineering is expected to reach 2000 students by academic year 2021-22.

Enrolment predictions have not been made for each year of the EE program, but as the lead program in the engineering expansion project, we expect to have about 20% of the students in the school. The following table gives our working assumption of EE enrolment over the next several years:[7]

	2013-14	**2014-15**	**2015-16**	**2016-17**	**2017-18**
1st yr	50	60	70	80	90
2nd yr	0	30	40	40	50
3rd yr	0	0	20	30	40
4th yr	0	0	0	20	30
Total	50	90	130	170	210

Further enrolment increases are expected beyond 2017-18, with a predicted total enrolment of 360 by 2023-24.

2. Program Requirements

2.a. Overview

In Canada, curricula for engineering programs are regulated and accredited by the Canadian Engineering Accreditation Board (CEAB). The CEAB has established stringent criteria for accredited engineering programs, including minimum hours of instruction in the categories of mathematics, natural science, engineering science, engineering design, and complementary studies; and a requirement that licensed professional engineers (P.Eng. or limited license) teach a minimum number of hours of instruction in engineering science and engineering design. Accordingly, the new EE program must be carefully designed so as to meet the requirements of CEAB accreditation. A list of the required hours of instruction for all courses in the curriculum, known as accreditation units (AUs), is given as an attachment.

Further, there is a requirement that curriculum development and control should be in the hands of license holders. The administrators, directors, and course-teaching faculty members (teaching courses that are primarily engineering science and engineering design) are expected to be license holders. To address this requirement, the department has already approved an administrative reorganization to ensure that engineering programs remain under the control of engineers.

The School of Engineering at York University currently offers four engineering programs: Space Engineering, Geomatics Engineering, Computer Engineering, and Software Engineering; of these, Computer and Software Engineering are housed in the Department of Computer Science and Engineering. All existing programs in the School share a common first year, which is a

[7] These numbers are based on 1st year intake and total enrolment numbers over the given period, provided by the Associate Dean for Engineering.

common (though not universal) practice among Canadian engineering faculties. We intend to maintain this common first year in the new EE curriculum, as it provides a suitable basis for upper-year EE courses, and provides flexibility for students who need not commit to a particular engineering degree program at admission time. Further, due to the similarities between computer engineering and electrical engineering, the programs share a number of courses in upper years: for example, there are only two courses that differ between the two programs in second year, and the programs share several courses in third year. A complete comparison of EE, Computer Engineering, and Software Engineering is provided in Appendix A.

However, the new EE program takes a different approach from the existing Computer Engineering and Software Engineering programs. This new approach can be expressed in three points:

- The existing computer engineering and software engineering programs do not contain any options. In contrast, by cutting the number of required courses (from 125 credits in computer engineering to 110), EE adds "options" to help students to choose paths of related courses.

  We consider it essential to offer all four streams at the inception of the program. Offering an electronics and a power stream will make our program identifiably EE, while the medical and assistive devices stream gives our program an important distinction from competing programs. Further, the communication and signal processing stream builds on existing strength in the CSE department. Finally, offering these streams immediately will give students an attractive choice, making it easier to attract the high caliber students that are desired in this program.

- Laboratory experience is essential to engineering education, and it is very common at peer institutions for courses to have scheduled tutorial hours associated with most courses. To address this, every new course we propose has 4 credits, permitting three extra hours of weekly meetings in addition to three lecture hours. It is intended to split this extra time between labs and tutorials (e.g., 2 hours of weekly lab and 1 hour of weekly tutorial), which is both helpful for students and a common practice at peer institutions. Further, resources are requested to install six new specialized undergraduate teaching labs to serve these courses.

- Certain new topics in the curriculum require that the students receive a strengthened mathematical foundation, or that they learn new mathematical material. Where new math is needed, we choose to teach math alongside its applications. We are not, for example, requiring students to take separate math courses in ordinary differential equations, partial differential equations, and random processes; instead, we are packaging this material with its uses in electrical circuits, electromagnetic wave propagation, and signal processing, respectively. This approach reflects and formalizes current practice in upper years of the engineering program. For such courses, it may be desirable for the mathematical material to be taught by mathematics faculty members; we will consult with the Department of Mathematics and Statistics to determine whether team teaching is practical. Furthermore,

lower-year fundamental mathematics courses will continue to be taught by mathematics faculty.

Moreover, we recognize the need to be perceived as a distinctive program, compared to the EE programs available in the local area. Distinctiveness is a key goal of the Lassonde School of Engineering, which focuses on the education of "Renaissance Engineers", with emphasis on interdisciplinary study with Osgoode Hall Law School and the Schulich School of Business (these collaborations are expected to be in place in the next few years; see section 6, "Future directions of the program"). Further, we are proposing an innovative "Medical and Assistive Devices" option within electrical engineering, which will set our proposed program apart.

2.b. List of Course Requirements

1) Overview: The proposed EE curriculum includes 149 credits; this is fewer than the number of credits in the Computer Engineering curriculum. The curriculum is divided into two components: core courses, a series of prescribed courses taken by all EE students, consisting of 110 credits; and non-core courses, a set of optional courses of which students are required to select 39 credits. The core courses consist of: the common engineering core, shared by all engineering programs (including the complete first year program and several upper-year courses); and a sufficient technical background to provide competence in EE. The non-core courses consist of: general education courses (normally selected from the humanities); a science elective; and EE options.

2) Core courses: The EE core[8] consists of 110 credits. Below, core EE courses are listed along with the recommended year of completion. New courses appear in boldface, and brief descriptions of these courses appear in Appendix B.

First Year (37 credits, common to all engineering programs at York University)

CHEM 1000	3.0	Chemical Structures
CSE 1020	3.0	Introduction to Computer Science I
CSE 1030	3.0	Introduction to Computer Science II
EATS 1010	3.0	The Dynamic Earth & Space Geodesy
ENG 1000	6.0	Introduction to Engineering Design
ENG 1001	1.0	Technical Writing for Engineers
MATH 1013	3.0	Applied Calculus I
MATH 1014	3.0	Applied Calculus II
MATH 1019	3.0	Discrete Mathematics for Computer Science
MATH 1025	3.0	Applied Linear Algebra
PHYS 1010	6.0	Physics

Upper Years (73 credits)

CSE 2021	4.0	Computer Organization
CSE 2601	**4.0**	**Numerical Computation Methods**
CSE 2602	**4.0**	**Signals and Systems in Continuous Time**
CSE 2603	**4.0**	**Data Structures and Algorithms**

[8] Here, the "EE Core" refers to the compulsory courses in the electrical engineering curriculum unlike the term "engineering program core" used on page 24, which refers to the required courses common across all engineering streams.

ENG 2001	3.0	Engineering Projects
ENG 2002	3.0	Mechanical and Materials Engineering
ENG 2200	3.0	Electrical Circuits
ENG 2210	3.0	Electronic Circuits and Devices
ENVS 2150	3.0	Environment, Technology, and Sustainable Society
MATH 2015	3.0	Applied Multivariate and Vector Calculus
MATH 2030	3.0	Elementary Probability
PHYS 2020	3.0	Electricity and Magnetism
PHYS 2211	1.0	Experimental Electromagnetism
CSE 3201	4.0	Logic Design
CSE 3215	4.0	Microcomputers and Embedded Systems
CSE 3602	**4.0**	**Systems and Random Processes in Discrete Time**
CSE 3603	**4.0**	**Introduction to Power Systems**
CSE 3604	**4.0**	**Electromagnetic Theory and Wave Propagation**
ENG 3000	3.0	Professional Engineering Practice
ENG 4000	6.0	Engineering Project
ENG 4550	3.0	Control Systems

MATH 2030 may be replaced in the near future by a proposed new course on probability and statistics, to be taught by the math department.

3) Non-core courses: All students must complete at least 39 credits of non-core courses. These courses are at the student's choice, subject to the following categories and regulations. Non-core courses would normally be completed once the student has successfully completed two years in the program.

1. General Education (12 credits)

   Requirements for General Education remain the same as in the existing engineering programs. Students must complete a minimum of 12 credits outside of the Faculty of Science and Engineering, from two different areas of study. At least three credits must be taken in humanities and social sciences, as defined by the following areas: anthropology, humanities, English, history, linguistics and languages, modes of reasoning, philosophy, social science and women's studies. Complete regulations for General Education are found in the current undergraduate calendar.

   Once arrangements are made with the respective faculties, we intend to modify this requirement as follows: 9 credits are to be chosen according to the regulations in the previous paragraph; for the remaining 3 credits, the students would be required to select either a 3-credit entrepreneurship course taught by Schulich, or a 3-credit law course taught by Osgoode. Students could optionally take both courses, and would then be required to select 6 credits according to the regulations in the previous paragraph. (It should be noted that ENG 3000 includes a legal component, but the intent is to provide students with greater exposure to law, particularly in a course taught by a law professor – ENG 3000 must be taught by a licensed engineer.)

2. Science elective (3 credits)

A science elective is included in the curriculum to ensure that students have sufficient exposure to pure science.

Students may take any science course selected from SC/CHEM 1001 3.0, SC/CHEM 2011 3.0, SC/EATS 1011 3.0, SC/PHYS 1070 3.0, SC/PHYS 1470 3.0, SC/PHYS 2010 3.0, SC/PHYS 2040 3.0, or SC/PHYS 2060 3.0.

3. EE options (at least 24 credits)

Initially, there will be four EE options:

a. Electronics,
b. Power,
c. Communications and Signal Processing, and
d. Medical and Assistive Devices.

Allowed course selections and regulations for these options are described in the next section. Students are not required to complete an option, and the "unspecialized" case is also described in the next section. (Additional options may be added in the future.)

4) EE options: Here we describe courses and regulations concerning EE options. New courses appear in boldface, and these courses are briefly described in Appendix B.

General regulations:

a. All students must complete at least 24 credits in total from the five lists: Electronics option list, Power option list, Communications and Signal Processing option list, Medical and Assistive Devices option list, and General list.
b. Students selecting an option must complete:
    i. At least 15 credits from a single option list (any list other than the "General list"), including all courses on that list with an asterisk (*); and
    ii. At least 7 credits in total from at least two other lists.
c. Students not selecting an option must complete:
    i. Courses from at least three lists, with no more than 12 credits selected from any single list; and
    ii. At least two courses marked with an asterisk (*).
d. If a student successfully completes an option, a notation to that effect will be made on the student's transcript. No notation will be made for students not completing an option.
e. Courses appearing on multiple lists may not be used to satisfy credit requirements simultaneously from more than one list.

1. Electronics option list

***SC/CSE 3611 4.0 Analog Electronics**
***SC/CSE 4611 4.0 Sensors and Actuators**

SC/CSE 4612	**4.0**	**Digital VLSI**
SC/CSE 4613	**4.0**	**Power Electronics**
SC/CSE 4614	**4.0**	**Electro-Optics**

2. Power option list

***SC/CSE 4621**	**4.0**	**Electric Machines**
***SC/CSE 4622**	**4.0**	**Power System Analysis**
SC/CSE 4613	**4.0**	**Power Electronics**
SC/CSE 4623	**4.0**	**Alternative Energy Systems**

3. Communications and Signal Processing option list

*SC/CSE 4214	4.0	Digital Communications
***SC/CSE 4631**	**4.0**	**Statistical Signal Processing**
SC/CSE 3213	3.0	Communication Networks[9]
SC/CSE 4210	3.0	Architecture and Hardware for Digital Signal Processing
SC/CSE 4215	3.0	Mobile Communications
SC/CSE 4452	3.0	Digital Signal Processing: Theory and Applications
SC/CSE 4614	**4.0**	**Electro-Optics**

4. Medical and Assistive Devices option list

***SC/CSE 4641**	**4.0**	**Medical Devices**
***SC/CSE 4642**	**4.0**	**Assistive and Medical Monitoring Instruments**
SC/CSE 3213	3.0	Communication Networks
SC/CSE 4643	**4.0**	**Biomedical Signal Analysis**
SC/CSE 4644	**4.0**	**Computer-Aided Interventions**

5. General list

SC/CSE 3214	3.0	Computer Network Protocols and Applications
SC/CSE 3221	3.0	Operating System Fundamentals
SC/CSE 3311	3.0	Software Design
SC/CSE 3342	3.0	Software Specification
SC/CSE 3431	3.0	Introduction to 3D Computer Graphics
SC/CSE 3482	3.0	Introduction to Computer Security
SC/CSE 4201	3.0	Computer Architecture
SC/CSE 4211	3.0	Performance Evaluation of Computer Systems
SC/CSE 4312	3.0	Software Engineering Requirements
SC/CSE 4313	3.0	Software Engineering Testing
SC/CSE 4352	3.0	Real-Time Systems Practice
SC/CSE 4413	3.0	eCommerce Systems
SC/CSE 4421	3.0	Introduction to Robotics

[9] Note that CSE 3213 is a prerequisite for CSE 4214. Thus, in practice, CSE 3213 is required for the communications and signal processing stream. Courses with asterisks also have significant laboratory/tutorial components, and CSE 3213 has a limited lab component. (This may change in the near future.)

SC/CSE 4422	3.0	Computer Vision
SC/CSE 4431	3.0	Computer Graphics
SC/CSE 4441	3.0	Human-Computer Interaction
SC/CSE 4471	3.0	Introduction to Virtual Reality
SC/CSE 4481	4.0	Computer Security Laboratory
SC/CSE 4482	3.0	Computer Security Management: Assessment and Forensics

(Note: The intent of the "general list" is to be as broad as possible. It is expected that this list will evolve as the other new engineering programs are developed.)

3. Calendar Copy

Changes are required to the calendar description of the programs offered by the School of Engineering. The following is the proposed new calendar copy, with deletions in strikeout and additions in boldface.

> The School of Engineering within the Faculty of Science and Engineering offers an Honours bachelor of applied science (BASc Honours) degree in engineering. After completion of a common first-year program, students will choose one of ~~four~~ **five** available programs: **electrical engineering,** computer engineering, geomatics engineering, software engineering or space engineering.
>
> i) All BASc Honours degree candidates must complete the engineering program core: SC/CHEM 1000 3.00; SC/CSE 1020 3.00; SC/CSE 1030 3.00; SC/EATS 1010 3.00; SC/ENG 1000 6.00; SC/ENG 1001 1.00; SC/ENG 2001 3.00; SC/ENG 2002 3.00; SC/ENG 3000 3.00; SC/ENG 4000 6.00; ES/ENVS 2150 3.00; SC/MATH 1013 3.00; SC/MATH 1014 3.00; SC/MATH 1019 3.00; SC/MATH 1025 3.00; SC/MATH 2015 3.00; SC/PHYS 1010 6.00; SC/PHYS 2020 3.00.
>
> ii) All BASc Honours degree candidates must complete 12 non-science general education credits (refer to General Education Requirements in the Faculty of Science and Engineering Regulations Governing Undergraduate Degree Requirements section).
>
> iii) All BASc Honours degree candidates, in accordance with their declared stream, must satisfy the academic standing and course requirements below.
>
> To graduate in the BASc Honours program requires successful completion of all Faculty requirements and program and stream required courses and a minimum cumulative credit-weighted grade point average of 5.00 (C+) over all courses completed.
>
> ## Electrical Engineering Stream
>
> - **The engineering program core;**
> - **SC/CSE 2021 4.00; SC/CSE 2031 3.00;**
> - **SC/CSE 2601 4.00; SC/CSE 2602 4.00; SC/CSE 2603 4.00;**
> - **SC/PHYS 2211 1.00; SC/MATH 2030 3.00;**
> - **SC/ENG 2200 3.00; SC/ENG 2210 3.00;**
> - **SC/CSE 3201 4.00; SC/CSE 3215 4.00**
> - **SC/CSE 3602 4.00; SC/CSE 3603 4.00; SC/CSE 3604 4.00;**

- **3 credits chosen from SC/CHEM 1001 3.00, SC/CHEM 2011 3.00, SC/EATS 1011 3.00, SC/PHYS 1070 3.00, SC/PHYS 1470 3.00, SC/PHYS 2010 3.00, SC/PHYS 2040 3.00, and SC/PHYS 2060 3.00.**
- **Options: At least 24 additional credits from the following five lists, subject to the conditions below:**
    - **Electronics option list: *SC/CSE 3611 4.00, *SC/CSE 4611 4.00, SC/CSE 4612 4.00, SC/CSE 4613 4.00, SC/CSE 4614 4.00.**
    - **Power option list: SC/CSE 4613 4.00, *SC/CSE 4621 4.00, *SC/CSE 4622 4.00, SC/CSE 4623 4.00.**
    - **Communications and Signal Processing option list: SC/CSE 3213 3.00, SC/CSE 4210 3.00, *SC/CSE 4214 4.00, SC/CSE 4215 3.00, SC/CSE 4452 3.00, *SC/CSE 4631 4.00.**
    - **Medical and Assistive Devices option list: SC/CSE 3213 3.00, *SC/CSE 4641 4.00, *SC/CSE 4642 4.00, SC/CSE 4643 4.00, SC/CSE 4644 4.00.**
    - **General list: SC/CSE 3214 3.00, SC/CSE 3221 3.00, SC/CSE 3311 3.00, SC/CSE 3342 3.00, SC/CSE 3431 3.00, SC/CSE 3482 3.00, SC/CSE 4201 3.00, SC/CSE 4211 3.00, SC/CSE 4312 3.00, SC/CSE 4313 3.00, SC/CSE 4352 3.00, SC/CSE 4312 3.00, SC/CSE 4413 3.00, SC/CSE 4421 3.00, SC/CSE 4422 3.00, SC/CSE 4431 3.00, SC/CSE 4441 3.00, SC/CSE 4481 4.00, SC/CSE 4482 3.00.**
    - **Conditions:**
        - **Students selecting an option must complete at least 15 credits from a single option list (any list other than the "General list"), including all courses on that list with an asterisk (*); and at least 7 credits in total from at least two other lists (24 credits in total).**
        - **Students not selecting an option must complete credits from at least three lists, with no more than 12 credits selected from any single list; and at least two courses marked with an asterisk (*).**
        - **If a student completes an option, a notation will be made on the student's transcript, indicating the option completed. No notation will be made for students not completing an option.**
        - **Courses appearing on multiple lists may not be used to satisfy credit requirements simultaneously from more than one list.**

A non-credit, four to 16 month internship program (registered as SC/ENG 3900 0.00) is highly recommended for all engineering students, but is not a degree requirement.

[Remaining calendar copy is unchanged.]

4. Human and Physical Resource Requirements

This proposal has considerable requirements in terms of faculty complement, teaching assistants, administration, laboratory space, laboratory equipment, laboratory technicians, and library holdings. We describe these requirements in this section.

4.a. Faculty complement

CSE faculty members are fully committed to offering existing courses in computer engineering, software engineering, computer science, digital media, computer security, and natural science; in addition to teaching service courses, graduate teaching, and graduate supervision. As a result, there is little spare capacity for additional undergraduate teaching, and additional faculty members are required in order to teach the new courses discussed in this proposal. Furthermore, extra enrolment in shared courses will require the provision of additional sections, and new

instructors will be required to teach those sections. In this section, we make recommendations for the hiring of new faculty members: the required number of hires, and their required areas of expertise.

The proposed curriculum in Section 2 includes 19 proposed new courses worth a total of 76 credits, divided among the subjects of electronics, power systems, communications and signal processing, and medical and assistive devices. In each of these subject areas, the existing CSE department either has limited expertise, or the existing expertise needs to be bolstered by new faculty members: in many cases, CSE faculty members with EE backgrounds could teach these courses, but subject matter experts should be hired in order to provide the best possible learning environment for students. In addition, many of the courses in the EE program already exist, and are shared with existing programs (such as computer science and computer engineering). Thus, the enrolment predictions given in Section 1.f. imply increases in enrolment in shared courses.

Anticipating enrolment growth in existing programs alongside the growth in the EE program, we expect the following additional sections will be required in shared courses:

- CSE 1020 and CSE 1030: Annual enrolment in these courses is around 300 students, with typical largest section size of 130. An additional 90 seats will be required by 2017-18, so one additional section of each course will be needed.

- CSE 2021: Annual enrolment is around 120 students, with typical largest section size of 70. An additional 50 seats will be required by 2017-18, so one additional section will be needed.

- CSE 3201 and CSE 3215: Annual enrolment is around 20 students, usually in a single section. However, these are specialized technical courses, where smaller class sizes are desirable. An additional 40 seats will be required by 2017-18, so one additional section in each will be needed.

In the near future, it is expected that other shared courses can absorb additional enrolments related to the EE program, though at the expense of significantly increased section sizes. In addition to five sections of new courses, one section of each of the 19 proposed new courses will be needed each year. Thus, we have 24 new sections required in the CSE department. (Consultations with other departments, including the Department of Mathematics and Statistics, and the Department of Physics and Astronomy, are being undertaken to determine their requirements for hosting additional students in their respective courses.)

The following table gives an estimate of the number of full-time equivalent (FTE) faculty members required to teach these courses, assuming each faculty member teaches an average of 4.7 undergraduate credits per year.[10] In the "hires" column, we give the recommended number of

[10] Calculation: Faculty teaching requirements include three 3-credit courses per year (9 credits). Faculty are entitled to one year of sabbatical leave out of every seven years: 6x9=54 credits per 7 years. Assume each faculty member teaches a 3-credit graduate course annually: 54-(6x3)=36 undergraduate credits per 7 years. Assume 3 credits for teaching releases (for administration, lab/curricular development, and research grant buy-outs) per 7 years: 36-3=33 credits per 7 years; 33/7=4.7 credits per year.

hires; we arrive at this recommendation by (a) rounding FTE up to the nearest integer; and (b) noting that "General" courses can be reallocated (fractionally) to the other areas of expertise.

Expertise	Sections	Credits	FTE	Hires
Electronics	5	20	4.2	5
Power systems	4	16	3.4	4
Medical Devices	4	16	3.4	4
Communications and Signal Processing	2	8	1.7	2
General[11], including new sections	9	34	7.2	5
Total	**24**	**94**	**19.9**	**20**

Our proposal to hire 20 new faculty members is based on:

- Typical graduate teaching loads at high-quality peer institutions: in EE programs with strong research programs, graduate courses are taught at least annually, and we propose to match this frequency;
- Need for flexibility in deploying faculty resources: a strong research program, and the previously approved restructuring of the CSE department (details in the attachments), will require the availability of teaching releases, and we propose one three-credit release per faculty member per seven years (on average); and
- Need for a critical mass of researchers: the new program is expected to have a high profile among institutions in the local area, and high-impact research will require a large number of new researchers in each field.

We note that the external reviewers also advocate hiring a total of 20 new faculty members to support the new EE program.

The CSE department has a historical strength in computer science, and we are mindful of the importance of maintaining the balance between computer science programs and engineering programs in the new department. Thus, we propose that the 5 "general" hires not specifically required to support new EE courses to be hired in areas of specialization at the discretion of the department, including (but not limited to) computer science. We note that the external reviewers also advocate maintaining this departmental balance.

The hiring of 20 new faculty members is consistent with plans for the proposed new Lassonde School of Engineering. The program, in consultation with the department and the School, is expected to develop a hiring plan to recruit the necessary number of new faculty members over the next several years. However, in line with our own expectations of the workload in developing this new program, we propose that these 20 hires take place as quickly as possible. In particular, we propose that the hiring rate be maintained at 3 per year, starting this year and ending in 2018. We note that the external reviewers also advocate hiring these 20 new faculty members as quickly as possible.

[11] "General" courses could be taught by most EE or CSE faculty members. These include CSE 2601, CSE 2602, CSE 2603, and CSE 3604.

4.b. Teaching assistants (TAs)

Every new course is assigned four credits, and is expected to have three hours of meetings outside of lecture hours. These hours will normally be split between lab periods and tutorials, which will be under the direction of teaching assistants. In addition, TA resources will be required for other TA duties such as lab preparation, grading, office hours, and invigilation.

We give an estimate of required TA hours, by field of expertise. Each course receives the maximum of: 1.5 times enrolment, or 1.5 times the number of lab hours. (This is within the typical range of TA assignments in the CSE department.)

Expertise	**2013-14**	**2014-15**	**2015-16**	**2016-17**	**2017-18**
Electronics	0	0	54	270	270
Power systems	0	0	54	216	220
Medical Devices	0	0	0	216	216
Communications and Signal Processing	0	0	54	108	112
General, including new sections	108	324	486	498	513
Total	**108**	**324**	**648**	**1308**	**1335**

A full teaching assistantship consists of 270 hours. However, a typical senior graduate student in the CSE department will undertake 50-100 hours annually. Accordingly, by 2017-18, the program will require 3-6 additional graduate students as TAs with expertise in electronics, 3-5 with expertise in power, 3-5 with expertise in medical devices, 2-3 with expertise in communications and signal processing, and 6-11 with general expertise.

Considering the rapid increase in courses and laboratory/tutorial hours up to the 2016-17 academic year, it may be difficult to staff the required TA hours unless the graduate programs in Computer Science and Computer Engineering also expand rapidly. (Development of a specific graduate program in EE should also be expedited.) The problem may be exacerbated by the lack of appropriate TA expertise in the department. This problem may be alleviated by hiring new faculty well in advance of their need, as new faculty members will have an opportunity to recruit appropriate graduate students in their own area of specialty. TAs with appropriate expertise may also be found in other departments, such as in Physics and Astronomy, or in Earth and Space Science and Engineering. Furthermore, it may be worthwhile to consider hiring full-time laboratory demonstrators with the appropriate expertise.

4.c. Technical staff

This proposal assumes that new technically specialized courses will be served by new labs (see section g below). These new labs will require the hiring of expert technicians. Furthermore, the department has existing computing infrastructure to support its teaching mission, such as general-purpose computing laboratories and customized software in those laboratories (e.g. “lab test mode”, in which computers are configured in an examination-style setting). The anticipated

enrolment in the new EE program is considerable, and will strain the department's ability to provide existing levels of tech support for its teaching mission. This is especially true in light of anticipated enrolment growth in the department's existing programs, such as computer science.

In light of the needs of the EE program, we propose to hire five new technical staff members:

- Three new expert technicians to service new laboratories: one each with expertise in power systems, electronics, and medical devices; and
- Two new technicians to generally support the department's teaching mission.

Moreover, to support laboratory development, we propose that one of these new technical staff members be hired in 2012.

In the event that sufficient expertise among graduate students is not available to staff courses with TAs, it is recommended that the department hire dedicated laboratory demonstrators, whose responsibility would be both to lead tutorials and supervise labs. Such demonstrators could be recent master's or Ph.D. graduates in electrical engineering.

4.d. Administration and Support

In order to accommodate the EE program, the CSE department has approved a reorganization plan that increases the number of administrative positions in the department. To ensure that engineering programs are under the direction of engineers, and that computer science programs are under the direction of computer scientists, it is proposed that two new "vice-chair" positions be created, one with responsibility for engineering and the other with responsibility for computer science. Further, an additional undergraduate program director will be required for the electrical engineering program. These new administrative positions will require teaching releases in accordance with the YUFA collective agreement. (The previously approved restructuring of the department is given as an attachment.)

Considering the large increase in the number of faculty members in the department, additional administrative support will be required. The department currently has 5 administrative personnel to support roughly 40 faculty members. We are proposing to hire an additional 20 faculty members, so we will require an additional 2 administrative staff members to maintain the same ratio of administrative support. Furthermore, at least one of these administrative staff members should be hired immediately, to provide support for the electrical engineering program director in the busy period of establishing the program.

The department requires the support of two additional specialists as follows. We note that it makes most sense for these experts to be at the disposal of the proposed new Lassonde School of Engineering, and therefore for them to be employed by the School, but also that these experts should be hired as soon as possible to be able to support our department as the first students arrive in 2013-14:

- *Pedagogical expert:* We strongly believe that the pedagogy we adopt in the first year will dominate the factors that determine the program's retention rates. High school students with aptitude and excitement toward engineering are confronted in their first year with such abstract and seemingly-irrelevant subjects as calculus, physics, chemistry, and

programming. The high attrition rates (at times approaching 60%) reported by many engineering schools has led the Association of American Universities to announce a five-year initiative to encourage the exploration of innovative pedagogic strategies that integrate the concepts and engage the students.[12] In order to implement some of these ideas in the first year, we need a person with expertise in pedagogic strategies such as problem-based, team, and small-group learning. This person will help design the first-year experience for the program, provide evidence-informed advice on assessment techniques, oversee the implementation, conduct exit interviews and surveys to monitor progress, and recommend new approaches based on current research and findings. We believe this person will be needed for two-three years at least; one year during the planning stage and one to two years after the initial enrollment.

- *Webmaster / Social Media / Communications Officer:* To raise the visibility and positive image of the department within the community, to achieve the department's recruiting goals, and to improve internal communication within the department, we request the services of a full-time communications officer, whose responsibility will include maintaining departmental web sites, and maintaining the department's social media presence. Departmental web pages are the primary method of disseminating information, both internally (to colleagues and students) and externally (to prospective students and the community); furthermore, social media (e.g., Twitter, Facebook) is highly popular with students, and is an emerging way to raise the profile of the department. Electrical engineering programs with presence on Twitter include the University of Illinois at Urbana-Champaign, North Carolina State University, and Iowa State University.[13] At present, our department has no official social media presence, and web sites are maintained by our technical support staff, as but one of their many duties; it is not reasonable to expect them to maintain and increase their workload as the department grows, nor is it reasonable to expect them to act as the department's communication staff. A dedicated staff member with relevant expert training is needed.

4.e. Library holdings required

The York University Science Librarian, John Dupuis, has been consulted concerning required library holdings. His statement of requirements for this proposal is attached.

4.f. Academic computing required

Considering the importance of computing to electrical engineers at all levels, we propose one new academic computing and project lab for the general use of EE students. This lab should provide approximately 50 computing seats, and should be arranged to promote collaborative work, projects, competitions, and other interactions among students.

4.g. Other special equipment required, if any

[12] *AAU Undergraduate STEM Education Initiative* http://www.aau.edu/policy/article.aspx?id=12588
[13] http://twitter.com/eceILLINOIS, https://twitter.com/ecencsu, and http://twitter.com/isu_ecpe, respectively.

Laboratory experience is an integral part of an engineer's education. Other than the general-purpose computing and project lab described above, the following new specialized teaching labs will be required:

[Required for academic year 2014-15]

- Communications, Signal Processing, and Waves Laboratory[14]
  Courses served: CSE 2602, CSE 3602, CSE 3604, CSE 3213, CSE 4214, CSE 4631

[Required for academic year 2015-16]

- Electronics and Digital Systems Laboratory[15]
  Courses served: CSE 3201, CSE 3215, CSE 3605, ENG 2210

- Power Systems Laboratory
  Courses served: CSE 3603, CSE 4622, CSE 4623

[Required for academic year 2016-17]

- Senior Electronics Laboratory
  Courses served: CSE 4611, CSE 4612, CSE 4613, CSE 4614

- Control Systems and Machines Laboratory
  Courses served: CSE 4621, ENG 4550

- Medical and Assistive Devices Laboratory
  Courses served: CSE 4641, CSE 4642, CSE 4643, CSE 4644

Although the above labs are roughly organized by the anticipated special equipment needs of each course, specific equipment requirements will depend on the course material to be covered. Since most of the above courses are new, the equipment requirements of each new lab will not be specified until the courses are proposed in detail.

4.h. Space requirements

Space is required for all six of the teaching laboratories proposed in the previous section. Additionally, the Control Systems and Machines laboratory and the Power Systems laboratory will require extra space (beyond that of a standard lab) and specialized electrical connections to be specified later.

As most new courses are expected to offer tutorials, there will be increased demand for tutorial meeting rooms with 20-40 seats. Further, in conjunction with the needs of the School of Engineering, new interaction/collaboration space is required for students.

[14] There exists a lab for CSE 4214, but this lab is too small to accommodate the EE program.
[15] There exists a lab for CSE 3201 and CSE 3215, but this lab is too small to accommodate the EE program.

Considering the proposed hiring of 20 new faculty members, corresponding office and research laboratory space will be required. Office space will also be required for new technical and support staff.

Recognizing that our expected student body would consist mostly of commuters, we propose that the new building include:

- A new student-centric space for EE students to study and relax; and
- Space for student-led associations and design projects (e.g., rover team, programming clubs, IEEE and/or ACM student section).

The CSE department already features a wide variety of student clubs and activities, and we hope to extend the success of these extracurricular programs to the EE program.

5. Funding and Resource Availability

The generous donation of Pierre Lassonde to establish the proposed new Lassonde School of Engineering, in addition to matching funds from the university and the provincial government, have provided significant funding for this project.

6. Future Directions of the Program

The mission of the proposed Lassonde School of Engineering is to produce "renaissance engineers", who "consider and communicate how engineering relates to matters of sustainability, health, safety and civil society."[16] Entrepreneurship and legal education will be of particular interest to the new school. To accomplish this mission, it will be necessary to integrate interdisciplinary topics of study, particularly in business and law, into the program. However, interdisciplinary efforts are the subject of ongoing discussions; though these discussions are expected to be complete for the inception of the new School and the arrival of its first students, it is not feasible at present to anticipate the exact structure of the expected collaboration with other faculties.

Nonetheless, the following forms of interdisciplinary study are expected for the program:

- All students will be exposed to formal training and practical experience in entrepreneurship. A course taught by the Schulich School of Business is expected to be offered to engineering students, and entrepreneurship aspects (with the participation of Schulich) are expected to be included in ENG 4000, the senior project course. (Note that ENG 4000 is part of the common engineering core.)

- All students will be exposed to formal training in law. Material taught by Osgoode Hall Law School is expected to be offered to engineering students, to complement the legal instruction in ENG 3000. (Again, this is part of the common engineering core.)

[16] J. Bradshaw, "Mining entrepreneur's university donation digging for 'renaissance engineers'," *The Globe and Mail*, November 1, 2011.

- For students in the Medical Devices stream, direct collaboration with the Faculty of Health is expected. This collaboration will likely take the form of courses (e.g., in human physiology), access to hospitals and other facilities with existing Faculty of Health access agreements, and student projects conducted jointly by Engineering and Health students. This collaboration is particular to electrical engineering, and the Faculty of Health has expressed interest in participating. The new courses supplement the list of fourth year electives in the Medical and Assistive Devices option and could be taken by students from other options within the 7-credit "non-elective" courses available to them.

In cases where interdisciplinary study will be common to all engineering programs in the proposed school, it is most appropriate to add these types of courses to the common core program. There is an effort in parallel with this proposal to revise the common core, which will examine the inclusion of interdisciplinary components.

It is also expected that the electrical engineering program will have significant interaction with the other programs in the proposed Lassonde School of Engineering. Efforts will be made to allow students to take courses in other programs, and EE courses will be made available to those students. As these other programs develop, their courses may be used to establish new options in the EE program. As one example, courses from the proposed "Mechatronics Engineering" program may be used to establish a robotics option within EE. However, it should be noted that the other engineering programs are at a much earlier stage of proposal than the EE program.

7. Attachments

- Table of Accreditation Units
- Statement from the University Librarian confirming the adequacy of library holdings
- Memo: "Proposal for offering a Bachelors Degree in Electrical Engineering" (giving the new proposed structure of the department; proposal has since been approved)
- External appraisal report on the Proposed New Bachelor in Electrical Engineering
- Institutional Response to the Appraisal Report for a new program in Electrical Engineering

Appendix A – Differences between EE and CE/SoftE

The following table outlines differences between the proposed EE program and the existing CE/SoftE programs, excluding options and electives. Course numbers in boldface are new courses.

The engineering core consists of: CHEM 1000, CSE 1020, CSE 1030, EATS 1010, ENG 1000, ENG 1001, ENG 2001, ENG 2002, ENG 3000, ENG 4000, ENVS 2150, MATH 1013, MATH 1014, MATH 1019, MATH 1025, MATH 2015, PHYS 1010, and PHYS 2020.

Course Number	In EE	In CE	In SoftE
(Engineering core)	X	X	X
MATH 1090		X	X
CSE 2001		X	X
CSE 2011		X	X
CSE 2021	X	X	X
CSE 2031		X	X
CSE 2311			X
CSE 2601	X		
CSE 2602	X		
CSE 2603	X		
ENG 2200	X	X	
ENG 2210	X	X	
MATH 2030	X	X	X
CSE 3101		X	X
CSE 3201	X	X	X
CSE 3213		X	
CSE 3215	X	X	X
CSE 3221		X	X
CSE 3311		X	X
CSE 3451		X	X
CSE 3602	X		
CSE 3603	X		
CSE 3604	X		
CSE 4201		X	
CSE 4214		X	
CSE 4312		X	X
CSE 4313			X
CSE 4314			X
CSE 4315			X
CSE 4413			X
ENG 4550	X		X

Appendix B – Short Descriptions of New Courses

1. Core EE Courses

Below, we list course descriptions for core and elective EE courses created specifically for the electrical engineering curriculum. Detailed course descriptions will be developed and follow the normal approval processes within the Department and Faculty. We do not believe that there is substantial duplication of existing courses, but every effort will be made to avoid such overlap as course descriptions are developed and where consistent with the academic requirements of the program.

SC/CSE 2601 4.0 Numerical Computation Methods

This course introduces numerical methods for solving engineering problems. After reviewing fundamental topics in calculus and linear algebra, the course surveys major topics in numerical methods using engineering examples to motivate the discussion. Implementation of algorithms will be in a programming language of engineering significance, e.g., C.

List of Topics:

1. Testing and Debugging, including expert use of unit testing and debugging tools
2. Root finding
3. Solving systems of equations
4. Least-squares fitting
5. Numerical differentiation
6. Numerical integration
7. Solution of ordinary differential equations
8. Eigensystems
9. Optimization

SC/CSE 2602 3.0 Signals and Systems in Continuous Time

The course introduces continuous-time (analogue) signals including an analysis and design of continuous-time systems. After reviewing some basic concepts in complex numbers, trigonometry, and functions, the course considers three alternate representations (differential equations, impulse response, and Laplace/Fourier transfer function) for linear, time invariant (LTI) systems. The analysis of LTI systems is covered for each of the three representations. Frequency-selective filters are introduced as a special class of LTI systems for which design techniques based on Butterworth and Chebyshev filters are covered. Applications of continuous-time systems in communications and controls are also presented.

List of Topics:

1. Review of complex numbers, trigonometry, and functions.
2. Introduction to CT Signals and Systems.
3. Properties of CT Systems.

4. Representations for Linear, Time Invariant Systems: Differential Equations; Convolution Integral; Laplace/Fourier Transfer functions.
5. CT Fourier Series for Periodic Signals
6. CT Fourier Transform for CT Aperiodic Signals.
7. Design of CT Filters: Butterworth and Chebyshev Filters.
8. Applications of CT Systems in Communications and Control.

SC/CSE 2603 4.0 Data Structures and Algorithms

This course considers advanced searching and sorting; graph, tree, and queue data structures; and algorithmic techniques such as divide-and-conquer, dynamic programming, greedy methods, and graph algorithms. [Course description and material to be finalized.]

SC/CSE 3602 4.0 Systems and Random Processes in Discrete Time

Discrete signals are obtained by sampling continuous signals. Starting with a continuous time signal, the course reviews the concept of a discrete signal, the conditions under which a continuous signal is completely represented by its discrete version, and discuss the analysis and design of linear time-invariant, discrete-time systems. In particular, frequency selective filters in the discrete time domain will be developed. The second half of the course will cover advanced topics of random processes, noise, and their applications in the real world including the effect of linear systems on the statistical properties of random signals.

Topics covered:
1. Introduction to DT Signals and Systems.
2. Properties of DT Systems.
3. Representations for Linear, Time Invariant DT Systems: Difference Equations; Convolution Sum; Z/Fourier Transfer functions.
4. Design of DT Filters: FIR filters and IIR Filters.
5. Brief introduction to digital communication systems and information theory.
6. Random variables in one and multiple dimensions: Expectation, higher order moments, probability density functions, transformations, moment generating functions, and characteristic functions.
7. Random Sequences and Processes: Types of random processes (WSS, SSS, and Ergodic processes), Wiener-Khinchin Theorem, Output of LTI Systems with random inputs, Noise.

SC/CSE 3603 4.0 Introduction to Power Systems

Topics covered:
1. Introduction to 3 phase systems
2. Magnetic circuits
3. Mechanical and electromagnetic fundamentals
4. Transformers
5. Rotating machines

6. Energy conversion
7. Transmission lines
8. Introduction to power flow analysis
9. Faults

SC/CSE 3604 4.0 Electromagnetic Theory and Wave Propagation

The objective of this course is to provide the student with an introduction to partial differential equations and the mathematics of wave propagation. Specific applications to electromagnetic waves are discussed. Guided waves, transmission lines, and antennas are also introduced.

Topics covered:
1. Introduction to partial differential equations. The wave equation and its solutions.
2. Review of electric and magnetic fields. Maxwell's equations. Derivation of the wave equation from Maxwell's equations.
3. EM wave propagation in one, two, and three dimensions.
4. Waveguides; propagation modes.
5. Transmission lines.
6. Antennas.

2. Non-core courses

***SC/CSE 3611 4.0 Analog Electronics [Electronics option]**

This course builds upon the second year electronics course, enabling the students to design circuits with transistors and make use of several standard techniques to go from the basic amplifier to fully functional and practical circuits for DC, audio or radio frequency operation.

Topics covered:
1. Review of transistor models
2. Frequency response
3. Bias in transistors
4. Feedback
5. Ideal Operational Amplifier (OP-AMP)
6. Gain and bandwidth in OP-AMPS
7. Large signal operation of OP-AMPS
8. Output stages and power amplifiers
9. Filter specification
10. Switched capacitor filters

***SC/CSE 4611 4.0 Sensors and Actuators [Electronics Option]**

The course covers the fundamentals and the technologies of modern sensors and actuators. Discusses the design and modeling of sensors as well as the incorporation of sensors in realistic applications. During the last four weeks in the course the students do a project where they design, build and evaluate a transducer in the lab.

Topics covered:

1. Introduction to transducers
2. Transducer modeling
3. Electrostatic Transducers
4. Electromagnetic Transducers
5. Piezoelectric and Pyroelectric Transducers
6. Hall Effect
7. Strain Gauges
8. Seebeck and Peltier Effects
9. Optic Sensors
10. Advanced Modeling

SC/CSE 4612 4.0 Digital VLSI [Electronics Option]

This course covers the design of digital circuits in focusing on the physical layout on VLSI, power and timing issues as well as in the design of large components like adders and RAM.

Topics covered:

1. Review of the CMOS operation and manufacturing
2. Inverters, gates, pass transistors and tri-state gates
3. Capacitive effects, sizing and delays
4. Clock-tree distribution
5. Memory elements
6. CAD tools for VLSI design and analysis
7. Design of standard combinational and sequential circuits
8. Power consumption, clock skew and limits of the technology

SC/CSE 4613 4.0 Power Electronics [Electronics and Power Options]

Power electronics are at the heart of devices as diverse as a cellphone and a nuclear reactor. This course covers technologies for power conversion (DC to AC, DC to DC, AC to AC, AC to DC) and regulation as well as powering and control of motots. Examines issues of efficiency, voltage or current stability and conformity to a waveform.

Topics covered:

1. Power diodes
2. Bipolar, MOSFET power transistors
3. Thyristors and IGBT
4. AC to DC diode rectifiers
5. Phase controlled rectifiers and inverters
6. DC-DC and DC-AC switch mode inverters

7. Power conditioners
8. Pulse width modulation
9. DC motor control
10. Induction motor control

SC/CSE 4614 4.0 Electro-Optics [Electronics and Comm/SP Options]

This course covers the theory and technologies regarding information processing and transmission using photons in the visible or infrared spectrum and deals with phenomena pertaining to light transmission and interaction with matter as well as the interface of light with electronic devices.

Topics covered:
1. Optical fibers as waveguides
2. Modes of propagation in a fiber
3. LED and laser sources
4. Photodetectors
5. Optical coupling
6. Digital networks
7. Wavelength Division Multiplexing (WDM)

***SC/CSE 4621 4.0 Electric Machines [Power Option]**

This course is an introduction to electrical drives. It covers both DC and AC motors as well as generators.

Topics covered:
1. Fundamental of electric machines
2. DC motors
3. Induction motors
4. Synchronous generators
5. Mathematical models of machines
6. Control of electric machines

***SC/CSE 4622 4.0 Power Systems Analysis [Power Option]**

This course which provides students with a working knowledge of power system problems and computer techniques used to solve some of these problems

Topics covered:
1. Per unit system
2. Load flow analysis
3. Symmetrical and unsymmetrical faults
4. Symmetrical components
5. Power system control
6. Optimal power flow

7. Economic operation of power systems

SC/CSE 4623 4.0 Alternative Energy Systems [Power Option]

This course covers generation of electric power using alternative non-traditional resources, and how to integrate it with the existing grid.

Topics covered:
1. Overview of alternative energy systems
2. Distributed generation
3. Wind power
4. Photovoltaic power
5. Solar and fuel cells
6. Biomass
7. Energy storage

***SC/CSE 4631 4.0 Statistical Signal Processing [Comm/SP Option]**

This course provides an introduction to the theory and algorithms of stochastic signals and their applications to the real world. Current methods used in statistical signal processing including detection, estimation, and optimal filtering, are covered.

Topics covered:
1. Review of random processes
2. Frequently encountered random processes: White noise, Gaussian processes, Markov processes, Poisson processes.
3. Wiener and Kalman filters
4. Linear prediction
5. Linear models and spectrum estimation

***SC/CSE 4641 4.0 Introduction to Medical Devices [Med. Asst. Devices Option]**

This course introduces students to the field of medical devices. In addition to describing the application of electronic circuits used in medical devices, issues such as physiology, mathematical modeling, and clinical need are covered for a variety of medical devices. For breadth of coverage, primarily mechanical devices such as joint prostheses may also be studied (time permitting).

Topics covered:
1. Introduction to medical devices in diagnosis and therapy: sensors, safety, amplification, data acquisition, electrical stimulators, systems
2. Physiology, clinical need, system descriptions, engineering standards for a variety of medical devices such as
    a. electrocardiographs
    b. pacemakers
    c. defibrillators

d. blood pressure monitors
e. pulse oximeters
f. thermometers
g. electroencephalographs
h. deep brain stimulators
i. functional electrical stimulators
j. cochlear implants
k. predominantly mechanical devices such as heart valves, catheters, stents, synthetic grafts, hemodialysis, ventilators, intraocular lens implants, joint prostheses, and others

3. Case studies of failed devices.

***SC/CSE 4642 4.0 Assistive and Medical Monitoring Instruments [Med. Asst. Devices Option]**

This course introduces students to assistive and medical monitoring instruments from an electrical engineering perspective. Factors such as aging populations and the desire to improve patient outcomes are driving the demand for devices that can measure and monitor a person's physical and biological parameters continuously over long periods of time in the absence of a health care professional. The designer of such instruments must consider factors such as biocompatibility, physical robustness, power constraints, and communication requirements. Because this is an emerging and very diverse area of research, the specific topics covered in the course may change depending on the areas of expertise and research interests of the instructor(s).

Topics covered:

1. Introduction to monitoring instruments with illustrative examples.
2. Sensors and sensor design.
3. Wireless communication for worn and implanted sensors.
4. Network topologies and communication protocols.
5. Power requirements and issues.
6. Multi-sensor fusion.
7. Swallowable pill robots.
8. Design case-studies.

SC/CSE 4643 4.0 Biomedical Signal Analysis [Med. Asst. Devices Option]

This course builds on the concepts learned in the second- and third-year courses in signals and systems to study signals that originate from a physiological system.
The course begins with an introduction to biomedical signals, followed by a brief review of linear systems theory, and the continuous and discrete Fourier transforms. Next, processing and analysis techniques are developed to cope with physiological signals. All topics are motivated by real-life biomedical signal analysis problems.

Topics Covered:

1. Introduction to biomedical signals
2. Analysis of multiple channels of related signals

3. Filtering for pre-processing of physiological signals
4. Event detection
5. Waveform analysis
6. Frequency domain analysis

SC/CSE 4644 4.0 Computer-Aided Interventions [Med. Asst. Devices Option]

(This course is currently offered as CSE 6338; we propose to re-list it as a 4000 level course and cross-list it as a 5000 level.)

This course introduces students to the fundamentals of computer-aided intervention (CAI) in medicine. The use of computing and computing technology before, during, and after intervention will be examined. Clinical applications will also be discussed. Students will be required to complete a course project.

Topics covered:

1. Medical imaging
2. Medical image computing
3. Medical image visualization
4. Pre-intervention
    a. Intervention planning
    b. Individualized instrumentation design and fabrication
5. Intervention
    a. Tracking
    b. Instrument calibration
    c. Registration
    d. Navigation
    e. Medical robotics
    f. Augmented and virtual reality
6. Post-intervention
    a. Clinical evaluation
7. Clinical applications

Appendix A

External Appraisal Report on the Proposed New Bachelors Degree in Electrical Engineering

External Appraisal Report on the Proposed New Bachelor in Electrical Engineering

External Reviewers: Manoj Sachdev, Chair, Department of Electrical and Computer Engineering, University of Waterloo, and José M. F. Moura, University Professor, Department of Electrical and Computer Engineering, Carnegie Mellon University

Background: We were asked to review the proposal for a new program in electrical engineering in the Faculty of Sciences and Engineering at the York University. The new Program is part of a major initiative at York University of creating a new School, the Lassonde School of Engineering, hosting the Department of Computer Science and Engineering, soon to be renamed the Department of Electrical Engineering and Computer Science.

This initiative is made possible by a founding gift of 25 Million dollars, matched by the University, and the total matched by the Government of the Province of Ontario for a grand total of 100 Million dollars. This may become even larger with additional targeted gifts from other private donors.

There are great aspirations for the Lassonde School of Engineering. It unquestionably represents a major opportunity to the York University and the Province of Ontario to launch a new School of Engineering and within which to launch a new Program in Electrical Engineering.

1. Outline of the Visit

The visit occurred on February 1st and 2nd 2012, when the two evaluators traveled to the York University. A detailed program of the visit is attached with the report. In particular, we met with the Vice-Provost for Academic Affairs, Prof. Rhonda Lenton; the Dean of Science and Engineering, Prof. Janusz Kozinski; Associate Dean of Engineering, Prof. Richard Hornsey; and the Chair of Computer Science and Engineering (CSE) Department, Prof. Amir Asif. We also met approximately 30 faculty members, and 4 administrative, 6 technical staff members, and a cross section of graduate and undergraduate students from the CSE department. The reviewers visited lecture rooms, the engineering and science library, and a few laboratories for the existing Computer Engineering (CE) program.

The new School of Engineering, as well as the new Department and the new Electrical Engineering (EE) Program, has the full support of the administrative body — starting from the President of the University, the Provost, the VP Finance, the Vice Provost for Academic Affairs, to the Dean of FSE and the Chair of CSE. The initiative also receives the full support of the faculty, administrative, and technical staff and the graduate and undergraduate students with whom we could meet.

All interested parties with whom we met are enthusiastically behind and in full support of the new Program and the new School. They recognize the opportunity to launch a high quality Program and high quality School. We as reviewers concur that the planned Lassonde School of Engineering represents a major opportunity to launch a high quality School of Engineering.

The Proposal details the contents of the new Program, an aggressive implementation plan with a start date Fall 2013 when the first year students in Electrical Engineering are scheduled to enroll. The Proposal also details the number of new faculty recruits, the number of graduate students, and the number of support staff to recruit.

In our assessment, York University does have a unique opportunity to launch a great new engineering school. At the same time we would be remiss if we did not address some of the concerns that we

detected or that naturally arise in such a vast project. We will describe briefly these concerns and offer some recommendations. If the Administration of York University addresses these issues, 5 or 10 years from now the University can proudly claim a very successful new Lassonde School of Engineering. If not, the University may find itself with a good Faculty of Engineering but a great opportunity may have been lost.

2. General Objectives of the Program

Electrical Engineering is a very well established field and the Electrical Engineering designation for the proposed program is appropriate. The EE program proposal clearly explains the overall objectives of the program, identifying the program goals and its mission, as well as the curriculum and academic plans. These are adequate for an EE program. The proposal is highly original on its commitment to creating an engineering program based on the concept of a *renaissance engineer* – a well versed engineer with deep knowledge of an engineering discipline that is also well aware of the associated social, economic, and legal issues. In addition, the proposal describes the strong laboratorial component of the proposed program, a distinguishing and welcome feature. These characteristics fit well with the overall University goals of educating engineers with a strong experiential component and a broad view of societal issues. The proposed EE program is the first to be launched among the several new engineering program proposals that the university has in the planning process.

Recommendation #1 – Communication - Various stakeholders (faculty, staff, graduate and undergraduate students) in the CSE department and the Engineering faculty should be kept better informed on the process and long term vision of the University.

3. Need and Demand

The proposal highlights and clearly identifies important factors that explain the need for the new EE program. Electrical engineering is a diversified program and in Ontario existing EE programs are witnessing growing enrollment. The York region is one of the fastest growing regions in the country with significant immigration. Therefore, there is an opportunity to engage regional population for professional programs such as EE. However, there is an intense competition among Ontario universities to attract high quality students.

Recommendation #2 – EE is a diversified discipline and it is a good idea to create a niche EE program that distinguishes the York EE program from the competition.

Recommendation #3 – The outreach activity should start immediately with select high schools representatives in the York region.

4. Program Content and Curriculum

We quote from the Proposal (with deletion and addition of material. The proposed EE curriculum includes 149 credits. The curriculum is divided into two components: core courses, a series of prescribed courses taken by all EE students, consisting of 110 credits; and non-core courses, a set of optional courses of which students are required to select 39 credits. The core courses consist of: the common engineering core (shared by all engineering programs, including the complete first year program and several upper-year courses) and a sufficient technical background to provide competence in EE. The list of courses planned provides the depth and breadth that are adequate for an EE graduate. The non-core courses consist of: general education courses (normally selected from the humanities); a science elective; and EE options. Students will be required to select at least 3-credit entrepreneurship course taught by Schulich School of Business, or a 3-credit law course taught by Osgoode Law School giving the students the opportunity for a broader education. This structure of the curriculum is most adequate for an electrical engineering education complemented with an entrepreneurial and law component. The proposal lists about 40 domain courses (drawn from existing

and new ones to be offered in the future.) This provides a rich selection to undergraduate students. The class sizes are adequate.

5. Program Structure, Learning Outcomes and Assessment

The program requirements and learning outcomes are clearly stated and broadly adequate to what is expected from an EE graduate. The method and criteria for assessing student achievement are appropriate and effective relative to the program learning outcomes. These methods follow standard practice and are the most adequate to determine if students learn the technical and experiential components of the program.

6. Admission Requirements

The program maintains standard practice in engineering at York University of maintaining a common first year. It also keeps the admission requirements of the existing Computer Engineering Program. So, the EE proposed program does not require specialized entrance or admissions requirements. The external assessors noted relatively high rate of attrition projections in the EE proposal. Needless to say it is a cause of concern. Our discussion with various levels of administration highlighted an opportunity for student engagement.

Recommendation #4 – Students are expected to be drawn from a variety of social, economic, and cultural backgrounds with also a variety of high school levels of preparation in different subjects. For example, some students may have excelled in calculus while others may have excelled in English or in social studies or science subjects. Also students may have different programming skills. York might plan some "pre-university" courses offered in the summer prior to freshman year to those students that may be particularly weak in a subject area, giving them the opportunity to remedy their insufficiency in a particular subject.

7. Resources

Allocation of resources will be the key for the EE program. EE is a resource intensive program that requires high quality faculty, staff, and infrastructure.

1. **Organizational structure** – The CSE department is planning to reorganize its leadership structure, creating two positions of Vice-Chairs, one for Electrical Engineering and the other for Computer Science. The Vice Chairs will have main curriculum and managing responsibilities for the corresponding undergraduate programs. This will meet the Accreditation Agency requirements, while freeing the Chair to a more strategic role. This structure of two Vice Chairs is common in many US EECS Departments and makes a lot of sense. We as reviewers gleaned this structure from discussions with the Chair Professor Amir Asif. The proposal lack details on this structure.

   Recommendation #5 – Role and responsibilities of the two Vice-chairs and undergraduate Program Directors should be clearly defined.

2. **New faculty recruitment** – The proposal document suggests that a faculty complement of 15 will be hired to teach the curriculum of the EE program. Each EE faculty will be teaching an EE *graduate* course once every three years. Consequently, on average only five new EE *graduate* courses will be offered every year. With such limited graduate level course offerings, it will be difficult to attract top notch faculty for the new program. A diversified *graduate* EE program is necessary to attract high quality graduate students that, in turn, are the hallmark of a high profile and high quality research program and, in addition, will provide the needed TA resources for the undergraduate EE program.

   Recommendation #6 – Hire at least 20 EE faculty members. These faculty members should be hired keeping in mind the teaching as well as York's research ambitions in mind.

Recommendation #7 – The recruitment process should start immediately with the hiring of key EE faculty. These faculty members should start working on defining York's EE research program, as well as the graduate and undergraduate laboratory and curriculum development.

Recommendation #8 – York has a strong Computer Science (CS) faculty and program. There is a danger that thrust on hiring of EE related faculty may change the composition of the CSE department. A set of diversified faculty on the cross-section of CS and EE interface will help both programs.

3. **New staff recruitment** – The proposal document highlights hiring of 5 technical and 2 administrative staff for the EE program. The reviewers think the staff is adequate for the smooth running of the program.

   Recommendation #9 – One of the two tech staff should be hired in 2012 to assist the EE faculty in laboratory development.

4. **Space** – During our visit, it was mentioned that the York University is planning to construct multiple buildings to house Lassonde School of Engineering. Most of the resources for the building have been secured.

   Recommendation #10 – *Student space: A significant number of York students commute to campus. It is recommended that in the new building student centric space is created where they can study and relax.*

   Recommendation #11 – *There should be space for student led design projects in the proposed new building. Such projects may include Application Specific Integrated Circuits (ASIC) Club, IEEE student chapter, etc.*

8. Quality of Student Experience

As mentioned, to succeed in creating a high quality EE program in an outstanding School of Engineering, the undergraduate program needs to be immersed in a strong research environment and a strong graduate program. This will help create a culture where undergraduates are an integral part of the research experience by being part of the research teams of the faculty and working side by side with graduate students. Besides the educational experiential opportunity that is offered to undergraduates, this also helps addressing the issue of keeping undergraduates on campus by offering financial compensation for their work, reducing their need to find off campus jobs.

A related issue that was recognized with discussions with faculty and students is the lack of enough space for students to mingle, to study, to socialize (Recommendation #10,11). As the University plans a new Engineering building, it is important that this need be recognized by all concerned and in particular by the architects who will design the building.

11. Other Issues

Besides the recommendations made above, we add a few additional comments.

1. Incentives to individual faculty, as well as to CSE: As York embarks in this new program and a new School, it is important that the appropriate set of incentives be created and put in place to engage all stakeholders, in particular, the Chair and executive team, the EE faculty as well as the current CSE faculty. These incentives should reward appropriately the initiatives taken by faculty that contribute and enhance the research and education of the new department and program.
2. Empower the management of the Department to effectively manage their resources: It is important that the financial and other resources flow down to the Department so that the executive committee

and Chair can effectively manage them. A good model seems to be the model of the Management School, except that this is a single Department School. It is very important to recognize that the School of Engineering includes several Departments and that each Department should be given the appropriate resources to manage.

3. Involvement of industry. It is important that, from the start, the School of Engineering, and, in particular, the new EECS Department become intimately involved with industry and companies by developing a portfolio of educational and research activities that recognize and involve in a recognized degree the interests and goals of the industrial affiliates.

12. Summary and Recommendations

The proposal is a well written and planned. It lays out a foundation for a quality EE program. This Appraisal Committee recommends that it be approved.

We have made additional recommendations that if adopted will enhance the quality of the EE Program and increase its chances for success.

Appendix B

Institutional Response to the Appraisal Report for a new program in Electrical Engineering

Appendix B

Institutional Response to the Appraisal Report for a new program in Electrical Engineering

On behalf of the Department of Computer Science and Engineering at York University, we would like to thank the Reviewers for a thorough, constructive, and well thought-out appraisal of our curriculum proposal for a new program in Electrical Engineering.

We are heartened by the overall conclusion made in the report that "*In our assessment, York University does have a unique opportunity to launch a great new engineering school.*" and "*The proposal is a well written and planned. It lays out a foundation for a quality EE program. This Appraisal Committee recommends that it be approved.*"

We agree with nearly all observations and recommendations contained in the Report. In the following document, we offer clarifying commentary on the Reviewers' report indicating how the proposal has been revised to address the recommendations made by the Reviewers. The Reviewers recommendations appear in italics with our response under each recommendation in plain text.

Recommendation #1 – Communication - Various stakeholders (faculty, staff, graduate and undergraduate students) in the CSE department and the Engineering faculty should be kept better informed on the process and long term vision of the University.

This is work in progress. The FSE Dean's office and School of Engineering continue to organize information sessions both for Engineering faculty and University as a whole to update the relevant stakeholders of the overall vision of the Lassonde School of Engineering and progress made towards the establishment of the new School. Recent events include:

- Pathway Towards the Establishment of a Faculty of Engineering held on February 16, 2012 where all University administrators including the Provost, Vice Presidents, Vice Provost, the Deans of all York Faculties, and FSE administrator were invited.
- Presentations to the Engineering Management, Planning, and Curriculum Committee (where all engineering faculty were invited), Faculty Council of Science and Engineering, Senate Sub-committee on Academic Policy, Planning, and Research Committee (APPRC), Senate Sub-committee on Academic Standards, Curriculum, and Pedagogy (ASCP), and York's Senate.
- Meeting with staff members of the Department of Computer Science and Engineering.
- Town hall meetings with current engineering students at York.

In addition, Dean Kozinski and Associate Dean Hornsey have plans to make presentations on the floors of every Faculty Council. So far these have included: Law, Health, Fine Arts, Science, Liberal Arts and Professional Studies, and Engineering, and the Libraries.

Recommendation #2 – EE is a diversified discipline and it is a good idea to create a niche EE program that distinguishes the York EE program from the competition.

York's proposed Electrical Engineering program will be unique in its promise to graduate "renaissance engineers", who will be grounded in their technical engineering expertise and also proficient in the entrepreneurial and management as well as ethical and legal matters related to

engineering. The niche of the proposal is strong connections with York's business (Schulich) and law (Osgoode) schools (the top ranked business and law schools in Canada) so that students can specialize in entrepreneurship and legal aspects of engineering such as intellectual property. This is work in progress and consultations with York's Schulich School of Business and Osgoode Hall Law School on the scope of the combined programs have already started.

Please refer to the last paragraph in Section 2.a on Page 9 of the proposal where the following paragraph has been added.

> Moreover, we recognize the need to be perceived as a distinctive program, compared to the EE programs available in the local area. Distinctiveness is a key goal of the Lassonde School of Engineering, which focuses on the education of "Renaissance Engineers", with emphasis on interdisciplinary study with Osgoode Hall Law School and the Schulich School of Business (these collaborations are expected to be in place in the next few years; see section 6, "Future directions of the program"). Further, we are proposing an innovative "Medical and Assistive Devices" option within electrical engineering, which will set our proposed program apart.

Recommendation #3 – The outreach activity should start immediately with select high schools representatives in the York region.

The School of Engineering has already started planning for outreach activities for high school students within the York region. A part of the overall outreach plan is creating a unique identity for the engineering programs at York including development of the Schools' and Departments' website. It is important that the School and Department have strong presence on the web including innovative homepages that profile the strengths of the School and Department. We have requested support for the development of the Departmental website to be completed before the end of the current year. We really do need this in order to mount and run the proposed electrical engineering program in a successful manner.

Further, we have formed a Teachers' Advisory Committee for Engineering, consisting of physics and math teachers from local high schools. The first meeting of this group is scheduled for April 12, 2012. Engineering's Student Recruitment Officer visits many tens of school classrooms annually, and promotion of the new programs is a key part of her activities.

Recommendation #4 – Students are expected to be drawn from a variety of social, economic, and cultural backgrounds with also a variety of high school levels of preparation in different subjects. For example, some students may have excelled in calculus while others may have excelled in English or in social studies or science subjects. Also students may have different programming skills. York might plan some "pre-university" courses offered in the summer prior to freshman year to those students that may be particularly weak in a subject area, giving them the opportunity to remedy their insufficiency in a particular subject.

The School of Engineering has initiated a review of the engineering core program including the curriculum of the common first year in all currently offered engineering programs. The Engineering Core Committee (Ecore) is tasked with this review and with the recommendation of appropriate steps to adapt and evolve the existing core program in engineering to the new expanded engineering school. As part of the review, Ecore will be reviewing how the first year curriculum can be better adapted to address the academic transition problems faced by incoming engineering students. Three CSE faculty members (Eckford, Jenkin, and Roumani), who are key proponents of the Electrical Engineering proposal, are members of Ecore.

Recommendation #5 – Role and responsibilities of the two Vice-chairs and undergraduate Program Directors should be clearly defined.

The proposal approved by the Department on the new administrative structure for Computer Science and Engineering (to be named the Department of Electrical Engineering and Computer Science) has been added as an Appendix C to the Electrical Engineering Curriculum proposal.

Recommendation #6 – Hire at least 20 EE faculty members. These faculty members should be hired keeping in mind the teaching as well as York's research ambitions in mind.

Our initial estimate on the number of new Electrical Engineering faculty members was conservative and based on a graduate teaching load of one half-course (3.0 credit) every three years. We agree with the Reviewers that this will limit the annual graduate offerings to five or six graduate courses, which is not sufficient for a strong graduate program in Electrical Engineering. Hiring 20 Electrical Engineering faculty would allow the faculty members to teach one graduate course (3.0 credit) every year and, hence, a reasonable number of graduate courses for a strong graduate program in electrical engineering.

On page 16 of the proposal, the following text has been added.

> Our proposal to hire 20 new faculty members is based on:
>
> - Typical graduate teaching loads at high-quality peer institutions: in EE programs with strong research programs, graduate courses are taught at least annually, and we propose to match this frequency;
> - Need for flexibility in deploying faculty resources: a strong research program, and the previously approved restructuring of the CSE department (details in the attachments), will require the availability of teaching releases, and we propose one three-credit release per faculty member per seven years (on average); and
> - Need for a critical mass of researchers: the new program is expected to have a high profile among institutions in the local area, and high-impact research will require a large number of new researchers in each field.

During the visit, the reviewers rightly pointed out that the graduate and undergraduate programs are strongly interrelated and a strong graduate program is essential for offering a quality undergraduate program. We will be developing a topnotch graduate, research-intensive Masters and PhD degrees in electrical engineering, and a separate proposal will cover these new programs. For this purpose, we will survey peer institutions to see if their graduate student recruitment, offer and acceptance practices could be adapted to our department and will need support and flexibility from our Faculty and from Faculty of Graduate Studies to succeed.

Recommendation #7 – The recruitment process should start immediately with the hiring of key EE faculty. These faculty members should start working on defining York's EE research program, as well as the graduate and undergraduate laboratory and curriculum development.

The recruitment for three Electrical Engineering positions with specialization in Power Systems, Medical Devices, and Electronics has already started. These faculty members will be hired prior to the end of 2012. In the following years, we have plans to hire two or three faculty members every year to develop core faculty strength in this area.

A request along similar lines has been added at the end of Section 4.b on page 16 of the proposal.

> However, in line with our own expectations of the workload in developing this new program, we propose that these 20 hires take place as quickly as possible. In particular, we propose that the hiring rate be maintained at 3 per year, starting this year and ending in 2018. We note that the external reviewers also advocate hiring these 20 new faculty members as quickly as possible.

Recommendation #8 – York has a strong Computer Science (CS) faculty and program. There is a danger that thrust on hiring of EE related faculty may change the composition of the CSE department. A set of diversified faculty on the cross-section of CS and EE interface will help both programs.

We agree that it is imperative to maintain our existing strengths in Computer Science, Computer Security, and Digital Media as we develop the proposed Electrical Engineering program to keep all (existing and new) programs at an equal footing. We are heartened by the Dean's commitment that all programs within the enhanced Department would receive even consideration in receiving resources allocated to the Department.

In order to maintain the existing synergies within different programs offered by the Department, we propose to hire diversified faculty members on the cross-section of computer science and electrical engineering. These faculty members will also support increased offerings of computer science courses needed to support the electrical engineering program. We have included five such faculty hires in the proposal on page 16 of the proposal.

> The CSE department has a historical strength in computer science, and we are mindful of the importance of maintaining the balance between computer science programs and engineering programs in the new department. Thus, we propose that the 5 "general" hires not specifically required to support new EE courses to be hired in areas of specialization at the discretion of the department, including (but not limited to) computer science. We note that the external reviewers also advocate maintaining this departmental balance.

Recommendation #9 – One of the two tech staff should be hired in 2012 to assist the EE faculty in laboratory development.

We have included the request to hire one of the two technical/engineering staff members in 2012 on page 18 of the proposal as follows:

> Moreover, to support laboratory development, we propose that one of the new technical staff members be hired in 2012.

Recommendation #10 – Student space: A significant number of York students commute to campus. It is recommended that in the new building student centric space is created where they can study and relax.

A dedicated Science and Engineering building to be completed by Fall 2014 has been planned for the expanded School of Engineering and there are plans to allocate student centric space in the new building for this purpose. This space adds to the existing student space made available in the Lassonde and Petrie Science and Engineering buildings to science and engineering students. A similar request has been added on page 21 of the proposal as follows:

Recognizing that our expected student body would consist mostly of commuters, we propose that the new building include:

- A new student-centric space for EE students to study and relax; and
- Space for student-led associations and design projects (e.g., rover team, programming clubs, IEEE and/or ACM student section).

The CSE department already features a wide variety of student clubs and activities, and we hope to extend the success of these extracurricular programs to the EE program.

Recommendation #11 – There should be space for student led design projects in the proposed new building. Such projects may include Application Specific Integrated Circuits (ASIC) Club, IEEE student chapter, etc.

Point well taken. Please see our response to Recommendation # 10.

11. Other Issues
Besides the recommendations made above, we add a few additional comments.
1. Incentives to individual faculty, as well as to CSE: As York embarks in this new program and a new School, it is important that the appropriate set of incentives be created and put in place to engage all stakeholders, in particular, the Chair and executive team, the EE faculty as well as the current CSE faculty. These incentives should reward appropriately the initiatives taken by faculty that contribute and enhance the research and education of the new department and program.

We agree with the Reviewers that such an incentive driven model will appropriately acknowledge the contributions of more active faculty members. We understand that the Dean's office is working towards the development of such a model.

2. Empower the management of the Department to effectively manage their resources: It is important that the financial and other resources flow down to the Department so that the executive committee and Chair can effectively manage them. A good model seems to be the model of the Management School, except that this is a single Department School. It is very important to recognize that the School of Engineering includes several Departments and that each Department should be given the appropriate resources to manage.

The proposal has been refined to address the curriculum related issues raised by the reviewers but the comments on a more substantive resourcing of the program and more autonomy to the Department have not been fully integrated in the proposal. The proponent's feel that such resourcing will be needed. We are heartened by the continuous support of the Dean and Associate Dean of Engineering, and their commitment towards developing a more distributed administrative structure with higher autonomy to the Chairs of the Departments within the new Lassonde School of Engineering and look forward towards its implementation.

3. Involvement of industry. It is important that, from the start, the School of Engineering, and, in particular, the new EECS Department become intimately involved with industry and companies by developing a portfolio of educational and research activities that recognize and involve in a recognized degree the interests and goals of the industrial affiliates.

Again, this is work in progress and we hope to address this in a number of ways.

The School of Engineering has an advisory council that has several representatives from leading

industries as its members. Membership of the advisory council will be expanded to include industry representatives from electrical engineering companies, who will be consulted to develop a portfolio of industry related educational and research activities.

The proposed program includes the industrial internship option, as is the case for our existing computer science and engineering programs, which builds on our interaction with industry. We are also exploring the co-op option for the proposed program. As part of the development of the graduate programs in Engineering, we are planning to host professional degrees at the Masters level for early and mid-career professionals.

The new administrative structure for the renamed Electrical Engineering and Computer Science Department includes Vice-Chair, Graduate Programs and Research, whose portfolio would include liaison with related industry and establishing an applied research program in collaboration with the local industry.

Appendix C

Proposed Administrative Structure for the Department of Electrical Engineering and Computer Science

YORK
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FACULTY OF SCIENCE & ENGINNERING

Department of Computer Science & Engineering

4700 Keele St.
Toronto ON
Canada M3J 1P3
Tel 416 736-5053
Fax 416-736-5872

www.cse.yorku.ca

Memo

To: Janusz Kozinski, Dean, Faculty of Science and Engineering

Cc: Richard Hornsey, Associate Dean, School of Engineering

From: Amir Asif, Chair, Department of Computer Science and Engineering

Date: 11 October 2011

Subject: **Proposal for offering a Bachelors Degree in Electrical Engineering**

Please find attached a proposal for developing a CEAB accredited Bachelors degree in Electrical Engineering. The proposal has two components, namely:

1. Develop and offer a Bachelors Degree in Electrical Engineering.
2. Rename the Department to Department of Electrical Engineering and Computer Science.

This proposal was discussed at the Departmental meeting on Friday, October 7, 2011 and an overwhelming majority of the Department approved the proposal.

Should there be any related questions, please feel free to contact me.

Faculty of Science and Engineering
Department of Computer Science and Engineering
October 11, 2011

Proposal to:

(1) Develop and offer a Bachelors Degree in Electrical Engineering.

(2) Rename the Department to Department of Electrical Engineering and Computer Science.

York University has ambitious plans for expanding the School of Engineering, which includes offering a comprehensive range of Engineering programs including Electrical Engineering. The Department of Computer Science and Engineering proposes to develop and offer a CEAB accredited Bachelors degree in Electrical Engineering. The proposed degree is a natural extension of the existing engineering programs (Computer Engineering and Software Engineering) offered by the Department, and builds on our multidisciplinary strengths in the areas of Computer Science, Computer Security, and Digital Media in addition to the two existing engineering programs.

While the resource requirements to mount this program would be decided in consultation with the Associate Dean of Engineering and included in a forthcoming curriculum proposal, it is important that our existing strengths in Computer Science, Computer Security, and Digital Media continue to grow and flourish as we develop the Electrical Engineering program. It is equally imperative that all (existing and new) programs stay at an equal footing. We expect, therefore, that all programs within the enhanced department would receive even consideration in receiving resources allocated to the Department. Going forward, it is also expected that all programs and faculty within the Department would participate fully in the on-going development of the School of Engineering.

This proposal consists of two parts:

First, we propose to modify our administrative structure within the Department as per the schematic diagrams shown in Figs. 1 and 2. These changes would be provisioned with sufficient mechanisms, supports, and funds to enable us to stay competitive with the very best departments in Electrical Engineering or/and Computer Science. Fig. 1 is the initial implementation to be completed by Fall 2012, while Fig. 2 shows our long-term vision subject to some fine-tuning depending on how we progress in the coming days. Due to the CEAB accreditation requirements, the Vice-chair, Engineering in the proposed structure will be a professional engineer but there is no such requirement for any of the other Vice-chairs nor for the Chair of the Department. While the positions of Chair and Program Directors are identified in the 2009-2012 YUFA agreement, the newly created position of the Vice-Chair[1] (equivalent to that of the undergraduate/ graduate director) may need to be officially recognized. The Program Directors chair the steering committees for the programs and are recognized under Category 4 of the Collective Agreement. In the initial phase, some sharing of administration across the programs is expected such that a program director is responsible for more than one program. It is important that any hiring and curriculum approvals within the Department

[1] Apparently, a sister department in FSE holds an active position of Vice-Chair but the position is not identified in the collective agreement.

continue to follow the established Departmental, School of Engineering, and FSE practices.

Second, we propose that the name of the Department be changed to fully encompass the set of undergraduate and graduate programs offered by the Department. We propose the new name to be Electrical Engineering and Computer Science (EECS). This would conform to some of the top units offering both Computer Science and Engineering programs in North America such as those at the Massachusetts Institute of Technology (http://www.eecs.mit.edu/), University of California at Berkeley (http://www.eecs.berkeley.edu/), and University of Michigan at Ann Arbor (http://www.eecs.umich.edu/). The name change will be implemented by Fall 2013 prior to the launch of the Electrical Engineering program.

Fig. 1: Administrative Structure for the proposed Department of Electrical Engineering and Computer Science (Phase 1).

Fig. 2: Administrative Structure for the proposed Department of Electrical Engineering and Computer Science (envisioned, long term plan).

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Janusz Koziński PhD PEng
Dean & Professor,
Faculty of Science
and Engineering

355L LUMBERS BLDG
4700 KEELE ST.
TORONTO ON
CANADA M3J 1P3
T 416 736 5051
F 416 736 5950
janusz.kozinski@yorku.ca
www.science.yorku.ca

Memorandum

TO: Alison Macpherson, Chair, APPRC

FROM: Janusz Kozinski, Dean, Faculty of Science and Engineering

SUBJECT: Proposal for a new program in Electrical Engineering

DATE: March 28, 2012

It gives me great pleasure to offer my enthusiastic support for the proposal for a new BASc program in Electrical Engineering. This new program plays a pivotal part in being the first in a series of new programs that the School of Engineering will be introducing under its transformative plans for engineering expansion at York. It represents a natural step in the development and expansion of York's accredited engineering programs in Computer, Geomatics, and Space Engineering. It is also aligned with a new program in Software Engineering.

The revised proposal was preceded by a careful planning phase, involving the Department of Computer Science and Engineering (soon to become the Department of Electrical Engineering and Computer Science), the School of Engineering, and the Faculty of Science and Engineering (FSE). The initiative is fully aligned with the strategic directions of Faculty and the University. Our strategic planning envisions a multi-phase development plan for Engineering at York, in which Electrical Engineering features prominently as a significant first step beyond the existing programs. The revised 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 electrical 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 School. The initial start-up phase of this new program plans for three new faculty positions, which have already been approved for the upcoming faculty recruitment cycle. These positions will be dedicated to lead and support the development of the program and shepherd in this first phase of substantial growth and transformational academic programming that is underway in the 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. The revised faculty complement will be seriously considered while taking into account the growth of the program and the necessity of balancing other engineering programs. 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.

JK/cc

cc: P. Wilson, Chair, FSE Council
D. Hastie, Associate Dean, Faculty
R. Hornsey, Associate Dean for Engineering

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OFFICE OF THE VICE-PRESIDENT ACADEMIC & PROVOST

4700 Keele St.
Toronto Ontario
Canada M3J 1P3
Tel 416 736 5280
Fax 416 736 5876

vpacademic.yorku.ca

Memorandum

To: Alison McPearson, Chair, APPC

From: Rhonda Lenton, Vice-Provost Academic

Date: March 28, 2012

Subject: Proposal for a Bachelor of Electrical Engineering Program

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I have reviewed the revised proposal for a Bachelor of Engineering degree program in Electrical Engineering which will be offered by the School of Engineering. This program proposal is part of a planned expansion of engineering programs at York University that will respond to growing demand in the Toronto area and beyond for degrees in engineering. The expansion of engineering is included as a component of the University Academic Plan 2010-2015 to support York's intention to become more comprehensive and specifically to expand programs in the applied sciences, health and professional areas. The program also supports government objectives in relation to Ontario postsecondary programming. As a result, York University has received a significant infusion of government funding for capital costs associated with engineering growth, in addition to a private donation, and the University also expects to receive full per student funding for undergraduate enrolments to fund the operating costs of the growth. The overall budget for the engineering expansion requires approval by the Provost and VPA and any additional start-up costs will be incorporated into that budget.

As a result, the planners have been working in close collaboration with the Office of the Provost and they have been consulting broadly with other faculties on the program generally as well as specific courses that students will take as part of their general education. Several new appointments have already been authorized for 2013-14 as part of a larger complement plan that will unfold over the next several years in concert with the enrolment plan and financial model to ensure that adequate resources for the program are available.

The program proposal carefully lays out the undergraduate degree level expectations and these have been mapped to the curriculum. The proponents have also made several adjustments to the proposal in response to the external reviewers and they have attached for information the plan to change the name of the Department of Computer Science and Engineering to the Department of Electrical Engineering and Computer Science (EECS). The latter proposal is working its way through the various approval processes and will be forthcoming in due course. What is being approved right now is the new program in electrical engineering and I am happy to record my support for this important initiative. It is a

significant addition to York's existing programs in engineering.

Cc: Dean Kozinsky
C. Underhill, for CCAS

NEW PROFESSIONAL CERTIFICATE IN FINANCIAL PLANNING
Undergraduate Certificate Proposal

1. Introduction

This is a proposal for a new 36-credit professional Certificate in Financial Planning. The proposed program will be offered by the School of Administrative Studies (SAS) through the Faculty of Liberal Arts and Professional Studies (LA&PS) effective September 2012.

The Financial Planning Certificate has been designed, under the regulations approved by Senate on June 28, 2001, for those working or interested in working in the financial services industry in financial planning firms, banks, credit unions and investment advising firms.

This Certificate may be completed concurrently with most York undergraduate degrees[1] or as a direct-entry, stand-alone program. As a stand-alone program, the Certificate will appeal to individuals currently working in the financial planning field or in the financial sector in general. The Certificate provides the complete educational course requirements for candidates who wish to write the two Certified Financial Planner (CFP) examinations: FPE1 and FPE2.

The proposed Certificate in Financial Planning can be defined as a professional certificate. The series of courses required to complete the Certificate are well-defined and provide expertise in the specific fields of finance and taxation, ultimately equipping students to successfully obtain the CFP mark.

2. General Objectives of the Undergraduate Certificate

The proposed Certificate in Financial Planning builds on the financial and taxation expertise within SAS. SAS offers undergraduate business degree programs and certificates; its undergraduate courses address a wide range of business subject matters with attention to bridging interdisciplinary research and business practices. On January 27, 2005 Senate approved the establishment of a Finance stream in SAS under the BAS Specialized Honours degree program. This Certificate draws on the strengths of faculty and courses within this Finance stream.

In addition, the Certificate is directly in line with the School's long-established awareness of the needs of professional associations. In the past, the School has developed the Professional Certificate in Accounting to meet the needs of students pursuing the CA, CMA and CGA designations, the Professional Certificate in Human Resources Management for students pursuing a CHRP (Certified Human Resources Professional) designation and most recently, the Certificate in Emergency Management. A Certificate in Investment Management is also currently being proposed.

The proposed Certificate corresponds with the LA&PS Strategic Plan's commitment to the needs of a diverse student population including the specific professional development needs of part-time and mature students (Goal 1/ Principle 1, Goal 4/Principle 5) and experiential education (Goal 3/Principle 5, Goal 4/Principle 2).[2] In addition to accommodating working professionals, it is also in harmony with the Faculty's commitment to interdisciplinarity, since it combines work in personal finance, taxation, ethics and investment management, and requires pre-requisite study in accounting, economics and statistics. This program contains a strong experiential component. Students, for example, will work with families to provide an insurance evaluation in one course, and a comprehensive financial plan in the capstone professional planning course.

At the University level, the proposed Certificate consolidates existing strengths to offer a program that will enhance the education of current students, be attractive to professionals in the field and will help to meet two priorities of the Provostial White Paper: expanding business-related and professional programs (Priority 2) and experiential education (Priority 7).[3]

There is currently no other undergraduate-level certificate in Financial Planning aimed at preparing students for CFP certification being offered at York.

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[1] Please see the 'Admissions Requirements' section (p.3 below) for more details.
[2] http://www.yorku.ca/laps/pdf/LAPS_Strategic_Plan_2010_06_25_Final.pdf.
[3] See http://www.yorku.ca/vpaweb/whitepaper/

3. Need and Demand

The Certificate is designed to train students in financial planning with the central goal of preparing students to successfully write the CFP examinations. No existing credit or non-credit degree or certificate program offered at York University focuses exclusively on financial planning at the undergraduate or graduate level. While the Schulich School of Business offers a specialization in Finance within their BBA program with courses paralleling those in the BAS Finance stream and Glendon Economics offers Personal Financial Management (GL/ECON 3265), SAS offers the only programs and courses that the FPSC has approved.

Broad consultation was undertaken with Faculties across York. Units consulted include:

Faculty of Liberal Arts & Professional Studies: Business & Society and Economics
Faculty of Environmental Studies
Faculty of Fine Arts
Faculty of Health
Faculty of Science & Engineering
Glendon College
Schulich School of Business

The preparation of this program proposal involved the collaboration of several full-time SAS faculty members who also hold the CFP mark.

Two of the part-time faculty members listed in section four are experts in the practice of financial planning and have very extensive professional experience. Jury Kopach has recently retired from full-time practice after 37 years as a fee-for-service financial planner, educator and senior supervisor with National Trust and TE Financial. He has worked closely on the detailed design and delivery of the two senior financial planning courses with Professor Robinson and Alan Goldhar. Alan Goldhar, the Chief Investment Officer for the Office of the Public Guardian of the Office of the Attorney General of Ontario, is responsible for supervising a staff of financial planners who serve thousands of clients with financial affairs entrusted to the government. He approves of the program and believes it will produce planners trained to meet the standards he requires in his office.

The proposed certificate was designed to meet the requirements of the FPSC. It includes all the courses required for FPSC recognition.

The growing complexity of every aspect of financial planning creates an increasing demand for planners with both a rigorous education in specific areas of planning like risk management, investments and taxation and the ability to integrate all the strands of a client's financial needs.

The financial world is strongly impacted by the current global credit crisis that has unnerved both ordinary bank depositors and sophisticated investors. Family financial affairs are becoming increasingly complex, leading to an escalation in the demand for experts in society who can help families. The explosive growth of new forms of securities alone requires advanced education to understand the instruments and how they can be used to provide secure income. New risk management instruments for families go far beyond the traditional basic insurance contracts. Family and tax laws have changed, while the institution of marriage itself has evolved. Even a well-educated person has trouble negotiating these matters without either specific training, or the support of a professional planner.

The demographics of the Canadian population show a growing number of retired persons relative to those who are working. In addition, retirees can expect to live longer than any previous generation. Many people will live as long in retirement as they spent as part of the labour force. Canada has one of the best-developed retirement income systems in the world, in the form of government pensions (Canada Plan, Old Age Security, Guaranteed Income Supplement), employer pensions, tax-assisted savings (RRSPs, RRIFs, TFSAs) and non-tax-assisted savings. Nonetheless, a significant personal responsibility to provide for retirement remains with the individual and the family, particularly those who do not have employer pensions. In addition, employer-defined benefit pension plans are suffering significant shortfalls due to the financial crisis that started in 2008, which puts even more onus on the employees to ensure their own retirement security. Employers are converting their plans from defined benefit to defined contribution, which places more risk on the employees, and requires them to make more decisions on their future. In order to make good decisions in these circumstances, individuals need expert help.

There are about 90,000 CFP holders in 19 countries. The US leads with about 50,000 members, followed by Canada with over 16,000. More than 1,000 Canadians have written the CFP examinations each year. Toronto is home to more CFPs than any other Canadian city, and also the largest test site, according to the Financial Planning Standards Council. Given the strong interest in the CFP designation, SAS should be able to attract the numbers needed to make the Certificate program successful. The Area Coordinator of Finance has been receiving inquiries from across Canada since the undergraduate program was listed on the Financial Planning Standards Council website.

Two types of certificates and programs in financial planning exist at other institutions. The more common ones are specifically designed to train students to pass the CFP examinations. The proposed Certificate program is far broader and deeper than the programs these other institutions offer. For-profit companies (e.g. Canadian Securities Institute, CCH-Advocis), some community colleges and a few universities offer this sort of limited, examination preparation program. While this knowledge is essential for professional practice, it is only part of the competence of a professional planner.

A few universities offer programs that are more like the proposed SAS Certificate. In Ontario, Lakehead, Wilfrid Laurier, Laurentian, and Ryerson offer similar programs. Like the proposed Certificate, their programs are based in their undergraduate degree programs and those that offer certificates have certificate and degree students taking the courses together and meeting the same standards, exactly as is proposed in the SAS Certificate.

None of these other university programs have a complement of faculty members, full or part-time, who possess the credentials of SAS faculty members engaged in financial planning education and research. Almost none of the professors in these other institutions even possess professional certifications like the CFP, CFA and CA, whereas the SAS faculty members teaching in the Finance stream are almost all professionally-certified in one or more relevant disciplines. The faculty members of other programs also do little or no research in financial planning and related fields, whereas the faculty members of SAS are recognized internationally as leaders in financial planning research. It is noteworthy that the textbook co-authored by Professors Ho and Robinson of LA&PS is used in many of these other university financial planning programs and certificates. Four faculty members were recently honoured by the FPSC.[4]

ii. Student Demand (5-year projection)

The five-year enrolment projection is based on current course enrolments, requests for such a program to SAS and expressed interest in CFP.

Table 3: *Projected Enrolment*

PROJECTED ENROLMENTS					
Student Entry Status	**2012**	**2013**	**2014**	**2015**	**2016**
Continuing		10	17	22	23
New	10	15	20	20	20
Total	**10**	**25**	**37**	**42**	**43**

The above projection assumes that 15% of continuing students (from the previous year) will move onto a third year.

The proposed program will be offered by the School of Administrative Studies (SAS) through the Faculty of Liberal Arts and Professional Studies (LA&PS) effective September 2012.

[4] http://www.yorku.ca/yfile/archive/index.asp?Article=17794

4. Curriculum, Structure and Learning Outcomes

Learning outcomes

Table 1. *Learning Outcomes*

No.	Outcomes	Corresponding Course(s)
1	Theoretical knowledge of the principles of statistics, accounting, finance, insurance, law and taxation relevant to individual and family financial management.	This outcome is addressed throughout all Certificate courses
2	A broad command of various specialized fields of knowledge in order to know when and how to utilize professional practitioners in different areas of law, taxation, investment management and insurance.	All 3000 and 4000 level courses plus ADMS 2610.
3	Experiential learning through working with a family to estimate insurance needs and to write a comprehensive financial plan.	ADMS 4505, 4506
4	Practical skills to write a comprehensive plan designed to meet a client's goals, covering every aspect of a family's financial situation, and to guide the family through the implementation of the plan.	ADMS 4505, 4506
5	Formal education in ethics and their application through the Financial Planners Standards Council Code of Ethics.	ADMS 4506
6	The specified knowledge base of the Financial Planners Standards Council so that they can successfully write the examinations required for the Certified Financial Planner mark.	All ADMS 3000 and 4000 level courses plus ADMS 2610

Appropriateness of proposed program's structure and curriculum for its educational objectives.
Financial planning is the practice of advising individuals and families on all aspects of their personal financial affairs. This field is broader than investment management, and requires that the planner master many different subjects, including budgeting, family law, taxation, risk and insurance, debt management, residential real estate, investment management, retirement planning and estate planning. The financial planner must draw these disparate threads together in a comprehensive plan to help clients meet their financial goals. The proposed Certificate provides for a complete integration of technical knowledge, professional skills, ethics and practical experience.

The internationally-recognized professional certification for a financial planner is the CFP mark. This mark was initiated by the CFP Board of Standards in the US, and is administered in Canada by the Financial Planning Standards Council (FPSC).[5] This Certificate in Financial Planning was designed to meet the requirements of the FPSC.

On July 20, 2009, this certificate was approved as a FPSC-approved Core Curriculum Program at the same time as the Bachelor of Administrative Studies, Specialized Honours - Finance Stream. On November 22, 2010, AP/ADMS 4506 3.00, Professional Financial Planning, which is included in this certificate, was confirmed as a FPSC-approved Capstone Course. These approvals are for three years.

A student who does not have approved prior credentials[6] must complete FPSC-approved Core Curriculum before writing FPSC Financial Planning Examination 1 (FPE 1). A student must complete an FPSC-approved Capstone

[5] www.fpsc.ca

[6] FPSC approved prior credentials are as follows:
Professional Accountants (CA, CGA, CMA)
Chartered Financial Analyst (CFA)
Chartered Life Underwriter (CLU)
Fellow of the Canadian Institute of Actuaries (FCIA)
Member of a provincial law society
PhD in finance, business or economics

Course before writing FPSC Financial Planning Examination 2 (FPE 2). The courses contained in this certificate are the only courses at York University that have these approvals.

Students will be able to enrol in the program on a part-time and full-time basis. During the first year of operation, however, it is anticipated that the majority of applicants will seek part-time entry to the program. When taken full-time, the program would take four terms to complete due to the order in which the courses should be taken.

Outline of Requirements (Calendar Copy)
This certificate program is not open to students concurrently pursuing a major in the BAS programs.

Prior to beginning the certificate, students must have (1) successfully completed MHF4U (Advanced Functions) or equivalent and (2) obtained a minimum grade of C (4.0) in each of AP/ECON 1000 Introduction to Microeconomics and AP/ECON 1010 Introduction to Macroeconomics or their equivalent.

Note: The prerequisite of AP/ADMS 3330 for AP/ADMS 4501 is waived for students in the certificate program.

Requirements: 36 credits including:

Core requirements:

AP/ADMS 1000	3.00	Introduction to Administrative Studies
AP/ADMS 2320	3.00	Quantitative Methods I
AP/ADMS 2500	3.00	Introduction to Financial Accounting
AP/ADMS 2610	3.00	Elements of Law: Part One
AP/ADMS 3520*	3.00	An Overview of Canadian Income Taxation
AP/ADMS 3530	3.00	Finance
AP/ADMS 3531	3.00	Personal Investment Management
AP/ADMS 3541	3.00	Personal Financial Planning
AP/ADMS 4501	3.00	Advanced Portfolio Management
AP/ADMS 4505	3.00	Advanced Personal Finance
AP/ADMS 4506	3.00	Professional Financial Planning
AP/ADMS 4561	3.00	Taxation of Personal Income in Canada

*Students who completed ADMS 4561 before ADMS 3520 was introduced into the program must replace ADMS 3520 with another course from the following list. A student who has not taken ADMS 4562 is advised to use it as the replacement, but is not required to do so.

In order to obtain a professional certificate offered through SAS, at least 18 of the ADMS course credits that satisfy certificate requirements must be in addition to those used to satisfy the requirements of a degree. Students may acquire more than one certificate provided at least 18 credits in each certificate are unique to the specific certificate.

Note 1: To complete the 18 unique credit requirements for the Financial Planning certificate, a student may need three or more additional credits which must be chosen from the following list of course options:

AP/ADMS 4502	3.00	Ethics for Investment Managers
AP/ADMS 4503	3.00	Derivative Securities
AP/ADMS 4504	3.00	Fixed Income Securities and Risk Management
AP/ADMS 4535	3.00	Financial Statement Analysis
AP/ADMS 4536	3.00	Security Valuation
AP/ADMS 4540	3.00	Financial Management
AP/ADMS 4562	3.00	Corporate Taxation in Canada

Courses (among requirements) currently offered, with frequency of offering
All courses above are currently offered by the School of Administrative Studies. Multiple sections of each course except AP/ADMS 4505 and 4506 are available each term, with at least one section in the evening. At least one internet/blended offering is available each year for all courses except AP/ADMS 3531, 3541, 4501, 4505 and 4506. ADMS 4505 is offered every fall in the evening. AP/ADMS 4506 is offered every winter in the evening.

New courses
None. All courses are currently offered by SAS.

Required courses by other units.
None. All required courses are already offered by SAS.

Appropriateness of the certificate's structure and curriculum for its learning objectives
The core requirements are motivated by the requirements of the Financial Planning Standards Council (FPSC), which awards the CFP designation. Students must complete an FPSC-approved Core Curriculum program before they are allowed to write FPE1, the first level of the two-stage examination process. The FPSC-approved program at York consists of seven courses: AP/ADMS 3520, 3531, 3541, 4501, 4505, 4506,[7] and 4561. An additional four courses (AP/ADMS 1000, 2320, 2500, and 3530) are needed as prerequisites. The one remaining class in the certificate core, AP/ADMS 2610, includes legal principles which have some relevance for financial planning.

Advanced topics in financial planning, investment analysis, and income taxation are covered in the four 4000-level classes. These make this certificate distinct from another proposed new certificate, in Investment Management. Only one of these four classes, AP/ADMS 4501, is also included in the core requirements for the Investment Management Certificate.

Appropriateness of the mode of delivery to meet the certificate's learning objectives
Courses are offered through both the traditional format of lectures and online - all with relevant assignments and cases when appropriate.

Appropriateness of methods used to evaluate students' progress
The methods used to evaluate students' progress are consistent with the rest of SAS courses. Examinations, assignments, oral presentations and case studies among others are used when appropriate.

5. Admission Requirements
In addition to the general admission requirements for any program at York University, prior to beginning the certificate, students must have (1) successfully completed MHF4U (Advanced Functions) or equivalent and (2) have obtained a minimum grade of C (4.0) in each of AP/ECON 1000 Introduction to Microeconomics and AP/ECON 1010 Introduction to Macroeconomics or their equivalent. This certificate is not open to students concurrently pursuing a major in the BAS programs.

Students seeking direct entry to the Certificate program must apply directly to the Office of Admissions, York University. Students already enrolled in an undergraduate degree program are also expected to apply for entry to the Certificate program, normally prior to the completion of 36 credits of their undergraduate degree program. Application forms for these students will be available from SAS and when complete should be submitted to the School.

6. Resources

Faculty resources: The full-time faculty members who will be teaching in the program possess very substantial academic and professional qualifications, and research expertise, in the field of financial planning. Professors Domian, Ho, Magee and Robinson are Certified Financial Planners. Professional accounting expertise is also very important for taxation work in the financial planning field. Professors Ho, Magee and Robinson have professional accounting designations. Several of the core faculty members research and publish widely in applied investment, taxation and personal finance journals. Professors Domian, Ho, Robinson and Tahani have won numerous best paper awards for their work (with a variety of co-authors, including each other) in financial planning and applied investment management. All of the tenure stream faculty members are active researchers working on topics relevant to the particular subjects that they will be teaching in the Certificate program.

The core faculty members also have extensive publications in professional venues and textbooks. Professors Ho and Robinson have published the fourth edition of a PFP textbook that is the standard for the field in universities across Canada, including a French language edition. There are also Dutch, US and Chinese adaptations of the book, and UK and Mexican editions are in progress. Professor Magee is a recognized authority on personal taxation and has published solo and co-authored works that are widely adopted in Canada. She also contributes regularly to professional tax services that are used across the country. Professor Domian did the Canadian

[7] ADMS 4506 is also a FPSC-approved Capstone Course. Students must complete an FPSC-approved Capstone Course before they are allowed to write FPE2, the second level of the two-stage examination process.

adaptation of a well-known American textbook in investment management. Professor Robinson was a contributing editor of several business and professional publications for many years and published hundreds of articles in them on subjects in finance and accounting.

In addition to the full-time faculty members, the Certificate program will also draw upon the impressive pool of expert practitioners who live and work in the Toronto area. The accompanying table lists only those who are currently teaching in the School of Administrative Studies and who possess appropriate credentials to teach in the Certificate program. The combination of academic and professional instructors is essential to a successful professional degree. The School is presently fortunate to have, as instructors, people who have managed investments, run hedge funds and supervised and trained financial planners for some of the largest financial planning groups in Canada.

Full-time tenure-track faculty

- Dale Domian, Professor, PhD, CFP, CFA
- Kwok Ho, Associate Professor, PhD, CMA, CFP
- Thaddeus Hwong, Associate Professor, PhD
- Xiaofei Li, Associate Professor, PhD
- William Lim, Associate Professor, PhD
- Joanne Magee, Associate Professor, MBA, LLM, FCA, CFP
- Chris Robinson, Associate Professor, PhD, CA, CFP
- Nabil Tahani, Associate Professor, PhD
- Semih Yildirim, Associate Professor, PhD

Contract faculty

- Sam Alagurajah, course director, MBA, CMA
- Paul Fettes, course director, MBA, CFP, CFA
- Alan Goldhar, course director, BA, BAS, CGA, CFP
- Lois King, course director, MBA
- Jury Kopach, course director, BSc, MHRM, PRP
- Dayna Patterson, course director, MBA, CFA
- Irvin Pestano, course director, MBA

No new faculty members are required. All the required courses of the Certificate are being taught by current faculty.

Administration: Need for coordinator, support staff, advisors, if any
The administration will be handled in the same manner as other SAS certificates. All of the courses are currently offered as part of the BAS program and require no extra coordination.

There are no additional funds or resources required for the proposed Certificate. Existing SAS resources will be sufficient.

6.2 Laboratory facilities: none

6.3 Space: No additional lecture space is required. The required courses are currently being taught.

7. Support Statements

- from the relevant Dean(s)/Principal, with respect to the adequacy of existing human (administrative and faculty), physical and financial resources necessary to support the undergraduate certificate, as well as the commitment to any plans for new/additional resources necessary to implement and/or sustain the undergraduate certificate – Attached

APPENDIX A: Course Descriptions

1. AP/ADMS 1000 3.00 Introduction to Administrative Studies
This course provides an overview of the context within which modern organizations operate. The course will examine the development of organizational and managerial theories. A number of contemporary issues and the organizational responses will be discussed. **Course credit exclusions**: None. **PRIOR TO FALL 2009**: **Course credit exclusions**: AK/ADMS 1000 3.00, AK/ADMS 2000 3.00 (prior to Summer 1997), AK/ADMS 2000 6.00 (prior to Fall/Winter 1997-1998), AK/ADMS 2010 3.00 (prior to Summer 1994).

2. AP/ADMS 2320 3.00 Quantitative Methods I
An integrated approach to analyzing business problems from various functional areas. Practical business problems are analyzed using quantitative techniques including probability, statistical inference, estimation and regression as well as non-parametric approaches. Prerequisites: AP/ADMS 1000 3.00; one 12U mathematics course or equivalent. Course credit exclusion: AP/ECON 2500 3.00. PRIOR TO FALL 2009: **Prerequisites:** AK/ADMS 1000 3.00; one 12U mathematics course or equivalent. **Course credit exclusions**: AK/ADMS 2320 3.00, AK/ADMS 3320 3.00 (prior to Summer 2005), AK/ECON 3470 3.00.

3. AP/ADMS 2500 3.00 Introduction to Financial Accounting
An overview of the accounting discipline, useful to both majors and non-majors. Includes accounting history, the uses of accounting information in personal and business contexts and the rudiments of financial reporting. Note: AP/ADMS 1000 3.00 is not a prerequisite for AP/ADMS 2500 3.00, but is strongly recommended. Course credit exclusions: AP/ADMS 1500 3.00, AP/ECON 3580 3.00, GL/ECON 2710 3.00. **PRIOR TO FALL 2009**: **Course credit exclusions:** AK/ADMS 1500 3.00, AK/ADMS 2500 3.00, AS/ECON 3580 3.00, GL/ECON 2710 3.00.

4. AP/ADMS 2610 3.00 Elements of Law: Part One
Seeks to give insight into the role of the lawyer in relation to that of the judge, legislator and administrator in molding the law. Against this general background various legal principles and theories are examined so as to equip the student to analyze and define legal issues. **Prerequisite:** AP/ADMS 1000 3.00. Course credit exclusion: AP/POLS 3165 6.00. **PRIOR TO FALL 2009:** Prerequisite: AK/ADMS 1000 3.00. **Course credit exclusions**: AK/ADMS 2610 3.00, AK/ADMS 3610 3.00 (prior to Summer 2005), AS/ECON 4500 3.00.

5. AP/ADMS 3520 3.00 An Overview of Canadian Income Taxation
An overview of the taxation of personal and corporate incomes of Canadian taxpayers, related tax planning and GST implications. NCR Note: Students who have received credit for AP/ADMS 4561 3.00 or AP/ADMS 4562 3.00 may not subsequently take ADMS 3520 3.00 for degree credit. **Course credit exclusions**: None. **PRIOR TO FALL 2009:** NCR Note: Students who have received credit for AK/ADMS 4561 3.00 or AK/ADMS 4562 3.00 may not subsequently take ADMS 3520 3.00 for degree credit. **Course credit exclusions**: AK.ADMS 3520 3.00, AK/ADMS 3560 6.00 (prior to Summer 1988), AK/ADMS 3560 3.00 (prior to Summer 1990).

6. AP/ADMS 3530 3.00 Finance
The role of financial managers in accomplishing organizational objectives, uses of financial statements, present value theory, risk/return analysis, leverage, cost of capital, resource allocation models. **Prerequisites:** AP/ECON 1000 3.00; AP/ECON 1010 3.00; AP/ADMS 2500 3.00. **Corequisite:** AP/ADMS 2320 3.00. Course credit exclusions: AP/ECON 4082 3.00. **PRIOR TO FALL 2009;** prerequisites: AK/ECON 1000 3.00; AK/ECON 1010 3.00; AK/ADMS 2500 3.00. **Corequisite:** AK/ADMS 2320 3.00 or AK/ADMS 3320 3.00 (prior to Summer 2005). Course credit exclusion: AS/ECON 4400 3.00, AK/ECON 4082 3.00, AK/ADMS 3530 3.00.

7. AP/ADMS 3531 3.00 Personal Investment Management
Familiarizes students with the investment process, emphasizing the management of individual investor portfolios. Topics include security markets, trade-offs between risk and return, security analysis, and the concept of an "almost efficient" market. Current financial events are discussed. **Prerequisite:** AP/ADMS 3530 3.00. Course credit exclusions: None. **PRIOR TO FALL 2009**: Prerequisite: AK/ADMS 3530 3.00. **Course credit exclusion**: AK/ADMS 4500 3.00 (prior to Summer 2006), AK/ADMS 3531 3.00.

8. AP/ADMS 3541 3.00 Personal Financial Planning
Introduces financial planning techniques used in professional practice and follows through the steps and methods involved in developing personal financial plans. Topics include taxation, investment alternatives, targeting savings levels, insurance, retirement planning and relevant legislation. **Prerequisites:** AP/ADMS 3530 3.00, AP/ECON 1000 3.00, AP/ECON 1010 3.00. **Course credit exclusions**: None.

PRIOR TO FALL 2009: Prerequisites: AK/ADMS 3530 3.00, AK/ECON 1000 3.00, AK/ECON 1010 3.00. Course credit exclusions: AK/ADMS 3130B 3.00 (prior to Fall/Winter 1997-1998), AK/ADMS 3541 3.00.

9. AP/ADMS 4501 3.00 Advanced Portfolio Management
This course undertakes a rigorous study of the theory and empirical evidence relevant to professional portfolio management. Students learn tools which enable them to manage risks, allocate among asset classes, detect mispriced securities, and measure the performance of portfolio managers. **Prerequisites:** AP/ADMS 3330 3.00; AP/ADMS 3531 3.00. Course credit exclusions: None. **PRIOR TO FALL 2009: Prerequisites**: AK/ADMS 3330 3.00; AK/ADMS 3531 3.00. **Course credit exclusions**: AK/ADMS 4500 3.00 (prior to Summer 2006), AK/ADMS 4501 3.00.

10. AP/ADMS 4505 3.00 Advanced Personal Finance (serves as part one of CFP capstone course)
Builds on the basic financial planning taught in AK/ADMS 3541 3.00 to develop more planning skills in the areas of pre- and post-retirement planning, estate planning, insurance and probabilistic financial planning. Students will work with complex integrated case studies. **Prerequisites:** AP/ADMS 3520 3.00; AP/ADMS 3541 3.00. Course credit exclusions: None. **PRIOR TO FALL 2009:** Prerequisites: AK/ADMS 3520 3.00; AK/ADMS 3541 3.00. **Course credit exclusion**: AK/ADMS 4505 3.00.

11. AP/ADMS 4506 3.00 Professional Financial Planning (serves as part two of CFP capstone course)
Students learn how to plan professionally. Topics include the client-professional relationship, information gathering, use of financial planning software, professional ethics and the Certified Financial Planner Code of Ethics. The student goes through the planning process with a family. If required, the course director will assist the student in finding a suitable family. **Prerequisite:** AP/ADMS 4505 3.00. **Course credit exclusions**: None.
PRIOR TO FALL 2009: Prerequisite: AK/ADMS 4505 3.00. Course credit exclusion: AK/ADMS 4506 3.00.

12. AP/ADMS 4561 3.00 Taxation of Personal Income in Canada
Together with AP/ADMS 4562 3.00, introduces students to the principles and practice of Canadian taxation and related tax planning. Enables students to achieve a basic understanding of the Canadian Income Tax Act and its GST implications in relation to the individual. **Prerequisites:** 1) For students in an Honours program, 78 credits including AP/ADMS 3520 3.00; 2) or for other students, a grade of C+ or better in the above-listed course. Course credit exclusions: None. **PRIOR TO FALL 2009: Prerequisites**: 1) For students in an Honours program, 78 credits including AK/ADMS 3520 3.00; 2) or for other students, a grade of C+ or better in the above-listed course. **Course credit exclusion:** AK/ADMS 4561 3.00.

List of Additional Course Options:

13.AP/ADMS 4502 3.00 Ethics for Investment Managers
Students learn a basic ethical framework and the ethical standards expected of professional investment managers, including the CFA Code of Ethics and the Canadian regulatory environment. Students debate and challenge complex and multi-faceted ethics problems and case studies. **Prerequisites:** AP/ADMS 3531 3.00. **Course credit exclusions:** None. **PRIOR TO FALL 2009: Prerequisites**: AK/ADMS 4501 3.00. **Course credit exclusion:** AK/ADMS 4502 3.00.

14.AP/ADMS 4503 3.00 Derivative Securities
Explores pricing and use of derivative securities - futures and forward contracts, swaps and options -- traded on stocks, bonds, commodities, interest rates and currencies. Students learn how they work, how to hedge or speculate with them and how they are priced. **Prerequisites**: AP/ADMS 3530 3.00, AP/ADMS 3531 3.00. Course credit exclusions: None. **PRIOR TO FALL 2009: Prerequisites**: AK/ADMS 3530 3.00, AK/ADMS 3531 3.00. **Course credit exclusion:** AK/ADMS 4503 3.00.

15.AP/ADMS 4504 3.00 Fixed Income Securities and Risk Management
The objectives of this course are to describe important fixed income securities and markets and to explore key issues in risk management. It develops tools for valuing and modeling the risk exposures of fixed income securities and their derivatives, with the ultimate goal of deploying these instruments in a corporate or financial risk management setting. **Prerequisite:** AP/ADMS 3530 3.00. Corequisite: AP/ADMS 4503 3.00. Course credit exclusions: None. **PRIOR TO FALL 2009: Prerequisite**: AK/ADMS 3530 3.00. Corequisite: AK/ADMS 4503 3.00. **Course credit exclusion:** AK/ADMS 4504 3.00.

16.AP/ADMS 4535 3.00 Financial Statement Analysis
Students learn comprehensive financial statement analysis: consideration of strategy and other qualitative elements; fundamental analytical techniques; how to assess accounting quality and restate financial statements; how to extract business insights from financial statement analysis; and how to write a comprehensive report on a company's financial performance. Prerequisites: AP/ADMS 3530 3.00; AP/ADMS 3585 3.00. Pre/Corequisite: AP/ADMS 3595 3.00. Course credit exclusions: None. PRIOR TO FALL 2009: Prerequisites: AK/ADMS 3585 3.00; AK/ADMS 3595 3.00. Course credit exclusions: AK/ADMS 3535 3.00 (prior to Summer 2006), AK/ADMS 4535 3.00.

17.AP/ADMS 4536 3.00 Security Valuation
Students will learn the theories, models and practice of valuing investments, primarily equity securities, with some attention paid to alternative investments. Prerequisite: AP/ADMS 4501 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisite: AK/ADMS 4501 3.00. Course credit exclusion: AK/ADMS 4536 3.00.

18.AP/ADMS 4540 3.00 Financial Management
Building upon introductory knowledge from ADMS 3530, the course covers bond duration and refunding, risk and return, capital budgeting under uncertainty, capital structure, dividend policy and risk management. Empirical evidence on corporate finance theories will also be analyzed. Prerequisites: 1) For students in an Honours program, 78 credits including AP/ADMS 3530 3.00 and six credits in management science, or 2) for other students, these above-listed courses and a grade of C+ or better in AP/ADMS 3530 3.00. Course credit exclusion: AP/ECON 4410 3.00. PRIOR TO FALL 2009: Prerequisites: 1) For students in an Honours program, 78 credits including AK/ADMS 3530 3.00 and six credits in management science, or 2) for other students, these above-listed courses and a grade of C+ or better in AK/ADMS 3530 3.00. Course credit exclusion: AK/ADMS 4540 3.00.

19. AP/ADMS 4562 3.00 Corporate Taxation in Canada
Together with AP/ADMS 4561 3.00, introduces students to the principles and practice of Canadian taxation and related tax planning. Enables students to achieve a basic understanding of the Canadian Income Tax Act and its GST implications in relation to corporations, partnerships and trusts. Prerequisites: 1) For students in an Honours program, 78 credits including AP/ADMS 3520 3.00; 2) or for other students, a grade of C+ or better in the above-listed course. Course credit exclusions: None. PRIOR TO FALL 2009: Prerequisites: 1) For students in an Honours program, 78 credits including AK/ADMS 3520 3.00; 2) or for other students, a grade of C+ or better in the above-listed course. Course credit exclusions: AK/ADMS 4562 3.00.

NEW PROFESSIONAL CERTIFICATE IN INVESTMENT MANAGEMENT
Undergraduate Certificate Proposal

1. Introduction

This is a proposal for a new 42-credit professional Certificate in Investment Management. A Certificate in investment management is timely given the current economic climate. The global credit crisis, stock market collapse and widespread pension plan underfunding coupled with the weakening and collapse of numerous corporations and impending retirement bulge of the baby boomers, have increased the need for well-educated investment managers. The School of Administrative Studies (SAS) will offer the proposed Certificate through the new Faculty of Liberal Arts and Professional Studies (LA&PS) effective September 2012.

The program will appeal to 1) current students who wish to acquire more specialized knowledge about the field of investment management and 2) those currently working in the field who are planning to pursue the Chartered Financial Analyst (CFA) designation. In particular, students already working or seeking work in financial institutions either on the 'buy' side in banks, insurance companies, pension funds and investment management firms or on the 'sell' side for investment dealers and investment bankers are expected to be interested in the Certificate. The Certificate will provide both insightful analysis of the global financial industry and in-depth preparation for the holder to pursue the CFA designation. The Investment Management Certificate will operate under the regulations approved by Senate on June 28, 2001.

This Certificate may be completed concurrently with most York undergraduate degrees[1] or as a direct-entry, stand-alone program. In addition to assisting undergraduate students write Level I and Level II of the Chartered Financial Analyst program examination of the CFA Institute, this Certificate will also appeal to individuals currently working in the investment field or the financial sector in general.

The proposed Certificate in Investment Management can be defined as a professional certificate. The series of courses required to complete the Certificate are well-defined courses that provide expertise in the specific field of investment management with the aim of equipping students to successfully write Levels I and II of the CFA examination.

2. General Objectives of the Undergraduate Certificate

The proposed Certificate in Investment Management builds on the financial expertise within SAS. SAS offers undergraduate business degree programs and certificates; its undergraduate courses address a wide range of business subject matters with attention to bridging interdisciplinary research and business practices. On January 27, 2005 Senate approved the establishment of a Finance stream in SAS under the BAS Specialized Honours degree program. This Certificate draws on the strengths of faculty and courses within the finance stream.

This Certificate is designed to accommodate working professionals and should appeal to students who wish to attain their CFA designation while working and taking courses on a part-time basis. It is therefore in line with the LA&PS Strategic Plan's commitment to the needs of a diverse student population including the specific professional development needs of part-time and mature students (Goal 1/ Principle 1, Goal 4/Principle 5).

At the University level, the proposed Certificate will help to meet Priority 2 of the Provostial White Paper: expanding business-related and professional programs.[2]

This Certificate directly corresponds with the School's traditional responsiveness to the needs of professional associations: the School in the past has developed a Professional Certificate in Accounting to meet the needs of students pursuing the CA, CMA and CGA designations, a Professional Certificate in Human Resources Management for students pursuing a CHRP (Certified Human Resources Professional) designation and most recently, a Certificate in Emergency Management. A Certificate in Financial Planning is also currently being proposed.

At the University level, the proposed Certificate consolidates existing course offerings and faculty resources to offer a program that will enhance the academic qualifications of current students and meet the needs of professionals in the area. There is currently no other certificate in investment management aimed at preparing students for CFA certification being offered at York.

[1] Please see the 'Admissions Requirements' section (pp.4-5 below) for more details.
[2] See http://www.yorku.ca/vpaweb/whitepaper/

3. Need and Demand

This Certificate is designed to train students in investment management with the ultimate goal of preparing students to successfully complete CFA Levels I and II. There are no other credit or non-credit programs at York that provide the same specialized study. While the Schulich School of Business does provide undergraduate degree programs in Finance and Accounting with courses paralleling those in the BAS Finance and Accounting streams, it does not offer an undergraduate certificate program in this area.

Broad consultation was undertaken with Faculties across York. Units consulted include:

Faculty of Liberal Arts & Professional Studies: Business & Society and Economics
Faculty of Environmental Studies
Faculty of Fine Arts
Faculty of Health
Faculty of Science & Engineering
Glendon College
Schulich School of Business

In developing this program proposal, we collaborated with several full-time faculty members from SAS, including seven CFA charterholders (Edward Wong, Valter Viola, Sandra Scott, Dale Domian, Patrice Gelinas, Paul Fettes, and Dayna Patterson) and a former hedge fund manager who have taught in the BAS Honours Finance program.

In recent years, the Director of Education, Toronto Society of Financial Analysts, came on campus twice to make presentations on the CFA program to our students. Over 150 students attended each time. On-going rapport has been established with the Toronto Society of Financial Analysts. In addition, finance faculty members have met with the Director of Education and University Relations, CFA Institute.

External need and demand for the Certificate

The growing complexity of every aspect of investments creates an increasing demand for experts in society who can understand and manage financial assets and advise investors. For example, the explosive growth of new forms of securities alone requires advanced education to understand the instruments and how they can be used to provide secure income. Both at the macro level of managing the large portfolios, and at the micro level of advising individuals and families which investments to make and why, the required expertise has gone beyond the level of even a well-educated person if he or she lacks specialized education.

The investment community is still feeling the effects of the recent global credit crisis that has shaken the faith of both ordinary bank depositors and sophisticated investors. The professionals who provide their services in investment management must receive even more sophisticated education, inculcated with strong ethical principles. The Certificate in Investment Management will provide the education needed for professionals in this complex world. No longer is it enough for an investment adviser to have just a short professional course on how to sell stocks and bonds. No longer is it enough for a individual to have a license to sell mutual funds or insurance, and a computer spread sheet to produce mass market financial planning. These services demand a high level of formal education, which the Certificate and the CFA are designed to provide.

Toronto is a huge market for the program as well. The strongest international designation in investment management is the CFA. Canada is home to the second-largest largest numbers of CFAs in the world, after the US.

There are currently about 95,000 CFA charter holders and 107,000 members (including those without a CFA) worldwide. The Toronto CFA Society has over 7,000 members, which places it second in size among all local CFA groups in the world, behind the New York society. The global pass rate for the June 2010 Level I examination was 42%, and the Canadian pass rate was just slightly higher. Toronto is the largest test site in Canada. Given the very high failure rates and the prestige and earning power of the CFA, a high quality program, like this Certificate, should have no difficulty in attracting qualified candidates.[3]

The global number of CFA exam writers is rising. For example, in China alone there were over 12,000 writers of the June 2010 exam. It is important to note that CFA examinations are only given in English. Preparation for the exams in English would be attractive to international applicants. The proposed Certificate would attract students from abroad and, in particular, those from China. York University already has a strong reputation among various

[3] CFA Institute web site: http://www.cfainstitute.org. Toronto CFA society web site: http://www.torontocfa.ca

East Asian communities within Canada and it is anticipated that this reputation will continue to grow beyond our borders

There are no English-language undergraduate certificates in Investment Management paralleling the CFA program in Canada. While there are French language undergraduate programs at Laval and Sherbrooke, the majority of Canadian programs linked to the CFA are at the graduate level.[4]

Considering the very large number of CFA exam writers and York's advantageous location in Toronto, the Certificate should be able compete successfully in this market.

Student Demand (5-year projection)
The five-year enrolment projection is based on current course enrolments, requests for such a program to SAS and expressed interest in CFA.

Table 3: ***Projected Enrolment***

PROJECTED ENROLMENTS					
Student Entry Status	2012	2013	2014	2015	2016
Continuing		15	22	28	29
New	15	20	25	25	25
Total	15	35	47	53	54

The above projection assumes that 15% of continuing students (from the previous year) will move onto a third year.

4. Curriculum, Structure and Learning Outcomes

Table 1. *Learning Outcomes*

No.	Outcomes	Corresponding Course(s)
1	Theoretical knowledge regarding the principles of finance, accounting and quantitative methods for managing investments.	This outcome is addressed throughout all Certificate courses
2	Practical skills to apply the theory and principles to the investment of large pools of money on behalf of other people.	Practical investment skills are developed throughout all courses, with ADMS 3531 Personal Investment Management and ADMS 4501 Advanced Portfolio Management specifically focused on this outcome.
3	Specified knowledge base of the Chartered Financial Analyst designation in preparation to write the Level I and Level II examinations and a strong foundation to write the Level III examination required for the designation.	Please see Table 2 below.
4	A thorough understanding of current topics in the global financial industry.	All the course curricula change frequently, because the field itself is changing constantly. New investment instruments and opportunities are discussed in ADMS 3531. New laws and investments, and key issues in the Canadian economy are part of ADMS 3541. Students must write papers on global economic trends affecting investments and present their conclusions orally in ADMS 4501. The latest examples of ethical and regulatory issues form a major part of the curriculum of ADMS 4502.

[4] See http://www.cfainstitute.org/partners/university/Pages/cfa_program_university_partners.aspx

Investment Management is the practice of managing pools of money that individuals, families and organizations have accumulated to provide for future needs. Investment managers need to master the principles and practice of portfolio management, which requires a fundamental education in economics, extensive education in finance, sound statistical training for the quantitative techniques, basic accounting, and extensive training in the interpretation of financial statements. The internationally-recognized professional certification for an investment manager is the Chartered Financial Analyst (CFA) designation, administered by the CFA Institute in the U.S. for over 40 years. The Investment Management Certificate incorporates the education necessary for students who wish to write the two examinations for the Chartered Financial Analyst designation and is an excellent foundation for the third and final level of the examination process. Eventually, courses to prepare for Level III could be introduced by SAS as electives for the Certificate.

This Certificate has been carefully designed to incorporate material from the CFA CBOK (Candidate Body of Knowledge) and its specific fields. Table 2 identifies the primary CFA subject areas and the corresponding SAS courses.

Table 2: ***Topic area weights for CFA Examinations (in percent) and corresponding courses***

Topic Area	Level I	Level II	SAS Courses
Ethical and Professional Standards	15	10	ADMS 4502 Ethics for Investment Managers
Quantitative Methods	12	5-10	ADMS 2320 Quantitative Methods I
Economics	10	5-10	*Any undergraduate level economics*
Financial Reporting and Analysis	20	15-25	ADMS 3585/3595 Intermediate Financial Accounting I and II, ADMS 4535 Financial Statement Analysis
Corporate Finance	8	5-15	ADMS 3530 Finance
Equity Investments	10	20-30	ADMS 3531 Personal Investment Management, ADMS 4501 Advanced Portfolio Management and ADMS 4536 Security Valuation
Fixed Income	12	5-15	ADMS 4504 Fixed Income Securities and Risk Management
Derivatives	5	5-15	ADMS 3531 Personal Investment Management, ADMS 4503 Derivative Securities
Alternative Investments	3	5-15	ADMS 4501 Advanced Portfolio Management and ADMS 4536 Security Valuation
Portfolio Management and Wealth Planning	5	5-15	ADMS 3531 Personal Investment Management, ADMS 3541 Personal Financial Planning, ADMS 4501 Advanced Portfolio Management and ADMS 4536 Security Valuation
Total	**100**	**100**	

This program will be available on both a part-time and full-time basis; however, it is anticipated that the majority of applicants will seek part-time entry to the program during the Certificate's first year of operation. On a full-time basis, the program would take four terms to complete due to the order in which the courses must be taken.

a. Outline of requirements, with course descriptions (Calendar copy)

This certificate program is not open to students concurrently pursuing a major in the BAS programs.

Prior to beginning the certificate, students must have (1) successfully completed MHF4U (Advanced Functions) or equivalent and (2) obtained a minimum grade of C (4.0) in each of AP/ECON 1000 Introduction to Microeconomics and AP/ECON 1010 Introduction to Macroeconomics or their equivalent.

Note: The prerequisite of AP/ADMS 3330 for AP/ADMS 4501 is waived for students in the certificate program.

Requirements: 42 credits including:

Core requirements:

AP/ADMS 1000	3.00	Introduction to Administrative Studies
AP/ADMS 2320	3.00	Quantitative Methods I
AP/ADMS 2500	3.00	Introduction to Financial Accounting
AP/ADMS 3530	3.00	Finance
AP/ADMS 3531	3.00	Personal Investment Management
AP/ADMS 3541	3.00	Personal Financial Planning
AP/ADMS 3585	3.00	Intermediate Financial Accounting I
AP/ADMS 3595	3.00	Intermediate Financial Accounting II
AP/ADMS 4501	3.00	Advanced Portfolio Management
AP/ADMS 4502	3.00	Ethics for Investment Managers
AP/ADMS 4503	3.00	Derivative Securities
AP/ADMS 4504	3.00	Fixed Income Securities and Risk Management
AP/ADMS 4535	3.00	Financial Statement Analysis
AP/ADMS 4536	3.00	Security Valuation

In order to obtain a professional certificate through SAS, at least 18 of the ADMS course credits that satisfy certificate requirements must be in addition to those used to satisfy the requirements of a degree. Students may acquire more than one certificate provided at least 18 credits in each certificate are unique to the specific certificate .

Note 1: To complete the 18 unique credit requirements for the Investment Management certificate, a student may need three or more additional credits which must be chosen from the following list of course options:

AP/ADMS 3520	3.00	An Overview of Canadian Income Taxation
AP/ADMS 4505	3.00	Advanced Personal Finance
AP/ADMS 4540	3.00	Financial Management
AP/ADMS 4541	3.00	Applied Corporate Finance
AP/ADMS 4542	3.00	International Financial Management

Courses (among requirements) currently offered, with frequency of offering

All courses above are currently offered by the School of Administrative Studies. The 1000, 2000 and 3000 level courses and ADMS 4501 are offered in all three semesters, with at least one section in the evening. The other 4000 level courses are offered in at least two out of three terms, with at least one section in the evening. At least one Internet course is available each year for ADMS 1000, ADMS 2320, ADMS 2500, ADMS 3530, ADMS 3541, ADMS 3585 and ADMS 3595.

New courses

None. All courses are currently offered by the SAS.

Required courses by other units.

None. All required courses are already offered by SAS.

Appropriateness of the Certificate's structure and curriculum for its learning objectives

More credits are required than is typical for a York professional certificate due to the complexity of the CFA examinations. There are three separate exams, designated Levels I, II, and III, each lasting six hours. Twelve of the 14 courses in the certificate cover topics on the Levels I and II exams, as shown in Table 2 above. The two remaining courses, ADMS 1000 and 2500, are prerequisites for the others.

Intermediate and advanced topics in accounting and investment analysis are covered in the eight classes numbered 3585 and higher. These make this certificate distinct from another proposed new certificate, in Financial Planning. Only one of these eight classes, ADMS 4501, is also included in the core requirements for the Financial Planning Certificate.

Appropriateness of the mode of delivery to meet the Certificate's learning objectives

Courses are offered through both the traditional format of lectures and online - all with relevant assignments and cases when appropriate.

Appropriateness of methods used to evaluate students' progress
The methods used to evaluate students' progress are consistent with the rest of SAS courses. Examinations, assignments, and case studies among others are used when appropriate.

5. Admission Requirements
In addition to the general admission requirements for any program at York University, prior to beginning the certificate, students must have (1) successfully completed MHF4U (Advanced Functions) or equivalent and (2) have obtained a minimum grade of C (4.0) in each of AP/ECON 1000 Introduction to Microeconomics and AP/ECON 1010 Introduction to Macroeconomics or their equivalent. This certificate is not open to students concurrently pursuing a major in the BAS program.

Students seeking direct entry to the Certificate program must apply directly to the Office of Admissions, York University. Students already enrolled in an undergraduate degree program are also expected to apply for entry to the Certificate program, normally prior to the completion of 36 credits of their undergraduate degree program. Application forms for these students will be available from the School of Administrative Studies and when complete should be submitted to the School.

6. Resources

6.1 Faculty resources:
The program will be delivered by current SAS faculty, both tenure-stream and sessional lecturers. They possess very substantial academic and professional qualifications, and research expertise, in the field of professional investment management. Dale Domian, Patrice Gélinas, Paul Fettes and Dayna Patterson are CFA charter-holders. Professional accounting expertise is also very important for the financial statement analysis work in the investment management field and four full-time faculty members hold professional accounting designations. Chris Robinson is a recognized specialist in financial statement analysis.

Several of the core faculty members research and publish widely in investment management journals. Dale Domian, Kwok Ho, Chris Robinson and Nabil Tahani have won numerous best paper awards for their work (with a variety of co-authors, including each other) in financial planning and applied investment management. All of the tenure stream faculty members are active researchers working on topics relevant to the particular subjects that they will be teaching in the Certificate program.

In addition to the full-time faculty members, the Certificate program also draws upon the impressive pool of expert practitioners who live and work in the Toronto area. The accompanying table lists only those who are currently teaching in the School of Administrative Studies and who also possess appropriate credentials to teach in the Certificate program. However, the School will draw on a greater number of such expert practitioners as the program grows. The combination of academic and professional instructors is essential to a successful professional certificate. Lois King and Dayna Patterson have extensive professional experience in investment management. Jury Kopach spent his entire career as a senior financial planner and supervisor of financial planners for some of the largest planning firms in Canada. Alan Goldhar is the Chief Investment Officer for the Attorney General of Ontario, where he manages a staff of planners with thousands of accounts. Paul Fettes is the founding CEO of First Sovereign Investment Management.

Full-time tenure-track faculty
- Dale Domian, Professor, PhD, CFP, CFA
- Patrice Gélinas, Associate Professor, PhD, ASA, CFA
- Kwok Ho, Associate Professor, PhD, CMA, CFP
- Xiaofei Li, Associate Professor, PhD
- William Lim, Associate Professor, PhD
- Joanne Magee, Associate Professor, MBA, LLM, FCA, CFP
- Chris Robinson, Associate Professor, PhD, CA, CFP
- Nabil Tahani, Associate Professor, PhD
- Semih Yildirim, Associate Professor, PhD

Contract faculty
- Sam Alagurajah, course director, MBA, CMA
- Paul Fettes, course director, MBA, CFA, CFP
- Alan Goldhar, course director, BA, BAS, CGA, CFP
- Lois King, course director, MBA

- Jury Kopach, course director, BSc, MHRM, PRP
- Binu Mathai, course director, MAcc, CA, CBV
- Dayna Patterson, course director, MBA, CFA
- Irvin Pestano, course director, MBA

No new faculty members are required. All the required courses of the Certificate are being taught by current faculty.

There are no additional funds or resources required for the proposed Certificate. Existing SAS resources will be sufficient.

Administration: need for a coordinator, support staff, advisors, if any
No additional resources are required. The administration will be handled in the same manner as other SAS certificates. All of the courses are currently offered as part of the BAS program and require no extra coordination.

6.2 Laboratory facilities: none.

6.3 Space:
No additional lecture space is required. The required courses are currently being taught.

7. Support Statements

- **from the relevant Dean(s)/Principal, with respect to the adequacy of existing human (administrative and faculty), physical and financial resources necessary to support the undergraduate certificate, as well as the commitment to any plans for new/additional resources necessary to implement and/or sustain the undergraduate certificate -** Attached

APPENDIX A: Course Descriptions

1. AP/ADMS 1000 3.00 Introduction to Administrative Studies
   This course provides an overview of the context within which modern organizations operate. The course will examine the development of organizational and managerial theories. A number of contemporary issues and the organizational responses will be discussed.
   Course credit exclusions: None.
   PRIOR TO FALL 2009: Course credit exclusions: AK/ADMS 1000 3.00, AK/ADMS 2000 3.00 (prior to Summer 1997), AK/ADMS 2000 6.00 (prior to Fall/Winter 1997-1998), AK/ADMS 2010 3.00 (prior to Summer 1994).

2. AP/ADMS 2320 3.00 Quantitative Methods I
   An integrated approach to analyzing business problems from various functional areas. Practical business problems are analyzed using quantitative techniques including probability, statistical inference, estimation and regression as well as non-parametric approaches.
   Prerequisites: AP/ADMS 1000 3.00; one 12U mathematics course or equivalent. Course credit exclusion: AP/ECON 2500 3.00.
   PRIOR TO FALL 2009: Prerequisites: AK/ADMS 1000 3.00; one 12U mathematics course or equivalent. Course credit exclusions: AK/ADMS 2320 3.00, AK/ADMS 3320 3.00 (prior to Summer 2005), AK/ECON 3470 3.00.

3. AP/ADMS 2500 3.00 Introduction to Financial Accounting
   An overview of the accounting discipline, useful to both majors and non-majors. Includes accounting history, the uses of accounting information in personal and business contexts and the rudiments of financial reporting. Note: AP/ADMS 1000 3.00 is not a prerequisite for AP/ADMS 2500 3.00, but is strongly recommended.
   Course credit exclusions: AP/ADMS 1500 3.00, AP/ECON 3580 3.00, GL/ECON 2710 3.00.
   PRIOR TO FALL 2009: Course credit exclusions: AK/ADMS 1500 3.00, AK/ADMS 2500 3.00, AS/ECON 3580 3.00, GL/ECON 2710 3.00.

4. AP/ADMS 3530 3.00 Finance
   The role of financial managers in accomplishing organizational objectives, uses of financial statements, present value theory, risk/return analysis, leverage, cost of capital, resource allocation models.
   Prerequisites: AP/ECON 1000 3.00; AP/ECON 1010 3.00; AP/ADMS 2500 3.00. Corequisite: AP/ADMS 2320 3.00. Course credit exclusions: AP/ECON 4082 3.00.
   PRIOR TO FALL 2009; prerequisites: AK/ECON 1000 3.00; AK/ECON 1010 3.00; AK/ADMS 2500 3.00. Corequisite: AK/ADMS 2320 3.00 or AK/ADMS 3320 3.00 (prior to Summer 2005). Course credit exclusion: AS/ECON 4400 3.00, AK/ECON 4082 3.00, AK/ADMS 3530 3.00.

5. AP/ADMS 3531 3.00 Personal Investment Management
   Familiarizes students with the investment process, emphasizing the management of individual investor portfolios. Topics include security markets, trade-offs between risk and return, security analysis, and the concept of an "almost efficient" market. Current financial events are discussed.
   Prerequisite: AP/ADMS 3530 3.00. Course credit exclusions: None.
   PRIOR TO FALL 2009: Prerequisite: AK/ADMS 3530 3.00. Course credit exclusion: AK/ADMS 4500 3.00 (prior to Summer 2006), AK/ADMS 3531 3.00.

6. AP/ADMS 3541 3.00 Personal Financial Planning
   Introduces financial planning techniques used in professional practice and follows through the steps and methods involved in developing personal financial plans. Topics include taxation, investment alternatives, targeting savings levels, insurance, retirement planning and relevant legislation.
   Prerequisites: AP/ADMS 3530 3.00, AP/ECON 1000 3.00, AP/ECON 1010 3.00. Course credit exclusions: None.
   PRIOR TO FALL 2009: Prerequisites: AK/ADMS 3530 3.00, AK/ECON 1000 3.00, AK/ECON 1010 3.00. Course credit exclusions: AK/ADMS 3130B 3.00 (prior to Fall/Winter 1997-1998), AK/ADMS 3541 3.00.

7. AP/ADMS 3585 3.00 Intermediate Financial Accounting I

This course, in conjunction with AP/ADMS 3595 3.00, develops thorough knowledge and understanding of generally accepted accounting principles and financial statement analytical skills by examining various technical areas of financial accounting.
Prerequisite: AP/ADMS 2500 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisite: AK/ADMS 2500 3.00. Course credit exclusion: AK/ADMS 3585 3.00.

8. ADMS 35953.00 Intermediate Financial Accounting II
This course is a continuation of AP/ADMS 3585 3.00. It develops a thorough knowledge and understanding of generally accepted accounting principles and financial statement reporting practices in Canada.
Prerequisite: AP/ADMS 3585 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisite: AK/ADMS 3585 3.00. Course credit exclusion: AK/ADMS 3595 3.00.

9. AP/ADMS 4501 3.00 Advanced Portfolio Management
This course undertakes a rigorous study of the theory and empirical evidence relevant to professional portfolio management. Students learn tools which enable them to manage risks, allocate among asset classes, detect mispriced securities, and measure the performance of portfolio managers. Prerequisites: AP/ADMS 3330 3.00; AP/ADMS 3531 3.00. Course credit exclusions: None.

PRIOR TO FALL 2009: Prerequisites: AK/ADMS 3330 3.00; AK/ADMS 3531 3.00. Course credit exclusions: AK/ADMS 4500 3.00 (prior to Summer 2006), AK/ADMS 4501 3.00.

10. AP.ADMS 4502 3.00 Ethics for Investment Managers
Students learn a basic ethical framework and the ethical standards expected of professional investment managers, including the CFA Code of Ethics and the Canadian regulatory environment. Students debate and challenge complex and multi-faceted ethics problems and case studies.
Prerequisites: AP/ADMS 3531 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisites: AK/ADMS 4501 3.00. Course credit exclusion: AK/ADMS 4502 3.00.

11. AP/ADMS 4503 3.00 Derivative Securities
Explores pricing and use of derivative securities - futures and forward contracts, swaps and options -- traded on stocks, bonds, commodities, interest rates and currencies. Students learn how they work, how to hedge or speculate with them and how they are priced.
Prerequisites: AP/ADMS 3530 3.00, AP/ADMS 3531 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisites: AK/ADMS 3530 3.00, AK/ADMS 3531 3.00. Course credit exclusion: AK/ADMS 4503 3.00.

12. AP/ADMS 4504 3.00 Fixed Income Securities and Risk Management
The objectives of this course are to describe important fixed income securities and markets and to explore key issues in risk management. It develops tools for valuing and modeling the risk exposures of fixed income securities and their derivatives, with the ultimate goal of deploying these instruments in a corporate or financial risk management setting. Prerequisite: AP/ADMS 3530 3.00. Corequisite: AP/ADMS 4503 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisite: AK/ADMS 3530 3.00. Corequisite: AK/ADMS 4503 3.00. Course credit exclusion: AK/ADMS 4504 3.00.

13. AP/ADMS 4535 3.00 Financial Statement Analysis
Students learn comprehensive financial statement analysis: consideration of strategy and other qualitative elements; fundamental analytical techniques; how to assess accounting quality and restate financial statements; how to extract business insights from financial statement analysis; and how to write a comprehensive report on a company's financial performance.
Prerequisites: AP/ADMS 3530 3.00; AP/ADMS 3585 3.00. Pre/Corequisite: AP/ADMS 3595 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisites: AK/ADMS 3585 3.00; AK/ADMS 3595 3.00. Course credit exclusions: AK/ADMS 3535 3.00 (prior to Summer 2006), AK/ADMS 4535 3.00.

14. AP/ADMS 4536 3.00 Security Valuation
Students will learn the theories, models and practice of valuing investments, primarily equity securities, with some attention paid to alternative investments. Prerequisite: AP/ADMS 4501 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisite: AK/ADMS 4501 3.00. Course credit exclusion: AK/ADMS 4536 3.00.

List of Additional Course Options:

15. AP/ADMS 3520 3.00 An Overview of Canadian Income Taxation
An overview of the taxation of personal and corporate incomes of Canadian taxpayers, related tax planning and GST implications.
NCR Note: Students who have received credit for AP/ADMS 4561 3.00 or AP/ADMS 4562 3.00 may not subsequently take ADMS 3520 3.00 for degree credit. Course credit exclusions: None.
PRIOR TO FALL 2009: NCR Note: Students who have received credit for AK/ADMS 4561 3.00 or AK/ADMS 4562 3.00 may not subsequently take ADMS 3520 3.00 for degree credit. Course credit exclusions: AK.ADMS 3520 3.00, AK/ADMS 3560 6.00 (prior to Summer 1988), AK/ADMS 3560 3.00 (prior to Summer 1990).

16. AP/ADMS 4505 3.00 Advanced Personal Finance (serves as part one of CFP capstone course)
Builds on the basic financial planning taught in AK/ADMS 3541 3.00 to develop more planning skills in the areas of pre- and post-retirement planning, estate planning, insurance and probabilistic financial planning. Students will work with complex integrated case studies.
Prerequisites: AP/ADMS 3520 3.00; AP/ADMS 3541 3.00. Course credit exclusions: None.
PRIOR TO FALL 2009: Prerequisites: AK/ADMS 3520 3.00; AK/ADMS 3541 3.00. Course credit exclusion: AK/ADMS 4505 3.00.

17. AP/ADMS 4540 3.00 Financial Management
Building upon introductory knowledge from ADMS 3530, the course covers bond duration and refunding, risk and return, capital budgeting under uncertainty, capital structure, dividend policy and risk management. Empirical evidence on corporate finance theories will also be analyzed. Prerequisites: 1) For students in an Honours program, 78 credits including AP/ADMS 3530 3.00 and six credits in management science, or 2) for other students, these above-listed courses and a grade of C+ or better in AP/ADMS 3530 3.00. Course credit exclusion: AP/ECON 4410 3.00.
PRIOR TO FALL 2009: Prerequisites: 1) For students in an Honours program, 78 credits including AK/ADMS 3530 3.00 and six credits in management science, or 2) for other students, these above-listed courses and a grade of C+ or better in AK/ADMS 3530 3.00. Course credit exclusion: AK/ADMS 4540 3.00.

18. AP/ADMS 4541 3.00 Applied Corporate Finance
Explores corporate financial decision making through analytical and case study methods. Topics include working capital management, credit and product pricing, integration of credit policy with long-term strategic and operational decisions, venture financing, small business finances and risk management. Prerequisite: AP/ADMS 3530 3.00. Course credit exclusions: None. PRIOR TO FALL 2009: Prerequisite: AK/ADMS 4540 3.00. Course credit exclusion: AK/ADMS 4541 3.00.

19. AP/ADMS 4542 3.00 International Financial Management
Provides students with a framework for making corporate financial decisions in a global context. Topics include international monetary system, foreign exchange management and hedging techniques for different types of exposures, international parity relationships, and worldwide money, debt and equity markets. Prerequisite: AP/ADMS 3530 3.00. Course credit exclusions: None. PRIOR TO FALL 2009: Prerequisite: AK/ADMS 3530 3.00. Course credit exclusion: AK/ADMS 4542 3.00.

ACADEMIC POLICY, PLANNING AND RESEARCH COMMITTEE

Report to Senate at its meeting of April 26, 2012

FOR ACTION

1. Renaming of the Department of Visual Arts to the Department of Art and Art History (Faculty of Fine Arts)

APPRC recommends

> that Senate approve the renaming of the Department of Visual Arts to the Department of Art and Art History in the Faculty of Fine Arts.

APPRC is satisfied that the proposed new name for the Department is consistent with sound planning and is based on a thorough analysis of academic implications attendant on the change. The renaming is supported by the Department, Faculty Council, Dean, and Vice-Provost Academic, along with the Academic Standards, Curriculum and Pedagogy of Senate. All agree that the new name better reflects the Department's make up and mission.

Approved by the Academic Policy and Planning Committee on November 14, 2011
Approved by the Faculty of Fine Arts Council on December 15, 2011
Reviewed by Academic Standards, Curriculum and Pedagogy on March 2, 2011
Approved by Academic Policy, Planning and Research on April 5, 2012

Documentation is attached as Appendix A.

NOTICE OF MOTION

1. Establishment of a Faculty of Engineering (Lassonde School of Engineering) (Notice of Motion)[1]

It is the intention of APPRC to move the following statutory motion at the May meeting of Senate

> that Senate, having taken note of the documentation set out in Appendix A (including the intended unit make up), approve the establishment, effective July 1, 2012, of a Faculty of Engineering to be called the Lassonde School of Engineering, and recommend formal approval by the Board of Governors.

Rationale

APPRC strongly recommends that Senate approve the proposal to establish a Faculty of Engineering to be known as the Lassonde School of Engineering.

[1] A new Faculty established by the Board of Governors on a recommendation from Senate following approval of a statutory motion, the first stage of which is notice of motion. The Faculty was approved in principle by Senate in January 2012.

In November 2011, Dean Koziński briefed APPRC and Senate on planning for expansion of Engineering in line with *University Academic Plan 2010-2015* objectives and following on the announcement of significant funding from the provincial government and a benefactor, Pierre Lassonde, in support of the initiative. Dean Koziński reported at the time that planning had gained considerable momentum during the autumn months, and that a proposal to establish to Faculty was likely to emerge in the near future. FSE Council recorded its support for the creation of a new Faculty -- and re-creation of the existing Faculty of Science and Engineering – at its meeting of December 13, 2011. Senate approved the Faculty in principle in January of this year.

What has changed since Senate's approval in principle? As the updated documentation indicates, further extensive consultations have been completed. Proponents have also received written letters of support from key external bodies. The proposal has also been fleshed out, and the first new Engineering program – Electrical Engineering – has been approved by Academic Standards, Curriculum and Pedagogy and Academic Policy, Planning and Research. The proposal provides fuller details about academic resource modeling, enrolment planning, the intended unit makeup, and program. The FSE Faculty Council reiterated its support at its meeting of April 10.

What does it mean for the Faculty to be established as of July 1 this year? It will make it possible to undertake the steps necessary leading to full implementation in 2013. These include putting in place the appropriate academic leadership, expressing the new Faculty's identity, recruiting students and the first wave of new appointments, developing collegial governance structures and processes, and completing all of the many academic planning tasks vital to a smooth transition.

Engineering and University Planning

The current *UAP* references Engineering in three passages. One is found in the introductory text describing York's societal commitments and distinctive approaches:

> …. the world faces myriad social, economic, political, and environmental problems requiring imaginative and often interdisciplinary solutions. These phenomena require strategies that accentuate our capacity to sense, adapt, and respond while remaining true to our values and priorities. With its distinctive approach to the social, cultural and environmental aspects of issues, York is well positioned to take the lead in identifying innovative solutions. To take but one example, a dual degree combining Engineering and International Development was approved by Senate in 2010.

The next comes in the context of the principles and assumptions that define the special nature and aspirations of *UAP 2010-2015*, which involves

- an ongoing commitment to the diversification of academic activities in line with creating a more comprehensive university, including teaching and research in the areas of health, engineering, applied science, medicine, business and professional programs, while sustaining, affirming, and building upon the foundation provided by our distinctive strengths in the liberal arts, the fine arts, and the sciences as well as interdisciplinary programs and opportunities for students to combine disciplinary fields.

Significantly, goals for Engineering are here coupled with a renewed commitment to current strengths and interdisciplinary, multidisciplinary education. The final and most concrete reference takes the form of an explicit objective:

Engineering has featured in academic plans since the University's founding, and expansion will be pursued when the necessary, dedicated funding is secured. As always, many of the new and modified programs created within the life of the plan will have a unique cast to them, one which insists on the education of well-rounded graduates whose studies put a premium on exposure to diverse ways of learning. Over the next five years, our commitment to quality, student success, and engagement and outreach in relation to enrolment planning, program and campus development will be demonstrated by….

- paving the way to an expanded Engineering program (and areas such as health, business, applied, and professional programs) consistent with York's traditional emphasis on disciplinary richness, collaboration and transformation….[2]

Of course, as the *UAP* indicates, the goal of expanding Engineering has a much longer genesis. *2020 Vision*, the planning framework endorsed by Senate and the Board of Governors in 1992, traced the objective to the founding years of the University:

> From its early days, York aspired to be a large multi-faculty university. Engineering and medicine, for example, were specifically contemplated…

In 1999 the Academic Policy and Planning Committee of Senate and the Vice-President Academic jointly commissioned an Engineering prospectus from the Dean of Pure and Applied Science. The programs identified by Dean Prince, and subsequently approved by Senate, were few in number, modest in size, and unique in character. But the hope for a larger, more comprehensive array was undiminished.

As the documentation attests, the Faculty of Science and Engineering has been poised for some time to elaborate and execute plans for Engineering. The overall analysis is sound and sophisticated at this stage. Proponents make a compelling case for a separate Faculty, but one that is fully integrated into the fabric of the University and fully compatible with our mission. Proponents have declared their fealty to "core values of social responsibility, global citizenship, and multi-disciplinarity." A new Faculty will benefit York by diversifying the University's make up, enhancing its profile, building research capacity and intensification (along with research-derived funding that has a pan-University impact), fostering new collaborative programs, distributing enrolments in other Faculties, promoting internationalization and community engagement, and extending our range of external partnerships. In its most recent discussion with Dean Koziński and Associate Dean Hornsey APPRC learned the following:

- the outlook for research funding remains promising despite competition (a judgment echoed by Vice-President Haché), with many opportunities to leverage grants and capitalize on the presence of public and private sector actors in the region
- separate Faculties for Science and for Engineering is the norm for Canadian universities, and Computer Science units are often housed in Engineering Faculties
- consultations with other Faculties are continuing apace and are providing proponents with a helpful sense of issues and opportunities

[2] The language of this text was greatly informed by a discussion with President Shoukri on January 13, 2010. The minutes of that APPRC meeting record concerns that Engineering was not sustainable in its current configuration and stressed "the need for additional dedicated funding before transformation or expansion is possible, and the need for programs to be consistent with the University's dedication to interdisciplinarity and liberal education across the spectrum."

Dedicated funding has paved the way for planning to proceed on a firm financial footing. Yet this is a sensitive matter. In its report to Senate in November APPRC wrote that "over the years, Senators have expressed interest in academic resource dimensions of an expanded Engineering program. There have been concerns that Engineering might divert funding from other activities. While it is true that start-up funding will be required, it is intended and fully expected that the School's funding will reach a self-funding state relatively quickly. Moreover, initial investments will be repaid." APPRC is heartened by correspondence from the Provost (included in Appendix C) reiterating the commitment to managing the start up without draining resources from other activities. Funding will also redeem the UAP's commitment to quality.

Senators may wish to note the following legislative stages leading to the formal establishment of the Faculty, its constituent units, and programs.

Legislative Steps toward Full Implementation

- Establishment of Lassonde by Senate and Board (approved in principle by Senate in January; on Senate agenda April-May)
- Renaming of the Faculty of Science and Engineering
- Establishment of new units in Lassonde (by Senate and Board)
- Transfer of units from existing Faculty into Lassonde / renaming of Units
- Establishment of Faculty Council (and committees, rules and procedures)
- Establishment of new programs (Electrical Engineering on Senate agenda; others in progress)
- Establishment of Faculty abbreviation / program rubrics
- Establishment of pan-Faculty and program-specific standards, requirements and regulations
- Establishment of admissions requirements as necessary
- Establishment of degree-level expectations

It is anticipated that the founding departments will be the transferred / renamed departments of Electrical Engineering and Computer Science and Earth and Space Science and Engineering.

Legislative History of Faculty Establishment Proposal

Resolution passed by the Council of the Faculty of Science and Engineering on December 13, 2011
Approved in principle by Senate on January 26, 2012
Approved for the purpose of Senate resolution by APPRC on January 12, 2012
Review by Academic Standards, Curriculum and Pedagogy April 4, 2012
Approved by APPRC on April 5, 2012
Confirmation of support by the Council of the Faculty of Science and Engineering on April 10, 2012

Documentation is attached as Appendix B.

FOR INFORMATION

1. Planning Discussions with the Deans / Principal / Librarian

APPRC met with the Deans, Principal and University Librarian in February and March during its annual engagement with academic planners. The Committee posed the following question in advance of these discussions:

> With respect the *University Academic Plan 2010-2015*, what objectives have you prioritized, how are you pursuing them, and what impediments, if any, are you encountering in

implementing them?

The Committee will share written submissions with Senate and comment on the discussions later this term.

2. Follow-Up on York-CIGI Collaboration

The Committee concluded its consideration of an academic governance framework for the York-CIGI collaborative initiative following a widely-publicized vote by Osgoode Hall Faculty Council not to participate in the opportunity. Only one substantive comment was received in response to APPRC's invitation to comment on a draft framework issued on March 29.

Senate discussion of the York-CIGI initiative raised issues associated with academic freedom and external partnerships. It is noteworthy that the *University Academic Plan 2010-2015* stresses our "unswerving commitment to academic freedom and collegial self-governance" and insists that external partnerships must be consistent with "institutional autonomy and trust reposed by the public."

While APPRC endorsed the proposed collaboration between York and CIGI, it has accepted a suggestion from Senator Heron (who visited the Committee on March 29) that it should consider a review of policies and principles that govern our relations with external actors. APPRC agrees that it is timely to do so, not least given the UAP's emphasis on external outreach, community engagement, and research partnerships. An ideal vehicle for reviewing existing principles and policies in this regard is the consultation exercise now underway leading to a new Strategic Research Plan. Vice-President Haché has agreed to include this important dimension in the SRP process. APPRC will also take up the matter and report to Senate.

Alison Macpherson, Chair

To: Robert Everett
Assistant Secretary of the University
University Secretariat

Memo: Departmental name change
Date: January 18, 2012

From: Professor Judith Schwarz, Chair
Department of Visual Arts
Faculty of Fine Arts

The renaming of the Department of Visual Arts to the Department of Visual Art and Art History came out of the 2009/2010 Undergraduate Program Review. The faculty complement is almost evenly split between contemporary artists who teach in the BFA Program and art historians who teach both in the BFA and the BA Programs.

The department offers two programs the BFA Honours (combines studio and art history courses) and the BA Honours (emphasis on art history courses with a limited option to take studio courses). The art history faculty members are integral to the success of both programs and their research expertise is essential to the department.

Renaming the department is in keeping with the growth of the department, which added two PhD programs in 2005, and clarifies the identity of its programs which include the practice, history and theories of art and how it applies to the broader social fabric. The new name spells out the mixture of pedagogy that our department offers students; reflects the balanced curriculum between studio and studies and more fully acknowledges the research expertise of our full-time faculty members and our MA / MFA / PhD students.

The name change was first discussed in the fall of 2010 by the Executive Committee which is comprised of the two Graduate Program Directors, the two Sector Heads for Studio and Art History, the Chair of the Department and the Administrative Assistant. The proposal to consider a name change was then brought to the March 9th, 2011 Visual Arts Faculty Assembly. The name change was considered timely and after a brief discussion a motion to change the department name to the *Department of Art and Art History* was passed with 16 for, 0 opposed and 1 abstention.

The Faculty of Fine Arts Academic / Administration Policy and Planning Committee, after some discussion, approved the change November 15th, 2011, to take effect 2013.

With feedback from AAPPC and other administrators in the Office of the Dean, at the December 7th, 2011 Visual Arts Assembly the Chair proposed an amendment to the name change. To ensure our department maintains the current name recognition and to allow the undergraduate course rubric to conform to the graduate course rubric it was proposed the name be amended to the *Department of Visual Art and Art History*. A motion for this amendment was passed with 20 for, 0 opposed and one abstention. This amendment was accepted by AAPPC and the name change, as amended “the *Department of Visual Art and Art History”* was submitted to the Faculty Council as information only and passed without discussion on December 14, 2011.

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FACULTY OF FINE ARTS

Office of the Dean

4700 KEELE ST
TORONTO ON
CANADA M3J 1P3
T 416 736 5136
F 416 736 5447
www.yorku.ca/finearts

Memo

To: Robert Everett, Assistant Secretary of the University, University Secretariat

From: Barbara Sellers-Young, Dean, Faculty of Fine Arts

Date: January 26, 2012

Subject: Departmental Name Change

As noted in Judith Schwartz's memo to you, the suggestion of the "renaming of the Department of Visual Arts to the Department of Visual Art and Art History came out of the 2009/2010 Undergraduate Program Review." Thus, it is an action item from that review. It is an action that I support.

After much internal consultation and discussion with the Chairs of the Faculty of Fine Arts, the department voted to change its name and this was taken to the AAPPC Committee within the Faculty of Fine Arts in November of 2011. In making their recommendation the AAPPC committee suggested that the new name be Department of Art and Art History. This change was approved by the Faculty Council at its December meeting. This name change acknowledges the breadth of expertise that exists in Art History and its contribution to the development of the BA program, with specific reference to its application to future professional positions in the arts from arts administration to museum and curatorial studies.

The name change, which acknowledges Art History within the totality of Visual Art, will allow the department to communicate to potential students the comprehensiveness of its program and therefore recruit students who are specifically interested in this area of study.

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OFFICE OF THE VICE-PRESIDENT ACADEMIC

4700 Keele St.
Toronto Ontario
Canada M3J 1P3
Tel 416 650 8017
Fax 416 736 5876

vpacademic.yorku.ca

Memorandum

To: Alison Macpherson, APPRC

From: Rhonda Lenton, Vice Provost Academic

Date: April 10, 2012

Subject: Support for Departmental Name Change

I have reviewed the proposal from Judith Schwartz, Chair of Department of Visual Arts as well as the Letter of Support from Barbara Sellers-Young, Dean of Faculty of Fine Arts. The name change appears to more aptly reflect the focus of scholarship in the department and I am happy to concur with the proposal to change the name from the Department of Visual Arts to the Department of Visual Art and Art History.

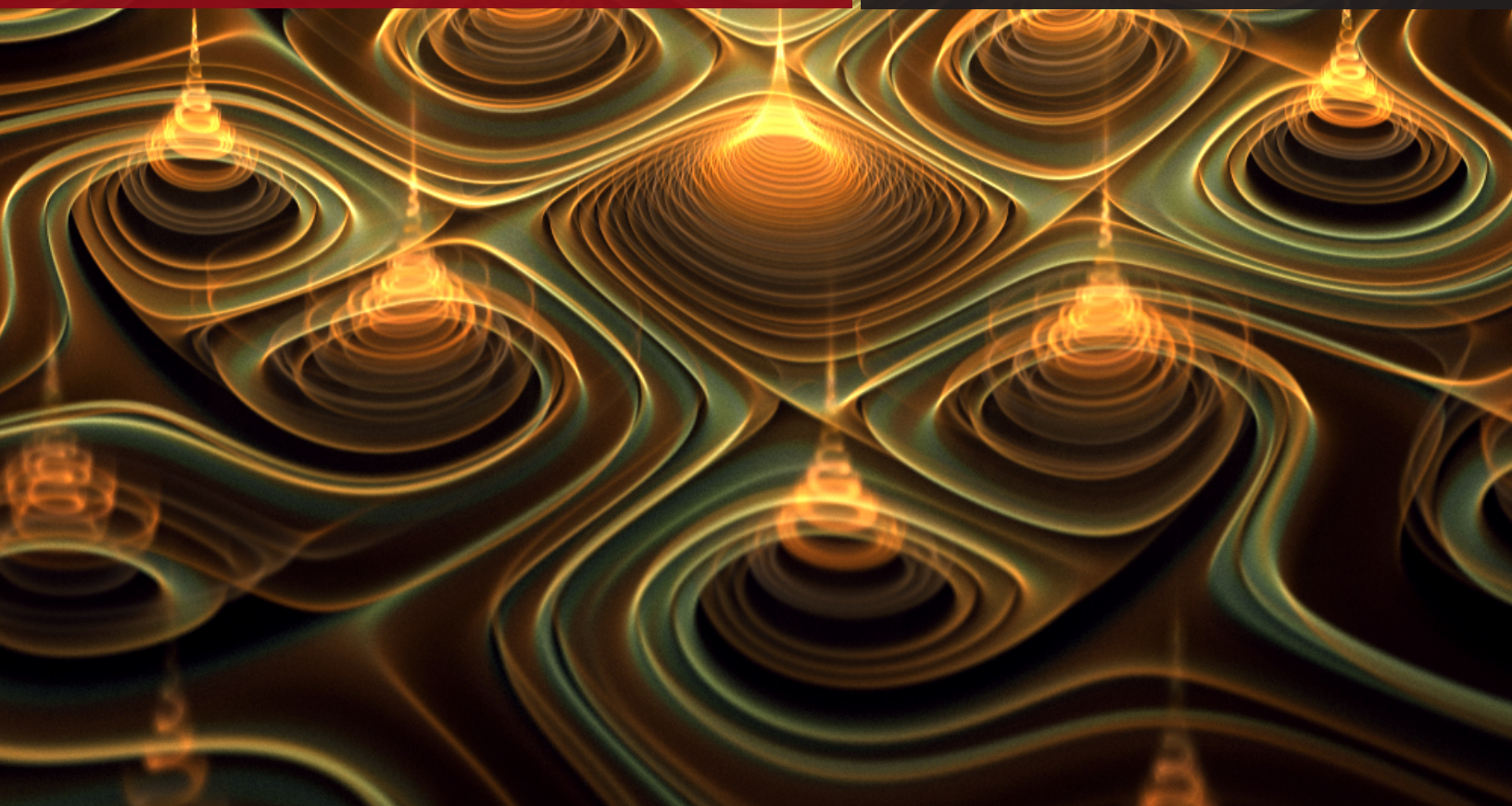
PROPOSAL FOR THE

CREATION OF A FACULTY

THE LASSONDE SCHOOL OF ENGINEERING

SUBMITTED TO:
ACADEMIC POLICY, PLANNING AND
RESEARCH COMMITTEE
APRIL 2012

BY:
JANUSZ A. KOZINSKI
DEAN, FACULTY OF SCIENCE & ENGINEERING



Tomahna by Georg Kiehne, Software Engineer

YORK UNIVERSITÉ UNIVERSITY
redefine THE POSSIBLE.

RENAISSANCE ENGINEERING

PROPOSAL FOR THE

CREATION OF A FACULTY

THE LASSONDE SCHOOL OF ENGINEERING

Introduction

This document has been prepared for Senate and its Committees in support of a proposal to:

- Formally establish a Faculty of Engineering, to be named the Lassonde School of Engineering, to be formed on 1 July, 2012 and fully operational by 1 May, 2013.

FSE Support

On January 26th, 2012, Senate indicated its unanimous support for the creation of a Faculty of Engineering in principle. This approval in principle followed the process for the formation of the Faculty of Health and the Faculty of Liberal Arts & Professional Studies, and permits Senate and its Committees to provide valuable input and advice to inform the development of a new Faculty.

Other key milestones have been reached in the process of creating a separate Faculty to house York's Engineering activities, including the following:

- The province of Ontario has committed $50-million dollars toward the project of expanding Engineering at York.
- A major donor has provided $25-million dollars.
- All of the programs (Computer, Geomatics, Space & Software Engineering) housed in the existing School of Engineering have agreed to move to a new Faculty.
- Planning is underway to develop new programs such as Electrical, Mechanical, Civil and Chemical Engineering.

Engineering approval in principle

- Colleagues in the departments and programs of Computer Science & Engineering and Earth & Space Science & Engineering have declared their intention to move to the Faculty of Engineering (Lassonde School of Engineering).
- On December 13th, 2011 the Council of the Faculty of Science & Engineering voted in favour of a proposal to establish, in principle, a new Faculty of Engineering.

Following Senate's approval in principle in January, the Dean and Associate Dean from the Faculty of Science & Engineering, and colleagues in several working groups, have engaged members of the community in various consultations about the implementation and plans associated with the creation of the new Faculty of Engineering. Some of the most enthusiastic discussions in the consultations came through the Faculty Councils that have been visited to date, where colleagues provided inviting discussion and inquiry to further explore academic and/or research collaborations and opportunities with Engineering. The positive feedback has been insightful, supportive and encouraging, but moreover, promising for the future of York.

Approval by Senate in the current academic year is highly desirable in order to facilitate student and faculty recruitment into the new Engineering programs, the first of which is planned to commence in September 2013.

Recent History of Engineering at York

In response to the needs of engineering in the next century, York opened its doors to offering three exciting engineering programs in 2001: Computer Engineering, Geomatics Engineering (four-year program, unique in Ontario) and Space Engineering (unique in Canada). Software Engineering started in September 2011. York University's accredited engineering programs were developed to reflect a modern view of engineering and to teach the skills needed in the engineering profession today.

Engineering Programs

As technology progresses, engineering and scientific disciplines become increasingly interrelated and interdependent. York's Engineering program is growing to respond to real-world education in high demand. Our Engineering programs include courses in ethics, law, environment and engineering economics to prepare graduates for their professional career. We anticipate to launch a suite of mainstream engineering programs in electrical, mechanical, civil and chemical engineering in a unique environment. By combining academic knowledge with hands-on work experience gained through senior engineering projects, co-op and industrial internships, students will be better prepared to meet the challenges of a professional engineer. These relationships encourage and promote new developments and faster responses to demands and societal needs.

MTCU Support: $50 million

Furthermore, provincial support arrived on June 20th, 2011, when the Ministry of Training, Colleges & Universities (MTCU) announcing Ontario's investment of $50-million dollars in York University's new engineering and science building as part of the government's upcoming long-term capital plan, enabling the university to move forward with its plan for expansion of the School of Engineering.

Since the June announcement, a project team, chaired by the Provost, comprised of the Vice-President Finance & Administration, the Dean of the Faculty of Science & Engineering, members of the School of Engineering, members of the Vice-President Academic & Provosts office, and the Office of Institutional Research & Analysis, have been working to develop the plans going forward, particularly with regards to the resource analysis and academic planning involved with the expansion.

Lassonde Donation: $25 million

Contributing to the investment in Engineering, on November 1st, 2011, York proudly announced Pierre Lassonde's transformative donation of $25-million dollars to support the expansion and a new approach to engineering education. This gift will allow York to create a truly unique engineering program that will redefine the future of engineering at York and beyond. Based on York's traditional strength in humanities, social sciences, business and law, the vision and commitment towards this expansion will be to ensure that engineering students will be broadly educated to support future economic and social development by graduating a new generation of entrepreneurial engineers with a social conscience.

The proposal now before Senate is intended to provide an overview of the intentions for moving forward, requesting Senate to approve the creation of a new Faculty, the Lassonde School of Engineering, to advance the expansion and raise the profile of Engineering at York University and beyond.

Origin of the Proposal & Relationship to University Planning

Engineering has a relatively long history as a planning priority for the university, going back to Vision 2020 (1992) and before, with several University and Faculty Academic Plans identifying the need for expansion in engineering and applied science areas. The 2001 University Academic Plan stated that "[t]he Faculty of Pure and Applied Science should develop programming in engineering fields (such as engineering physics and computer engineering), as well as applied fields (such as biotechnology), which build on the high quality of existing core disciplines and expand the range and quality of applied programs." This plan enables the Faculty of Science & Engineering (FSE) to action its strategic plans to work with the institution and be "[t]he impetus to grow Engineering and applied sciences significantly at York, to rebalance the University, to make York more comprehensive…"(FSE Plan 2009).

In order for York to build its reputation as a leading, internationally renowned Engineering enterprise, it needs to move into the same arena as the majority of its provincial and national competitors under the auspices of a standalone Faculty (see Appendix A for provincial details). It is also important to note that this initiation to create a new Faculty of Engineering contemplates that a proposal will be coming forward to request a name change for the current Faculty of Science & Engineering.

University Planning

The White Paper and new University Academic Plan (UAP) (2010-15) continue to highlight engineering as a strategic academic priority: the Provostial White Paper (2010) emphasizes the need to "[c]ontinue to develop York as a more comprehensive university by expanding the scope of the university's teaching and research activities in engineering, the applied sciences, health and medicine, business-related and professional studies. (Objective 1)" While the UAP plans for York to be: "paving the way to an expanded Engineering program … consistent with York's traditional emphasis on disciplinary richness, collaboration and transformation." This Faculty proposal addresses one of the key UAP principles in developing a plan for implementation that will support: "an ongoing commitment to the diversification of academic activities in line with creating a more comprehensive university, including teaching and research in the areas of health, engineering, applied science, medicine, business and professional programs, while sustaining, affirming, and building upon the foundation provided by our distinctive strengths in the liberal arts, the fine arts, and the sciences as well as interdisciplinary programs and opportunities for students to combine disciplinary fields."

Engineering: White Paper and UAP

The expansion of the School of Engineering contributes towards the University's goal of a more comprehensive and research-intensive institution, by creating enhanced internal and external opportunities for collaborations. Within the university, inter-Faculty collaborations exemplified by initiatives such as digital media (FSE, FFA and LA&PS) will provide new ways of attracting talented students and faculty, as well as enabling York University researchers to compete successfully for a more diverse range of research funding. An increased engineering research presence at York University will also benefit both the local community and the University by expanding research partnerships and stimulating economic growth in the rapidly developing neighbouring regions. With appropriate safeguards and oversight, these partnerships will benefit our students by involving practising engineers in our teaching and research, and by broadening their career opportunities.

8

Rationale
for the School of Engineering to become a Faculty

Engineering: Transformation into a Faculty

Engineering continues to be an area of growing importance as advanced technological applications are playing an increasingly important role in the Canadian economy. York University has a proud tradition of excellence in applied science and engineering. The Engineering Program is building on this strong foundation and is actively in the process of advancing and developing a broader suite of Engineering Programs in both research and teaching. This proposal seeks to significantly enhance and expand the visibility of Engineering at York by transforming the School of Engineering into a Faculty that will provide the appropriate governing structure for ensuring that the highest professional standards are achieved and maintained as the School expands. The governing structure proposed here follows the guidelines of York University.

Moving forward with the envisioned expansion for Engineering sees the need for it to move into a bigger house and take up residence as a Faculty. The profession requires under its accreditation regulations and standards that a distinct governance and management structure exist for all engineering programs operating in the province and country. As an accredited profession, it mandates that the administrative proponents subscribe to and hold a valid license with the profession in order to operate as an Engineering educational body.

Accreditation Requirements

The Canadian Engineering Accreditation Board (CEAB) criteria for accreditation state that: "The Engineering Faculty Council (or equivalent engineering body) must have clear, documented authority and responsibility for the engineering program, regardless of the administrative structure within which the engineering program is delivered. (Criterion 3.5.7)" With the current structure of the School of Engineering embedded within the Faculty of Science and Engineering, questions have been raised about this criterion by the accreditation team at all three of our site visits (2005, 2007, 2009). In 2005 this was a critical issue, necessitating significant restructuring of the administrative structure of FSE. While these changes were deemed acceptable in 2007, it has taken significant discussions on each subsequent occasion to convince the accreditation team of this acceptability. For example, even the site visit report for our highly successful 2009-10 accreditation exercise included the comment: "It appears there may be a lack of control over curriculum content, given the structure of the Faculty, even though the curriculum committee is comprised of engineers."

Given that York University's compliance with this criterion may be regarded as marginal for the existing, small programs, it would be very difficult to obtain CEAB accreditation were we to extend this model to the expanded School of Engineering, with its many more programs, departments and faculty members.

Engineering Demographics

The government's investment in providing capital funding for the expansion of engineering demonstrates a firm commitment and belief that the demand for expansion in the area of engineering exists within the province and specifically the GTA. Recent demographic and statistical reporting provided by the province, and the council of deans of engineering in Ontario, suggest that there is excess demand not being served by our existing institutions. The province is experiencing a pattern of steady-growth and a significant increase in applications to engineering in the last few years, with the expectation for expansion into the foreseeable future. The system is currently experiencing an annual increase of more than 2,000 students entering engineering disciplines[1], with more than 48,000 applications and annual increase of 9.7% year-over-year – compared to the 3.2% increase in total applications across the entire Ontario system (both 101s & 105s)[2]. Engineering currently claims 9.4% of the Ontario applicant market share (up 0.5% from 2010). The predictions are that the growth realized in higher education will see students demanding access to more professional programs. York is well positioned and poised to take on this expansion and to play a vital role in serving the interests of the student population. Most recently, Engineering at York has seen an increase in student enrolments by 16.6% in 2011-12 and continues to see a marketable increase in student demand for the future, with high school applications for 2012-13 up by 32.86% at York, and 9.4% across the province[3].

The rationale for the creation of a Faculty structure begs for the consolidation of eight engineering, plus four associated programs, for they bear the same unique academic structures, professional accreditation requirements and engage in similar activities. It would immediately strengthen the ties between like units with similar degrees and programmatic interests, and would assist in the development and expansion of new and innovative programs that are contemplated in this proposed Faculty. The identity of Engineering as its own Faculty raises the profile of the program and York's reputation as it works toward becoming a more

Rationale
for the School of Engineering to become a Faculty

comprehensive institution. It also factors into the credibility within the profession and to attracting fundraising prospects and research funding opportunities. Engineering at York would be able to strategically enhance student recruitment efforts and provide distinctive access to its programs in a manner parallel to other Faculties of Engineering in Ontario and across the country[4].

1. See Appendix A: Preliminary Enrolments in Ontario Engineering Faculties (September 2011)
2. Ontario Universities' Application; Application Statistics for Secondary School and Non-Secondary School Applications (September 14, 2011) http://www.ouac.on.ca.
3. York University Factbook 2011-12 (Student Data - November 1, 2011); Admission Data (101 Data - February 23, 2012); OUAC (101 Data - February 2, 2012)
4. Senate Policy: Guidelines for the Development and Approval of Schools Within the University

The Vision for Engineering at York

York's Engineering Pillars

The future Lassonde School of Engineering (LSE) will embrace a Global Engineering concept. It will be based on the three pillars characterizing 21st Century engineering: (1) Cooperative Education & Industry Partnerships, (2) Entrepreneurship & Leadership, and (3) Global Learning & Study Abroad.

Its unique curriculum and learning environment will stretch students' intellectual, leadership and personal capacities, and foster a vibrant community of scholars that breaks new ground in multidisciplinary insights and global perspectives. The LSE will aim to produce graduates who are articulate and confident individuals, broad thinkers, and dynamic and motivated achievers who distinguish themselves by their intellectual rigor, spirit of initiative, resourcefulness and innovation, and commitment to make important contributions to society.

Lassonde School of Engineering

The new face of Engineering at York will debut in a new state-of-the-art facility that will open its doors in the Summer of 2014. With the critical funding commitments and plans now in place, $50 million from the Ministry to go toward capital costs, along with a $25-million dollar donation from Pierre Lassonde, plus additional donations, the project to expand Engineering can get underway.

Over the course of the next several years, our team will recruit new faculty and staff to support and undertake the development of four departments, starting with new programs in: Electrical, Mechanical, Civil and Chemical Engineering in the new Lassonde School of Engineering (LSE). The plan is for Electrical Engineering to be the first of the new programs to commence in 2013/14, followed closely by Mechanical, Civil, and Chemical.

Teaching and Learning

A top-quality teaching and learning environment is critical to the new Lassonde School of Engineering. We are setting out to distinguish ourselves from other Engineering schools by virtue of our excellent student experience, progressive modern programs, cross-University partnerships, a focus on entrepreneurship, and a holistic approach to education captured by the term 'Renaissance Engineer.' Some of these goals can be achieved with the assistance of new infrastructure, including the new engineering building currently in the design phase. However, most goals will be attained as a result of the spirit of innovation and renewal arising from the creation of the new Faculty, as well as the excellence of the faculty and staff who will establish it.

Renaissance Engineer

The creation of the new Faculty as proposed here offers the best of both worlds in terms of the partnerships between engineering programs and their sister science programs. As the two existing Departments of Computer Science and Engineering (CSE) and Earth and Space Science and Engineering (ESSE) move to the new Lassonde School of Engineering, the opportunities remain for continuing to strengthen and develop already close linkages between the current science and engineering programs. Indeed, the new Electrical Engineering program (planned to start in 2013) will be offered by CSE, which will change its name to Electrical Engineering and Computer Science (EECS) to reflect their increased breadth.

Building on these strong science-engineering links, the creation of the Lassonde School of Engineering will facilitate the formation of new Engineering departments including Mechanical, Civil and Chemical. The integration of these new Departments together with those offering existing Engineering programs is a major benefit of the new Faculty.

Innovative Teaching

As new Engineering programs are designed, we have a rare opportunity to develop curricula based on innovative teaching pedagogy and student learning. As we recruit new faculty colleagues of like mind, we can build programs that focus on the futures of each discipline. The fruits of this process will be applied to our existing engineering and science programs to ensure that all are on par with one another.

We are committed to improving student accessibility to Engineering programs. A substantial portion of Pierre Lassonde's donation is committed to student programming and awards, and we anticipate that future donations will be forthcoming in support of reducing financial barriers to student access. As described below, the School of Engineering is an active participant in the development of bridging programs for Internationally Trained Professionals and in pathways to universities for college graduates.

Accessibility

Equally important is a commitment to strive towards greater equity for traditionally underrepresented groups in student and faculty complements. In particular, the overall representation in Engineering of women in both the student body and the faculty complement has never reached parity, peaking at around 21% a decade ago and sliding since then. The proportion of women in individual engineering disciplines varies widely, ranging from 10–12% for Software, Computer and Electrical Engineering, to 30–40% for Chemical, Bio, and Environmental Engineering (2010 data). The Lassonde School of Engineering will endeavour to create learning and social environments that meet the goals of female engineers and other underrepresented groups.

An anticipated consequence of the larger student body in the future Lassonde School of Engineering is that opportunities will increase for extra-curricular student activities. A vibrant student culture consists of student chapters of professional societies, humanitarian organizations such as EngineersWithout Borders, and student competition teams (such as Formula SAE go-karts, solar cars, and York's highly successful Mars Rover Team). With a full range of engineering programs, greater student numbers, and a modern engineering facility, student

Teaching and Learning (contd)

life will be greatly enriched.

Vibrant Student Culture

To complement its undergraduate programs, the Lassonde School of Engineering plans to offer a range of graduate degrees, including existing research degrees (MSc, MASc and PhD), a course-based professional Master's degree (MEng), and potentially joint professional Master's degrees with other Faculties. As new faculty members recruit additional graduate students, the Lassonde School of Engineering will develop a rich academic culture, thereby reinforcing the reputation of the School and attracting top-quality researchers and students. Undergraduate students will benefit from the availability of excellent teaching assistants and opportunities for gaining experience in research laboratories.

Research Opportunities

The establishment of the new Lassonde School of Engineering and its attendant new programs calls for the recruitment of new faculty colleagues. These colleagues will be primarily in the professorial stream and their research activities will therefore increase the scholarly activity at York University in the applied sciences, as well as helping to realize the research intensification goals in the University Academic Plan.

A new School represents a unique opportunity to build new areas of research strength, so while attention to teaching ability and discipline is vital, it is also important to focus faculty hiring towards establishing strategic research pillars of strength. With this in mind, discussions are underway between Engineering and the office of the Vice-President Research and Innovation to align, where appropriate, the University's strategic priorities with those of Engineering.

A significant advantage of the formation of a standalone Faculty of Engineering is a more prominent public presence of research in engineering and applied science. We anticipate the establishment of a research culture within the Faculty to promote its research activities, to build partnerships with the industrial community and to liaise with funding organizations. Research funding in the past has been about supporting individual stars. Today, we are no longer just supporting stars; LSE will be moving towards a multi-disciplinary approach to research via assembling the individual stars into galaxies and constellations.

Benefits to the University

York University's establishment of the Lassonde School of Engineering signals to the student, research and industrial communities the importance this institution attaches to Engineering. As discussed elsewhere in this proposal, the benefits to the University's teaching and research profile of expanding engineering program offerings are clearly articulated in both the 2010 Provostial White Paper and the 2010-2015 University Academic Plan. For example, Objective 1 of the White Paper states:

> Continue to develop York as a more comprehensive university by expanding the scope of the university's teaching and research activities in engineering, the applied sciences, health and medicine, business-related and professional studies.

Elsewhere, the White Paper observes that the University can build on its strengths in business, law, fine arts, humanities and social sciences for the expansion in Engineering. The vision for the Lassonde School of Engineering emphasizes partnerships across the University, albeit with a particular focus on its professional schools. In doing so, the Lassonde School of Engineering will strengthen and diversify the multidisciplinary nature of the institution.

Enhance York U's Profile

Engineering and the related sciences are applied disciplines that thrive on external partnerships. We expect that the majority of the new colleagues in the Lassonde School of Engineering will be active researchers involved in national and international collaborations. With the increased visibility brought about by being housed in a standalone Faculty, these faculty members will therefore serve not only to enhance the University's research profile but also to build its reputation in areas not currently associated with York University.

The same is true of our students. At the undergraduate level, the existing Technology Internship Program and the co-operative education program, currently under discussion, will see increasing numbers of our students combining experiential learning with academic study and serving as ambassadors for the University in the industrial community. Similarly, an expanded population of graduate students and post-doctoral researchers working on collaborative projects will significantly broaden the range of scholarly activity.

Benefits to the Community

Advantage: York Region

Outside of the specific disciplines represented by York's current engineering programs, the fact that the University has a School of Engineering is still not widely known. As we expand significantly our range of activities, it is essential to streamline our interface with the external community. This community is a diverse group, and includes: prospective students and their families; current and potential industrial research partners; co-op and internship employers; the three levels of government; and the engineering profession at large. Straightforward, bi-directional communication with these communities is vital for the success of the future Lassonde School of Engineering.

York Region is one of the fastest growing, most diverse regions of the country. This population has a high participation rate in post-secondary education and in professional programs in particular. At the same time, enrolments in Ontario's engineering programs continue to increase, despite little or no capacity in popular disciplines such as Mechanical and Civil Engineering. The Lassonde School of Engineering will help satisfy this demand, as well as attract highly qualified students nationally and internationally.

The case was made successfully to the Provincial government that a Faculty of Engineering at York University would make significant contributions to the economy of the York Region. In addition to leading regional hospitals, social agencies, and other governmental organizations, the Region is home to more than 200 medical device companies and almost 700 information technology firms. In fact, the York Region boasts 35% of the Toronto area's top information and communication technology companies. There are also opportunities in the environmental and sustainable energy sectors, with more than 400 companies in this market.

These companies represent potential research partners of our faculty members and potential employers of our graduates and co-op students. A strong Faculty of Engineering at York University will therefore support economic growth in the Region. Moreover, with an expected 34% growth in university-age population in the Region, the Faculty will satisfy local demand for both entering and graduating engineering students.

Clear identification of a standalone Faculty, together with appropriate research units and staff members, will go a long way towards increasing and facilitating interactions with the industrial and professional communities. As the Faculty evolves, we anticipate expanding our projects to develop bridging programs for Internationally Educated Professionals, with a potential focus on on-line education for professionals working in remote areas. Likewise, York University is in an excellent position to offer professional development courses, which would benefit both the community and the University.

There is a high demand among college students for admission into university engineering programs with a straightforward and transparent recognition of their college credentials. While many universities are transitioning such students into technology degrees to avoid issues arising from engineering accreditation, the School of Engineering believes that pathways into accredited engineering programs are possible, and is therefore represented at working groups at the College University Consortium Council (CUCC) on both mechanical and electrical engineering pathways.

Canada, and York Region in particular, benefits from the immigration of significant numbers of internationally trained engineers. Since Engineering is a legally regulated profession, these new Canadians may need assistance to acquire the necessary local experience, professional and technical skills to fulfil the requirements for licensure. York University and the Association of Ontario Land Surveyors have been awarded a contract from the Ontario Ministry of Citizenship and Immigration to develop one such bridging program in Geomatics Engineering. It will develop tools and techniques to provide distance education for internationally trained geomatics professionals working in remote communities. As the Lassonde School of Engineering develops into additional areas of engineering, we anticipate leveraging our experience to develop further bridging programs to increase access to our programs.

Links with Other Areas of the University

York's Engineering Principles

Our vision for the Lassonde School of Engineering features the establishment of meaningful partnerships with other areas of York University. The Engineering profession is demanding graduates with a broad understanding of the world as a context for their engineering skills. With its vast array of programs and diverse environment, York is ideally placed to educate these engineers of tomorrow.

One theme envisions close collaborations between the Lassonde School of Engineering, the Schulich School of Business, Osgoode Hall Law School, and Liberal Arts & Professional Studies with a focus on entrepreneurship. A second theme concerns the 'Renaissance Engineer,' a term used to describe engineers who combine a sound knowledge of engineering principles with an appreciation of the cultural, social, global and economic context of their profession. Educating the 'Renaissance Engineer' is a collective activity that should include many disciplines across the University. We have already taken a step in this direction with the establishment in 2010 of the Engineering and International Development Studies dual BA/BASc degree, which serves as one model for combining engineering with other disciplines. In addition, innovative cross-Faculty programs such as Digital Media (FFA/LA&PS/FSE) have also been created and will serve as models for future similar collaborations (e.g., with Health, Environmental Studies, Education and Glendon).

Lassonde School of Engineering

A welcome outcome of our consultations with the Councils of other Faculties has been the wealth of interest in, and ideas for, potential collaborations. These are being actively followed up. Discussions are also under way to determine curricular mechanisms for incorporating broader educational goals within engineering programs that are heavily constrained by requirements of professional accreditation. One possible solution would be to introduce a non-accredited 'Renaissance Engineering' program linking course modules from a variety of Faculties with selected core engineering components.

Of course, the strongest possible connections must be nurtured with Engineering's sister Faculty, Science. Science and mathematics are the foundations of engineering and a significant proportion of our undergraduate programs relies on courses that will continue to be offered by Science. The same applies to research.A significantly larger School of Engineering, will lead to correspondingly increased opportunities for partnerships in research and graduate education across the University.

Inter-Faculty Collaboration and Development of Interdisciplinary Opportunities

There are many academic linkages and partnerships currently being explored and/or developed between Engineering and Units/Individuals Housed in Other Faculties. To date working groups have been formed to explore academic linkages with Osgoode, Schulich, Science, TD-CEC, and the Libraries, with discussions ongoing in Health, Fine Arts, FES, LA&PS, and Education.

Collegial Governance

The collegial governance structures will be determined by the academic colleagues of the new Faculty. Temporary administrative and governance structures may be adopted on an interim basis until such a time when the members of the departments/units are known. The project team, along with various working groups have been involved in planning and discussing the principles, structures and considerations that are critical toward paving the path forward for the ideal architecture for the new Faculty.

Composition and Structure of the Faculty

Programs

Current Programs to Move:

- Computer Engineering (BASc/BEng)
- Geomatics Engineering (BASc/BEng)
- Space Engineering (BASc/BEng)
- Software Engineering (BASc/BEng)
- Computer Science (BA, BSc)
- Computer Security (BA, BSc)
- Digital Media (BA)
- Earth & Atmospheric Science (BSc)

Proposed New Programs:

- Electrical Engineering (BASc/BEng)
- Mechanical Engineering (BEng)
- Civil Engineering (BEng)
- Chemical Engineering (BEng)

Note: BASc/BEng refers to Engineering degrees that are planned to change from a Bachelor of Applied Science to a Bachelor of Engineering.

Departments & Programs

The primary objective is to maintain the existing accredited programs in the School of Engineering at the top international standards, and to create initially four new programs. These programs will be developed as a new and unique combination of technical excellence, social commitment, professional communication, and design innovation to prepare graduates for the new and evolving challenges and responsibilities of the professional engineer of the future. Programs will be benchmarked against similar top international programs, and will be developed with advice from the professional engineering community and representatives from relevant industry.

The Innovation Crucible

As described above, we plan to launch new programs in Electrical Engineering, Mechanical Engineering, Civil Engineering and Chemical Engineering. There has been a tendency, over the last decade, of students migrating to well-established engineering disciplines such as these, possibly as a response to the burst of the technology bubble. However, each of these disciplines is extremely broad and encompasses many sub-disciplines, ranging from the more traditional fields to the emerging specialties. In contrast to many engineering schools with a large physical and human infrastructure investment in conventional sub-disciplines, York University is in a position to focus immediately on the emerging, cutting edge fields in high demand for future engineering graduates, post-graduates and practising engineers.

The new School of Engineering will be recognized internationally for its distinctive approach to engineering and entrepreneurship. By embodying York University's core values of social responsibility, global citizenship, and multi-disciplinarity, the School will establish itself as a destination of choice for top engineering students worldwide. The School of Engineering is committed to working with colleagues, departments and Faculties across the University to deliver innovative collaborative programs at both graduate and undergraduate levels. These discussions are underway. Academic partnerships with the Schulich School of Business and Osgoode Hall Law School are integral to this vision, ensuring exceptional academic preparation in engineering, business, public policy and law for students at all levels. Student learning will be enhanced by cooperative education and/or internship programs designed to provide practical experience of entrepreneurship in the workplace. Strategic 'institutes' in research, professional development and engineering design will contribute to the vibrant atmosphere of innovation in the departments and programs in the School of Engineering.

Renaissance Engineers

Composition and Structure of the Faculty

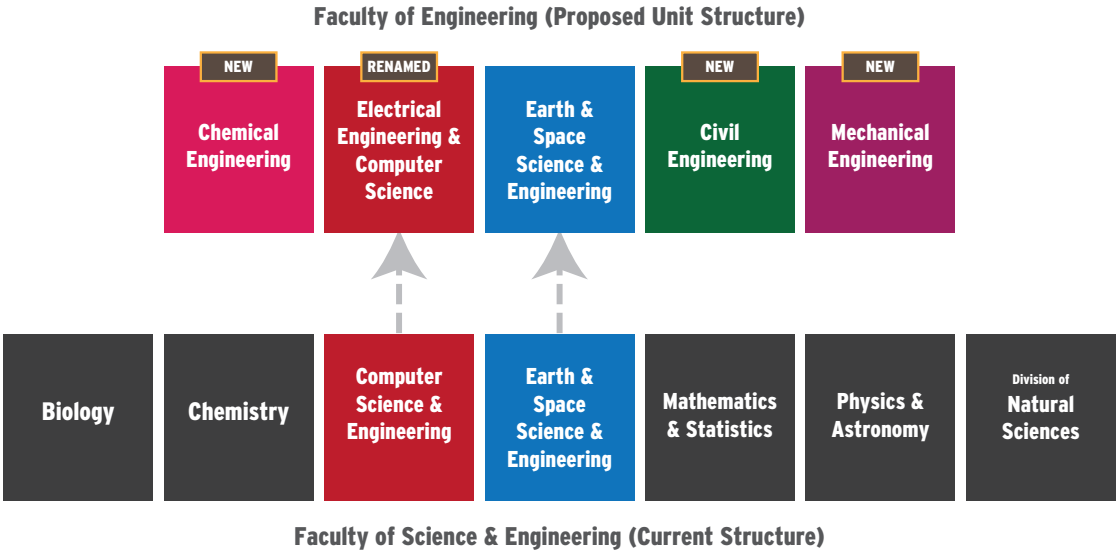
Didactic Promenade

Modern engineering is not just about science and technology. It is about solving design problems, aesthetic elegance, entrepreneurship and generating new opportunities, team creativity, human factors, global design collaborations, and social context. To educate engineers with such attributes the curriculum and, more importantly, the environment in which it is taught, are paramount. The Lassonde School of Engineering education will therefore combine the latest technological and pedagogical advances in each field (informed by academic leaders to be recruited for each new program) with innovations in the learning environment.

Examples currently under development include: team collaborations using social networking; highly integrated courses fusing problem-based learning and synchronized content delivery; employing cloud computing and library information technology to create student "learning lounges;" reconfigurable classrooms and project-work spaces; practical experiences of entrepreneurship via industrial work experience, external design and business competitions, and establishing student-led start-up companies; modular and reconfigurable laboratory facilities that are tightly linked to the curriculum; small-scale industrial engineering systems, such as a microbrewery (chemical engineering) or energy-efficient building (civil engineering); instrumenting the engineering building as a living-laboratory.

As described below, the academic programs within the Lassonde School of Engineering will be housed in five planned departments. Two of these will be the existing Departments that offer Engineering programs, namely the Departments of Computer Science and Engineering (which has voted to change its name to Electrical Engineering and Computer Science at the time of its move to Engineering), and Earth and Space Science and Engineering.

Three new departments to house Mechanical, Civil and Chemical Engineering programs are planned as the Faculty of Engineering is operationalized, and proposals for their creation will come before Senate following established processes. The five proposed Departments in Engineering are therefore expected to be as follows:



Composition and Structure of the Faculty

Electrical Engineering & Computer Science

Following the precedents established by institutions such as MIT and UC Berkeley, faculty members in the current Department of Computer Science and Engineering have voted to offer the new Electrical Engineering program, and to change the department name to Electrical Engineering and Computer Science (EECS). It is intended to house the following programs: Computer Engineering, Electrical Engineering, Software Engineering, Computer Science, Computer Security and Digital Media.

Mechanical Engineering

Mechanical Engineering potentially will be administered as a stand-alone department. Once the Mechanical Engineering program is established, additional programs such as Mechatronics Engineering (bearing synergies with Electrical and Space Engineering) and Materials Engineering can be envisioned.

Civil Engineering

Civil Engineering will emphasize environmental sustainability in the core program, and will offer a strong environmental option. A natural extension of the Civil Engineering program would be offerings in collaboration with environmental science (in FSE) and/or environmental studies (with FES). These could take the form of a cluster of general education courses, a certificate or a dual degree.

Chemical Engineering

Like Civil Engineering, Chemical Engineering has both a rich history and a modern interpretation. In its modern form, Chemical Engineering encompasses fields such as nanotechnology, molecular self-assembly, and bio-materials. In collaboration with the Departments of Chemistry and Biology, York University's Chemical Engineering program will emphasize these progressive disciplines. Ultimately, it is probable that LSE will offer programs in both Chemical Engineering and Bio-Engineering.

Earth & Space Science & Engineering

The department of Earth & Space Science & Engineering has voted to join the School of Engineering and is likely to continue to be home to programs in: Geomatics Engineering, Space Engineering and three program streams in Earth & Atmospheric Science.

Curriculum

The School of Engineering is in the process of developing new curricular initiatives and programs in four major engineering fields to add to the existing suite of undergraduate and graduate programs currently being offered. The first of the four, electrical engineering, is coming through the approval process this spring, with the further three programs to follow in the months ahead in the areas of: mechanical, civil and chemical engineering. It is important to ensure that these new programs are collegially developed, and will require the expertise and knowledge that the appointment of new faculty members will bring to lead and guide the development of these new branches of engineering at York.

The School of Engineering currently offers degrees under the designations of: Bachelor of Applied Science (BASc), Master of Applied Science (MASc) and Doctor of Philosophy (PhD). It is expected that these designations may be modified and expanded to include:

- Bachelor of Applied Science (BASc) – proposed to be replaced by the Bachelor of Engineering (BEng)
- Master of Applied Science (MASc) – research master's program
- Master of Engineering (MEng) – professional master's program (course-based)
- Joint Professional Master's program in Business & Engineering (MBA/MEng)
- Joint Professional Master's program in Engineering & Law (MEng/JD)
- Doctor of Philosophy – research doctoral program

By virtue of the transfer of the two existing departments offering engineering programs, the Lassonde School of Engineering will offer, from the outset, a variety of degree types, including: BA, BASc, BSc, MSc, MASc, and PhD. We expect to add a BEng degree, replacing the BASc as the primary degree type for Engineering, and the MEng, as the course-based version of the Engineering Master's degree.

Currently offered major/minor and double major opportunities will continue to be available, including cross-Faculty programs, and the presence of the Faculty may in fact lead to development of new joint program initiatives as new areas of teaching and research emerge. Existing degree requirements, provisions relating to eligibility to proceed and graduate, etc., will remain in place for programs, and student services personnel in the relevant units will need to articulate "grandparenting" provisions in order to provide clear information to students.

The school also plans to undertake curricular innovation in the existing common 1st Year undergraduate curriculum to effectively align all engineering programs, existing and new. Alongside the engineering core, further exploration of a general education program that supports and enhances the curricular diversity, enrichment and exposure to other disciplines will be collegially developed.

It would be premature to finalize a number of the details with regard to degrees, requirements, curriculum, and programs at this stage. As a first stage of the Faculty, existing programs and requirements will simply be transferred into it, with the expectation they will continue to evolve over time.

General Education & Breadth

The School of Engineering affirms York's traditional value placed on general education -- understood as the development of critical skills, and exposure to a variety of disciplinary and interdisciplinary perspectives -- as an essential part of undergraduate degree programs. At the outset, the units will retain the general education requirements which are currently in place for their programs. It is understood that general education courses should continue to be taught outside the Faculty.

Engineering programs typically have a different set of general education requirements from Science programs because of the requirements for accreditation. General education requirements for individual programs will comply with appropriate pan-University guidelines for particular degree types. Because of the importance of a broad education and the acquisition of critical skills in areas outside science and engineering that are vital to the education of future professional engineers, the Faculty intends to explore further options for increasing the quantity and diversity of general education in our programs (consistent with accreditation requirements) and to promote variety in the courses selected by engineering students.

The Faculty will continue to work with other units on the extension and/or development of programs to assist students (eg, writing instruction, ESL, etc), and to ensure that the needs of a diverse range of students, including part-time and mature students, are addressed (including academic, advising, cultural and disability needs).

As part of the vision for the 'Renaissance Engineer' we will continue to explore ways in which the breadth of education beyond engineering and science can be integrated into our programs. In view of the already heavy requirements for accreditation, these elements of breadth, possibly consisting of recommended packages of related courses, may need to be offered as an optional enhancement of the core engineering program.

Student Admission & Enrolment

The enrolments in our undergraduate and graduate programs are planned to increase at a significant pace as the new programs in Engineering are brought online. The creation of new programs at York as well as new faculty appointments will be made to initiate the development of these new curricular offerings. It is estimated that the new Faculty will be of a medium size in comparison to other programs in the country. The faculty appointments and staffing complement to support the enrolment growth at both the undergraduate and graduate levels will be incrementally made in step with enrolment increases to match the complement ratios required by the accreditation board and as developed in the academic planning processes for the units.

The enrolment forecasts and complement planning have been realistically set in the context of the growing demand for Engineering programming in the Province, as reflected in the most recent OUAC statistics and analysis provided in Engineering Canada projections.

> "Engineering institutions continue to report strong growth in the number of students pursuing an engineering education. Total undergraduate enrolment in accredited programs rose to 63,113; a 7 percent increase from the previous year. Postgraduate enrolments for both master's and doctoral students also reached a peak of 21,083 in 2010, increasing 9.8 percent from 2009.
>
> Canadian programs are a popular choice for international engineering students. At the undergraduate level, the number of visa students rose 46.2 percent since 2006, accounting for 12.3 percent of total undergraduate enrolment. The number of visa post-graduate students has also grown by an astounding 49.2 percent since 2006, accounting for over one-third of graduate student enrolment in 2010.[5]"

Table 1 - Enrolment Projections for (1) Undergraduate New Year 1 Admission Intake,(2) Total Enrolment, and (3) Graduate Enrolment by Degree Type for the next decade:

Evolution of Student Body

Undergraduate Students	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
New Student Intake	60	100	150	275	400	475	475	475	475	475	475
Undergraduate Total	173	232	324	518	783	1058	1283	1481	1647	1776	1870

Graduate Students	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
MASc	43	43	53	71	85	105	119	127	135	147	161
MBEng	0	0	0	25	75	75	75	75	75	75	75
MEng	0	0	10	28	42	62	76	84	92	104	118
PhD	45	45	50	55	76	100	124	145	160	174	191
Graduate Total	88	88	113	179	278	342	394	431	462	500	545

5. "Canadian Engineers for Tomorrow: Trends in Engineering Enrolment and Degrees Awarded 2006-2010," Engineers Canada, Canadian Council of Professional Engineers (October, 2011)

Undergraduate Majors: Distribution Scenarios

Chart 1 Undergraduate Majors (837) by Program - Nov 1, 2010

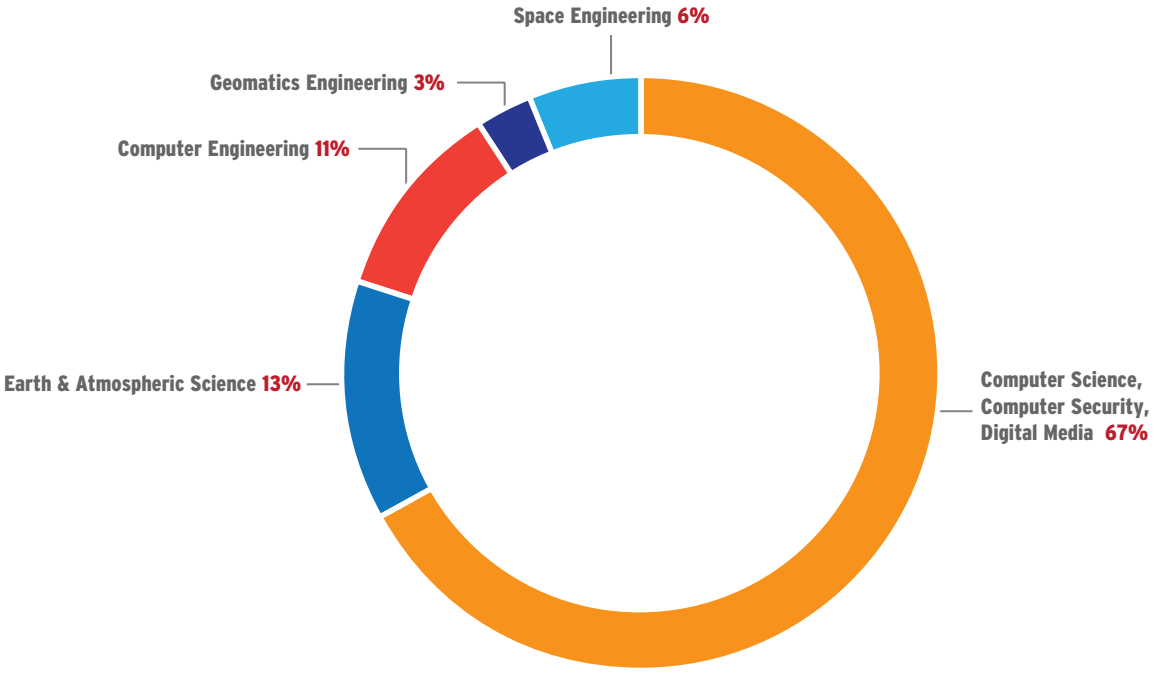
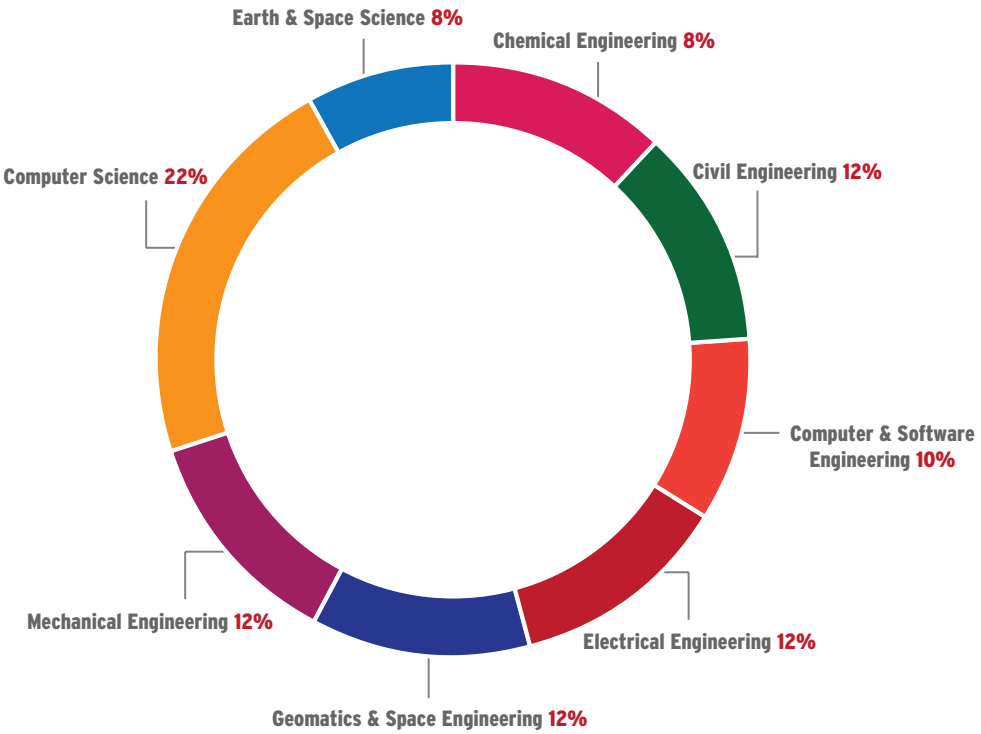


Chart 2 Undergraduate Majors (2539) by Program - Distribution Scenario 2021-22



Distribution of Full-Time Faculty Complement Scenarios

Chart 3 Distribution of 64 Full-Time Faculty Complement Scenario - Oct 1, 2010

Note: Engineering, Earth & Space Science, and Computer Science represent the groups of academic colleagues that are likely to form the new School of Engineering.

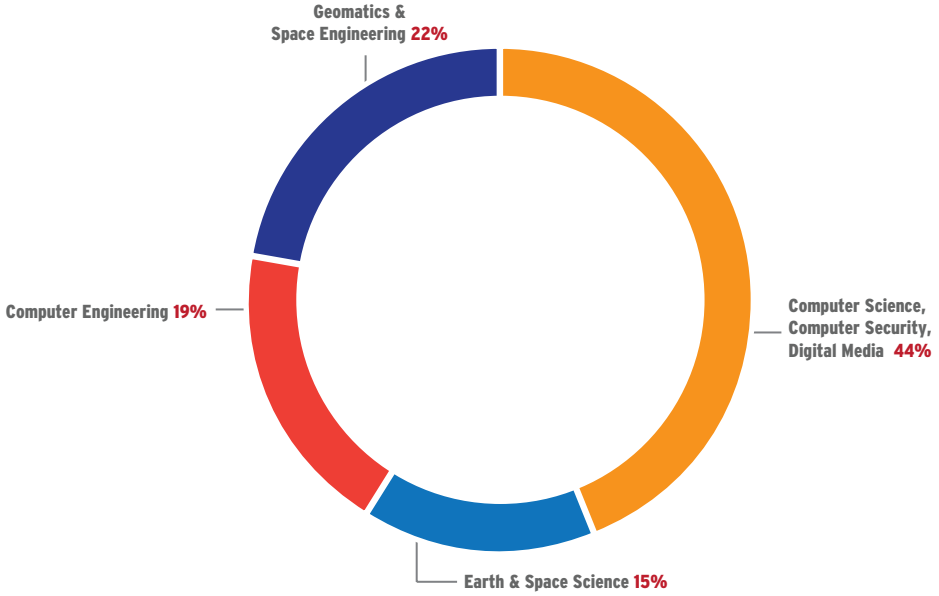
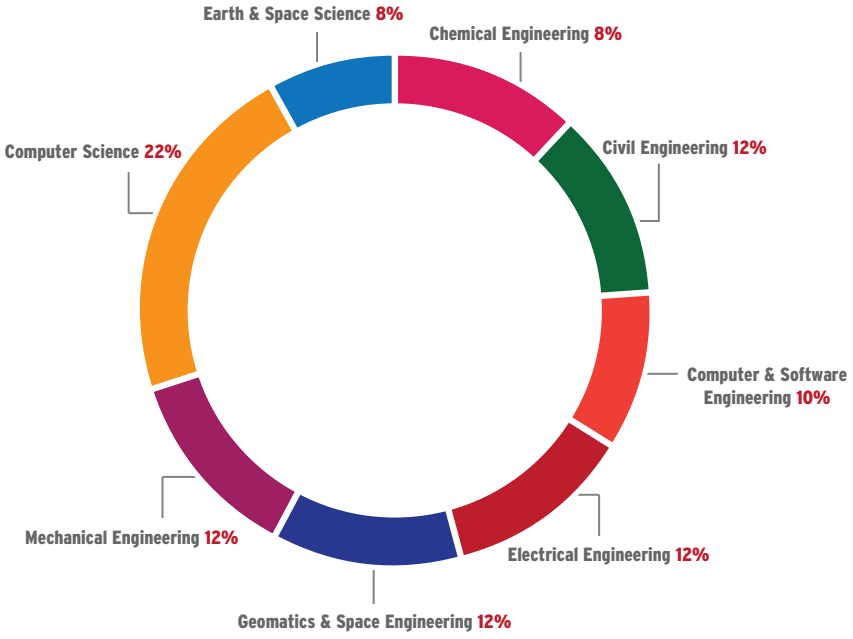


Chart 4 Distribution of 129 Full-Time Faculty Complement Scenario - 2021-22

Note: Based on complement growth only being attributed to Engineering
The student to faculty ratio for the proposed Faculty will be approximately 25, which is comparable to other Faculties of Engineering, for example University of Toronto, University of Waterloo, and McMaster University.



Resource Implications for the Faculty of Engineering

Table 2: 2010-11 Actuals for Engineering & Engineering Related Units						
	Undergraduate		Graduate		Faculty	
Responsible Unit/Program	Responsible Faculty Taught by FFTEs	# Major 1's (Heads)	FFTEs	# Students (Heads)	Oct 1/10 FT Tenure Stream Faculty (Heads)	Oct 1/10 FT Faculty SRCs & CLAs
FSE Total	**5738.30**	**4045**	**1470.20**	**594**	**200**	**8**
Computer Science	494.22	559	244.10	106	27	1
Earth & Atmospheric Science	122.38	110	183.30	77	10	0
Engineering	0.00	168	0.00	88	26	0
FSE less Engineering Related	5121.71	3208	1042.80	323	137	7
Engineering TOTAL	**616.60**	**837**	**427.40**	**271**	**63**	**1**

The Office of the Vice-President Academic & Provost and the Office of the Dean in the Faculty of Science & Engineering will work toward establishing a statement of principles and designing the resource framework for the existing and new Faculty. The analysis is currently underway to ensure that the relevant resources are appropriately aligned to support the ongoing and new activities of the various units.

Again, the processes developed for the Faculties of Health and Liberal Arts & Professional Studies are being used as guidelines in the development of financial plans for the Faculty of Engineering. Funding for the new Faculty has been established and predicated on a self-sustaining budget model, private donor support and a commitment to pay back any initial start-up loans incurred. The enrolment growth that is expected from the engineering expansion will generate revenue that will fund all new activities in these program areas and those contributing to it. Therefore, there will be no adverse funding affects to current Faculties. As a result of the planned enrolment growth in engineering, there is an expectation that there will be a net benefit to the Faculties and the University as a whole. Any existing carry-forwards and/or deficits will be assigned in a manner that attributes the fair share of activity and support that is tied to the budgetary resources and commitments.

Budget Framework for the New Faculty of Engineering

The creation of the new Faculty of Engineering will involve the movement of two existing units Computer Science & Engineering (CSE), and Earth & Space Science & Engineering (ESSE), plus the addition of three additional new units: Mechanical Engineering, Civil Engineering & Chemical Engineering. The new Electrical Engineering program will be housed in the existing CSE unit. The current funding that supports the existing activities (salaries and operating expenses) are embedded in the current Faculty of Science & Engineering budgetary framework. All of the activities within the Faculty are funded by a combination of base budget, strategic allocation from central budgets and "growth funding," calculated on a per student (FFTE) basis. The categories of student include: graduate and undergraduate students and International students (plus growth above the set base year). It is the total of both the base and "growth" funding that constitutes the Faculty budget and it is the overall budget that enables the Faculty to carry out its mission. It is with these considerations in mind that the proportion of the budget allocation will move with the current activities in Computer Science & Engineering, Earth & Space Science & Engineering, School of Engineering and FSE Dean's Office into LSE.

Cash-Flow Budget Model

In order to identify clearly all revenues and expenses related to the operations of the Lassonde School of Engineering, financial planning for the Faculty has adopted a cash-flow budget approach. This method of budgeting sees the revenue generated by the Faculty (through tuition, grants and other funding, i.e., donations, etc) flowing directly into its accounts to sustain its operations. In turn, all expenses incurred by the Faculty are to be supported by the revenue it generates, including the costs for all centralized services that it employs. The model operates on the basis that the activities that incur costs in every functional area of the Faculty are recorded and their relationships are defined and analyzed. Activities are then tied to strategic goals, after which the costs of the activities needed are used to create the budget. Cash-flow budgeting stands in contrast to traditional, cost-based budgeting practices in which a prior period's budget is simply adjusted to account for inflation or revenue growth.

In order to ensure that the units moving to the new Faculty of Engineering continue to function properly, the funding supporting these activities will be transferred in base from the existing Faculty of Science & Engineering to the new Faculty of Engineering. Conversely, the remaining budget in Science, will continue to support the existing activities, less CSE, ESSE & Eng, and their appropriate share of central services.

Table 3: Existing Expenses in Units - 2010-2011 Actuals

Description	CSE	ESSE	ENG
Fac Admin Salary & Benefits	412,541	117,644	-
Faculty Salary & Benefits	6,003,860	2,534,791	-
Faculty Contract Salary & Benefits	180,268	84,625	5,498
Teaching Assists Salary & Benefits	445,383	126,576	23,686
Res Staff Salary & Benefits	497,234	309,846	-
Support Staff Salary & Benefits	840,475	182,195	121,319
Other Salaries and Benefits	2,619	-	228
Operating Costs	93,912	32,659	58,797
Taxes & Utilities	42,686	36,099	8,307
Total	8,518,977	3,424,435	217,834
Existing Units Sub-Total			12,161,245

Table 3 shows the 2010-11 budget actuals for each of the units. The Budget & Finance working group is currently assessing the 2011-12 budgets, which have increased over 2010-11, with a view to determining the appropriate 2012-13 budget plan. It is the 2012-13 budget that will form the basis for the transfer to LSE.

Table 4: Estimated Expenses for New Engineering @ Steady State including Departments & the Dean's Office*

Description	ENG
Faculty Admin Salary & Benefits	66,414
Faculty Salary & Benefits	11,114,450
Faculty Contract Salary & Benefits	3,169,018
Teaching Assists Salary & Benefits	1,158,540
Support Staff Salary & Benefits	5,186,400
Operating Costs	2,020,908
Taxes & Utilities	22,716
Existing Units Sub-Total	22,715,731

Cash-Flow Budget Model

Table 5: Combined Expenses for the New Faculty			
Description	**CSE**	**ESSE**	**ENG**
Fac Admin Salary & Benefits	412,541	117,644	66,414
Faculty Salary & Benefits	6,003,860	2,534,791	11,114,450
Faculty Contract Salary & Benefits	180,268	84,625	3,174,516
Teaching Assists Salary & Benefits	445,383	126,576	1,182,226
Res Staff Salary & Benefits	497,234	309,846	-
Support Staff Salary & Benefits	840,475	182,195	5,307,719
Other Salaries and Benefits	2,619	-	228
Operating Costs	93,912	32,659	2,079,705
Taxes & Utilities	42,686	36,099	31,022
Total	8,518,977	3,424,435	22,956,280
Existing Units Sub-Total			**34,876,976**

There are a number of Faculty-funded central support activities that are provided through the Dean's Office to support and assist faculty, staff and students associated with these departments, programs and school, including: Faculty Council; Student Advising; Human Resources; Computing and Technology; Laboratory Services; etc. Over a period of time, it is anticipated that where possible some of these support services may continue to share resources between Science and Engineering for an interim time frame.

The Faculty of Science & Engineering and the Provost's Office are currently engaged in defining the appropriate amounts of Faculty-level support that will need to be transferred to the new Faculty of Engineering. Toward this goal, a detailed assessment of the actual activities and functions is being carried out by various offices/units in proportion to the populations servedas defined by the student FFTEs, majors, staff and faculty members that will be allocated and/or move to the Faculty of Engineering

It should be noted that not all the funds that will support the new Faculty of Engineering are included here. Significant funding that supports the units that will constitute the new Faculty are administered at the Vice-Presidential or University level. Relevant examples include:the Computer Renewal Program for faculty; the Academic Equipment Fund; the Academic Renovation Fund; some faculty recruitment and start-up funding. Analysis will also be conducted with the respect to retirement profiles and complement plans for each of the existing and new units to ensure that the funding that would have been available to the units in the current Faculty will be available to them in the Faculty of Engineering.

The structure of the new Faculty will also require the net new funding for infrastructure expenditures for the Dean's Office and the new departments. There will need to be release payments for Associate Deans, stipends for the Dean and Associate Deans, salaries for the Managerial Leadership team, administrative and secretarial support, operating budget, etc. Table 6 below estimates that these costs will be close to $2 million annually. Funding for the expansion of Engineering staff not listed below and for operating budgets will be covered and provided by the revenue generated by the Faculty under its cash-flow budget model – through tuition, grants, and fundraising activities.

Cash-Flow Budget Model

Table 6: The Dean's Office Staffing					
Description	**Base Salary**	**Stipend**	**Benefits Rate**	**Benefits**	**Total**
Dean* & Associate Deans	-	60,000	20%	12,000	**72,000**
Releases for Associate Deans	81,381		-	-	**81,381**
Directors/Managers	1,141,000		22%	251,020	**1,392,020**
YUSA Support Staff	163,000		27.5%	44,825	**207,825**
Total	**1,385,381**			**307,845**	**1,735,226**

The methodology to determine the funding to be transferred has been tested on the actual budget results for 2010-11. If the Faculty of Engineering been in existence in that budget year (at its forecasted new size) using the figures appearing in the tables above, the budget for the Faculty would have been approximately $35 Million. Consultation with the units will now begin to apply the methodology to the 2011-12 budget year, in preparation for setting the 2012-13 budget framework and the anticipated transfers to move to the new Faculty.

With respect to carry-forwards and deficits, given that units carry out their academic and financial planning in 3 to 5 year cycles, the units will be able to recognize and identify circumstances impacting specific in-year situations that may result in deficits or carry-forwards. A series of principles have been defined to assist in how to best address the various circumstances that may arise having impact on the budget.

Faculty Complement & Appointment Planning

The expansion of Engineering realizes a significant priority in academic appointments planning over the course of the next decade. The forecasted appointments plan for the period 2012-13 through to 2021-22, anticipates approximately 65 tenure stream appointments will be required to keep pace with the planned enrolment growth and expansion of the new program areas in engineering. The appointment planning will continue to follow the academic plans and enrolments, and to the extent existing and new programs in the Faculty of Engineering grow, the appointments of faculty members and librarians will be allocated to support that growth. At the same time, appointment planning must also take into account other university planning priorities and the needs of the units to make appointments to maintain the overall integrity of their programs and responds to students' interests, including maintaining a high level of quality and standards as set out by the accreditation requirements and quality assurance framework established for each of our programs.

Faculty Leaders

The establishment of a Faculty of Engineering will support efforts to generate funds for endowed chairs and professorships (as witnessed by the recent donation by Pierre Lassonde), as well as government-supported initiatives tied to engineering (as realized by the capital funding projecte supported by MTCU). New leaders are actively being sought to provide leadership in engineering and applied science research areas and the identification of engineering as a strength and a priority can be expected to provide a focus to attract outstanding new faculty with interests in this field. With the successful recruitment of these new faculty, and with an increased profile for York as a "player" in the engineering area, enhanced opportunities for funding are expected to increase in this area. Even without an engineering Faculty, York's engineering researchers are well known and respected individually, and have achieved considerable success already attracting external funding.

Physical Space for the Lassonde School of Engineering

York's Engineering programs are currently housed in two departments. The Department of Computer Science and Engineering (CSE) is located entirely in the Lassonde Building (LAS, formerly CSEB), and the Department of Earth and Space Science and Engineering (ESSE) is primarily housed in the Petrie Science and Engineering (PSE) building. Engineering also shares access to the Steacie Library. Our intention is that these units will remain in their present facilities.

A 160,000 square feet engineering building, scheduled for completion by September 2014, will house the first wave of engineering expansion, including three new departments (Mechanical, Civil, Chemical), while the new electrical program will join the department of Computer Science and Engineering in the Lassonde Building. In addition to teaching laboratories and classrooms, the new engineering building will contain substantial student study and common-room space, areas for student project work, food facilities and workshops. The new building will be designed around core principles of excellent student facilities, a professional environment, innovative collaborative spaces, and state-of-the-art equipment. The engineering building will also accommodate offices for faculty and staff, student support services, research laboratories, and the Decanal and Departmental offices.

New Building

As the Lassonde School of Engineering grows towards its steady-state size of more than 2,500 students, additional space appropriate to a Faculty of that size and type will be necessary.

We expect that the new Electrical Engineering program will commence in 2013, followed by Mechanical and Civil Engineering in 2014. Searches for seven new colleagues are underway in support of these programs. Continual hiring over the next several years will be required to grow the faculty complement in each program to support the student enrolment plan in each area. Space to accommodate the new Dean's Office administration is also required, starting possibly in 2012. Interim accommodations are therefore essential for the first wave of faculty and staff personnel prior to the completion of the new building.

Consultations are underway with the University space planners to identify options for housing offices and research laboratories during this interim period. Research laboratories requirements, while potentially a more challenging task, depend on the needs of the individual faculty members, and so cannot be identified with precision until the results of the hiring process are known.

Implementation

Approval in Principle – January 26th, 2012

Approval in Principle

Following the approval in principle, Senate's APPRC & ASCP together with the VPA&P and the Dean's Office in FSE, have continued guiding the work related to academic planning and resources, Faculty governance, research, human and physical resources by:

- Leading the Financial and Administrative working groups to continue to oversee the resource analysis & planning processes (movement of resources, commitments to resource plans and administrative structures, e.g., academic administrative appointments and staffing; enrolment analysis and planning for the new Faculty and the effect on FSE; space, need for facilities through the transition to the new building; program/degree harmonization and student services & supports).

- Engaging various Administrative Offices to assist in the coordination of research activities & strategies, plans for space and the new building, consultations on labour relations, communication strategies, government relations, financing, facilities, etc.

Motion to Create an Engineering Faculty – Spring 2012

Following the approval of the motion to create the Faculty, Senate and its committees (where appropriate), along with VPA&P and FSE Dean's Office, will continue to work with the colleagues to:

Formation of a New Faculty

- Provide guidance on legislation for actionable items to establish any new schools, departments, programs and/or new degrees as a result of the creation of the new Faculty, including any program, curriculum, quality assurance, and/or degree requirements requiring approval.

- Assist the Faculty Council to move from interim to official status.

- Appoint Faculty administration, including the dean and administrative support infrastructure,student support services, faculty support services, technological support and health & safety.

- Course offerings and coordinated planning with other units could commence. In addition to any Program/Curriculum/Degree requirements – approval of Faculty requirements (e.g., common 1st year; general education); any necessary grandparenting arrangements for students; etc.

- Student Service & Supports be inclusive and reflect any new and necessary changes to practices with respect to: recruitment & publication issues; admissions/OUAC; scholarships & bursaries; convocation; registrarial services and SIS changes; creation of student council and government issues (including supplementary health/dental plans, etc.).

- VPA&P to finalize details on finance and budget, enrolment resource analysis & planning (adjust for any intake targets & FFTE changes).

Implementation

- Various Administrative Offices to finalize the coordination and expectations around: research activities & strategies; plans for space and the new building; consultations with labour relations; communication strategies; government relations; financing; facilities; and Alumni Relations, etc.
- Name change for the Faculty of Science and Engineering to be determined by the appropriate bodies and implemented to align with the timing of moving Engineering to the new Faculty.

Anticipated "Opening Day" of the Faculty of Engineering – May 1, 2013

Risks

The associated risks with the establishment of the Engineering Faculty will no doubt hinge on the ability to reach the enrolment objectives and attain the faculty complement plans set before us. The typical concern of any new Faculty is having the ability to attract outstanding students, along with high calibre faculty and staff to support new academic programs and initiatives.

As with any new venture, realizing the enrolments and claiming York's fair share of the prospective engineering student market will be challenging. However, York is well positioned to realize these plans given the demographics of the population and population growth in the region immediately surrounding the university. A significant proportion of this growth is in our immigrant population, where children of this population show a significantly higher demand for university education and prefer to go to universities in the area where they live. Furthermore, the downturn in the economy and family structures encourage students to stay at home rather than go to another city for their education. The proposed Faculty of Engineering will permit us to improve access to high-quality professional education to thee large, growing and important population in the York Region.

York is situated in an ideal location to play a key role in the economic development of the rapidly growing social and industrial area of the GTA. With thriving high-technology and life-sciences companies in its immediate catchment area, building on York's track record for partnership on research and development and technology transfer makes engineering prime for expansion. As the focus for the education of highly skilled employees increases, the University will be well positioned to generate a talent pool that will attract and help to develop world-class employers. University engineering researchers will also continue to partner with these private-sector organizations to develop and transfer new technologies. These activities will continue to increase the economic prosperity of the region, fuelling further growth.

The collegial planning framework will continue to guide and inform the development of the new Faculty. The principles and objectives identified in the UAP will be upheld and respected, along with the academic programs, complement and enrolment planning processes long been employed by the university. The academic and other resources will be allocated in relation to the needs of the programs and follow the planning processes in place at the university.

One of the overarching reasons for creating a new Faculty of Engineering is to profile York's competitiveness in attracting outstanding students. The greatest risk is NOT taking this step forward and advancing the establishment of a new Faculty of Engineering. The financial support from the provincial government, private donation and strategic institutional support have perfectly aligned to allow this opportunity to take place now. Finally, after decades of laying plans to paper, York is well positioned to advance innovative and inspiring engineering education. The new Faculty of Engineering at York will make a significant contribution toward enhancing York's profile as a more comprehensive institution and raising its competitive edge in the world of higher education.

Consultations (See Appendix B for Details)

- Faculty Councils
- Senate Committees: APPRC, ASCP
- Townhalls/Special Meetings – Faculty, Staff & Students
- Support Services & Divisions on Campus
- External: Professional Bodies, Government, etc.

Letters of Support (Attached as Appendix C)

External:

Kim Allen, Professional Engineers Ontario

Alourdes Sully, Ontario Society for Professional Engineers

Paul Benedict, Association of Ontario Land Surveyors

Timothy Lethbridge, Chair, Computer Science Accreditation Council

Internal:

Patrick Monahan, Vice-President Academic & Provost – to follow

Robert Tiffin, Vice-President Students

Robert Haché, Vice-President Research and Innovation

Mark Robertson, York University Libraries

Joanne Duklas, AVP, Enrolment Management and University Registrar – to follow

Appendices

Appendix A: Comparison of Engineering Programs in Ontario Universities

SEPTEMBER 2011- PRELIMINARY ENROLMENTS IN ONTARIO ENGINEERING FACULTIES

UNIVERSITY	FIRST YEAR		UNDERGRAD TOTAL		MASTERS (Full Time)		MASTERS (Part time)		FULL TIME PhD		PART TIME PhD	
YEAR	11	10	11	10	11	10	11	10	11	10	11	10
CARLETON	1,040	955	3,002	2,748	371	358	131	132	190	188	37	44
GUELPH*	378	343	1075	859	108	97	25	30	37	35	14	11
LAKEHEAD	105	103	764	776	51	47	0	0	0	0	0	0
LAURENTIAN	99	92	358	333	18	13	14	14	15	13		
McMASTER	1352	1172	4443	4230	388	422	101	137	250	256	24	32
OTTAWA	640	532	2227	1949	473	375	105	87	258	242	14	16
QUEENS	652	649	2842	2702	301	277	22	25	202	196	9	9
RMC	120	120	401	395	88	98	11	10	32	31	7	6
RYERSON*	1003	954	3302	3032	401	480	115	100	182	191		
TORONTO	1338	1271	5181	4992	862	773	263	202	706	696		
UOIT**	483	440	1463	1356	97	124	29	26	61	45	6	1
WATERLOO***	1552	1515	6266	5978	631	697	339	345	645	627	63	54
WESTERN	419	349	1498	1214	297	259	35	38	296	288	12	13
WINDSOR	324	280	1112	1023	364	358	13	12	108	131	3	6
TOTAL	9,505	8,775	33,934	31,587	4,450	4,378	1,203	1,158	2,982	2,939	189	192

Notes:

**** Guelph and Ryerson are the only Ontario Universities (outside of York) that do not have automonous Engineering Faculties. Guelph: College of Physical & Engineering Science and Ryerson: Faculty of Engineering, Architecture & Science (however, this structure is currently under review).***

***** Official count date for 2011-2012 student data is November 1, 2011. Data provided is a projected number and will most likely differ from the official counts. [UOIT has two Faculties of Engineering]***

******excludes Architecture, which is part of the Faculty of Engineering at Waterloo***

Appendices

Appendix B: Community Consultations

Updates to Senate Committees:

November 3rd, 2011 – APPRC
November 16th, 2011- ASCP
January 12th, 2012 - APPRC
January 17th, 2012 - Executive
January 23rd, 2012 – Student Senators
January 24th, 2012 – FSE Senators
January 26th, 2012 – Senate

Board of Governors:

October 2011 – Board of Governors
February 6th, 2012 – Board Academic Resource Committee

Open Forums:

Announcements & Townhalls:

June 20th, 2011 – Funding Announcement from Ministry of Training, Colleges & Universities
November 1st, 2011 – Announcement of Lassonde Donation & Naming of LSE Building;
November 2nd, 2011 – FSE Townhall for Faculty, Staff & Students on Updates & Plans for Engineering
December 5th, 2012 – Engineering Student Discussion on the Future of Engineering
February 3rd, 2012 – FSE Staff Forum on Science & Engineering
February 16th, 2012 – Stakeholders Forum on the Pathway Forward for Engineering
March 30th, 2012 – Science Townhall to Discuss the Future of Science

Faculty Council Meetings:

Education – June 7th, 2012
Environmental Studies – May 24th, 2012
Fine Arts – December 14th, 2011
Glendon - tba
Health – December 7th, 2011
LA&PS – March 8th, 2012
Libraries – January 10th, 2012
Osgoode – March 5th, 2012
Schulich - tba
Science & Engineering – December 13th, 2011, February 14th, March 13th, 2012

Appendices

Consultations with Support Services on Campus:

Admissions & Recruitment
Registrar's Office
University Information Technology (UIT)
Office of Institutional Research & Analysis - Management Information
Communications
Campus Service & Business Operations - University Architects; Planners;
Procurement
Human Resources
Finance & Administration

Other Consultations:

- Senate discussion and approval processes regarding statutory motions
- Establish an e-mail address (lassonde@yorku.ca) to receive comments
- Senate committees invited by the Secretariat to provide comments on issues relevant to their mandates
- Alumni: information about the proposal to be published in upcoming issues of Alumni Matters, with an invitation to comment
- Consultations with appropriate bargaining units

Professional Engineers
Ontario

101-40 Sheppard Ave. W., Toronto, ON M2N 6K9
T: 416 224-1100 800 339-3716 www.peo.on.ca
Enforcement Hotline: 416 224-9528, ext. 1444

March 22, 2012

Richard Hornsey, D.Phil., P.Eng.
Professor and Associate Dean for the School of Engineering
Faculty of Science and Engineering
Lassonde Building, 1012R
York University
Toronto, ON M3J 1P3

Dear Dr. Hornsey:

Professional Engineers Ontario (PEO), the licensing and regulating body for engineering in Ontario, is pleased to express our support for the creation of a new Faculty of Engineering at York University.

PEO believes a future School of Engineering at York built around a Global Engineering concept is forward-looking, exciting and aligned with PEO's own Council-approved goal of being the global leader in professional self-regulation that responsibly improves the quality of life for all.

The School of Engineering's envisioned academic partnerships with the Schulich School of Business and Osgoode Hall Law School, aimed at ensuring students' "exceptional academic preparation in engineering, business, public policy and law", also align with PEO council's vision of future engineering practitioners who are sought-after worldwide for their valued expertise, regarded as exemplary for their integrity, competence, ingenuity and cost effectiveness, and educated to be accountable for protecting the public interest.

York School of Engineering graduates who are "articulate and confident individuals, broad thinkers and dynamic and motivated achievers who distinguish themselves by their intellectual rigour, spirit of initiative, resourcefulness and innovation, and commitment to make important contributions to society" should be well prepared for licensing as professional engineers in Ontario.

I am sure there will be many opportunities to enhance PEO's existing collaborations with York and its new School of Engineering as we both work to realize our complementary visions to strengthen the engineering profession and its service to society.

Sincerely,

Kim Allen, P.Eng., FEC
CEO and Registrar

Copies:
Mamdouh Shoukri, P.Eng., President, York University
Janusz Koziński, Dean, Faculty of Science and Engineering, York University
William van Wijngaarden, Chair of the Senate, York University

ONTARIO SOCIETY OF PROFESSIONAL ENGINEERS

March 28, 2012

York University Senate
c/o Richard Hornsey, Professor and Associate Dean for the School of Engineering
Faculty of Science and Engineering
Lassonde Building, 1012R
York University
Toronto, Ontario M3J 1P3

Dear York University Senate:

On behalf of the Ontario Society of Professional Engineers (OSPE), I am delighted to offer support for the creation of a stand-alone Faculty of Engineering at York University. As the voice of engineers in Ontario, OSPE advocates for and encourages innovative approaches to educating future engineers. York is clearly leading in this arena by embracing the Global Engineering concept.

As part of our mandate, OSPE connects engineers at every level, in every industry with opportunities for rewarding work and lifelong learning. We hear routinely from engineering employers that future engineers must possess more than impeccable technical skills – they must be creative thinkers, skilled communicators, effective managers and more. OSPE is very pleased to see York incorporate "solving design problems, aesthetic elegance, entrepreneurship and generating new opportunities, team creativity, human factors, global design collaborations, and social context" into the engineering curriculum and learning environment. Your initiatives will benefit not only York students, but also our entire profession.

OSPE has established a strong relationship with York. Indeed, President and Vice-Chancellor Shoukri and Dean Koziński have been our honoured guests at various OSPE functions. The expanded Lassonde School of Engineering would further enhance our collaborative efforts and lead to an even stronger association. OSPE wholeheartedly supports this exciting development at York and looks forward to our continued working relationship.

Sincerely,

Alourdes Sully, ing, M.Eng., Mgmt., P.Eng.
President and Chair

Association of Ontario Land Surveyors

March 22, 2012

Richard Hornsey, D.Phil., P.Eng.
Professor and Associate Dean for the School of Engineering
Faculty of Science and Engineering
Lassonde Building (formerly CSEB), 1012R
York University, Toronto, Ontario, Canada M3J 1P3

Dear Richard,

Thank you for the opportunity to express our support for the expansion of the Engineering Program at York University. The Association of Ontario Land Surveyors (AOLS) and the faculty of the Geomatics Engineering Program in the Department of Earth and Space Engineering have had a strong relationship since the inception of the program in 2001. The AOLS would fully support a new School of Engineering at York with the assumption that the Geomatics Engineering specialty would continue as a recognized part of the engineering program.

Surveying industry feedback indicates that York's Geomatics Engineering graduates are highly regarded and are in great demand. All receive multiple job offers. This program is unique in Ontario and we believe that the demand for geomatics graduates will continue to grow. The University of Calgary's Schulich School of Engineering offers undergraduate and graduate Geomatics Engineering degree programs to over 250 students. The Department of Geomatics Sciences at Laval University has increased the number of undergraduate students in Geomatics to over 200.

A Geomatics program housed in the Lassonde School of Engineering can make a difference in one of today's fastest growing technology sectors if we work together to show prospective students that we can offer them a bright future with fantastic jobs and good salaries. We can help create the Renaissance Engineer, a leader and an innovator, and a decision-maker who can advise on property law, land planning and development, geo-spatial data management and one who can play an important role in the sustainability of the cadastral fabric in Ontario.

The Association looks forward to continuing our support for Geomatics Engineering at York University.

Yours truly,

Paul Benedict, OLS, OLIP
AOLS President

1043 McNicoll Avenue ♦ Toronto, Ontario, Canada ♦ M1W 3W6
Tel: (416) 491-9020 ♦ Fax: (416) 491-2576 ♦ Toll-free: 1-800-268-0718 ♦ email: admin@aols.org
"Member of the Canadian Council of Land Surveyors"

uOttawa

Université d'Ottawa
Faculté de génie
École d'ingénierie et de technologie de l'information

University of Ottawa
Faculty of Engineering
School of Information Technology and Engineering

28 March 2012

Re: **Letter of support for your Faculty's changes**

Associate Dean Richard Hornsey
School of Engineering
York University
Toronto, ON M3J 1P3

Dear Dr, Hornsey,

As you are aware, Dr. Asif, chair of Computer Science and Engineering, has asked me to write to express support for various changes in your Faculty, including the new Department of Electrical Engineering and Computer Science, housing programs in Computer Science, Software Engineering, Computer Engineering and Electrical Engineering.

This is, of course, exactly the structure we have at the University of Ottawa. It has worked very successfully here for well over a decade. Computing courses can be shared here among Computer Science, Software Engineering and Computer Engineering; core engineering courses can be shared among Electrical Engineering, Computer Engineering and Software Engineering, and hardware courses can be shared among the Electrical Engineering and Computer Engineering programs. This saves resources, while at the same time increasing opportunities for students to take electives or even switch among programs.

At the University of Ottawa we recently renamed our School to be 'Electrical Engineering and Computer Science' to make the core programs more visible (the old name, which still appears on letterhead until we use it up, was Information Technology and Engineering). The new name, which is what you too have chosen, is gaining popularity. It is, for example used at extremely well-known and successful institutions such as MIT, Berkley, and Ann-Arbor.

I am head of the Computer Science Accreditation Council of CIPS. It is not part of CIPS' process to formally approve decisions made by universities. However, I can informally advise you that a department's name, host Faculty and co-hosted programs are not issues that would normally have any impact on accreditability of programs. CSAC has accredited Computer Science and Software Engineering programs in several Faculties of Engineering, and in several departments that also host other engineering programs.

Sincerely,

Timothy C. Lethbridge L.S.P. P. Eng
Professor, Secretary of the Faculty of Engineering, and Chair of CSAC
tcl@eecs.uottawa.ca

cc. Amir Asif

613-562-5738
613-562-5664

800 King Edward
Ottawa ON K1N 6N5 Canada
www.uOttawa.ca

YORK
UNIVERSITÉ
UNIVERSITY

OFFICE OF THE VICE-PRESIDENT STUDENTS

N303 Bennett Centre
For Student Services
4700 Keele St.
Toronto Ontario
Canada M3J 1P3
Tel 416 736 5955
Fax 416 736 5990

March 26, 2012

Dr. Richard Hornsey
Associate Dean
School of Engineering
1012R Lassonde Building

Dear Richard:

The creation of a new Faculty at a university is always an important new milestone in its history as it establishes the basis for new directions, traditions and innovative programs. The creation of a Faculty of Engineering Science, with the eventual full breadth of engineering programs, brings to fruition the next natural stage of evolution for the university as envisioned by the original founders. It will also serve to be transformational to York's future.

York resides in the middle of a rapidly expanding region that is populated by a large percentage of new Canadians. Strong evidence exists to support the view that these families are very focused on education as means to improve their economic position to create a better life for future generations. The demand for engineering programs across Ontario for the past five years has consistently outstripped the demand for all other programs. While wishing to meet its social responsibility to respond to the growing demand for university education within the GTA, York also wishes to engage in selective growth to what is already a large, multifaceted university. The potential to grow enrolment through Engineering offers York a unique opportunity.

Consistent with Ontario's wishes to remain the economic engine of Canada it is clear that there will be a significant demand for Engineering graduates for the foreseeable future. As we have already seen in China and its large manufacturing centres, engineering has, and will remain, a significant factor in maintaining a competitive edge in a global economy. The establishment of a Faculty of Engineering at York will attract new sources of research funding, new sources of top students and faculty while also enhancing the national and international reputation of the university.

I fully support the establishment of the Faculty of Engineering Science. This will not be easy in the current financial climate but the difficult decisions made in the first years of the new Faculty will have long serving benefits to York in the future.

Yours truly,

Robert J. Tiffin
Vice-President Students

YORK
UNIVERSITÉ
UNIVERSITY

ROBERT HACHÉ, PhD
VICE-PRESIDENT
RESEARCH &
INNOVATION

Ninth Floor, 904
York Research Tower
Toronto ON
Canada M3J 1P3
Tel 416 650-8207
Fax 416 650-8197
vpri@yorku.ca
www.research.yorku.ca

March 28, 2012

Dr. R.I. Hornsey
Associate Dean, School of Engineering
Lassonde Building, 1012R
York University

Dear Dr. Hornsey,

Re: Support for the creation of a Faculty of Engineering

It is with great pleasure that I offer my enthusiastic support for the proposed creation of a Faculty of Engineering, to be named the Lassonde School of Engineering at York University.

The establishment of a new Faculty of Engineering will be transformative to York's research enterprise and will significantly advance the visibility, recognition, and reputation of our engineering and applied science research with external stakeholders, including governments, and the public at large. This increased prominence will help to recruit and retain the best engineering researchers, as well as contributing to private fundraising efforts, and over time result in enhanced research capacity and increased opportunities for external funding. Such a Faculty will provide a basis to recruit the best students and provide them with the most innovative interdisciplinary research and teaching environment. Similarly, providing enhanced opportunities for researchers at York to work together in the area of engineering and applied science, particularly in collaborative, interdisciplinary ways will be important in facilitating an integrated and comprehensive program.

I regard the Faculty of Engineering, with the associated increase in engineering faculty complement, to be of strategic importance to the University. Based on my experience, I believe that this is a key opportunity for the Institution to take a more proactive leadership position, propelling us towards becoming a more comprehensive, research-intensive institution, and opening new research and partnership opportunities for York.

I and my colleagues in the Office of VPRI look forward to working with Engineering on identifying strategic research goals and establishing both the Faculty and the University as a place where engineering innovation thrives.

Yours sincerely,

Robert Haché, Ph.D.
Vice-President Research & Innovation

YORK
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YORK UNIVERSITY LIBRARIES

Office of the University Librarian

4700 Keele St.
Toronto ON
Canada M3J 1P3
Tel 416 736-5106

Memorandum

To: Richard Hornsey, Associate Dean for Engineering

From: Mark Robertson, Acting University Librarian

Date: March 26, 2012

Subject: Library Support for Faculty of Engineering

The York University Libraries are very pleased to support the establishment of the new Lassonde School of Engineering at York University.

Excellent libraries are essential to the success of new programs and faculties at any institution. The York University Libraries have been engaged in discussions with the Faculty of Science and Engineering to ensure that students and faculty in Engineering are provided with outstanding library resources and services. We continue to work with Engineering to identify and assess research collection needs, plan for quality library study space for students, and ensure sufficient librarian and staff support for research and teaching in the new programs.

We look forward to continuing to collaborate with the administration, faculty and students in the creation of a truly innovative new School of Engineering. We also look forward to growing with the Faculty as it develops over time.

Notes

- THE LASSONDE SCHOOL OF ENGINEERING -

YORK
UNIVERSITÉ
UNIVERSITY

MEMORANDUM

OFFICE OF THE VICE-PRESIDENT ACADEMIC & PROVOST

4700 Keele St.
Toronto Ontario
Canada M3J 1P3
Tel 416 736 5280
Fax 416 736 5876

vpacademic.yorku.ca

TO: Alison Macpherson
Chair of the Academic Policy, Planning and Research Committee

FROM: Patrick Monahan, Provost

cc: J. Kozinski
R. Hornsey
R. Lenton

SUBJECT: Establishment of a New Faculty of Engineering

DATE: April 20th, 2012

I am pleased to write in support of the establishment of a new Faculty of Engineering to be called the Lassonde School of Engineering (LSE). The Office of the Provost remains actively involved in the discussions pertaining to the creation of the LSE, and provides oversight on the alignment of plans with the guiding principles, and revenue and expenditure projections in the context of institutional enrolment, complement and capital plans.

As indicated in my earlier memo, dated January 9th, 2012, the School of Engineering was established as a separate unit within the Faculty of Science and Engineering in 2006, following the introduction of engineering programs at York in 2001. The proposal to create a separate Faculty represents the next stage in the evolution of Engineering at the University. The Lassonde School of Engineering will support the development of new undergraduate and graduate programs in Engineering and provide a focus for Engineering research that will enhance the community of students and faculty working in this field and increase the visibility of Engineering at York. The proponents have been working in close collaboration with their colleagues in the Faculty of Science and Engineering as well as other Faculties in developing innovative curriculum that will further our institutional objectives to strengthen interdisciplinarity and comprehensiveness.

Following consideration of the statutory motion to create the LSE, and in anticipation of the eventual approval of the LSE by Senate and the Board of Govenors, my Office will ensure that adequate support and leadership is provided for the Faculty of Science and Engineering during the Faculty's transition period that will eventually result in two independent Faculties. I would be happy to respond to any questions and concerns with regard to the statutory motion to create the LSE, and I look forward to the subsequent approval and creation of the LSE at York University.

COU Update – April 2012

Table of Contents

Note to user

The format of the COU Update has been changed in order to make it more accessible and user-friendly. For quick access to a particular issue, you can now click on a title in the Table of Contents and you will be immediately directed to the issue in question. There are four main sections within an issue: update, background, division and last updated. If there is no "update" section, it means that no new information has been added. The "updated" section will inform you of the last time the issue was updated.

Please note that the COU Update is intended for COU members and affiliates. The COU Update is not a public document and is not intended to be distributed outside the university sector.

Drummond Report

Economist Don Drummond chaired the Commission on the Reform of Ontario's Public Services. His report, *Public Services for Ontarians: A Path to Sustainability and Excellence* was released on February 15, 2012.

Update: The Drummond report, containing 362 recommendations, was released on February 15, 2012. The report surveys the current and forecasted fiscal situation in Ontario, assesses all program areas of government spending, and makes recommendations for restraint including program cuts and/or consolidation, changes to program delivery and policy.

There are a number of chapters of interest to postsecondary stakeholders including the chapter on postsecondary education (chapter 7), health system (chapter 5), elementary and secondary education (chapter 6), labour relations (chapter 15), back office efficiency and procurement (chapter 16) and pensions (chapter 19). COU is undertaking a review and analysis of the report to identify positions and potential impacts of pertinent recommendations, if implemented. COU has provided preliminary analysis of the recommendations and proposed positioning for public responses to affiliates.

The government has begun implementing some of Drummond's recommendations. The recent budget has discontinued funding for international marketing and signaled the government's intent to commence a process to consolidate asset management of university pension plans. Various recommendations of the commission may be implemented by government over time and there is not likely to be one consolidated response from government indicating which recommendations have been accepted.

Division: Policy and Analysis **Updated:** April 2012

Audit of Teaching Assessments for University Faculty by Auditor General of Ontario

The Auditor General of Ontario has begun a “value-for-money” audit of teaching assessments for faculty in Ontario universities.

Update: In November 2011, COU was notified that the Auditor General of Ontario would be conducting a “value-for-money” audit of teaching assessments for faculty in Ontario universities.

While COU has not received formal documentation specifying the scope of the audit, it appears the focus of the audit is to assess whether universities have established appropriate procedures for evaluation of teaching by faculty and whether those procedures are being followed.

It is likely that three or four universities will be visited by staff of the OAGO to review teaching evaluation policies and procedures and test compliance. The University of Ontario Institute for Technology was the first university selected by the OAGO. Subsequently, the University of Toronto and Brock University have received notice from the Auditor General. The Auditor General’s review is expected to be concluded in 2012 and his findings published in the December 2012 Auditor General’s report.

Division: Policy and Analysis **Updated:** April 2012

University Operating Funding

In Budget 2012, the Ontario government announced a multiyear commitment to fund enrolment increases over the next three years.

Update: The 2012 budget confirmed the government's commitment to fund an increase of more than 60,000 new spaces in postsecondary education (41,000 spaces for universities). The budget announced, however, that the growth is expected to be realized only by 2017-18 (and not by 2015-16 as announced in the 2011 budget). For the next three years, the projection (showing increases incrementally from the previous year) is:

2012 enrolment projections	2012-13	2013-14	2014-15
Undergraduate	6,500	6,100	6,225
Graduate	600	600	900

MTCU staff has provided an estimate of funding for enrolment growth for the next three years (it is traditional for the provincial budget to set out only three years of projected expenditure).

The following table sets out the universities' share of the new funding. The dollar amounts in the table show cumulative increases from the funding in the MTCU's base allocation for 2011-12.

Funding for growth	$M		
	2012-13	2013-14	2014-15
Undergraduate	40.7	79.1	119.4
Graduate	10.8	21.6	37.9
Post Graduate medical expansion	3.6	6.2	6.2
100 Medical spaces expansion	3.2	6.8	6.8
Total increase for growth	58.2	113.6	170.3

There was no indication in the budget or from MTCU staff about the process by which MTCU will (or will not) set enrolment targets for each university, nor any indication concerning the allocation of additional graduate spaces to specific universities.

No roll-in of undergraduate enrolment growth is expected in 2012-13 (the base year to calculate growth will continue to be 2010-11).

In addition, MTCU announced that it will continue to fund graduate growth announced under *Reaching Higher*. This program reached its maturity in 2012-12; however, some institutions are continuing to work toward their end-state target growth and will receive funding for the growth achieved (up to approved targets). MTCU allocated $15 million

for this type of growth out of $103 million that is still available for this and future years under the *Reaching Higher* commitment.

This brings the amount allocated for enrolment growth to $75 million. This amount covers all funding increases announced in the 2012 budget. Thus, no other programs are expected to receive additional funding.

Division: Policy and Analysis **Updated:** April 2012

Planning and Funding of Enrolment (undergraduate and graduate)

COU has released a position paper on expansion of graduate programs, in addition to the proposal concerning planning and funding changes in enrolment.

Update: The 2011 budget predicted growth in the postsecondary sector of about 60,000 students by 2015-16; MTCU now expects that growth to be realized only by 2017-18. The university share of the enrolment growth is 41,000 spaces.

In addition, the Ministry will be slowing down the graduate expansion (announced in 2011 budget) and will allocate only 3,000 spaces by 2015-16 (of the 6,000 new spaces announced last year). The remaining 3,000 spaces are expected to be allocated by 2017-18.

Background:

Graduate Expansion: COU has developed a position paper on graduate education, which addresses principles for allocation of the new 6,000 spaces that the government has committed to fund by 2016 and sets out arguments to support further expansion of graduate spaces to support Ontario's future prosperity. The paper can be found at http://www.cou.on.ca/issues-resources/student-resources/publications/reports/pdfs/graduate-education-in-ontario---position-paper_fin.aspx. The position paper has been transmitted to the Minister and staff of MTCU.

Funding for Enrolment Growth: COU has developed a position paper focused on mechanisms to support planning for enrolment changes and to provide operating funding in response to institutions' changes in enrolment – both increases and decreases in enrolment, but focusing on aligning funding with the policy objectives of growth. The position paper was approved by Executive Heads in May 2010.

The position paper has been submitted to the MTCU and is a key focus of COU advocacy. COU recommends an approach where:

- MTCU would establish new base funding for each institution based on actual enrolment whenever the new base is established.
- Each institution would negotiate, as part of its multi-year accountability agreement (MYAA), a four-year plan of enrolment growth. The institution and MTCU would agree to an enrolment target for each of the four years.
- Institutions would receive a guaranteed level of funding for growth each year, specific to each institution (through access grants outside of their base funding).
    - If an institution grew to its target, it would receive full funding for that growth.
    - If its growth met only part of the target, it would receive full funding for actual enrolment growth.
    - If it grew above its target, it would receive funding only up to the target (and the institution and MTCU would negotiate a revised plan for subsequent years).

- If an institution's enrolment declined below the enrolment level in its base funding, there would be a mechanism to smooth the reduction in revenue. This mechanism to address decline would be like the former corridor system, using a moving average to adjust funding downwards.
    - It is important to note that this "corridor"-like approach would work only for enrolment declines.
- Every four years, MTCU and institutions would negotiate a new enrolment plan as part of MYAAs. At that time, institutions would also negotiate a new base level of funding (reflecting actual enrolment and institutions' plans at that time). This would add funding that had been provided through access grants to the new base funding of each institution.

The full text of COU's proposal can be found at http://www.cou.on.ca/Issues-Resources/Key-Issues/PDFs/Framework-for-Planning-and-Funding-of-Enrolment---.aspx.

Division: Policy and Analysis **Updated:** April 2012

Capital Funding and Planning

The Ontario government re-committed to development of a ten-year infrastructure plan, beginning in 2011. MTCU, with support from the Ministry of Infrastructure, is developing a long-term capital planning process to meet the province's infrastructure needs, including those in the postsecondary sector.

Updated: The 2012 budget announced that capital funding for college and university projects will be realigned with expected construction and completion dates. Ministry staff emphasized that all projects confirmed to be funded will continue to be funded in full. The announced savings of $28.4 million reflect only cash flow savings from anticipated delays in implementation of approved projects.

From previous decisions concerning the government's long term capital plan, MTCU did have additional allocations in future years (2015-16 and beyond). This allocation was reduced in the budget. Ministry staff indicated that there may be some of the long-term plan allocation remaining for MTCU.

Background: The Ministry of Infrastructure (MOI) began roll-out of the government's ten-year capital plan between May 2011 and July 2011. The following table shows the summary of funding announcements by program:

	Universities	Colleges
Long term capital plan	$344,000,000	$161,100,000
Budget Announcements	$39,400,000*	
Northern Ontario Heritage Fund Corp.		$4,500,000
TOTAL	**$383,400,000**	**$165,600,000**

* includes $21M announcement over 3 years at Laurentian.

The government announced a total of $549,000,000 in funding; the universities share is 69.8%.

Also, the Liberal Party platform made a commitment to build three new undergraduate campuses. As yet, no information about the location or capital funding for those projects has been announced.

On June 24, 2011, MOI released its ten-year infrastructure plan, *Building Together: Jobs & Prosperity for all Ontarians*. The plan included a statement that "any university…seeking significant provincial capital funding will be required to publish a detailed public asset management plan (AMP)." MOI intends to consult with the affected sectors on asset management planning before finalizing the requirement. COU, through the Council of Senior Administrative Officers (CSAO), will continue to monitor this issue.

Previously, in the spring of 2010, to support the development of the Ontario ten-year infrastructure plan, MTCU sent a survey to all institutions inviting them to submit information on capital projects or initiatives, including projects related to satellite

campuses that would be normally eligible for funding through MTCU's Major Capital Support Program. Institutions were asked by the Ministry to put forward projects which have already received the appropriate internal consideration, support institutional mission and academic priorities, and could proceed on a timely basis in the event that funding from the Ministry was to become available.

In August 2010, COU prepared a submission to the Ministry of Infrastructure Consultations on the 10-year Infrastructure Plan. The submission addressed the key infrastructure priorities for the sector, trends that expected to impact the use of infrastructure in the sector, and investment priorities. The submission can be found at http://www.cou.on.ca/Issues-Resources/Key-Issues/Infrastructure.aspx.

Division: Policy and Analysis/Corporate Services **Updated:** April 2012

Condition of University Facilities

Adjustment to Facilities Renewal Program (FRP) announced in Budget 2012

Update: For 2012-13, funding for the Facilities Renewal Program will remain consistent at $17.3 million (reduced from $27 M in 2009-10 and earlier years).

In contrast to this allocation, COU's report on facilities condition (see below) finds that, to maintain our campuses in their current condition, universities would require annual expenditures of $380.8 million.

Division: Corporate Services **Updated:** April 2012

Facilities Condition Assessment Program (FCAP)

The report of the Task Force of the Council of Senior Administrative Officers (CSAO) and the Ontario Association of Physical Plant Administrators (OAPPA) highlighted the sector's deferred maintenance backlog, which reached $1.97 billion in 2010.

Background: The Facilities Condition Assessment Program (FCAP) report was presented to government in March 2011 (MTCU and MOI). Government representatives at the meeting noted that while the data was impressive, the message and urgency related to the data may not be reaching high levels of government. It was recommended that if deferred maintenance is truly a priority for the sector, a higher level, more impactful, report should be developed which clearly highlights the risks of delaying further investment and the impact it is having on health and safety, student experience, and quality of education.

Executive Heads decided that further information about amounts committed by universities to deferred maintenance from their own budgets and practices in other jurisdictions ought to be collected. To determine current spending in the sector related to deferred maintenance, COU surveyed institutions and is currently analyzing the data. COU has also surveyed other provinces with the assistance of the Canadian Association of University Business Officers (CAUBO) Facilities Management Committee to gather information on funding practices related to deferred maintenance in other jurisdictions. Once all the data is collected and analyzed, COU will publish a report for government in summer 2012 to highlight the magnitude of the issue, and its impact on the sector.

Division: Corporate Services **Updated:** January 2012

Tuition Framework for 2012-13

The current tuition framework expires this academic year and a new tuition framework is needed for planning, budgeting and recruitment purposes.

Update: On March 8, 2012, MTCU announced an extension of the existing tuition framework for one year allowing a cap of five per cent on overall tuition fee increases at publicly assisted colleges and universities. It is anticipated MTCU will soon commence further discussions with the postsecondary sector in respect of a new multi-year framework for 2013-14 and beyond.

The COU Secretariat developed advocacy positioning for discussions with MTCU and other government officials on the tuition framework for 2012-13 and beyond. COU also developed a paper setting out recommendations for increased flexibility in administration of the tuition framework. The government's announcement did not change any element of the existing tuition framework and the flexibility recommended by COU has not been addressed for 2012-13.

In announcing the extension of the current framework, MTCU placed a moratorium on increasing or establishing flat and deferral fees for 2012-13.

Over the next year, the government will consult with institutions, organizations and students on a new multi-year tuition policy and policies regarding institutional flat and deferral fees to be in place for fall 2013-14.

Background: Under the tuition policy, tuition increases are limited to an annual average of 5%. For Arts & Science programs, increases cannot exceed 4.5% for first year and 4% for other years; for professional/graduate programs, increases cannot exceed 8% for 1st year and 4% for other years.

Division: Policy and Analysis **Updated:** April 2012

Ontario Tuition Grants

Implementation of the Liberal commitment to introduce grants to students to offset tuition costs

Update: MTCU continues to consult with colleges and universities on the design and implementation of the Ontario Tuition Grant program for 2012-13. COU has established a working group to address implementation issues with MTCU. The working group comprises representatives of the functional areas in universities that will be affected, including registrars, student financial assistance offices, finance and institutional planners.

Background: On January 5, 2012, the government announced the establishment of the Ontario Tuition Grants (OTG) program. Students who are four years or less out of high school with an annual family income of less than $160,000 will receive a grant of $800 per term (to a maximum of $1,600 per year). Students who receive OSAP are considered automatically for OTG while non-OSAP recipient students can apply online to MTCU.

The first phase for the current year (2011-12) delivered a 50% benefit commencing in January 2012 ($800 per eligible university student) and was administered almost entirely by MTCU. Full implementation of the program delivering 100% of the benefit will begin in 2012-13 and will rely upon universities for additional support and administration.

Division: Policy and Analysis **Updated:** April 2012

Student Access Guarantee (SAG)

SAG requirements for 2012-13 and impact on the Tuition Set-Aside

Update: The Ministry of Training, Colleges and Universities (MTCU) has begun consultations with COU and Colleges Ontario on the SAG guidelines for 2012-13. The first consultation meeting was held on April 11, 2012, and the next meeting is scheduled for May 3.

At the April 11 meeting, the ministry provided information on the 2012 Budget announcements regarding the continuation of the Ontario Tuition Grant (OTG) and on two financial assistance programs that will be transferred to institutions to support through the Tuition Set-Aside.

Interaction between OTG and SAG: the 2012-13 OTG program will be largely unchanged from the January 2012 program except that the value will increase by 5% to $1680 for university students and $770 for college students. For OSAP recipients, the OTG calculation will be integrated into their OSAP assessment – the OTG will be calculated first and for many students it will displace loan assistance, reducing debt levels, while for students with unmet need, the OTG will increase the total available assistance. Thus, it is anticipated that OSAP will absorb more costs for unmet need, reducing institutional SAG costs by about $25 million compared to what they would have been without the introduction of the OTG. MTCU also predicts this will reduce the administrative burden on institutions, as it expects the number of university students with tuition/book shortfalls to be about 30% lower because of the impact of the OTG.

Transfer of the Ontario Special Bursary Program (OSBP) and Ontario Work Study Program (OWSP) to Institutions' Tuition Set-Aside Funds: The ministry estimates that the reduction in SAG expenditures because of the OTG will more than offset the costs of the transfer of these programs to the Tuition Set-Aside. In 2011-12, the total cost of both programs for university students was about $7.9 million.

Background: The SAG guidelines require universities to provide assistance to students to cover their unmet need in the OSAP assessment attributable to tuition and book costs that exceed certain thresholds; in 2011-12, the threshold is $5134 for tuition ($6070 for co-op programs) and $1072 for books. In 2010, the government announced it would index these thresholds: for tuition, the index is the maximum allowable tuition increase rate for undergraduate Arts and Science programs, while the book shortfall threshold is indexed to the CPI.

As of the 2010-11 OSAP year, institutions are required to automatically provide non-repayable assistance to undergraduate (first-entry) OSAP recipients with tuition/book shortfalls, i.e. the student does not have to make a separate application. The ministry is of the view that institutions generate sufficient funds through the Tuition Set-Aside to cover their SAG obligations.

For second-entry, professional and graduate students, the SAG assistance can be provided in the form of repayable assistance (e.g., access to a student line of credit) and the student can be required to make an application. Beginning in 2011-12, universities are required to make formal arrangements with a lender if they intend to meet their SAG obligations through repayable assistance. The arrangement must include access to a student line of credit on preferred terms (such as the TD Canada Trust agreement that was facilitated through COU for 2011-12).

Division: Office of the Secretary to Council

Updated: April 2012

Ontario Education Number (OEN)

MTCU is moving forward with the implementation of the OEN in the postsecondary sector.

Update: On October 27, 2011, COU President Bonnie Patterson sent a letter to Deputy Minister Deborah Newman advising MTCU that COU members have agreed to begin implementation of the OEN, starting with a small number of universities (in order to efficiently work out implementation details and to assess costs of implementation). An OEN Working Group comprising registrars, institutional planners and others has been established. The OEN Working Group has been meeting with MTCU officials since April 2011. An Early Adopters Working Group has been established to work through the proposed business processes and identify impediments to implementation. A test run and evaluation is expected to be completed in spring 2011. For those institutions that have completed a test run, there are signs that implementation will not be as straight-forward as envisioned and universities may have to commit significant resources to support implementation. The COU Secretariat and the Early Adopters group continue to engage MTCU and the Ministry of Education (EDU) seeking automated solutions to improve the efficiency of implementation.

Background: The Ontario Education Number (OEN) is a student identification number that is assigned by EDU to elementary and secondary students across the province. The number, which is unique to every student, is used as the key identifier on a student's school records, and follows the student through his or her elementary and secondary education (and upon implementation, postsecondary education too). The OEN is a randomly assigned number, tied to stable information about the student (name, gender, date of birth). The OEN facilitates reliable records on the movement and progress of individual students through elementary and secondary school, while also protecting their privacy through anonymity and encryption, and enables highly detailed research concerning student success.

An OEN Working Group comprising registrars, institutional planners and others has been established. The Working Group has been meeting with MTCU officials since April 2011.

The Ontario Universities' Application Centre (OUAC) will work with MTCU to explore options for the role of OUAC in supporting validation of OENs for students who apply through OUAC with existing OENs, and assignment of OENs for students applying without an existing OEN.

Division: Policy and Analysis **Updated:** April 2012

Teacher Education Funding and Proposed Restructuring

Implementation challenges arising from adjustments to teacher education programs

Update: The provincial government has confirmed that it will move ahead with a plan to restructure Bachelor of Education programs, to lengthen the program and reduce the number of entering students. The province is aiming to implement this change by September 2014. The COU Secretariat is working with the Ontario Association of Deans of Education (OADE) and the Council on University Planning and Analysis (CUPA) to examine the implications and implementation challenges of this proposed change, and to develop recommendations. A working group has been established with staff of MTCU and the Ministry of Education.

Background: The provincial government has confirmed that it will move ahead with a plan to restructure Bachelor of Education programs from one to two years while reducing the number of entering students by fifty per cent. COU is working with the Ontario Association of Deans of Education (OADE) and staff of MTCU to examine the implications and implementation challenges of this proposed change.

Motivated by the current oversupply of teachers, MTCU announced a reduction in funding for teacher education spaces by approximately $7.5 million. MTCU has announced that funding adjustments will take place over two years with an initial $5 million reduction in 2011-12 and the remaining $2.5 million in 2012-13. On March 2, 2011, MTCU announced a decision regarding specific allocation of education spaces to individual institutions. The choice of reducing enrolments in specific teacher education programs within the university has been left to individual institutions provided a reduction in total teacher education (concurrent and/or consecutive) is achieved.

A working group has met with MTCU to review options for reporting of enrolments in concurrent teacher education programs and MTCU has confirmed its preferred reporting method.

Division: Policy and Analysis **Updated:** April 2012

Applications for Fall 2012

The Ontario Universities' Application Centre (OUAC) releases monthly statistics between January 2012 and September 2012 on applications to first year undergraduate programs.

Update: OUAC released the following application statistics to the public as of April 11, 2012:

Secondary School Applicants:	
Number of first choice applicants	91,491
% change since April 2011	1.8%
Number of applications	401,085
Number of applications	2.4%

Non-Secondary School Applicants:	
Number of first choice applicants	44,013
% change since April 2011	5.6%

This is the third report for 2012.

Background: The deadline for students currently enrolled in an Ontario secondary school, referred to as Secondary School applicants, was January 11, 2012. Historically, 98% of total secondary school applicants submit their applications by this date.

The second group of applicants, referred to as Non-Secondary School applicants, includes all other applicants (mature students, those taking a gap year(s), and those transferring from another institution or country). The January 11 deadline does not apply to these students; most choose to apply later in the cycle (in particular, those transferring from college or another university).

Since 2000, the number of applications has increased by 52.7% and continues a rising trend that has not faltered, even after the double cohort, when there were Ontario high school graduates from both Grades 12 and 13.

More details and regular updates can be found under the "Statistics" tab at www.ouac.on.ca.

Division: OUAC **Updated:** April 2012

Credit Transfer: Student Mobility and Pathways

The provincial government seeks improvement of student mobility and credit transfer pathways in the postsecondary sector.

Update: All publicly assisted Ontario universities have now agreed to be members of the Ontario Council on Articulation and Transfer (ONCAT). There is a separate update on ONCAT below.

Meetings of COU's Credit Transfer Technical Working Group (with members drawn from the Council on University Planning and Analysis, registrars, and Ministry staff) are ongoing. Discussions are focused on data and accountability for credit transfer funding.

COU's Credit Transfer Resource Group continues to discuss ways to facilitate university-to-university credit transfer. A survey of registrars regarding university-to-university credit transfer processes and policies will shortly be finalized for distribution.

Background: Representatives of the universities (COU Credit Transfer Technical Working Group) are meeting with MTCU to develop recommendations concerning performance measures to support future allocations of the institutional portion of the credit transfer allocation and data indicators to support accountability.

The COU Credit Transfer Technical Working Group provided recommendations to MTCU concerning the 2011-12 allocation of the institutional portion of the credit transfer allocation.

In February 2011, MTCU released a credit transfer policy statement and further information about funding to support credit transfer initiatives. The government also announced that it will establish a new coordinating body, the Ontario Council on Articulation and Transfer (ONCAT), discussed below.

MTCU is providing $73.7M over five years for various aspects of the credit transfer initiative:

- $23.5M for an Innovation Fund (for projects to develop new pathways, much like the recent calls for proposals by the CUCC);
- $10.6M for a new website and the ongoing operations of the new coordinating body (ONCAT); and
- $39.6M for annual allocations to institutions to support credit transfer.

As part of the development of COU recommendations for implementation of the Ontario Online Institute, a survey was distributed to registrars at Ontario universities to explore options for supporting more streamlined credit transfer for fully online courses, including a centralized database of online course equivalencies. Survey responses are now being analyzed.

Division: Policy and Analysis **Updated:** April 2012

Ontario Council on Articulation and Transfer (ONCAT)

Universities are participating in a new coordinating body for credit transfer.

Update: The Ontario Council on Articulation and Transfer (ONCAT) has now been incorporated with an interim Board of Directors (comprising Max Blouw; Don Lovisa, President of Durham College; and Maureen Callahan, Interim Executive Director of ONCAT). To establish the first elected board, COU's Committee on Nominations has endorsed the appointment of Dominic Giroux (Laurentian) as the university sector co-chair of the board, Peter Ricketts (Carleton) and Rhonda Lenton (York). The names of college nominees are not yet known. A slate of student and external members will be brought forward.

The transition from the College University Consortium Council (CUCC) to ONCAT is now underway. The interim board has signed a new Transfer Payment Agreement. The budget for operating expenses is $120,000 in 2011-12 and almost $1 million in 2012-13. The allocation for project funds is $5.4 million in 2011-12 and $7.8 million in 2012-13.

Project funding will be available through the Credit Transfer Innovation Fund to support a variety of projects that will expand student pathways, create more seamless educational experiences and increase collaboration throughout Ontario's postsecondary education system.

Background: ONCAT's funding is intended to advance implementation of a province-wide credit transfer system by:

- Expanding and improving student transfer pathways that respond to student demand (through continuation of funding for pathways projects as under the CUCC);
- Expanding and improving a web portal for information for students about credit transfer (ONTransfer [http://www.ocutg.on.ca]);
- Improving transparency and access to information about transfer pathways and credit transfer;
- Supporting student success for transfer students (for example, improving graduation rates of transfer students, increasing student support services); and
- Providing professional development and best practices forums.

Division: Policy and Analysis **Updated:** April 2012

Teaching and Learning

Ontario universities are collaborating to share ideas and information on teaching and learning innovations to improve student engagement and learning outcomes.

Update: During the winter, many universities have taken part in the "Back to Class" initiative. In some cases, universities employed media relations strategies to promote stories about excellence in teaching at their universities through traditional and social media. In other cases, they invited politicians from all levels of government to participate in classrooms and labs, tours of teaching and learning centres, and demonstrations of effective teaching approaches. This initiative helped to celebrate success in this area and to build awareness from both institutional and public policy perspectives about innovations in the teaching and learning experience.

A Symposium on Learning Outcomes (co-sponsored by COU, HEQCO, and the Quality Council) was held on April 12 and 13, 2012 in Toronto. The three hundred attendees included senior administrators, faculty members, and educational developers from Ontario universities and colleges as well as provincial government staff from across Canada, and an international roster of guest speakers.

COU has prepared a new report, *Beyond the Sage on the Stage: Innovative and Effective Teaching and Learning at Ontario Universities* as the next contribution to encourage a more accurate and positive perception of teaching on Ontario campuses. A "Toast to Teaching Excellence" reception is being held on April 16, 2012 at Queen's Park to launch the report. The Minister, MPPs, government officials and staff from MTCU and other ministries, as well as stakeholders from our sector, were invited to attend this celebration of how universities are finding new ways to engage students.

COU released a report titled *Ensuring the Value of University Degrees in Ontario: A Guide to Learning Outcomes, Degree Level Expectations and the Quality Assurance Process in Ontario* in November 2011. The report explains how Ontario universities ensure the value and quality of their degrees. The report was circulated to government and stakeholders, and received positive media attention.

A survey intended to gather a more thorough understanding of how Ontario universities use and assess learning outcomes is in the final stages of development and will soon be sent to deans and program directors.

Background: COU is developing strategies to help universities take initiative to meet their teaching and learning objectives. A Teaching and Learning Task Force has been established under the aegis of the Ontario Council of Academic Vice-Presidents (OCAV). The Task Force will address a range of teaching and learning issues, including recommending effective practices to improve instruction, student engagement, and learning outcomes. A communications strategy is being developed to showcase exemplary teaching and learning practices at Ontario universities. COU has established an Online Learning Working Group to shape MTCU's implementation decisions concerning the proposed "online institute" (see below).

A survey was distributed to OCAV to gather information on how universities are assessing learning outcomes.

The Teaching and Learning Task Force has completed preliminary analysis and collation of the responses to the survey of innovative and exemplary teaching and learning practices being used, or considered for use, at Ontario universities. Discussions with the Council of Ontario Educational Developers are also underway.

A survey was distributed to institutions to gather information on the range of three-year bachelor degrees now offered, and/or other degree program structures that reduce time to degree completion. The surveys have been collated and analyzed.

Division: Policy and Analysis **Updated:** April 2012

Online Institute

The provincial government has announced that an online institute for the postsecondary sector will be established.

Update: The provincial government has not confirmed its directions or funding for the online institute. COU continues to seek clarification of the government's objectives and expectations.

Background: In February 2011, Minister Milloy announced the appointment of Mr. Maxim Jean-Louis, Chief Executive Officer of Contact North, as a special advisor to make recommendations on how best to facilitate the establishment and roll-out of an online institute. Simultaneous to the announcement, MTCU also released a document entitled "Objectives and Guiding Principles" which enunciated a framework for developing the Online Institute.

COU established an Online Working Group to develop recommendations to submit to Mr. Jean-Louis for consideration in the development of his recommendations. The COU recommendations were reviewed by Executive Heads and the Ontario Council of Academic Vice Presidents, and were submitted to Mr. Jean-Louis and MTCU the week of April 25, 2011. Mr. Jean-Louis submitted his report to the Minister on April 29, 2011.

A copy of the most recent COU submission can be found at http://www.cou.on.ca/Issues-Resources/Student-Resources/Publications/Reports/PDFs/Online-Institute-discussion-paper-May-5.aspx.

In July 2011, MTCU advised COU that it had signed a transfer payment agreement with Contact North to establish and operate the Ontario Online Institute (OOI). The decision has not been announced publicly. The COU Secretariat has met with Contact North to discuss a governance structure for the OOI that could ensure accountability to the university community. Discussions will continue.

Division: Policy and Analysis **Updated:** April 2012

International

In 2010, the Ontario government articulated a goal to increase international student recruitment by 50% over five years.

Background: COU's Challenge Advisory Committee is working with MaRS to provide further definition to the competition subject, fine-tune logistics, and develop a sponsorship package to secure funding for the challenge. The challenge is designed to showcase Ontario universities as a destination of choice for international students as well as to engage students and faculty on an interdisciplinary basis in an area of research that is aligned with provincial priorities.

This international challenge was a centerpiece of COU's proposal to government in July 2010 in a document called The Open Ontario Strategy for Internationalizing Postsecondary Education. In September 2011, Executive Committee approved the pilot challenge which will entail a week-long competition involving students and leading researchers from around the world and across Canada, and will engage faculty from universities around the province. Participants would be invited to compete to develop the most innovative and applicable approach to a major question facing Ontario. Urban water management/conservation has been identified as the theme.

Late last year, COU and our university members participated for the first time in a new MTCU Reference Group on International Education, which will meet three times a year. Institutions indicated recent changes in legislation surrounding citizenship and immigration have made it more difficult for graduate students to apply for landed/permanent residency and that there is a need for more definition of an international student to ensure consistency in the International Barometer survey. MTCU will follow up on both of these issues. Ministry staff also provided an update on the status of the Imagine Canada brand and the Federal Panel on International Education.

Division: Communications and Public Affairs

Updated: February/March 2012

Advocacy Initiatives

COU continues to take a two-track approach to advancing issues in the sector. One track involves broadly-based direct engagement with cabinet ministers, opposition leaders, as well as political and government staff on specific issues. The second involves a series of initiatives centred on the theme of "Preparing Students for Success." These initiatives are designed to reshape the understanding of university education through a variety of awareness-building initiatives.

Update: There have been several successful initiatives under the theme of Preparing Students for Success over the past three months.

On April 16, Presidents, Vice-Presidents Academic, faculty members, MPPs and government staff attended a reception for the launch of a new report called *Beyond the Sage on the Stage: Innovative and Effective Teaching and Learning at Ontario Universities.* This report provides a compendium of innovative teaching activities and includes an invitation to faculty and other teaching instructors to provide their own successful approaches for posting on the COU's website.

This was preceded by a symposium on learning outcomes assessment (see COU Reports and Symposia for more information), which demonstrated the sector's leadership in forging the dialogue on this issue, which is of interest to jurisdictions around the world. 300 people from government and the postsecondary education sector attended this event.

During the winter months, many universities took part in the "Back to Class" initiative. In some cases, universities employed media relations strategies to promote stories about excellence in teaching at their universities through traditional and social media. In other cases, they invited politicians from all levels of government to participate in classrooms and labs, tours of teaching and learning centres, and demonstrations of effective teaching approaches. This initiative helped to celebrate success in this area and to build awareness from both institutional and public policy perspectives about innovations in the teaching and learning experience.

Discussions are underway about some work to highlight the skills with which universities prepare their students as well as on a report to showcase the scope and effectiveness of university career services in helping students plan and prepare for their futures.

Division: Communications and Public Affairs

Updated: April 2012

COU Reports and Symposia

Ontario Research Chairs in Public Policy Symposium: Public policy in health, education, economy and the environment was the focus of a lively discussion at the 2012 Symposium on March 5 and 6. Over 100 people from government, universities and business attended the event, hosted by York University on behalf of COU.

The symposium highlighted the work of the eight Ontario Research Chairs, who are funded through an endowment from the Government of Ontario. It was also designed to strengthen the links between research, policy making and practice and to showcase the role university research can play in advancing the public interest.

Launch of Report on Teaching Effectiveness: Called *Beyond the Sage on the Stage*, this report provides a snapshot of innovative teaching practices at Ontario universities. It was prepared under the direction of COU's Teaching and Learning Task Force to build awareness inside and outside the sector of evolution in teaching practices in recent years. In addition to the Queen's Park launch of the report, it will be distributed to all 15,000 faculty members and thousands of part-time and sessional instructors around the province. They will be invited to share their own special stories of innovation in teaching over the coming year and COU will be promoting these on the COU website to create a year-long dialogue on this subject.

Learning Outcomes Assessment Symposium: This event on April 12 and 13 was designed to bring clarity to the process of defining and measuring learning outcomes of university courses and programs for students**.** Jointly sponsored by COU, the Ontario Universities Council on Quality Assurance, the Higher Education Quality Council of Ontario and the Ontario College Quality Assurance Service, the two-day event attracted 300 people from government and the postsecondary education sector to debate the most appropriate approaches.

COU Annual Report: COU is currently preparing its annual report, centred on the theme of Innovation and Productivity. The report will outline the work of the Secretariat to advance member interests and higher education in general.

Going Greener Report: COU's Corporate Services division is reviewing the annual survey with senior business officers in the sector to determine whether any revisions are needed before it is sent out to universities for their responses. Results are compiled in a report published each fall to demonstrate the achievements of the sector in creating more environmentally sustainable campus operations.

Divisions: Communications with Secretary to Council, Policy and Analysis, Quality Assurance, and Corporate Services

Updated: April 2012

Quality Assurance

Transition to a new Quality Assurance Framework

Update: The Ontario Universities Council on Quality Assurance (Quality Council) was a co-sponsor along with COU, the Higher Education Quality Council of Ontario (HEQCO) and the Ontario College Quality Assurance Service, of the Symposium on Learning Outcomes Assessment: A Practical Guide, held April 12 and 13, 2012 in Toronto. The Symposium was attended by more than 300 participants from universities, colleges and government who heard from Canadian and international experts on learning outcomes assessment. The participants shared experience and gained valuable information that should assist universities in meeting the requirements of the Quality Assurance Framework to identify and measure learning outcomes for all new and existing university programs.

New resources on quality assurance from several Ontario universities were added recently to the Guide to the Quality Assurance Framework (found at the website below).

The Quality Council is in the process of assembling its first Auditor Panel as the Quality Assurance Audit process will begin in 2012-13. Nominations have been received by the Quality Council and the final selection of auditors will be made by OCAV at its May meeting.

Background: The Quality Council and its Appraisal Committee are meeting monthly in 2011-12 to review new program proposals. The Quality Council website includes decisions on new program approvals along with a brief description of the programs approved. The updated Guide to the Quality Assurance Framework (QAF) can be found at http://www.cou.on.ca/quality.aspx.

The Quality Assurance Framework was approved by the Executive Heads of Ontario Universities in April 2010. The Ontario Universities Council on Quality Assurance was established shortly thereafter with its first meeting in July 2010. The quality assurance processes that fell under the mandate of the Ontario Council for Graduate Studies and the Undergraduate Program Review Audit Committee were completed by the end of June 2011. The transition of quality assurance responsibilities to the Ontario Universities Council on Quality Assurance (Quality Council) is now complete.

Division: Quality Assurance **Updated:** April 2012

University Pension Plans

Unmanageable solvency and going concern special payments

Update: The pension issue continues to be discussed and monitored by the Council of Senior Administrative Officers (CSAO). The Working Group on University Pension Plans met in December and February to consider whether its efforts should focus on advocating further relief from government, investigating the joint sponsorship model for the sector or other next steps. Allan Shapira from Aon Hewitt continues to be engaged with the Working Group. At its meeting on February 21, 2012, CSAO decided that the Working Group should convene once again after the Ontario Budget is released and report back to CSAO at the meeting in May with a few detailed options for going forward. The Working Group will meet at the end of April to address the 2012 Ontario Budget, consider options and determine next steps.

The 2012 budget announced that the government expects single employer plans to move to 50/50 cost-sharing of contributions to pensions plans between employers and plan members within 5 years. It will "adjust temporary solvency relief measures to encourage the plans to introduce 50/50 cost sharing within 5 years," and will support efforts to convert single employer plans to jointly sponsored plans. It is expected that public-sector single employer plans will be consulted about incentives that the government could introduce to help achieve this objective. There is no intent to undo the current rules for temporary solvency relief, but there is openness to consider additional incentives to achieve 50/50 cost-sharing.

The budget announced that the government intends to introduce framework legislation in 2012 that would pool investment management functions of smaller public-sector pension plans. Under this framework, management of assets could be transferred to a new entity or to an existing large public-sector fund. The government will appoint an advisor to develop the framework, working with affected stakeholders. The university sector will be included in the consultation and the framework legislation.

Background: In August 2010, the government announced a 2-Stage Solvency Relief Package, and in May 2010 the solvency funding relief regulation was filed.

Stage one of the relief package provides essentially a four-year moratorium on solvency funding (3 year exemption plus one year deferral). In stage two, universities will be permitted to amortize their solvency deficits over a period of up to 10 years (rather than over five years under the current rules).

To access the first stage, universities are required to submit a sustainability plan to the Ministry of Finance (MOF) outlining how the university intends to make its pension plans more sustainable (e.g. through contribution rate increases for plan members, benefit reductions, or conversion to joint sponsorship for future service). At the end of stage one, plans will be assessed by MOF based on criteria or metrics for sustainability, and those plans that have demonstrated "substantial progress" in meeting their metrics will be eligible to enter stage two of the relief plan.

Division: Corporate Services **Updated:** April 2012

Recommendation of the Standing Committee on Public Accounts related to the 2007 Annual Report of the Auditor General of Ontario Universities – *Management of Facilities*

The Space Management Committee has provided a response to the Standing Committee's recommendation that COU provide data to MTCU on the utilization rates for each university for each category of academic space.

Background: In response to the 2007 Auditor General of Ontario report, the Standing Committee on Public Accounts made several recommendations in 2009 related to improving space management at Ontario universities. Specifically, recommendation 7 stated "the Ministry of Training, Colleges and Universities shall provide the Standing Committee on Public Accounts with a report, for each university, on the utilization rates for each category of academic space, such as classrooms, lecture theatres, and laboratories. The report should cover utilization rates for each of the fall, winter, and summer semesters, break out, daytime and evening utilization, and describe the basis for the calculations. Either the Ministry or the Council of Ontario Universities should post these rates on its web site."

Following the recommendations, COU established a Space Management Committee in August 2009 to provide advice to Executive Heads regarding best practices in effective space management, and to help respond to the recommendation of the Standing Committee.

The Committee surveyed institutions to gather information on space management practices, as well as space utilization data for classrooms and labs (the utilization data for classrooms was collected based on both a prescribed definition and according to individual definitions of space utilization at each university) and drafted a report based on this information. The *Classroom Utilization and Space Management in Ontario Universities* report was released to government at the end of December 2011.

Division: Corporate Services **Updated:** January 2012

Council of Finance Officers – Universities of Ontario (COFO-UO)

COFO-UO Survey Automations

Background: COFO-UO is moving towards the automation of its surveys. The Audit Fees Charged to Universities Survey, Reimbursement for Travel Expenses Survey and Ancillary Enterprises Survey have been completed. Automation of the Financial Health Survey began in January 2012.

Division: Corporate Services **Updated:** January 2012

Domestic Violence Committee

The Chief Coroner's office recommended that the Ontario Association of College and University Security Administrators (OACUSA), a COU affiliate reporting to CSAO, develop a plan to educate students on the nature and risks of violence in dating relationships.

Update: The Committee responded to the Office of the Chief Coroner in February using the Coroner's Office coding system to report that the Committee had taken their recommendation "under consideration" and continues to work to develop the appropriate tools to implement the recommendation at universities and colleges. The Committee continues to meet, consult with experts and develop a response to the recommendation.

Background: Earlier this year, the Chief Coroner's office recommended that OACUSA "should develop a consistent and comprehensive plan, in collaboration with health and counseling services available on campus, to educate students on the nature and risks of violence in dating relationships through public education campaigns and outreach programs to students dealing with intimate violence." A response to this recommendation was requested by February 2012, for submission to Kathy Kerr, Executive Lead – Committee Management, Office of the Chief Coroner. Terry Sullivan approached COU on behalf of OACUSA to suggest that a multi-stakeholder group with representatives from COU and Colleges Ontario would be better suited to respond to the recommendation. CSAO agreed that a multi-stakeholder group should be formed to address the recommendation.

COU developed Terms of Reference for a committee to address the recommendation, and invited groups from a number of relevant areas from both colleges and universities to participate on the committee to provide a balanced and well-informed view on the issue. The Committee will prepare a response to Recommendation 4 of the Domestic Violence Death Review Committee report.

Division: Corporate Services **Updated:** April 2012

Ontario Council on University Research (OCUR): Ontario Research Fund (ORF)

Update: Budget 2012 reconfirmed the previously announced cancellation of three rounds of Ontario Research Fund – Research Excellence (ORF-RE) and reconfirmed its commitment to continue matching federal awards in research infrastructure, Ontario Research Fund – Research Infrastructure (ORF-RI).

Background: In 2005, the government invested $550 million over five years in Ontario research through the Ontario Research Fund (ORF). This investment is a key part of the government's commitment to providing researchers with the tools they need to lead world-class research in Ontario. A primary focus of ORF is helping researchers move new ideas from Ontario's labs to the global marketplace.

The 2009 Ontario Budget announced a new capital investment of $300 million over six years in ORF-Research Infrastructure (ORF-RI), which is the fund that provides the provincial match to CFI funding. It also announced a new Ontario First process to guide funding decisions for the province.

In November 28, 2011, the new Ministry of Economic Development and Innovation (MEDI) cancelled Rounds 6 and 7, as well as the Social Sciences and Humanities Rounds of the ORF-RE. It further announced, that the funding that was allocated for these Rounds would, in part, be reallocated to support the creation of a new Southwestern Ontario Economic Development Fund and to make permanent the Eastern Ontario Economic Development Fund. OCUR wrote a letter to the Minister expressing their concerns with this decision.

In January 2012, the cancellation of Rounds 6 and 7, as well as the special Social Sciences, Arts and Humanities Round of the Ontario Research Fund – Research Excellence (ORF-RE) garnered considerable media attention, particularly in the regional press. Following this media attention, Minister Duguid agreed to meet with COU. On January 26, Presidents Sheldon Levy and Mamdouh Shoukri met with Minister Duguid, on behalf of COU. At this meeting, Minister Duguid confirmed his support for research excellence in Ontario, and Presidents Levy and Shoukri communicated the importance of maintaining Ontario's investment in research infrastructure, as well as publicly signaling to the research community Ontario's ongoing commitment to research. Minister Duguid also signaled that he is responsible for pulling together a job strategy for the province and expressed a particular interest in programs promoting entrepreneurship on our campuses.

On February 8, George Dixon, Chair of OCUR met with Cory Mulvihill, Senior Policy Advisor – Research to Minister Duguid. Again, the importance of maintaining Ontario's investment in research infrastructure was communicated and Cory Mulvihill reiterated the Minister's interest in entrepreneurship.

Division: Strategic Initiatives **Updated:** April 2012

OCUR: Harmonization of Research Ethics

Background: The Ministry of Research and Innovation (MRI), now the Ministry of Economic Development and Innovation (MEDI), approved the Clinical Trials Stakeholder Association (CTSA) workplan and has provided funding to the CTSA to begin the creation of Clinical Trials Ontario (CTO).

In an effort to reduce barriers to research, the Ontario Ministry of Health and Long-Term Care (MoHLTC) and university researchers signaled to OCUR an interest in better harmonization of ethics processes among universities.

An OCUR Working Group was established in 2009 with a mandate to identify opportunities to streamline processes, reduce workload and duplication associated with reviews, and enhance inter-university cooperation. As a first step in the Working Group's workplan, a draft report on how the shared review of multi-centre research projects could be undertaken in order to make multi-review practices more efficient and transparent in Ontario was completed.

In April 2010, MRI announced its Life Sciences Commercialization Strategy. The Strategy identified the research ethics review and contracting processes as potential barriers to industry conducting multi-centre clinical trials in Ontario. Hence, the Strategy identified the need for an investment in a province-wide coordinating infrastructure to streamline administrative processes and ethics reviews across multiple clinical sites. A stakeholder's forum, representing teaching and research hospitals, MEDEC, Canada's Research Based Pharmaceutical Companies (Rx&D), Ontario Cancer Research Ethics Board (OCREB), Ontario Institute for Cancer Research (OICR) and OCUR was held. A report entitled, *Ontario's Clinical Trials Enterprise: Building Streamlined Ethics Review Process*, was produced and submitted to the Minister in late January 2011. In late spring, MRI proposed that Biodiscovery Toronto (BT) be the "executing agency" through which the province would flow funds to support the development of the proposed coordinating infrastructure.

In order to better represent the stakeholders, in July 2011, the BT board was dissolved and reconstituted with members from the Council of Academic Hospitals of Ontario (CAHO), OCUR, Council of Ontario Faculties of Medicine (COFM), MEDEC, and Rx&D. The name of the organization was also changed to the Clinical Trials Stakeholder Association (CTSA). The CTSA submitted a workplan to MRI. The key elements of the workplan are:

- creation of Clinical Trials Ontario (CTO) as a not-for-profit corporation;
- establishment of a CTO governance structure;
- recruitment and hiring of an interim Executive Director who will be responsible for the development and submission of a multi-year business plan by early February 2012;
- negotiation of a multi-year funding agreement with MRI that will provide base funding for CTO effective April 1, 2012; and

- gathering information with respect to related harmonization initiatives underway, both provincially and federally, and preparation of a report for the CTO Board.

Division: Strategic Initiatives **Updated:** January 2012

OCUR: Why Research Matters

Update: On May 14, 2012 at the Ontario Centre's of Excellence (OCE) Discovery Conference, OCUR will launch Why Research Matters, an integrated campaign incorporating a website, public events, media relations, advertising and social media.

The launch event is the first phase of the campaign; at this time the campaign website will be launched; a high-profile Why Research Matters Advisory Panel, comprising community, business, academic and government leaders, will be introduced; the creative visuals will be revealed; and the campaign itself will be initiated.

The second phase of the campaign, which will begin in late August, will announce an event series and other activities, launch advertising campaign, execute a major media relations push, and seek to build relationship with target audiences and media.

The third phase of the campaign will seek to connect target audiences to university research through events, website, social media, as well as earned and paid media announced in Phases one and two.

Background: In 2010, OCUR identified the need for a new approach to ensure effective delivery of its research message to multiple audiences.

Navigator Ltd., a communication firm, was hired to prepare a report that assessed perceptions of university research and impact. Based on its findings, the report also provided recommendations on potential messaging and strategies that could be used to build awareness and to promote the contribution of Ontario university research.

Over the last year, OCUR has worked with Navigator Ltd., Executive Heads, the Ontario Universities' Public Affairs Council (OUPAC), and research communicators to develop and fine-tune a strategic communications plan. Following message testing through a number of focus groups, Navigator Ltd. provided OCUR with a strategic communications plan, which was endorsed at their meeting in January 2012.

The focus groups confirmed the following core elements of the campaign strategy:

- A focus on the "human" side of research;
- A focus on five target audiences: Academic, Student, Industry, Government, and Civil Society;
- Messages that respond specifically to the needs and concerns of the target audiences as identified through the focus groups;
- A multi-modal communications strategy that includes the use of social media, print media, earned media; and
- A focus on mobilizing those who are already supportive of research in Ontario.

The campaign messages will focus on the following three core messages:

- We are: Stories about research that is already having an impact on broader society.
- We will: Stories about research that is on the brink of commercialization, will soon affect policy and practice, or is otherwise poised to make an impact.
- We can: Stories about research that is ambitious or aspirational with the potential for long-term benefit to humanity.

Division: Strategic Initiatives **Updated:** April 2012

OCUR: High Performance Computing (HPC)

Update: At its March meeting, OCUR reestablished the OCUR Working Group on HPC. The membership includes: George Dixon (VPR, Waterloo), Paul Young (VPR, Toronto), Steven Liss (VPR, Queen's), Dan Sinai (AVPR, Western), Abby Goodrum (VPR, Wilfrid Laurier) and Walter Tholen (AVPR, York).

Given the focus on HPC governance at the provincial and federal levels, the OCUR Working Group on HPC will be working closely with both levels of government to ensure that the needs of researchers and the sector are considered and that both the provincial and federal strategies are aligned.

Provincial: In March 2012, MEDI presented the findings of its External Working Group on HPC to OCUR. The External Working Group identified challenges related to funding, governance, and strategic planning. As a first step to addressing these challenges, MEDI will be leading the creation of an Interim High Performance and Research Computing (HPRC) umbrella organization, which will be overseen by an Interim Executive Director and an Interim Advisory Board. The Executive Director and the Board will be tasked with developing an HPRC strategy for Ontario as well as providing options for the creation of HPRC Ontario, a legal entity that would oversee HPRC in Ontario.

Federal: In March 2012, CFI released its decisions on the Major Science Initiatives (MSI) competition, to which Compute Canada had submitted an application. In its decision, CFI awarded $2 million to Compute Canada with the intention that it would be used to create a new entity to oversee HPC at the national level. The remaining $54 million, which Compute Canada applied for, will be awarded once the new entity has been established and approved by CFI.

Background: HPC is a "supercomputing" system that provides researchers with the processing, storage, networking and visualization power that they require to undertake complex projects and analysis. It is a critical component of Ontario's research infrastructure that is currently facing significant operational and capital funding pressures.

Provincial: OCUR worked closely with MEDI to secure $4 million in one-time operational funding for HPC in the 2011-12 funding year. As part of this commitment the government signaled the need to work together on developing a sustainable plan for HPC in Ontario. In order to operationalize this goal, MEDI established a Stakeholder Working Group on HPC, comprising representatives from MEDI, MTCU, VPs Research representing SHARCNET, HPCVL and SciNet, the Chair of OCUR's Provincial Relations Committee, and ORION. MEDI also established an external Working Group comprising industry and HPC experts to provide advice on how to ensure the ongoing viability and sustainability of HPC in Ontario. The findings of the External Working Group were presented to OCUR in March 2012.

Federal: OCUR has been in discussions with federal stakeholders to ensure that HPC and High Performance Networking (HPN) remain an important issue on the federal agenda. In October 2011, OCUR attended the CANARIE user's forum, and lent their support to CANARIE's mandate renewal.

In addition to working with CANARIE, OCUR is working with Compute Canada, AUCC, and CFI to raise the profile of HPC in Ottawa. In the Fall of 2011, Compute Canada, on behalf of the seven national HPC consortia, submitted a proposal to a new CFI Major Sciences Initiatives competition, which was announced in December 2010. The competition, totaling $185 million for operating and maintenance costs, was open to all CFI-funded, large scale research facilities.

Division: Strategic Initiatives **Updated:** April 2012

Accessibility: EnAbling Change Partnership – Foundational Toolkit (now called "Accessibility Toolkit")

Background: The EnAbling Change Foundational Toolkit project came to an end in November 2011. However, given the high demand and the ever-expanding scope of the project, resource development and website updates will continue. In addition, as part of the project, Accessibility for Ontarians with Disabilities Act (AODA) Coordinators from across the sector were brought together. A community of practice on accessibility was successfully established through this initiative and a decision was made to deem this group as an official sub-group on the Reference Group on Accessibility.

The AODA became law on June 13, 2005 with a mandate to make Ontario the most accessible province in Canada by the year 2025. This legislation mandated the development of accessibility standards in five areas: customer service, information and communications, built environment, employment and transportation, which have significant implications for Ontario universities. In particular, each university is required to develop a series of policies, practices and guidelines in support of these standards. Recognizing the potentially significant resources that are required at each of our institutions to develop the products and processes needed to ensure compliance, COU and the University of Toronto partnered with the Ministry of Community and Social Services (MCSS) to develop a common toolkit that could be used across the university sector. This common toolkit offers the opportunity to leverage sector-wide resources and expertise in order to reduce duplication of effort at each of our institutions.

In January 2010 a one and a half-year contract was signed between COU and MCSS to develop the toolkit of resources. A project coordinator was hired in June 2010 and the work plan was developed in fall 2010. In September 2010, all AODA Coordinators and Administrators came together for a project working session where participants shared resources, best practices and agreed to work collaboratively with other members, through Working Groups, on the various products that have been developed for the accessible toolkit through Working Groups.

In June 2011, the Accessibility Toolkit was launched through the COU network and can now be found online at: www.cou.on.ca/accessibility. The launch of the Toolkit coincided with the release of the final Integrated Accessibility Standards Regulation, which was enacted into law on July 1, 2011.

Division: Strategic Initiatives **Updated:** January 2012

Accessibility: EnAbling Change Partnership – Faculty Toolkit

Background: In partnership with the University of Guelph, the University of Toronto, and York University, COU applied for and was awarded a third EnAbling Change project to develop a new Faculty Toolkit of resources intended to assist faculty in creating accessible learning environments for students. The Faculty Toolkit will also aid in the instruction of students with invisible disabilities, such as mental health, through the development of an online training module to support the early identification, prevention and support of mental health related invisible disabilities. Recruitment for a Project Coordinator was held in October 2011 and this post was filled as of mid-November. The official “kick-off” meeting with project partners took place in early November 2011 where further logistical details of the project were established. The Project Coordinator is currently engaged in an Environmental Scan of existing resources. This new partnership will bring together Ontario universities to develop a toolkit of resources.

Faculty and university administration have signaled concern about translating AODA principles into the classroom and they have indicated that practical, flexible and adaptable resources would greatly assist them in complying with the legislation. The Faculty Toolkit, through the development and gathering of resources on accessible instruction and inclusive course design, is intended to assist faculty in creating accessible learning environments for students.

Division: Strategic Initiatives **Updated:** January 2012

Accessibility: Innovative Designs for Accessibility (IDeA) Student Competition

Update: In partnership with Western University, COU applied for and was awarded a fourth EnAbling Change Partnership through the Ministry of Community and Social Services (MCSS) for a new student competition to support the creation of accessible innovative designs. Work is well-underway and the competition has been launched throughout the university system. The deadline for students to submit their concepts to the competition was March 31, 2012. Submissions are now being reviewed by each institution, which will select up to ten submissions to be put forward for review by the selection panel. Preparations for the celebration event, which is scheduled for May 15, 2012 at the Discovery Conference, are underway. More information can be found at: www.cou.on.ca/IDeA .

Background: The Reference Group on Accessibility proposed the idea of a student competition on accessible innovative designs to encourage accessibility in the early PSE education of students in engineering and design. As a result, COU, in partnership with Western University, developed a proposal for consideration by the Ontario government. This competition is a pilot project aimed at encouraging Ontario's engineering and design students, as well as others, to develop innovative, cost-effective, and practical solutions to accessibility-related issues in the community. Working in teams, the students are encouraged to collaborate with industry, government and community partners (including members of the disability community) to identify an accessibility-related issue, to develop a plan to address the issue, and to implement a solution, with input and guidance from academic and industry experts. Winners in the categories of first-, second-, and third-place and five runner-ups will be selected by a panel of experts and invited to showcase their designs at the Ontario Centres of Excellence Discovery Conference 2012. An awards presentation will take place at the event.

Division: Strategic Initiatives **Updated:** April 2012

Accessibility: Integrated Accessibility Regulation

Background: On July 1, 2011, the Integrated Accessibility Standards Regulation (IASR) was enacted into law. Compliance dates of this Regulation are staggered and allow for a gradual implementation over several years. Implementation dates can be found on the Accessibility Toolkit website: www.cou.on.ca/accessibility.

In September 2010, the Ministry of Community and Social Services (MCSS) released the first draft of the Integrated Accessibility Regulation (IAR) for public review and comment. This new proposed Regulation combined the Accessible Information and Communications Standard, Accessible Employment Standard and the Accessible Transportation Standard into a single Regulation. As has been the practice with other Standards, COU requested comment from our sector and developed a document that consolidated this feedback for government.

In February 2011, MCSS released its final draft of the IAR for a forty five day public review period. Similar to the previous draft of this standard, COU requested comments from our member institutions and developed a document that consolidated our sectors feedback for government. Additionally, COU will continue to work with MCSS's Accessibility Directorate of Ontario (ADO) to ensure that university concerns related to the proposed Regulation are addressed.

Division: Strategic Initiatives **Updated:** January 2012

Mental Health: Ministry Funding for Improving Mental Health Supports

Update: In February 2012, the sector learned that the recommendations made for direct support were rejected by the Minister, who would like to see the funds used for a more innovative purpose. Since then, MTCU has signaled that they will participate in the Ontario government's Mental Health and Addictions Strategy through the development of a postsecondary hotline service that will link to existing hotline services that serve the general population.

MTCU has committed to providing further detail on this proposal and to working with sector stakeholders to ensure an effective approach in setting up the hotline services.

Background: On June 22, 2011, the Ontario government released its *Comprehensive Mental Health and Addictions Strategy*. In its strategy news release, *Improving Mental Health Supports for Ontario Kids and Families,* the Ministries of Health and Long-Term Care, Education, and Children and Youth Services, committed to "helping more than 16,000 youth transitioning from secondary to postsecondary school by adding more mental health workers on campuses in colleges and universities."

As part of this commitment, COU and Colleges Ontario were asked to provide input into the type of funding that would be most useful. COU asked that institutions be allowed to use the funding for direct support, case management, or training. It also asked that the funding be made flexible enough for each institution to be able to allocate it in the way that makes most sense for its students.

Division: Strategic Initiatives **Updated:** April 2012

Mental Health: Joint Sector Mental Health Conference

Update: COU has agreed to co-host a one-day conference with Colleges Ontario, the Ontario Undergraduate Student Alliance (OUSA) and the College Student Alliance (CSA). The Conference, entitled Focus on Mental Health: Creating Healthy Campuses, will be held at the Royal York Hotel in Toronto on Thursday, May 17, 2012.

The conference will explore new ideas for creating healthy campuses and spaces to support students with mental-health challenges. Its keynote speakers will feature Valerie and Catherine Pringle, the Hon. Michael Wilson, Dr. David Goldblum, and Jonny Morris.

The conference will also feature the following six concurrent breakout sessions:

- Student experience panel;
- Building a healthy workplace;
- Health and wellness: proactive approaches;
- Eliminating stigma and removing barriers to access;
- Creating communities of practice; and
- Leading change: one institution's experience.

The conference will close with an arm-chair discussion with senior sector leaders on "Where do we go from here." Dr. Daniel Woolf, Principal and Vice-Chancellor, Queen's University will represent the university sector on this panel.

It is anticipated that the conference will draw 250 attendees from across the post-secondary sector, as well as government officials. The conference will be of interest to front-line service providers, human resource officers, and senior university officials. More information and registration information can be found at www.focusonmentalhealth.ca.

Division: Strategic Initiatives **Updated:** April 2012

Aboriginal Self-Identification Project

Update: The project has three key phases of work: exploratory, community engagement, and development of the final report. The following provides an update on COU's activity in each area.

- ***Exploratory:*** An environmental scan of current self-identification practices at COU member institutions has been undertaken. Over the coming months, this scan will be refined and include a review of practices outside the Ontario university system including colleges, the K-12 sector, other provinces, and Aboriginal learning institutes.
- ***Community Engagement:*** COU is currently developing engagement strategies that will include outreach to members of both the university and Aboriginal communities. These strategies will be finalized in May and implemented in the summer and fall of 2012.
- ***Development of Final Report:*** A high level outline of the final report has been drafted and content will be developed as each phase of the project is completed.

Background: In February 2011, as a part of its commitment to forge a stronger, more positive relationship with Ontario's Aboriginal learners, MTCU released the *Aboriginal Postsecondary Education and Training (PSET) Policy Framework* for Aboriginal learners' that builds on the Aboriginal Education Strategy for the K-12 system, which was released in 2007.

In order to monitor the effectiveness of the strategic directions of this policy framework, the Ministry of Education signaled its intent to develop a targeted Postsecondary Education Performance Measures Strategy. In particular, the Ministry of Education has indicated that student self-identification policies will be developed, analyzed and evaluated in partnership with Aboriginal communities and organizations.

In the spring of 2011, MTCU provided COU with funding to undertake an Aboriginal self-identification project that will result in the following:

1. a proposed common self-identification mechanism;
2. a report concerning universities' support for the approach; and
3. the development of communications tools to be used by university administrators in building broader Aboriginal student awareness of, comfort with, and participation in self-identification exercises.

To oversee the work related to this initiative, COU established a Working Group on Aboriginal Self- Identification. This Working Group is composed of members of the Council on University Planning and Analysis (CUPA) and of the COU Reference Group on Aboriginal Education.

Division: Strategic Initiatives **Updated:** April 2012

Indigenous Masters of Public Administration

The Aboriginal Education Office at the Ministry of Education and MTCU has engaged COU to provide advice for the development of a Request for Proposals (RFP) to be sent to universities for the creation of an Indigenous Masters of Public Administration (IMPA).

Background: In January 2012, COU provided advice on the development of an RFP to the Aboriginal Education Office within MTCU. The Ministry has not yet indicated when the RFP will be launched, but it is anticipated that this will happen sometime in spring 2012.

In 2010, the Ontario Government released its *Aboriginal and Postsecondary Education and Training Policy Framework*. The idea of developing a targeted public administration program that responds to the need to train and foster a new generation of Aboriginal public administrators was raised during the Ministry's consultations related to the development of this Framework. It was further noted that this program would need to be anchored in both mainstream and Indigenous governance models, practices, and worldviews.

MTCU asked COU to develop advice on an RFP to create an Indigenous Masters of Public Administration in Ontario. COU engaged Dennis Mock, former President of Nipissing University, to work with it on this project.

Over the fall of 2011, COU contacted the Deans and Directors of Masters of Public Administration/Public Policy Schools and Programs at Ontario institutions to ensure that they were aware of this initiative and to discuss the development of the RFP. Simultaneous outreach also took place with key Aboriginal leaders and organizations to build a better understanding of the needs of the community.

Division: Strategic Initiatives **Updated:** February/March 2012

Primary Health Care Nurse Practitioner Consortium (PHCNP)

PHCNP Provincial Office Initiatives

Background: The PHCNP office is moving forward on the following initiatives: securing MOHLTC funding; reaching our enrollment target of 200 students; consortium-wide standardization of roles and quality assurance processes; and building on strategic partnerships.

Division: PHNCP **Updated:** January 2012

Workplace Safety and Insurance Board (WSIB) Pilot Project

Streamlining the MTCU internal WSIB process for health sciences programs

Background: COU and Colleges Ontario were approved in 2009 by MTCU to undertake a pilot project to streamline the MTCU internal WSIB process for training agencies, placement employers and students in health sciences programs on unpaid work placements that are part of course requirements.

The goal of this pilot project was to demonstrate that a streamlined internal WSIB process for the health sciences programs at several universities and colleges can be implemented without any disruption to the claims process in the event of a workplace injury/disease during an unpaid work placement.

Phase Three of the pilot began August 2011. Universities, colleges and clinical placements are very excited and engaged in the new process, and are amazed at the time and administrative cost savings associated with the pilot.

Division: Office of Health Sciences **Updated:** January 2012

COUPN Awards Ceremony

Update: The Council of Ontario University Programs in Nursing (COUPN) will be holding its fifth annual COUPN Awards Ceremony on Wednesday April 25, 2012 in downtown Toronto. The awards are presented each year to celebrate Ontario nursing faculty, students, and health program partners who demonstrate excellence in university nursing education and research. This year's recipients are:

- **Agency Recognition Award:** Lakeridge Health Corporation
- **Doctoral Dissertation Award:** Kim Widger, University of Toronto
- **Award for Excellence in Collaborative Education:** Kathy Cummings, University of Ontario Institute of Technology
- **Excellence in Professional Nursing Practice at the Undergraduate Student Level Award, Compressed Program:** Aleshia Denny, Western University
- **Excellence in Professional Nursing Practice at the Undergraduate Student Level Award, 4 Year BScN Program:** Sarah Haliburton, McMaster University
- **Excellence in Teaching Award:** Jacqueline Choiniere, York University
- **Preceptor Recognition Award:** Vivian Recollet, Native Men's Residence

Division: Office of Health Sciences **Updated:** April 2012

Accountability for Medical Education Funding

Aligning with the government's agenda of quality and sustainable healthcare and medical education, the Council of Ontario Faculties of Medicine (COFM) has developed a document *Towards a Comprehensive Accountability Framework for the Funding and Delivery of Medical Education in Ontario.*

Background: On January 17, 2012, COFM Deans met with the Deputies of Health and Long-Term Care and Training, Colleges and Universities, where they discussed the COFM Accountability Framework for Medical Education, COFM's interests in the upcoming OMA negotiations and the future of medical education.

COFM presented its position on Accountability for Medical Education, including the development of Deliverables for Academic Medicine to the Chairs and Administrators for the Academic Health Science Centres Alternate Funding Plans on November 18, 2011, and the Ontario Medical Association Negotiations Committee on November 25, 2011.

On November 9, 2011, COFM submitted their paper Towards a Comprehensive Accountability Framework for the Funding and Delivery of Medical Education in Ontario to the Deputy Minister of Health and Long-Term Care. The paper includes recommendations that will strengthen partnerships and improve accountability for scarce government resources dedicated to academic medicine. This document will also assist in informing the discussions regarding accountability for medical education funding in the context of the upcoming negotiations with the Ontario Medical Association (OMA).

Division: Office of Health Sciences **Updated:** January 2012

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: Humanities

2. Effective Session of Proposed Change(s): 2012/13

3. Proposed Change(s) and Rationale

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

The program introduces a 6-credit mandatory course for MA students "Core Practices and Methodologies in Humanities Research." The course is open to PhD students as an elective.

Currently, there are no mandatory courses for Humanities graduate students, with the exception of the "Humanities Graduate Seminar", a non-credit-bearing seminar hosted once a month by different faculty members teaching in the program. All incoming (MA and PhD 1) students are required to attend the Humanities Graduate Seminar. All other courses offered by the program are electives with no prerequisites.

While the "Humanities Graduate Seminar" was initially conceived to give incoming students an overview of methodologies used in Humanities research, the seminar has evolved to fulfill different functions: it gives incoming students a chance to get to know each other and faculty, share experiences, and familiarize themselves with the work of faculty in Humanities research. It has thus become a valuable part of the program, but it cannot provide students with a sufficiently structured methodological foundation for their own work. This lacuna is particularly felt by MA students, who, due to the short time frame of their degree (one year) and their often very diverse academic backgrounds, have expressed the desirability of a more structured course on interdisciplinary Humanities research and methodology on which they can base their own research, specifically for their MRP.

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.

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.*)

The proposed changes were discussed among members of the executive of the Graduate Program in Humanities starting in fall 2010, and presented to faculty and students in a general assembly in January 2011. The general assembly mandated a working group (consisting of three faculty members, including the GPD of the Graduate Program in Communication and Culture, one MA student and one PhD student) with working out the details of the changes, which were subsequently discussed and approved by the program's executive in January 2012.

Since changes are internal to the program, consultation with other programs was limited to informal discussions. Advice was sought, and received, from the GPD's of Communication and Culture, Film (MA) and Gender, Feminist & Women's Studies. These programs have similar mandatory courses for MA students.

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.*)

The proposed changes do not affect the number of courses students are required to take. There are no resource implications.

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

The program changes only affect incoming students. No accommodation for students currently enrolled in the program is necessary.

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)
1. Course Requirements i. Students are required to take the equivalent of three full graduate courses consistent with their plan of study; ii. at least two of the three courses must be in the Graduate Program in Humanities; and, iii. one of the three courses may be a directed reading course (Humanities **5000 3.0** or **6.0),** as approved by the program director.	**1. Course Requirements** i. Students are required to take the equivalent of three full graduate courses consistent with their plan of study; ii. one of the courses must be "Core Practices and Methodologies in Humanities Research"; iii. at least two of the three courses must be in the Graduate Program in Humanities; and, iv. one of the three courses may be a directed reading course (Humanities **5000 3.0** or **6.0),** as approved by the program director.

Graduate Program in Theatre Studies (MA/PhD)
Proposal to Revise the MA and PhD Program Requirements

February 12, 2012

Overview Statement

The Graduate Program in Theatre Studies (MA/PhD) is a relatively new program. It was approved by Senate in February 2006 and by OCGS in April 2006. Since the first cohort of students were admitted to the program, the program executive has been playing close attention to the how well the program structure and requirements have worked in supporting the program's academic objectives and learning outcomes. With this in mind, the program is proposing a series of substantive changes to the MA and PhD program requirements, as described below. These changes are proposed effective Fall 2012.

Changes to MA Program Requirements

1. Proposal: **Require all students to complete THST 6100 3.0, Theatre Research and Methodology and THST 6200 3.0, Issues in Canadian Theatre History.**

   Currently, students in the MA program are required to complete a specified number of coursework credits (24 credits for the coursework-only option, 18 credits for the MRP option, and 12 credits for the thesis option). With the proposed change, all students will be required to complete THST 6100 3.0 and THST 6200 3.0 as part of the specified number of required coursework credits. In other words, the total number of required coursework credits will not increase.

   THST 6100 and THST 6200 will work in tandem to provide students with a strong grounding in research methodologies and the history of Canadian theatre. In this respect, they are central to the program's goal of turning out strong, rigorous scholars with an understanding of the history of theatre in Canada.

   No new resources are required to support this change. THST 6100 and THST 6200 are already offered every year, and the proposed change does not involve an increase in the total number of required coursework credits.

   With respect to grandparenting provisions, students currently enrolled in the program who have not completed these courses will be strongly encouraged but not required to take them.

2. Proposal: **Eliminate praxis requirement.**

   Currently, students in the MA program are required to complete a 75-hour praxis requirement. Many of the students entering the program already have a strong background in theatre practice/praxis. The program executive committee found itself continually waiving this requirement for students and therefore decided that it should no longer be a requirement. The committee was also concerned that the requirement might prevent students from completing their coursework and other requirements in a timely manner. The graduate program nevertheless maintains a strong belief in the importance of praxis and offers a number of courses that encourage students to develop performance-based projects. Further, students in the program will still be required to complete an internship, which supports the program's commitment to ensuring that students have some applied, professionally-oriented work experience.

   With respect to grandparenting provisions, students currently in the program will be told they do not need to complete the praxis requirement unless they choose to do so.

3. Proposal: **Change published normal program length from 4 terms to 3 terms.**
   The MA program in Theatre Studies has been operating as a 3 term program, including with respect to graduate student funding, for a number of years. This 3 term normal program length is consistent with the program's time-to-completion rates.

Changes to PhD Program Requirements

1. Proposal: **Require all students to complete THST 6100 3.0, Theatre Research and Methodology and THST 6200 3.0, Issues in Canadian Theatre History.**
   Currently, students in the PhD program are required to complete 18 coursework credits. With the proposed change, all students will be required to complete THST 6100 3.0 and THST 6200 3.0 as part of the 18 coursework credits. In other words, the total number of required coursework credits will not increase.

   THST 6100 and THST 6200 will work in tandem to provide students with a strong grounding in research methodologies and the history of Canadian theatre. In this respect, they are central to the program's goal of turning out strong, rigorous scholars with an understanding of the history of theatre in Canada. Students who received credit for THST 6100 3.0 and/or THST 6200 3.0 (or equivalent) prior to admission to the PhD program will be required to replace these courses with the equivalent number of coursework credits chosen from graduate-level Theatre Studies courses or approved graduate-level cognate courses.

   No new resources are required to support this change. THST 6100 and THST 6200 are already offered every year, and the proposed change does not involve an increase in the total number of required coursework credits.

   With respect to grandparenting provisions, students currently enrolled in the program who have not completed these courses will be strongly encouraged but not required to take them.

2. Proposal: **Eliminate praxis requirement.**
   Currently, students in the PhD program are required to complete a 75-hour praxis requirement. Many of the students entering the program already have a strong background in theatre practice/praxis. The program executive committee found itself continually waiving this requirement for students and therefore decided that it should no longer be a requirement. The committee was also concerned that the requirement might prevent students from completing their coursework and other requirements in a timely manner. The graduate program nevertheless maintains a strong belief in the importance of praxis and offers a number of courses that encourage students to develop performance-based projects. Further, student in the program will still be required to complete an internship, which supports the program's commitment to ensuring that all of our students have some applied, professionally-oriented work experience.

   With respect to grandparenting provisions, students currently in the program will be told they do not need to complete the praxis requirement unless they choose to do so.

3. Proposal: **Clarification of comprehensive exam requirement.**
   The existing description of the comprehensive exam requirement is extremely short and vague, with an emphasis on theatre history and textual and theoretical analysis that is not relevant for all students entering the doctoral program nor consistent with the program's overall learning objectives. The program executive has developed a much more detailed description of the purpose, structure and timing of the comprehensive exam. Instead of requiring all students to specialize in history and textual analysis, the two comprehensive exam lists will allow students to develop, in consultation with the supervisor and supervisory committee, two complementary lists that will

advance their doctoral studies and prepare them to write the dissertation. The first list corresponds to a “teachable subject” while the second list focuses on a more specialized area of research.

With respect to grandparenting provisions, students currently in the program will be strongly encouraged but not required to develop their comprehensive reading lists following the new guidelines.

4. Proposal: **Replace Major Research Paper requirement with an enhanced Prospectus (Dissertation Proposal) requirement and new Sample Chapter requirement.**
Currently, students in the PhD program are required to complete a major research paper of no more than 50 pages on some aspect of study related to the proposed dissertation area in one of the program’s fields of specialization. When the program was first developed, the intent behind the major research paper requirement was to provide structural support toward completion of the dissertation. With experience, the program executive committee is convinced that the major research paper requirement does not provide the type of structural support initially intended, and may in fact unduly delay students from timely completion of the dissertation. That said, having structural requirements in place to support completion of the dissertation remains very important, and it is with this in mind that the program proposes replacing the major research requirement with an enhanced prospectus (dissertation proposal) requirement and new sample chapter requirement.

   According to Faculty regulations, students are required to submit a dissertation proposal. The program-specific prospectus (dissertation proposal) requirement is consistent with that Faculty regulation, but formalizes it at the program-level and provides more explicit guidelines with respect to content and process, including submission timelines. The program recognizes the vital need for students to clearly define their doctoral projects before entering the writing phase. With that in mind, the program believes that students would benefit from preparing a prospectus in conjunction with the comprehensive exam requirement. More specifically, one month prior to sitting for the comprehensive exam, students will be required to submit a prospectus of no more than 3,500 words. Consideration of the prospectus will also take place in conjunction with the comprehensive exam process. Approximately two weeks after completion of the comprehensive exam, students will meet with the supervisor and supervisory committee to discuss both the prospectus and the results of the comprehensive exam.

   The proposed sample draft requirement is also intended to provide support completion of the dissertation. More specifically, it is intended to help students move toward timely completion of the dissertation by requiring that they formally circulate a draft of one dissertation chapter to the supervisor and supervisory committee at an early stage in the writing process, normally within three months of, and no later than six months following, final approval of the prospectus. Following submission of the sample chapter, students will meet with the supervisor and supervisory committee to receive feedback on progress of the dissertation, including any potential concerns. The proposed sample draft requirement is also consistent with Faculty regulations, but, like the prospectus requirement, formalizes it at the program-level and provides more explicit guidelines with respect to content and process, including submission timelines.

   With respect to grandparenting provisions, students currently enrolled in the program may opt to complete the major research paper requirement; will still be required to submit a dissertation proposal per Faculty regulations but will not be asked to submit it in conjunction with the comprehensive exam, and; will be strongly encouraged but not required to submit a sample chapter.

Current Calendar Copy	Proposed Calendar Copy *Substantive changes indicated by ~~strikethrough~~ (removal) and yellow highlights (addition). The proposed calendar copy also includes editorial revisions intended to provide students with greater clarity and bring the calendar copy in line with common formatting and stylistic practices.*
MASTER OF ARTS PROGRAM **ADMISSION REQUIREMENTS** An honours degree or its equivalent in Theatre (BA or BFA), English or Humanities, with a minimum B+ average is required. An interview may be required as part of the admissions process. **DEGREE REQUIREMENTS** Normally completed in three or four terms, the Master of Arts in Theatre Studies requires completion of the following: • attaining of a passing grade on the 100-play examination; • **24 credits** (four full-year graduate-level courses or equivalent); **or** **18 credits** (three full-year courses) and a major research paper of approximately 50 pages; **or** **12 credits** (two full-year courses) and a thesis of approximately 100 pages; • attendance at a non-credit monthly colloquium where research approaches are discussed, guests from across the program and the university are brought in to speak and where in-process presentations of each graduate student's research work is shared. • As part of our commitment toward ensuring that all "studies" students have some specific experience in theatre praxis , each MA candidate is	**MASTER OF ARTS PROGRAM** **ADMISSION REQUIREMENTS** An honours degree or its equivalent in Theatre (BA or BFA), English or Humanities, with a minimum B+ average is required. An interview may be required as part of the admissions process. **DEGREE REQUIREMENTS** Normally completed in three ~~or four~~ terms, the Master of Arts in Theatre Studies can be completed by Coursework, by Major Research Paper, or by Thesis, as follows. **MA Degree by Coursework** **Coursework** Students must successfully complete 24 credits in coursework, as follows: • THST 6100 3.0, Theatre Research and Methodology • THST 6200 3.0, Issues in Canadian Theatre History • 18 credits chosen from graduate-level Theatre Studies courses or approved graduate-level cognate courses. **Colloquium** Students are required to attend a bi-weekly non-credit colloquium during the first two terms of study. At the colloquium, research approaches are discussed, guest speakers from across the department and the university are brought in, and in-process presentations of each graduate student's research work is shared. Students are evaluated on a pass/fail basis.

required to complete one project of at least a month's duration (approximately 75 working hours) in an applied area. Specific professional work or coursework may be counted in fulfillment of this requirement with prior approval. This work does not necessarily have to be done as part of a course. • As part of our commitment toward ensuring that all of our students have some outside work experience, each MA candidate is required to set up a working internship of at least one month connected to some area of their dissertation research. This internship must be completed under the guidance of an approved mentor on or off the campus.	**100 Play Reading Exam** The 100 play reading exam is intended to ensure familiarity with a pre-established list of 100 major dramatic texts and the ability to engage critically with their core ideas. The exam is taken in the second term of study (normally the winter term of the first year of study). ~~**Theatre Praxis**~~ ~~As part of our commitment toward ensuring that all "studies" students have some specific experience in theatre praxis , each MA candidate is required to complete one project of at least a month's duration (approximately 75 working hours) in an applied area. Specific professional work or coursework may be counted in fulfillment of this requirement with prior approval. This work does not necessarily have to be done as part of a course.~~ **Internship** As part of our commitment toward ensuring that all of our students have some applied, professionally-oriented work experience, students are required to set up a working internship of at least 75 hours. Ideally, this work will be connected to one of the program's fields of specialization and/or research areas. The internship must be under the guidance of an approved mentor, on or off-campus. Should students be unable to set up an internship on their own, an advisor will work with students to find a suitable program. **MA Degree by Major Research Paper** **Coursework** Students must successfully complete 18 credits in coursework, as follows: • THST 6100 3.0, Theatre Research and Methodology • THST 6200 3.0, Issues in Canadian Theatre History • 12 credits chosen from graduate-level Theatre Studies courses or approved graduate-level cognate courses. **Colloquium** Students are required to attend a bi-weekly non-credit colloquium during the first two terms of study. At the colloquium, research approaches are discussed, guest speakers from across the department and the university are brought in, and in-process presentations of each graduate student's research work is shared. Students are evaluated on a pass/fail basis.

	100 Play Reading Exam The 100 play reading exam is intended to ensure familiarity with a pre-established list of 100 major dramatic texts and the ability to engage critically with their core ideas. The exam is taken in the second term of study (normally the winter term of the first year of study). ~~**Theatre Praxis**~~ ~~As part of our commitment toward ensuring that all "studies" students have some specific experience in theatre praxis , each MA candidate is required to complete one project of at least a month's duration (approximately 75 working hours) in an applied area. Specific professional work or coursework may be counted in fulfillment of this requirement with prior approval. This work does not necessarily have to be done as part of a course.~~ **Internship** As part of our commitment toward ensuring that all of our students have some applied, professionally-oriented work experience, students are required to set up a working internship of at least 75 hours. Ideally, this work will be connected to one of the program's fields of specialization and/or research areas. The internship must be under the guidance of an approved mentor, on or off-campus. Should students be unable to set up an internship on their own, an advisor will work with students to find a suitable program. **Major Research Paper** Students must undertake research under the direction of a Theatre Studies graduate program faculty member (normally in place by the end of the first term of study) on an approved topic and write a major research paper of approximately 40-50 pages. The paper will be graded on a pass/fail basis by the faculty member directing the research and by a second reader. **MA Degree by Thesis** **Coursework** Students must successfully complete 12 credits in coursework, as follows: • THST 6100 3.0, Theatre Research and Methodology • THST 6200 3.0, Issues in Canadian Theatre History • 6 credits chosen from graduate-level Theatre Studies courses or approved graduate-level cognate courses.

	Colloquium Students are required to attend a bi-weekly non-credit colloquium during the first two terms of study. At the colloquium, research approaches are discussed, guest speakers from across the department and the university are brought in, and in-process presentations of each graduate student's research work is shared. Students are evaluated on a pass/fail basis. **100 Play Reading Exam** The 100 play reading exam is intended to ensure familiarity with a pre-established list of 100 major dramatic texts and the ability to engage critically with their core ideas. The exam is taken in the second term of study (normally the winter term of the first year of study). ~~**Theatre Praxis**~~ ~~As part of our commitment toward ensuring that all "studies" students have some specific experience in theatre praxis , each MA candidate is required to complete one project of at least a month's duration (approximately 75 working hours) in an applied area. Specific professional work or coursework may be counted in fulfillment of this requirement with prior approval. This work does not necessarily have to be done as part of a course.~~ **Internship** As part of our commitment toward ensuring that all of our students have some applied, professionally-oriented work experience, students are required to set up a working internship of at least 75 hours. Ideally, this work will be connected to one of the program's fields of specialization and/or research areas. The internship must be under the guidance of an approved mentor, on or off-campus. Should students be unable to set up an internship on their own, an advisor will work with students to find a suitable program. **Thesis and Oral Examination** Students must undertake research under the direction of a supervisor (normally in place by the end of the first term of study) and supervisory committee (normally in place no later than the second term of study) on an approved topic and write a thesis of approximately 100 pages. The thesis must embody the results of original research must be successfully defended at an oral examination.

DOCTOR OF PHILOSOPHY PROGRAM

ADMISSION REQUIREMENTS

Candidates for the PhD must have an MA or MFA in Theatre, English, or another Humanities-related subject with a strong background in Dramatic Literature and a B+ average or higher. Candidates are expected to enter with a reasonable knowledge of the full range of theatre studies or may be required to demonstrate sufficient background or experience before admission. An interview may be required as part of the admissions process.

DEGREE REQUIREMENTS

Normally completed in a maximum of five years, the PhD in Theatre Studies requires completion of the following:

- **18 credits** (three full-year courses or equivalent) in dramatic literature, theory, theatre history or theatre-related (and approved) areas. These courses must be beyond the courses already taken for the MA;
- attendance at a non-credit monthly colloquium where research approaches are discussed, guests from across the program and the university are brought in to speak and where in-process presentations of each graduate student's research work is shared;
- attaining of a passing grade on the graduate 100-play examination;
- attaining of a passing grade on a comprehensive examination which tests knowledge of major periods of theatre history and the ability to do text and theoretical analysis. As well, it includes a section connected to a chosen area of specialisation. This examination is normally offered each January.
- As part of our commitment toward ensuring that all of "studies" students have some specific experience in theatre praxis , each PhD candidate is required to complete one project of at least a month's duration (approximately 75 working hours) in an applied area. Specific professional work or coursework may be counted in fulfillment of this

DOCTOR OF PHILOSOPHY PROGRAM

ADMISSION REQUIREMENTS

Candidates for the PhD must have an MA or MFA in Theatre, English, or another Humanities-related subject with a strong background in Dramatic Literature and a B+ average or higher. Candidates are expected to enter with a reasonable knowledge of the full range of theatre studies or may be required to demonstrate sufficient background or experience before admission. An interview may be required as part of the admissions process.

DEGREE REQUIREMENTS

Normally completed in a maximum of five years (15 terms), the PhD in Theatre Studies requires successful completion of the following requirements:

Coursework
Students must successfully complete 18 credits in coursework, normally within the first two years (six terms) of study, as follows:

- THST 6100 3.0, Theatre Research and Methodology
- THST 6200 3.0, Issues in Canadian Theatre History
- 12 credits chosen from graduate-level Theatre Studies courses or approved graduate-level cognate courses.

Note: Students who received credit for THST 6100 3.0 and/or THST 6200 3.0 (or equivalent) prior to admission to the PhD program must replace these courses with the equivalent number of coursework credits chosen from graduate-level Theatre Studies courses or approved graduate-level cognate courses.

Colloquium
Students are required to attend a bi-weekly non-credit colloquium during the first two terms of study. At the colloquium, research approaches are discussed, guest speakers from across the department and the university are brought in, and in-process presentations of each graduate student's research work is shared. Students are evaluated on a pass/fail basis..

requirement with prior approval. This work does not necessarily have to be done as part of a course. • As part of our commitment toward ensuring that all of our students have some outside work experience, each PhD candidate is required to set up a working internship of at least one month connected to some area of their dissertation research. This internship must be under the guidance of an approved mentor on or off the campus. • completion of a major research paper of no more than 50 pages on some aspect of study related to the proposed dissertation area in one of our fields of specialization; • completion of a dissertation in one of the approved fields of specialization; • proven proficiency in a second language is considered a norm in advanced theatre studies. Such proficiency is not required to be proven, however, if it can be shown that the dissertation does not require it.	**100 Play Reading Exam** The 100 play reading exam is intended to ensure familiarity with a pre-established list of 100 major dramatic texts and the ability to engage critically with their core ideas. The exam is taken in the second term of study (normally the winter term of the first year of study). ~~**Theatre Praxis**~~ ~~As part of our commitment toward ensuring that all "studies" students have some specific experience in theatre praxis , each MA candidate is required to complete one project of at least a month's duration (approximately 75 working hours) in an applied area. Specific professional work or coursework may be counted in fulfillment of this requirement with prior approval. This work does not necessarily have to be done as part of a course.~~ **Internship** As part of our commitment toward ensuring that all of our students have some applied, professionally-oriented work experience, students are required to set up a working internship of at least 75 hours. Ideally, this work will be connected to one of the program's fields of specialization and/or research areas. The internship must be under the guidance of an approved mentor, on or off-campus. Should students be unable to set up an internship on their own, an advisor will work with students to find a suitable program. ~~**Major Research Paper**~~ ~~Completion of a major research paper of no more than 50 pages on some aspect of study related to the proposed dissertation area in one of our fields of specialization.~~ **Comprehensive Exam** ~~Attaining of a passing grade on a comprehensive examination which tests knowledge of major periods of theatre history and the ability to do text and theoretical analysis. As well, it includes a section connected to a chosen area of specialisation. This examination is normally offered each January.~~ Before embarking on the writing of a dissertation, students must successfully complete a comprehensive exam. The exam is intended to test knowledge of a student's chosen research and teaching areas to verify sufficient grounding in scholarship relevant to a student's area of research, particularly the dissertation topic. Within one year of completing the program coursework requirements (i.e.

	no later than the end of the third year or ninth term of study), students are required to have approved list of materials that will form the basis of the comprehensive exam. The list of materials will be comprised of approximately 40 key sources in their general area of emphasis, which should correspond to a teachable subject, and a further list of approximately 40 key sources in a more specialized area of research. The list of materials will be chosen by students in consultation with the supervisory committee and submitted to the program Executive Committee for approval. The comprehensive exam will consist of a take-home examination, normally taken during fall or winter term reading week in the third year (term 7 or 8) of doctoral study. The examination will consist of essay questions written by the supervisor and supervisory committee. Students will have 72 hours to complete responses of no more than 10 pages each to three essay questions, chosen from six or more options provided by the supervisor and supervisory committee. The completed exam will be assessed on a pass/fail basis (with the options including high pass, pass, pass with revisions, and fail) by the supervisor and supervisory committee. In case of failure, students may be re-examined within three months of the first attempt. Two failures of the comprehensive exam will result in withdrawal from the program. **Prospectus (Dissertation Proposal)** One month prior to sitting for the comprehensive exam, students are required to submit a prospectus of no more than 3,500 words. The prospectus is developed in under the direction of the supervisor and supervisory committee. The prospectus must contain a brief statement in nontechnical language on the purpose of the proposed dissertation research, its relationship to existing work in the area, and the contribution which the student hopes to make to the advancement of knowledge in the field. In addition, the prospectus must include a dissertation title, a description of methodology to be applied in the proposed study (including appropriate research ethics materials and forms) and the suitability of this approach for addressing key research questions, a discussion of the proposed theoretical framework and its suitability, as well as a chapter breakdown. Consideration of the prospectus will take place in conjunction with the comprehensive exam process. Approximately two weeks after completion of

	the comprehensive exam, students will meet with the supervisory committee to discuss both the prospectus and the results of the comprehensive exam. Following approval by the supervisory committee, the prospectus will be reviewed by the program director and forwarded to the Office of the Dean, Graduate Studies, for final approval. **Sample Chapter** Normally within three months of, and no later than six months following, final approval of the prospectus, students are required to submit to the supervisory committee a draft of one dissertation chapter. As this requirement is intended to ensure students are moving toward timely completion of the dissertation, the content of the sample chapter must be directly related to the dissertation, and will typically constitute either a reworking of the prospectus into an introductory chapter, or completion of a sample chapter from the body of the dissertation. Following submission of the sample chapter, students will meet with the supervisory committee to receive feedback on progress of the dissertation. **Dissertation and Oral Examination** The dissertation must embody the results of original research with significant value for the study of theatre and performance and must be successfully defended at an oral exam, normally by the end of year 5 (term 15). **Language Requirement** If the dissertation topic requires work in another language as deemed by the supervisory and supervisory committee, students must prove reading proficiency in that language by the end of year three (term 9).

YORK UNIVERSITY

Schulich School of Business

MBA Advanced Standing ("Accelerated MBA") for Chartered Accountants

Background
Under long-standing practice, MBA applicants who have been awarded an honours business undergraduate degree from an accredited business school within ten years of entering the MBA may be granted advanced standing for the full first year of the MBA program. For students deemed qualified on the basis of their past undergraduate work, the advanced standing process offers them admissions directly into the candidacy year of the MBA program. Students thus admitted are enrolled in the "Accelerated MBA Program", which simply consists of the full second year of the regular MBA program.

The Accelerated Program has been very successful, attracting excellent students from many leading business schools, including Schulich. Given the success of this program, the Schulich Faculty Council has approved an extension of this advanced standing policy to a new class of applicants—those who hold an undergraduate honours degree (in any field) and who also have earned the designation of Chartered Accountant (CA) in Canada.

Motion
"It is moved that advanced standing for the MBA program be offered to Canadian CAs who have obtained both their undergraduate honours degree and their CA designation from a Canadian institute/order of Chartered Accountants within the last 10 years and have met all the other graduate admissions requirements for the Schulich School of Business.

CAs without undergraduate business degrees who have not taken courses in Marketing, Organizations and/or Operations Management will be required to take Schulich's core courses in those subjects, replacing the equivalent number of elective credits."

Approved unanimously at the Faculty Council meeting of December 9, 2011.

Rationale
Canadians can attain the CA designation only by satisfactorily meeting all the following requirements:

- Completion of a 120-credit hour bachelor's degree.
- Completion of 51-credit hours of courses in management, management accounting, financial accounting, income taxation, and auditing.
- Successful performance on the 4-day, case-based Uniform Final Examination administered annually by the Canadian Institute of Chartered Accountants.
- Satisfactory performance during a two- to three-year internship program following the granting of their undergraduate honours degree.

Most CA candidates satisfy the 51-credit hour requirement within an undergraduate BCom or BBA program. Typically, approximately 85% of CA candidates possess an honours BCom or BBA undergraduate degree; such students automatically qualify for the accelerated program. However, the chartered accountancy program also welcomes candidates who have pursued a *non-business* undergraduate degree. Indeed, non-business degree holders are especially welcome because they often bring a broader societal perspective to professional practice. To remedy their lack of business and accounting studies, holders of non-business degrees must acquire the 51 credit-hours following award of their honours degree by taking courses offered within a CA-accredited Canadian university degree program. Students must obtain a minimum B average in these courses.

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 2012

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.

At our most recent Faculty Council meeting, our faculty passed the following motion, which was introduced by our PhD program, curriculum and admissions committee.

That the current language in the FGS Calendar pertaining to our PhD program in Environmental Studies be changed from the current

"Normally, the admissions standard for the PhD program is a master's degree."

To the new:

"To be considered for admission to the PhD program, an applicant must normally have a master's degree from an accredited university with an academic standing of at least a "B+" or equivalent ".

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.

This proposed change is in line with our faculty's strategy to increase the quality and qualifications of our incoming PhD candidates. In practice, it formalizes our current practice in our faculty and at the PhD committee. It is very rare for us to admit people with grade transcripts that average below B+. Indeed, given the self-directed character of our PhD programme, we need to ensure that incoming students are prepared well enough to develop their program plans and comprehensive areas to a significant extent with their own initiative.

Formalizing this practice requires a change to the FGS Calendar, which at this point only says that students need a Master's degree for admission to the PhD program. See http://www.yorku.ca/grads/programs/2011-2012/environmentalstudies2011.pdf. Since the FGS calendar does not actually state a GPA requirement for our programme, we default to the overall admissions requirement for York PhD programmes, which mentions B as the minimal standard. (See: http://www.yorku.ca/grads/current_students/faculty_regulations.php?id=1)

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*.) None.

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.*) None.

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)
Normally, the admissions standard for the PhD program is a master's degree.	**To be considered for admission to the PhD program, an applicant must normally have a master's degree from an accredited university with an academic standing of at least a B+ or equivalent.**