To : Members of Graduate Council

From : Christina Bryce
Assistant Graduate Secretary

_____

The next meeting of Graduate Council will be held on **Tuesday, November 18th** at **9:30 am in Council Chambers (GH-111)**

Listed below are the agenda items for discussion.

Please email *cbryce@mcmaster.ca* if you are unable to attend the meeting.

A G E N D A

I. Minutes of the meeting of October 21st 2014

II. Business arising

III. Report from the Acting Associate Vice-President and Dean of Graduate Studies

IV. Report from the Graduate Associate Deans

V. Report from the Associate Registrar and Graduate Secretary

VI. Report from the Assistant Dean, Graduate Student Life and Research Training

VII. New Program Proposal: Executive MBA

VIII. Faculty of Business Graduate Curriculum and Policy Committee Report

IX. Faculty of Engineering Graduate Curriculum and Policy Committee Report

X. Faculty of Humanities Graduate Curriculum and Policy Committee Report

XI. Quality Assurance Committee Membership

XII. New Scholarship

XIII. Other Business

Graduate Council
October 21st, 2014 – 9:30 am
GH 111

Present: Ms. S. Baschiera, Dr. G. McClelland, Dr. A. Dean, Ms. C. Chapman, Dr. T. Adams, Ms. S. Nagle-Smith, Mr. T. Van Boxtel, Dr. A. Holloway, Ms. T. VanDuzer, Mr. R. Morton, Dr. W. Wiesner, Dr. S. McCracken, Dr. K. Bird, Dr. D. Novog, Dr. A. Grenier, Ms. C. Brown, Ms. V. Lewis, Dr. B. Milliken, Dr. S. Hanna, Dr. N. Agarwal, Dr. D. Down, Dr. B. Ibhawoh, Dr. I. Zeytinoglu, Dr. M. Thompson, Ms. C. Chapman, Dr. T. Porter, Dr. C. Hayward

Regrets: Dr. V. Igneski, Dr. S. Streeter, Dr. A. Deza

By Invitation: Dr. D. Baines, Dr. J. Gillet, Dr. V. Snell

A G E N D A

I.   Minutes of the meeting of September 16th 2014

The minutes of the meeting of September 16th, 2014 were approved on a motion by Dr. Holloway, seconded by Dr. Wiesner.

II.   Business arising

Dr. Agarwal noted that the terms of reference for the Graduate Council working group on graduate pay had been finalized.

III.   Report from the Acting Associate Vice-President and Dean of Graduate Studies

Dr. Agarwal reported on Dr. Welch's behalf. He noted that the Human Resources module of Mosaic had launched successfully. He also reported that the MTCU had made changes to the new program approvals process. The updated requirements from the ministry highlight the importance of the proposed new program's alignment with the institutional strategic mandate agreement. In terms of the ministry review process, all new program approval requests for ministry-funded programs will be funneled into two categories: expedited and secondary. Programs that do not clearly meet the expedited review criteria will be put in the secondary review queue.

IV.   Report from the Graduate Associate Deans

Dr. Agarwal reported that the new executive MBA was moving through the program approval processes and expects it to be submitted to the next Graduate Council meeting. Dr. Hayward reported on new program developments in her faculty, including the Master of Public Health, Child Life Studies and Clinical Laboratory Sciences. She also noted that the Faculty of Health Sciences has been working on a new program development tool. Dr. Porter reported on a transition within the Faculty of Social Sciences with respect to their course evaluation system and also noted that the Faculty will be offering a new course on the impact of social science research. Dr. Ibhawoh reported that the Faculty of Humanities is the middle of preparing a new Ph.D. proposal in cultural studies and communication studies. The Faculty has also been exploring the development of an English diploma for international graduate students that would be geared to students who would ordinarily qualify for admission to McMaster but don't have the required level of English proficiency. Dr. Thompson updated graduate council on the development of the engineering graduate student society, noting that the by-law and constitution have been put forward to the faculty for approval. Dr. Milliken reported that the Faculty of Science is currently involved in the development of a number of course-based Masters Programs.

V.   Report from the Assistant Dean, Graduate Student Life and Research Training

Peter Self reported that two graduate student valedictorians had been selected for Convocation on November 21st and that the upcoming USRA poster session was being held on November 6th in CIBC Hall from 2-4 pm.

VI.   Report from the Associate Registrar and Graduate Secretary

 Stephanie Baschiera reported that another Mosaic Town Hall had been held, with about 70 staff and faculty in attendance. She also reported on an initiative between the School of Graduate Studies, MIEETL, the Provost's office and the Secretariat's office to revise and update the Internal Quality Assurance Process, including both cyclical reviews and new program development.

VII.   New Graduate Diploma in UNENE

Dr. Thompson introduced the program. UNENE is a consortium of universities and currently offers a Master of Engineering degree. The diploma, to be comprised of four courses already offered within the program, will be offered in addition to this existing Masters at McMaster and UOIT.

Dr. Snell gave an overview of the diploma, noting that it was driven by industry demand. UNENE has been asked for a supplement to their current Masters that will take less time and appeal to a broader audience. Classes are currently offered outside of working hours and this will also be the case for the new diploma. UNENE is exploring what flexibility can be offered between the two degrees. Dr. Thompson noted that UNENE charges on a per course basis, so there is no way of trying to get the

Masters for a lower price by taking the diploma first. They are hopeful that this diploma will actually generate more interest in the Masters program.

Council members discussed the admission requirements for the program compared to the normal standard for McMaster. Dr. Thompson noted that they admission requirements are actually higher than the McMaster Faculty of Engineering requirements.

A council member noted that there was a figure on page 14 that had to be fixed.

Dr. Thompson moved and Dr. Novog seconded **'that Graduate Council approve the new graduate diploma in UNENE as described in the documents'.**

The motion was **carried**.

VIII.   New Ph.D. in Health Studies and in Gerontology

Dr. James Gillet described the proposed new Ph.D.s. He noted that it builds from their existing Masters degree program and that the two proposed Ph.D.s are based on the two disciplines within their program. There is some overlap between the two but they are distinct. The proposed Ph.D.s requirements are structured similarly to those in Social Sciences.

Dr. Porter moved and Dr. Ibhawoth seconded, **'that Graduate Council approve the new Ph.D.s in Health Studies and Gerontology as described in the documents'.**

The motion was **carried**.

IX.   New Ph.D. in Labour Studies

Dr. Donna Baines described the proposed new Ph.D. in Labour Studies. She noted that the Ph.D. has grown out of a Masters program and very successful undergraduate program. The proposed Ph.D. would be the first of its kind in North America.

A council member asked where the program expected their students to end up after completing the proposed Ph.D. degree. Dr. Baines responded that the program expects they will work in a number of different areas, including the non-profit sector. As Labour Studies is an interdisciplinary degree a number of their graduates have been hired into other academic disciplines.

A council member noted that the program learning outcome appendix appeared in the wrong place.

Dr. Porter moved and Dr. Bird seconded, **'that Graduate Council approve the new Ph.D. in Labour Studies as described in the proposal, with the correction to the appendix.'**

The motion was **carried**.

X.   Revised Thesis Guidelines

Dr. Ibhawoh presented the proposed changes, noting that the majority are routine and arise from changes to the thesis process since the guidelines were last revised in 2011. The most substantive changes made to the document are regarding regulations around the sandwich thesis. One of the concerns raised with respect to sandwich theses was that it is difficult, in certain cases, to identify the contribution of graduate students where the papers included in the thesis were all co-authored. The guidelines now state that the contribution of the student to each of the articles included in the thesis must be outlined in the preface.

Other substantive changes include revisions to the preliminary pages of the thesis. The thesis working group introduced a requirement for a lay abstract of no more than 150 words, explaining the key goals and contributions of the thesis. The rationale for this change is that the work of students should be accessible to the general public and Dr. Ibhawoh noted that many universities already have this requirement.

A council member noted there was a page number issue with respect to the lay abstract. Dr. Ibhawoh noted he would make the correction.

Another council member noted that in addition to clarifying the contribution of students to the articles that form part of a sandwich thesis it might be prudent to include an acknowledgement of the work done by other individuals that contributed to the work of these multi-authored papers.

Council members discussed the prevalence of sandwich theses in disciplines across campus.

Another council member noted that it should be made clear in the thesis guidelines that students are expected to obtain the copyright for articles included in the thesis that have previously been published in a journal.

Dr. Ibhawoh moved and Dr. Hayward seconded, **'that Graduate Council approve the revised thesis guidelines, with the changes requested to the date of the document, pagination around the lay abstract, clarifying the relative contributions and clarifying or highlighting the need to get copyright for work previously published elsewhere.'**

The motion was **carried**.

XI.   Fall 2014 Graduands

Dr. Novog moved and Dr. Holloway seconded, 'that Graduate Council approve the list of the 2014 Fall Graduands, with amendments/corrections to be made as necessary by the Associate Graduate Registrar.'

The motion was **carried**.

McMASTER UNIVERSITY
PROGRAM PROPOSAL BRIEF

EXECUTIVE MASTER OF BUSINESS ADMINISTRATION
IN DIGITAL TRANSFORMATION (EMBA.DT)

OCTOBER 27, 2014

DeGroote
SCHOOL OF BUSINESS

CONTENTS

APPENDICES

1. PROGRAM

The Executive MBA in Digital Transformation (EMBA.DT) will be an interdisciplinary program concentrating on the management of digital systems and data-driven[1] decision-making that will help graduates develop the combined strengths of research skills and strategic business capabilities. An important goal of the program is to expose students to the core topics covered in most EMBAs together with the more technical content associated with master-level courses in fields such as data science and business analytics. With this unique combination of skills and knowledge, EMBA.DT graduates will be well positioned to further their careers as mid to senior level executives in organizations that see the value-creating (and destroying) potential associated with digitally-driven innovations, technologies and "Big Data" insights.

The EMBA.DT proposes a modular format based in four intensive residential blocks of time including a two-week-long international module. It is expected that the DeGroote School of Business's teaching faculty will make extensive use of blended learning opportunities, with approximately two-thirds of course contact hours delivered in-class and one-third delivered through online activities. The EMBA.DT format is designed to cater to a global pool of potential candidates who are comfortable working both independently and in groups, via distance learning platforms and within a classroom setting.

This document presents a proposal for the EMBA.DT and, as such, it is being submitted to the University for approval. Our goal is to begin recruiting our first-class cohort in Spring 2015 for a Winter 2016 program launch.

1.1   Consistency of program with University's strategic mandate

The DeGroote School of Business is recognized as a leader in innovative approaches to teaching, learning and service to the business community. The School provides a full range of business education opportunities. Through its mission of fostering knowledge and interdisciplinary thinking to transform business and society, it has achieved a considerable degree of international stature. DeGroote is accredited by the Association to Advance Collegiate Schools of Business (AACSB), an accreditation of excellence in management education that has been achieved by fewer than five percent of schools of business worldwide. The EMBA.DT will adhere to AACSB's design and delivery guidelines for Executive MBA programs.

The new EMBA.DT program is designed to enhance DeGroote's international profile while advancing key aspects of the University mission, vision and strategy. Over the last 12 months, the School has conducted a series of town hall meetings and strategy retreats with faculty, staff, students and alumni to identify areas of research and teaching excellence that also match with external market needs. This process of consultation and market research has identified "Big

---

[1] Reflects the DeGroote School of Business's emphasis on evidence-based research and teaching.

Data/Data Analytics" as an area in which the School and the broader University have deep research and teaching expertise that is in high demand in the marketplace.

Demand

Big Data and Data Analytics have seen tremendous growth in recent years, primarily due to the vast amount of data being generated by consumers and businesses alike. The global market for Big Data hardware, software and services is estimated to surpass $50B by 2017 (McKinsey 2013 white paper). It is also estimated that the demand for Big Data analytical talent will be 50-60 percent greater than the projected supply by 2018. Several universities have responded to this demand by offering courses, specializations, degrees and executive training in Big Data and Data Analytics; according to the Graduate Management Admission Council (GMAC), currently there are 166 business schools with data analytics and information management programs, and this number is growing rapidly.

Educational market assessment

In response to the proliferation of Big Data and Data Analytics education, there are three general approaches that are being undertaken by schools at the graduate level. The first approach is to offer full degree programs, such as a Masters in Data Science or Business/Management Analytics (some examples are noted in **Section 4.1**). Such programs are either housed in a business school or share some affiliation/offerings with a business school. The focus of this approach is on producing new graduates with a mix of analytical and business skills who can fill a spectrum of roles in organizations of all sizes, such as Data Scientists, Business Intelligence Analysts, etc.

Second, a number of business schools have included data-oriented specializations or majors in their MBA programs. MBA programs with business analytics majors include: Carnegie Mellon, Drexel University, Indiana University, NYU and Rutgers Business School. MBA programs with technology management and analytics foci include: Northeastern University, Cornell University, Open University, Simon Fraser University, University of Augsburg, and University of Washington.

Third, universities are capitalizing on the demand for short executive education programs in data analytics. Such programs tend to be targeted towards middle management or data scientists with an aim of leveraging data for business intelligence and competitive advantage. These types of executive education programs are typically offered through Business schools. For example, the John Molson School of Business Executive Centre at Concordia University in Montreal plans to offer a new three-week-long certificate program for middle managers on data analytics and the mining of statistics for corporate advantage. Included in this approach are online courses that are offered both for a fee and for free. As Massive Open Online Courses (MOOCs) have gained popularity, data analytics education has become one of the offerings most in demand.

EMBA.DT market positioning

The DeGroote School of Business, in consultation with industry partners, has identified a new approach to entering the Big Data/Data Analytics educational market with the launch of an Executive MBA. The EMBA.DT combines the core management topics covered in most EMBAs together with the more technical content associated with master-level programs in the management of technology, innovation, Big Data and business analytics. The program will weave these perspectives together by engaging industry partners in classroom discussion and site visit presentations and co-creating original cases with industry champions. It will also engage expert speakers from other areas within the University, and introduce a multi-module management/technology research project into the curriculum. This integrated approach, in which Big Data and Data Analytics are part of a broader focus on digital transformation, is not represented by any of the 291 EMBA programs currently listed on the Executive MBA Council[2] website.

The EMBA.DT program will be designed to offer multiple points of differentiation from the traditional EMBA model. Key points of differentiation include:

- "Digital Transformation" focus: The DeGroote EMBA.DT will be the only EMBA program designed explicitly with a "Digital Transformation" focus. At present, the closest comparable program is Cornell's Tech MBA, but this program is only offered on a full-time basis. HEC Paris and IBM have announced a new MBA on business analytics but the program will again only be offered on a full-time basis.

- More affordable: DeGroote is creating an accelerated EMBA.DT that will be positioned as a premium EMBA experience offered below the price point of the four dominant EMBAs in the Greater Toronto Area (GTA).

- Shorter duration: At 15 months, the intensive, residential mode of delivery chosen for the DeGroote EMBA.DT will graduate students in a shorter period of time than most traditionally structured EMBA programs which typically take a minimum of 18-months to complete. (See **Appendix A** for comparative EMBA data).

- Partnership model: The EMBA.DT Program will engage a number of leading data and technology companies as branded partners. Senior executive representatives of these organizations will help to champion the program, provide feedback on content and provide access to their networks and resources, including supporting the development of EMBA.DT business cases.

---

[2] The Executive MBA (EMBA) Council is an education accreditation council formed in 1981 to accredit schools of business offering EMBA degrees worldwide (http://www.emba.org/).

The EMBA.DT program's market positioning will also ensure that it complements and does not compete with DeGroote's current portfolio of Master-level programs:

- Complementary not competitive: DeGroote's EMBA.DT is designed to complement DeGroote's range of undergraduate, graduate and post-graduate degree offerings. The EMBA.DT program will not compete with the MBA as the EMBA.DT has been designed for fully employed managers, executives and entrepreneurs seeking a part time accelerated learning experience in digital transformation whereas the MBA has been designed for full-time students seeking a broader business education.

- Faster path to graduation: At 15-months, the accelerated[3] EMBA.DT is a faster path to graduation and enabling digital transformation across industry, whereas the DeGroote MBA takes 20-months and the part-time MBA can take up to five years to complete.

DeGroote expects the EMBA.DT to garner international distinction for its innovative and creative focus, content and delivery format while also creating a new commercial revenue stream for the School. The program will offer a "first mover" opportunity to create a talent pipeline of graduates with the knowledge and capabilities needed to fully leverage current and emerging digital technologies and innovation for the benefit of business and society. The program also offers the potential to create and grow innovative knowledge transfer partnerships for the School and University with leading hi-tech firms across the "Ontario Technology Corridor" and beyond. Such partnerships will provide access to current industry thinking, and technologies and tools that can better inform and direct the School and the University's research agenda and teaching capabilities.

Institutional alignment

The Strategic Mandate Agreement (SMA) between the Ministry of Training, Colleges and Universities and McMaster University[4] outlines McMaster's key areas of differentiation as:

> "McMaster is a research-focused student-centred university with a unique pedagogical approach embedded in a research-intensive setting. McMaster's research strengths are diverse and include: health sciences, the broad determinants of health, engineering, life sciences, digital information and media, business and economics, history, society and culture, policy, ethics, and sustainability. McMaster's signature pedagogies include problem-based learning and inquiry, and its distinctively collaborative culture has fostered strong interdisciplinary programs and partnerships." (Page 3)

---

[3] DeGroote does also offer an accelerated (8-month) MBA Program for students with an undergraduate business/commerce degree. These students are able to waive their first two terms of foundation courses.
[4] http://www.tcu.gov.on.ca/pepg/publications/vision/McMasterAgreement.pdf

Though the EMBA.DT program is not a thesis-based program, it does align with the SMA's noted signature pedagogies, collaborative culture and interdisciplinary focus, and aims to contribute to the following institutional priorities:

1. Strengthening the excellence of the University's graduate education and training;

2. Developing a distinctive, personalized, engaging and sustainable student experience; and

3. Enhancing the connections between the DeGroote School of Business, McMaster University and the communities we serve, locally, provincially, nationally and around the globe.

The SMA further identifies "Business and Economics" (page 10) as areas of institutional strength; the EMBA.DT program falls within this area of identified strength and planned growth.

The attributes and goals of DeGroote's EMBA.DT are further aligned with the University's Mission and Vision Statements and Academic Plan:

- "At McMaster, our purpose is the discovery, communication, and preservation of knowledge. In our teaching, research, and scholarship, we are committed to creativity, innovation, and excellence…. We serve the social, cultural, and economic needs of our community and our society." (*University Mission Statement*, **http://www.mcmaster.ca/univsec/reports_lists/mission.cfm**)

- "To achieve international distinction for creativity, innovation and excellence." (*University Vision Statement,* **http://www.mcmaster.ca/univsec/reports_lists/mission.cfm**)

- To impart technical and professional skills that will permit our graduates a range of career choices (*McMaster University Academic Plan*, **http://www.mcmaster.ca/newsevents/acadplan.htm**)

- To link teaching and scholarship (*McMaster University Academic Plan*)

1.2   Clarity and appropriateness of program requirements and learning outcomes in meeting University's Degree Level Expectations

Program learning outcomes

The learning outcomes for the EMBA.DT program were developed in a highly consultative process that included substantive engagement with stakeholders from both academia and the private sector (please refer to **Appendix B** for details). The following learning outcomes characterize the consensus that emerged from these discussions.

Upon completion of the graduate program, graduates will be able to:

1. Successfully lead/manage a growing ecosystem of digital technology partners to ensure resource efficiency and alignment to business strategy.

2. Anticipate the value-add of digital technologies in addressing business challenges and opportunities.

3. Develop robust and persuasive business cases for new investments in digital technology and the underlying processes and systems.

4. Analyze data, make critical interpretations and place these findings into context with the published scientific literature in the development and introduction of new innovation activities.

5. Lead and successfully manage a research project within a highly diverse (culture, function, geography, etc.) team structure.

6. Anticipate and effectively manage organizational risks linked to the use of current and emerging digital technologies, innovations and data-driven insights.

7. Have the confidence and skills to make an effective contribution, at the level of the executive board, to setting and operationalizing organizational strategy.

8. Integrate theoretical concepts and synthesize knowledge from various disciplines to develop a digital innovation mindset.

The program learning objectives and outcomes reflect the management and leadership needs expressed by consulting organizations such as McKinsey, industry associations and the numerous businesses leaders who have contributed to the current program design.

Overview of the program requirements

During the 15-month EMBA.DT, students will build upon the technical and managerial knowledge and skills that they bring into the program by deepening their strategic thinking skills and broadening their leadership capabilities. The program, which is structured around four residential blocks of time (one of which encompasses two distinct program modules), will integrate three strands of content:

1. Foundation courses.

2. Master-level courses and workshops in digital systems, data analytics, entrepreneurship and marketing.

3. Advanced management courses in areas such as leadership and strategy that will weave together elements of strands 1 and 2 through the use of case studies, simulations, team projects and other experiential learning approaches.

To graduate from the EMBA.DT program, students will be required to complete 16 courses comprised of six foundation courses (18 credit units), eight advanced management courses (24 credit units), and a Capstone Team Research Project (6 credit units) delivered in the final program module.

Each course, with one exception, will require 20 hours of classroom contact time delivered over a one- to two-week residential module and a minimum of 10 hours of blended learning activities between modules. The Capstone Team Project will encompass 40 hours of class time as well as an expected 20 hours or more of online activity, both during and between modules.

Semester 1 of the program will bring students together for a 14-day residential module entitled *Foundations in Management* that will be delivered at DeGroote's state-of-the-art Ron Joyce Centre (RJC) in Burlington[5]. The module will begin with a 2-day introduction and orientation workshop leading to an evening presentation from a noted industry leader. Over the next 12 days, students will participate in morning and afternoon course lectures (8:15-5:00) on A600/F600 Accounting/Finance Information for Decision Making, M600 Marketing Concepts, Q600 Foundations of Business Statistics and K603 Digital Systems in Business. Evenings will be structured around one-hour co-consulting groups at which students, working in groups of four to six, will reflect on the day's lectures and begin to prepare their team projects. The co-consulting groups will be incorporated into a multi-module course on B715 Inspiring Individual Leadership. Students will leave the module prepared to work on a series of online assignments linked to their foundation courses. Online assignments are to be completed before the start of the second semester and the commencement of module 2.

Semester 2, *The Big Data and Advanced Analytics Life-Cycle*[6], will be centred on a ten-day international module delivered in Palo Alto, California. The module will include two advanced management courses—B733 Entrepreneurship From a Diverse Base and M733 Marketing Analytics—that will be delivered both in the classroom and as part of a series of site visits to leading technology firms in Palo Alto and the surrounding region. Students will engage with executives from big technology players to new business start-ups to discuss the leadership and strategy implications around the acquisition, management and integration of new and emerging digital technologies linked to the theme of Big Data. Students will leave the module prepared to work on a series of online assignments linked to their module courses to be completed before the start of module 3 in the third semester. During and following the module, students will once again work in their co-consulting groups to advance their Capstone Team Project, in preparation for submitting a project proposal in Semester 3.

---

[5] Efforts will be made to ensure that EMBA.DT space requirements at RJC do not conflict with the space needs of other RJC-based degree programs.

[6] The term "Big Data and Advanced Analytics Life-Cycle" has been drawn from McKinsey's 2013 white paper report.

Semester 3 will bring students together at the RJC facility again, for another 10-day residential module, *Thinking and Leading Outside the Bytes*, comprising 3.5 management courses and a series of workshops on business communication and presentation skills. Students will take morning and afternoon classes in OB600 Organizational Behaviour, H721 Data Analytics for HR Decision-Making and a course in Innovation Governance and Design Thinking. Students will also complete the second half of the B715 Inspiring Individual Leadership course. Evening activities will include co-consulting groups and guest speakers. The week will begin and conclude with a full-day workshop on the Team Projects. Students will leave module 3 prepared to work on a series of online assignments linked to their module courses and their Team Projects. Online assignments are to be completed before the start of the fourth semester and the commencement of module 4.

The EMBA.DT will conclude in Semester 4 with a 14-day residential module at the RJC. The first week of the module, entitled *Value Creation and Destruction in the Digital Age*, will focus on strategy and finance as students complete courses in P720 Strategic Management and V700 Strategic and Business Analysis and Valuation. In week 2, entitled *Digital Frontiers*, students will take a course P734 Strategic Management of Digital Innovation, Technology and Data, during which they will debate the leadership and strategy implications associated with a series of a digital transformation mini-cases focusing on emerging and newsworthy issues.

Students must also complete and present a supervised Team Project as part of the Capstone course D701, in order to graduate.

An overview of the program courses is shown in Table 1 on the following page:

Table 1: Overview of EMBA.DT Program Courses

Term	Courses	Course Units
Semester 1 *Pre-Work*	• Virtual Orientation (welcome participants and introduce faculty online) • Introduction to pre-work activities • A600/F600 Accounting & Finance online self-study courses	 3 units
Semester 1 *Intensive Foundations Module*	• A600/F600 Accounting/Finance Information for Decision Making • M600 Marketing Concepts • Q600 Foundations of Business Statistics (Analytics) • K603 Digital Systems in Business • B715 Inspiring Individual Leadership (Part A) • D701 Capstone course (Part A)	3 units 3 units 3 units 3 units
Semester 2 *The Big Data Value Chain*	• B733 Entrepreneurship From a Diverse Base • M733 Marketing Analytics • D701 Capstone course (Part B)	3 units 3 units
Semester 3 *Thinking and Leading Outside the Bytes*	• OB600 Organizational Behaviour • TBD700 Innovation Governance and Design Thinking • H721 Data Analytics for HR Decision Making • B715 Inspiring Individual Leadership (Part B) • D701 Capstone course (Part C)	3 units 3 units 3 units 3 units
Semester 4 **Week 1** *Value Creation & Destruction in the Digital Age*	• P720 Strategic Management • V700 Strategic Business Analysis and Valuation • D701 Capstone course (Part D)	 3 units 3 units
Week 2 *Digital Frontiers*	• P734 Strategic Management of Digital Innovation, Technology and Data • D701 Capstone course (Part E)	3 units 6 units
NOTE: All courses listed in this program brief are specific to the EMBA.DT program and as such, enrolment is restricted solely to EMBA.DT students. For the purposes of this document, **MBA course codes** have been used to demonstrate a link to current MBA content and/or subject areas.		

The tables in **Appendix C** show the association between the program learning outcomes and program learning requirements. Course descriptions are provided in **Appendix D**.

1.3   Appropriateness of degree nomenclature

The degree nomenclature is commensurate with the primary focus and content of the EMBA.DT program.

DeGroote's EMBA.DT is designed for mid- to senior-level managers with significant business experience who intend to pursue an accelerated MBA degree while engaged in full-time employment. To qualify for program admission, candidates must demonstrate at least five years of managerial experience while also meeting the standard academic admission requirements set for all other DeGroote MBA applicants (see MBA admission requirements in Section 2).

The EMBA.DT comprises 16 courses that map against DeGroote's current set of MBA offerings. Course waivers[7] will be offered for three MBA 600-level courses and one MBA 700-level course in recognition of the candidate's professional knowledge and managerial experience in these areas. The 15-month curriculum is designed against the Graduate level expectations set out in this document through the delivery of approved MBA level courses and a Capstone Team Research Project.

The program name, EMBA in Digital Transformation (EMBA.DT), encompasses the three key components of the program, which is designed to prepare graduates for advancement within their organizations:

1. To provide students with the foundations in management that underlie more advanced management topics.

2. To enhance student understanding of current and emerging digital systems (i.e. who are the players, what are the technologies, how do they fit together?) and their ability to apply data analytics to support the decision-making process.

3. To develop the capacity to think strategically about the risks and opportunities posed by digital innovations, create compelling innovation strategies and contribute to the implementation of these strategies through the delivery of advanced management courses in strategy, leadership, innovation governance and design, finance and marketing.

The degree nomenclature reflects these objectives of integrating management theory and practice with an understanding of how organizations can better identify, integrate and support digitally-driven innovations, technologies and insights.

---

[7] As noted in footnote 3, waivers are already employed in DeGroote's MBA Program for equivalent courses in an undergraduate degree.

2. ADMISSION REQUIREMENTS

2.1 Appropriateness of program's admission requirements for the learning outcomes established for completion of program

Culture and philosophy

The aim of the EMBA.DT program is to offer rigorous leading-edge training designed for ambitious managers who desire to advance their management careers with the rich, scholarly and evidence-based practical experience that an internationally competitive research-intensive institution can provide. DeGroote is one of Canada's leading research intensive business faculties, with three research centres and nine research chairs spanning eight subject areas. DeGroote developed and runs Canada's foremost co-op MBA, with its leading programs in health services management. McMaster is further advantaged with world-leading programs in health care and engineering that will provide dynamic new opportunities for students to examine, analyze and develop in their learning activities. This program, in particular, seeks out exceptional individuals with a leadership capacity for translating emergent technological and analytical capabilities into commercial enterprise as intrapreneurs and entrepreneurs. Students will receive a strong foundation in traditional MBA education—including finance, accounting, organizational behavior, leadership, marketing, information systems, strategy, entrepreneurship and commercialization—through an integrated program of research, group projects, field-based experiential learning, business courses, and project development and management.

Standard admission requirements

It is recommended that EMBA.DT applicants hold a four-year bachelor's degree in any discipline and a B average (73-76%)[8] in their two most recent years of university study along with a minimum of five years' managerial experience. Applications must be submitted to the DeGroote School of Business, following the online application guidelines and submission deadlines. Admission to the program is based on a combination of academic and practical experience. Applicants' resumes are reviewed to ascertain the extent and quality of work experience, and all applicants must submit two letters of recommendation. Short-listed applicants will also be personally interviewed by the EMBA.DT Academic Director.

Applicants who do not meet the minimum work experience or degree requirements will be required to write the GMAT; to strengthen their application, a minimum total score of 550 will be required (See **Appendix A, Table 2** for EMBA GMAT requirements). These applicants will also be subject to a detailed personal interview to ensure they possess the requisite knowledge and skills to make a contribution in the program.

---

[8] Academic requirements align with the MBA Program (http://mbarecruit.degroote.mcmaster.ca/admissions).

Students in the EMBA.DT program are expected to show, over the course of study, evidence of scholarly accomplishments, excellent command of the English language in writing and oral presentation, and novel contributions to their team project(s). DeGroote will assess application packages to identify those candidates who can be expected to meet and/or exceed these expectations. Admission will be offered to graduates from undergraduate programs in Canada and abroad.

2.2   Alternative requirements for admission into the program

In exceptional cases, there may be students with extraordinary business experience who lack conventional academic education beyond the secondary level, but who demonstrate the necessary prerequisites and aptitudes, and have a strong interest in the program. The EMBA.DT program will be an inclusive and open one that will evaluate such applications on a case-by-case basis. This approach will be facilitated by evaluation of the statements of interest and the interviews with short-listed applicants. Generally, non-degree applicants will be considered for the EMBA.DT program provided they have a minimum of seven years' relevant managerial experience. (See **Appendix A, Table 2** for comparative EMBA admission requirements).

Assessment of teaching and learning

The program focuses on both interdisciplinary learning, and experiential, student-centred inquiry-based learning. DeGroote's emphasis is on enhancing the student's knowledge and capabilities to undertake team-based organizational activities. For example, the Capstone Team Project, initiated during the first module and concluded in the final module, represents long-term, team-based learning objectives that enhance research, theory, analysis, organizational development, presentation and leadership. This is done through the five discrete modules, each utilizing team teaching across two to three different faculty subject areas (for example, entrepreneurship and marketing, or finance and accounting, statistics and information systems). As a result, in addition to traditional tests and exams, the students will be evaluated on their ability to apply new concepts to emergent interdisciplinary problems. A focus will be on solving problems through team-based activities, since graduates can expect to implement this type of problem-solving throughout their careers. Learning will be enhanced and reinforced through co-consulting groups at the end of each day, during which participants will share and discuss in small study groups their key learnings of that day.

Faculty will regularly evaluate team activities through progress meetings, and will provide coaching and feedback. In addition, outside 'expert' panels will help advise and adjudicate student activity, both within the various modules and at the culminating Capstone Team Project. Peer feedback will be provided during team presentations within each module. EMBA.DT students will demonstrate both their knowledge of the topic and their ability to communicate and convince others of their perspective as an outcome of the written and oral presentations that they

will conduct repeatedly throughout the program. This will prepare graduates for career advancement and success.

Documenting and demonstrating the level of student performance

The level of student performance will be assessed throughout the program via the delivery of project portfolios, written supporting documents, oral presentations, exams and research papers. The EMBA.DT program will be externally evaluated during cyclical reviews, and assessed on an ongoing basis through indicators such as student placement, career trajectories, salaries, and student-led initiatives, both internal and external, and with feedback from the organizations that have supported student-led Capstone Team Projects. The program will also rely on feedback from a business advisory group comprised of senior business executives. Ultimately, the program will be judged by external assessors in terms of reputation, student satisfaction, and career progress. DeGroote will make every effort to evaluate the success of its alumni longitudinally, with the objective of continually improving an evolving program within a dynamic industry.

Non-Successful Completion

In the event of non-successful completion of any one course[9], EMBA.DT students will undergo a formal review and interview with the EMBA.DT Academic Director. The student will then be required to undertake an independent study course in order to make up the relevant material. This course will be under the supervision of an appropriate faculty member and must be completed in advance of the subsequent module. Non-successful completion of any second course (including the independent study course) will result in removal from the program.

Students who do not successfully complete the Capstone Project at the end of Module 5 will undergo the same formal review and interview and be asked to revise and resubmit before the end of the academic term.

Student fees will not be affected in the event of a required independent study course as fees are structured based on program and not per course.

3. STRUCTURE

3.1   Administrative, governance and communication processes

The EMBA.DT program will be administered by the DeGroote School of Business. Overall, program governance will be the responsibility of DeGroote's Associate Dean (Graduate Studies

---

[9] Non-successful completion indicates a failure to achieve at least a B- grade. The EMBA.DT Program will follow the same grading system as the DeGroote MBA Program. The current grading system can be found in the MBA Academic Calendar: http://mbastudent.degroote.mcmaster.ca/program-information/academic-calendar/

and Research) for all program academic and curriculum-related matters and the Associate Dean (Faculty Affairs and Accreditation) for all program delivery and teaching-related matters. An EMBA.DT Academic Director will coordinate the ongoing academic design and delivery of the program while an EMBA.DT Executive Director will provide business outreach leadership. Both directors will work closely with an EMBA.DT Business Advisory Committee comprised of senior industry executives, to ensure that the program meets the needs and expectations of both students and employers. The Advisory Committee will also support the efforts of EMBA.DT faculty and staff in identifying possible guest speakers, as well as potential business case studies and cases for the team research projects.

The EMBA.DT Directors will report to the Dean of the School and work in collaboration with the Associate Deans. A Program Coordinator (staff member) will oversee EMBA.DT administration and will function as the primary contact for admission inquiries, in addition to the coordination and support of faculty teaching activities. An administrative assistant will provide front-line assistance to students, faculty, the Program Coordinator and the Directors. Finally, a digital technician will support online teaching activities. All communications related to the program will originate from the Program Coordinator, Program Directors or the Dean.

Governance of the program – specifically program and course changes – will follow the same approval process as all other programs at the School of Business and McMaster University.

3.2 Appropriateness of program's structure and regulations to meet specified program learning outcomes and degree level expectations

The EMBA.DT Academic Director will be primarily responsible for ensuring that the individual courses and modules align with overall program learning objectives and requirements. This individual will work closely with the Associate Dean, Graduate Studies and Research, who meets with their respective Curriculum Committees to assess overall program academic and curriculum related matters. Based on feedback, the curriculum and/or the level of support and guidance provided to the program will be routinely adjusted to meet the needs of the students and faculty, and the learning objectives of the program. In conjunction with the Academic Director and Executive Director, the Associate Dean will be responsible for preparation of the documentation required for the cyclic IQAP reviews.

The EMBA.DT Academic Director will work closely with the Associate Dean in monitoring the progress of EMBA.DT students as they proceed through the program. The curriculum will be overseen carefully and adjusted appropriately to ensure that the needs of the students are met. Representatives from the program will be invited to attend Curriculum Committee meetings when matters concerning the program are discussed.

The Academic Director and Program Coordinator will review student progress at the end of each semester. Students who are identified as experiencing difficulty in the program will be invited to meet with the Academic Director to discuss areas of weakness and remedial strategies.

3.3 Rationale for program length

The EMBA.DT program is designed as a 15-month non-thesis course of study in which students complete the required course work over four intensive, residential time blocks (varying in length from 10 to 14 days), supported by online learning activities and the completion of a team research project. The planning of the curriculum was done in consultation with faculty and industry partners, to ensure that students can fulfill the degree level expectations in a timely fashion while still engaged in full-time employment. The program length is similar to that of other residence-based EMBA programs in Canada (see **Appendix A, Table 1**).

4. PROGRAM CONTENT

4.1 How curriculum addresses the current state of the discipline or area of study

Ontario is home to Canada's largest Information and Communications Technology cluster. The province generates 37% of the national GDP and is home to almost 50% of all employees in high tech, financial services and other knowledge-intensive industries. Within this cluster there is a growing need for managers with both an understanding of the technologies and processes that exist within and across the Big Data and advanced analytics lifecycle, and an ability to act upon this knowledge to support organizational strategy, alignment and growth. Specifically, organizations are looking for IT as well as non-IT managers who are able to[10]:

- Successfully manage a growing ecosystem of digital technology partners to ensure resource efficiency and alignment to business strategy.

- Anticipate the value-add of digital technologies in addressing business challenges and opportunities.

- Develop robust and persuasive business cases for new investments in technology and underlying processes and systems.

- Successfully manage the roll-out and integration of new digital technology across the organization and across partner organizations.

---

[10] This list of desired attributes, skills and behaviours was sourced from interviews with industry leaders and experts and validated with our business advisory committee.

- Anticipate and effectively manage organizational risks linked to the use of current and emerging technologies.

- Create a corporate strategic plan for Big Data and its integration into the company's functional areas.

- Have the confidence and skills to make an effective contribution, at the level of the corporate board, to setting and operationalizing organizational strategy.

A growing number of universities are offering courses, degrees and executive training with a digital technology and data focus as presented in Section 1.1 of this document. Programs which most closely mirror the target audience and objectives of the EMBA.DT include:

- A 10-month Masters of Management Analytics offered at Queen's School of Business;

- A one-year, full-time, Master of Business Analytics offered at the Schulich School of Business (this program consists of two terms of course work that focus on developing quantitative and technical skills coupled with communication and strategic thinking skills); and

- A one-year MBA program at the Johnson School of Graduate Management at Cornell School, offered in collaboration with Cornell Tech, which focuses on the "foundations of business in the context of the technology and innovation shaping the competitive landscape worldwide."[11]

These three programs can be seen in greater detail in **Appendix E**. However, no university currently offers a modular MBA or EMBA program with a digital and data focus targeted at working business managers and executives. Our review of the close to 300 national and international EMBAs listed on the EMBA Council website reveals that there is a unique opportunity to offer such a program.

4.2   Unique curriculum or program innovations or creative components

Building on current DeGroote and McMaster interdisciplinary research and teaching strengths, the EMBA.DT program will leverage its active network of industry partners. Contributing to groundbreaking innovation, McMaster is using Big Data through its research partnerships with companies such as IBM and its IBM Canada Research and Development Centre, along with the work of its own world-class faculties of Health Sciences and Engineering.

The program will also adhere to the standards set by external accreditation bodies such as AACSB with respect to faculty qualifications and deployment. In addition to DeGroote faculty, the program will make use of adjunct faculty who have the subject matter experience and facilitation skills needed to teach in a high-level EMBA offering.

---

[11] http://tech.cornell.edu/programs/masters-programs/johnson-cornell-tech-mba/

The learning style in the EMBA.DT program will be active and highly participative, with experiential learning inculcated via:

- Digital transformation case studies[12] based on real situations faced by companies dealing with issues of digitally-driven innovation, technology and Big Data insights, in which the learner practices advocating for a solution and defending its rationale before the class;

- Gaming simulations that create change-related decision pressures (time, budget constraints) within an interactive scenario;

- Distinguished guest speakers that will include executives, innovators and industry experts;

- Site visits to headquarters of leading big data competitors in Canada and the U.S.;

- A Capstone Team Project involving a strategic policy assessment and analysis of a live business situation requiring recommendations will be threaded throughout the modules of the EMBA.DT; and

- An introduction to a "Designed Thinking" approach to problem-solving that draws on elements of ethno-graphic research, and the benefits of prototyping and experimentation.

4.3   Nature and suitability of major research requirements

The EMBA.DT is a course-based Master's program culminating with the completion of a Capstone Team Project that integrates the theoretical constructs from the course work with experiential learning obtained through both classroom and online learning activities and consultations with business.

The Capstone course will have a research project at its core. Each team of participants will select a live business situation from within one of their current employer companies to analyze and then prepare recommendations. Each team will be supervised by a member of faculty plus one industry expert. The Capstone Team Project will extend over all five modules, with three check-in points around process, content and quality of project:

- Module 1 – first contact with classmates; team effectiveness

- Module 2 – formation into teams

- Module 3 – start project

- Module 4 – beta test project

- Module 5 – final presentation of recommendations and evaluation of project

---

[12] DeGroote is developing the first in a series of digital transformation cases with the support of Canadian Tire and their Senior Vice-President, Information Technology and Chief Technology Officer.

Assessment of the Capstone Team Project occurs at the check-in points as well as at the final presentation stage, along with an evaluation of the final presentation.

4.4 Appropriateness of EMBA courses for graduate level degrees

The EMBA.DT requires completion of 16 courses at the Master's level, which draw heavily from DeGroote's current MBA curriculum. The program is a non-thesis course-based Master's in which the traditional thesis and collection of data is replaced with a graduate level team research project that integrates learning across the disciplines. Upon completion of the course work and team assignment, students will have amassed a broad and systematic understanding of discovery research, and enhanced their capacity to develop and execute strategic plans that leverage the full potential of digitally-driven innovation, technologies and Big Data insights to create value for their organizations.

There are a number of elements that link the learning experience across the various modules:

- Capstone Team Project (from engagement to completion, with activities in all five modules).

- Case studies that are commenced in one module and resumed in a later module via sequenced decision points.

- The involvement of EMBA.DT Academic and Executive Directors to ensure the integration of content across program modules, by engaging with all EMBA.DT students on a regular basis during and in between module sessions.

- Online learning platform that engages students from the very beginning of the program and becomes a cornerstone of learning activity, both in the classroom and at a distance.

- There will also be a select number of courses that are multi-modular.

5. MODE OF DELIVERY

5.1 Appropriateness of proposed mode(s) of delivery to meet program learning outcomes and Degree Level Expectations and availability of necessary physical resources

The DeGroote School of Business focuses its educational offerings on student-centred, experiential learning. The EMBA.DT program will build on this, with a deeper focus on real-world application through local and international site-visits and custom-designed case work. The pedagogical style will balance foundational lessons of core business concepts with hands-on, team-based activities and assignments, along with a collaborative online component between modules.

This mode of delivery requires:

- Participation from the program's industry partners (e.g. access to classroom space, technologies, speakers);

- Traditional classroom space available at DeGroote's Ron Joyce Centre; and,

- Delivery at various other off-site facilities (in and around Toronto and Palo Alto) that relates to elements of program curricula.

The program will also be supported by a robust online learning platform of proprietary and licensed technologies that supports the students through pre-course activities, on-site modules, inter-module distance learning and post-graduation, when they are back in the corporate world. Currently the provision of a tablet to each student that has been pre-loaded with the EMBA.DT curriculum, tools and databases is under active consideration.

6. ASSESSMENT OF TEACHING AND LEARNING

6.1   Appropriateness of proposed methods for instruction and assessment of student achievement for intended Program Learning Outcomes

In addition to traditional tests and exams that measure recall of content and application of knowledge, the EMBA.DT will assess comprehensive knowledge through projects that require application, as well as creative problem-solving, deep learning and critical thought. The EMBA.DT modules will emphasize teamwork and collaborative skills. The Capstone Team Project, introduced in the first module and completed in the final module, will require students to consolidate and apply the range of skills taught in the program into a practical and measurable outcome. Project skills in each module will be evaluated through progress meetings with the instructor(s) and formative feedback through an evaluation of professionals working in the industries involved (e.g. a panel of experts). EMBA.DT program students will also demonstrate their learning through written and oral presentations, which are key skills that need to be practiced and developed to prepare executives for career success.

6.2   Plans for documenting and demonstrating the level of performance of students

The level of student performance will be assessed throughout the program through key projects, oral presentations, project reports, consulting activities and written work. The EMBA.DT program will be externally evaluated during cyclical reviews, and closely monitored and assessed on an ongoing basis through indicators such as student grades, and through feedback received from students, faculty, industry partners and alumni. Ultimately, the success of the program will be judged by the career success and satisfaction of DeGroote's graduates, partly by

monitoring their career trajectories (using indexes based on job title, salary, etc.). Consequently every effort will be made to maintain contact with graduates from this program. The efforts to improve the program, whether in content or delivery, in response to the data/feedback, will be routine and on-going.

7. RESOURCES FOR ALL PROGRAMS

7.1   Administrative unit's planned utilization of existing human, physical and financial resources, and any institutional commitment to supplement the resources

i.   Human resources: In doing the research for the program, we have identified faculty members inside the School and from outside who can provide the teaching. We are confident that the teaching by insiders will not put undue strain on the human resources of the faculty. Participation by our faculty will open many research contacts in industry and other academic institutions, and provide insights for teaching in our other degree programs.

Plans for additional human resources: One new faculty appointment will serve as EMBA.DT Executive Director, while one Program Coordinator and one Administrative Assistant will round out the complement of existing human resources described above, as will contributors from the Business School and adjunct faculty from the business community.

ii.   Physical Resources: The classes for four out of the five EMBA.DT residential modules will be housed primarily in the Ron Joyce Centre in Burlington, together with venues provided by EMBA.DT partners. The international module will be based in Palo Alto, which will require classroom space and accommodation.

iii.   Library Resources: The EMBA.DT will draw on the resources of Innis Library and the Library Services at the Ron Joyce Centre. Both locations provide access to a vast collection of on and offline resources that are fully accessible from campus and off-site. Library services at both locations include in-person research consultations, online reference chat service, interlibrary loan and specific research and course guides.

iv.   Financial Resources: The EMBA.DT is a fully funded program that is expected to cover all of its operating and associated overhead costs through tuition revenues. In addition to tuition revenues, the EMBA.DT will also seek funding from external business partners to support the development of new teaching cases and other experiential-based activities. Current program development costs are supported by donations from business partners and the University's Strategic Alignment Fund.

7.2   Participation of a sufficient number and quality of faculty who are competent to teach and/or supervise in the program

Faculty members at the DeGroote School of Business play a leadership role in solidifying McMaster's status as one of the country's "most innovative" research-intensive universities. The research conducted at DeGroote generates new business knowledge and has important practical implications for both management and teaching. Presently, there are 58 tenure-track and nine teaching-track faculty members in the School.

EMBA.DT teaching assignments are potentially subject to change in the future, but will be taught by faculty members who are qualified to teach the assigned course.

EMBA.DT faculty must demonstrate the following qualifications:

- Experience in teaching a graduate level course.

- Evidence of superior teaching skills as supported by student evaluations.

- A history of research and/or industry engagements related to the EMBA.DT program learning outcomes.

In addition, as discussed earlier in Section 4.2, there are lead roles for outsiders, some of whom are needed for their special expertise. Given the income that EMBA.DT program will generate, we will be able to offer very competitive compensation to those who do participate, and therefore do not anticipate problems in finding well qualified people. In the business school sector there are many qualified people interested in doing EMBA work. Our business model ensures that all of these costs can be covered and that there will not be an undue strain on current resources.

7.3   Evidence of adequate resources to sustain the quality of scholarship produced

The resources outlined in Section 7.1 will support and sustain the quality of scholarship produced.

8. RESOURCES FOR PROGRAMS

8.1   Plans for adequate numbers of faculty and staff to achieve program's goals

Please refer to item 8.2 below.

8.2   Plans to provide the necessary resources in step with the program's implementation

Staffing

To support the new EMBA.DT program:

- Program Academic Director with primary responsibility to coordinate ongoing program/module/course development and integration.
- Program Executive Director with primary responsibility to engage with external partners.
- An additional 2.5 person support needs have been identified as follows:
  o one full-time Program Coordinator (one FTE staff member) to oversee the administration of the program;
  o one full-time Administrative Assistant to provide front-line assistance for the program; and
  o one part-time Online Technical Expert (0.5 FTE) to support online activities specifically.

An approximate budget has been prepared for the EMBA.DT program, and can be seen in **Appendix F**.

Facilities

- Ron Joyce Centre (RJC) facility, DeGroote School of Business (Burlington, Ontario)
- Offsite (White Oaks, Niagara-on-the-Lake, Ontario)
- TBC Google University (Palo Alto, California)

Online Platform

- MacID access to McMaster and DeGroote online platforms and library resources.

8.3   Planned/anticipated class size

The first intake is a planned 20 qualified students, increasing to 25 students in Year 2. Year 3 will increase to the steady state of 30 EMBA.DT students. We anticipate that up to 50 percent of the program intake of each year will come from EMBA.DT corporate sponsor organizations.

8.4   Provision and supervision of experiential learning opportunities

Experiential learning is an integral component of the program. Several experiential components are described above, including integrative module case studies and the Capstone Team Project. The students will spend dedicated time across all five modules, under the supervision of a faculty member, completing the team project report leading to a final presentation in Module 5.

Site visits

One or both of the directors—Academic Director and the Executive Director—will be onsite during each of the modules. Another important role of the Directors is to ensure integration across all of the individual courses and to act as a support to students and their co-consulting groups (morning reflection of day before, and evening co-consulting at which students will share 'golden nuggets' of concepts learned that day).

Case studies

The opportunity to have some of the program's industry partners participate in classroom discussion of the case studies based upon their companies is being incorporated, in order to provide real feedback to participants.

Capstone Team Research Project

Groups will identify their project, and then work with a designated faculty team—comprising one faculty member and one industry person—who will provide coaching and assessment to each team on a staged basis. In true experiential learning, the research teams will be expected to engage directly in a consultative manner with their target client organizations and to demonstrate effective teaming, coaching and communication approaches through the course of this project.

On an ongoing basis, groups will also be working in co-consulting groups throughout the EMBA.DT program, supporting and coaching each other on the application of learning content.

8.5   Role of adjunct and sessional faculty

A tremendous resource of expertise in sectors and thought-leaders for advanced training and mentoring exists in Southern Ontario's technology corridor. DeGroote and McMaster already have strong ties with this community, and will further strengthen them through adjunct teaching appointments. Individuals who have strong interests in contributing to interdisciplinary education and have the right capabilities to teach within a focused EMBA program with avant-garde classroom and inquiry learning will be welcome contributors to the program, after first being vetted by the Academic Director.

Potential faculty (current DeGroote and external) will be selected to teach in the EMBA.DT program by the Academic Director in consultation with the Associate Dean (Faculty Affairs & Accreditation) and relevant Area Chairs.

9. QUALITY AND OTHER INDICATORS

9.1   Definition and use of indicators that provide evidence of quality of the faculty

Assessments of faculty members are based on their research performance through the quality of publications, research funding, supervision of graduate students, teaching evaluations and administrative service to the University or community.

Research Grants

Over the last year (ending August 2014), faculty in the DeGroote School of Business have been awarded four SSHRC Insight Program grants (of 16 applications; a 25% success rate), two NSERC Discovery Program grants, and one NSERC Engage grant. Total funding over the last five years has totaled $1,596,017. DeGroote faculty have also consistently explored funding opportunities outside the standard Tri-Council and have received positive outcomes from such sources as the Ministry of Labour, Ministry of Energy, Ontario Power Authority, and Ministry of Research and Innovation. Recently, Dr. Gillian Mulvale won the Early Research Award from the Ministry of Economic Development and Innovation for a project entitled *Learning from the experiences of adolescents with mental illness, their families and service providers to co-design more coordinated services and better transitions in Ontario: Design rules, barriers and facilitators*, and Drs. Elkafi Hassini and Sourav Ray were successful in their application to the Canadian Foundation for Innovation and the Ontario Research Fund for Research Infrastructure Programs for a project entitled *Infrastructure for Advanced Business Analytics: Creating and Analyzing Big Data for Canadian Distribution Channels*.

Faculty Awards and Honours

Two members of the DeGroote School of Business faculty are current holders of Canada Research Chairs (Tier 1: Dr. Rick Hackett (Professor); Tier 2: Dr. Catherine Connelly (Associate Professor)), and the School features six additional research chairs and three professorships[13], all recognized as world-renowned experts in their fields. In addition, several prestigious personal honours have been bestowed on faculty in the last five years, which recognize the prominence and influence of the School in business and academic communities. These awards include a 3M National Teaching Fellowship and OCUFA Teaching Award (Dr. Nick Bontis, 2009); the President's Award for Graduate Supervision (Dr. Mahmut Parlar, 2013); President's Award for

---

[13] The six additional chairs are: Teresa Cascioli Chair in Entrepreneurial Leadership (Dr. Benson Honig); Wayne C. Fox Chair in Business Innovation (Dr. Milena Head); Michael Lee-Chin & Family Chair in Investment and Portfolio Management (Dr. Ronald Balvers); CIBC Chair in Financial Markets (Dr. Jiaping Qiu); BMO Financial Group Chair in Capital Markets – Financial Literacy and the Individual Investor (Dr. John Maheu). The three professorships are: Michael Lee-Chin & Family Professor in Strategic Business Studies (Dr. Peter Miu); TMX Industry Professor (Dr. Sherry Cooper); Michael Lee-Chin & Family Professor in Strategic Business Valuation (currently vacant). See http://www.degroote.mcmaster.ca/faculty-and-research/research-chairs-and-professorships/ for full descriptions and faculty bios.

Excellence in Instruction (Dr. Teal McAteer, 2012); Best Paper Award, Journal of Organizational Behavior (Dr. Catherine Connelly, 2012); Most-Cited Paper Award, International Journal of Human-Computer Studies (Dr. Milena Head, 2012); Outstanding Paper, International Journal of Development Issues (Dr. Christopher Longo, 2012). DeGroote faculty members are also responsible for over 30 papers published in the *Financial Times* Top 45 Journals in the last five years.

9.2 Evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience

Faculty Enhancement and Renewal

Since 2009, the DeGroote School of Business has recruited 15 new faculty members at all ranks (five Professors; two Associates; and eight Assistants) in each of the School's areas of specialization. Of these 15, two are holders of endowed chair positions (Drs. Balvers and Maheu; see footnote on previous page). The Accounting and Finance areas in particular have recruited three faculty members each; with the start of the School's Master of Finance Program in 2013 and the Graduate Diploma in Professional Accountancy in 2014, both areas have ensured the highest quality support from its faculty. The School is also home to the DeGroote CPA Centre which supports education and research in Accounting through research funding and scholarships (including toward the Graduate Diploma) as well as recognition.

Graduate Research and Supervision

As of August 2014, 31 faculty members supervise, and an additional four co-supervise, a total of 73 graduate students (CRC holders account for seven student supervisions). In addition, there is significant faculty support in the School's six specialized graduate programs[14].

MBA Programs are traditionally more practical in nature. The DeGroote School of Business features a robust co-op program that partners with 92 businesses (as of 2014) and has accounted for (on average) approximately 72 percent of full-time enrolment over the last five years. In addition to the structure of the program itself, many opportunities exist within the curriculum for students to gain practical business experience, including D700 Case Analyses and Presentations in which students represent the School at national/international case competitions, and D701 A.T. Kearney Student Lab, a course offered in partnership with A.T. Kearney (a global management consulting firm) at which students are paired with A.T. Kearney clients to address real-world strategic and operations-based business problems.

---

[14] The six specialized programs are: Master of Finance (MFin), Master of Science (MSc) in eHealth, Master of Science (MSc) in Global Health, Master of Health Management (MHM), Health Policy PhD and the Graduate Diploma in Professional Accountancy. The DeGroote School of Business also partners with the Department of Communication Studies in delivering the McMaster-Syracuse Master of Communications Management (MCM) program.

10. CONSULTATION PROCESS

10.1 Description of the consultation process undertaken during the development of the proposal

Discussions have been on-going since early 2013 among the leadership and faculty of the DeGroote School of Business on the possibilities of a new Executive MBA program that would integrate the traditional MBA program requirements with a focus on digitally-driven innovation, technology and Big Data insights. We have consulted informally with students and graduates during the same time period.

The program was informally proposed at a Faculty of Business meeting on February 7, 2013, and formally proposed at a Faculty meeting on May 29, 2013. On December 12, 2013 and February 7, 2014, the Faculty reiterated the value of the proposed program at one-day strategy retreats facilitated by McKinsey involving faculty, staff and consultants (with over 60 in attendance).

Following the retreats and the hiring of Dr. Michael Hartmann to support EMBA.DT development, an ad hoc Program Design Committee was struck (first meeting was April 28, 2014) and met weekly beginning Monday, May 12, 2014 ("Monday at 9 WebEx") to assemble a framework for the new program. The Design Committee also met for a retreat on May 30, 2014 at the RJC. Members of the ad-hoc committee are provided in **Appendix G-1**.

Regular updates on the progress of the Design Committee were included as part of Faculty of Business meetings throughout 2014 and continued to receive unanimous support.

On July 9, 2014, the EMBA Design Committee met with a group of external stakeholders and partners in Toronto to present the current framework for critical feedback. This was followed up by a smaller retreat on July 28, 2014 with further external advisors. All attending (informally) approved the framework.

Individual members of the Design Committee have also had a series of meetings with external stakeholders to receive further input and support. These meetings have culminated in partnership agreements, case-writing and commitments to providing EMBA.DT candidates. A list of these external stakeholders can be found in **Appendix G-2.**

In addition, letters of support have been obtained from key business leaders and academics, and can be found in **Appendix H**.

Appendix A: Comparative Canadian EMBA Program Data

Table 1

University (School)	Program length in months	Total program Fee	Location	International Study Tour	Focus	Delivery Model
Alberta-Calgary (Haskayn	22	$58,000*	Calgary	Yes	General	Fri-Sat + 1 week residential module
Athabasca	30	$49,408	Alberta	No	General	on-line with 1-week residential module for electives
British Columbia (Saude	18	$66,425	Vancouver	Yes	Focused - Heal	Thurs to Mon
Concordia (Molson)	23	$68,000	Monteal	Yes	General	1 day per week
Fredericton (Sandermoe	29	$24,500	Fredricton	No	Focused	on-line format
McGill-HEC Montréal	15	$78,000	Montreal	Yes	General	Mon-Thu once per month + 2 x 7-day residential modules
Ottawa (Telfer)	22	$67,500	Ottawa	Yes	General	Fri-Sat once per month + 2 x 7-day residential modules
Prince Edward Island	20	$35,184	Charlottetown	No	Focused	Fri-Sat every second week
Queen's	16	$90,000	GTA/Surrounding Are	Yes	General	Fri-Sat every other week + 3 x 1-week residential modules
Regina (Levene)	20	$43,298	Regina	Yes	General	evening, online or weekend/week-long intensive modules
Saint Mary's (Sobey)	18	$45,000*	Halifax	Yes	General	Fri -Sat every second week
Simon Fraser (Beedie)	20	$49,500	Vancouver	Yes	General	Fri-Sat every other week in year 1 + 4 x 9 day modules in year 2
Toronto (Rotman)	13	$106,000	GTA/Surrounding Are	No	General	Fri-Sat every other week + 4 x 7-day residential modules
Toronto (Rotman) Omniu	18	$101,000*	GTA/Surrounding Are	Yes	General	6 x 10-day modules
Western (Ivey)	17	$95,000	GTA/Surrounding Are	No	General	Thu-Sun once per month + 1-week residential module per term
York (Kellogg-Schulich)	18	$115,000	GTA/Surrounding Are	Yes	General	Alternating weekends + 2 x 1-week and 1 x 10 day residential module
DeGroote	15	$78,000*	GTA/Surrounding Are	Yes	Focused - Digit	5x 10-14 day residential periods + on-line activity
* denotes added fees for residential periods						

Table 2

University (School)	Minimum years work experience	Minimum years management experience	Without Degree - Minimum years work experience	GMAT Requirements
Alberta-Calgary (Haskayr	7	0	10	500+
Athabasca	0	3	8	Not required
British Columbia (Saude	8	3		Selective requirement, 550+
Concordia (Molson)	5	0		Selective requirement, 500+
Fredericton (Sandermoe	5	2		Selective requirement, 550+
McGill-HEC Montréal	10	5		Not required
Ottawa (Telfer)	5	0		Selective requirement, 550+
Prince Edward Island	3	3	3	550+
Queen's	8	0		Selective requirement
Regina (Levene)	5	5	7	Not required
Saint Mary's (Sobey)	5	5		Required, but not stated
Simon Fraser (Beedie)	10	4		GMAT only required for those who do not have prior degree qualifications
Toronto (Rotman)	8	3		GMAT of 550+ or Rotman assessment
Toronto (Rotman) Omniu	5	3		GMAT of 550+ or Rotman assessment
Western (Ivey)	8	0		Selective requirement
York (Kellogg-Schulich)	8	5		Selective requirement
DeGroote	5	0	7	Selective requirement, 550+

Appendix B: Program Learning Outcomes

Upon completion of the graduate program, graduates will be able to:

- Successfully lead/manage a growing ecosystem of digital technology partners to ensure resource efficiency and alignment to business strategy.

- Anticipate the value-add of digital technologies in addressing business challenges and opportunities.

- Develop robust and persuasive business cases for new investments in technology and the underlying processes and systems.

- Analyze data, make critical interpretations and place these findings into context with the published scientific literature in the development and introduction of new innovation activities.

- Lead and successfully manage a research project within a highly diverse (culture, function, geography, etc.) team structure.

- Anticipate and effectively manage organizational risks linked to the use of current and emerging digital technologies, innovations and data-driven insights.

- Have the confidence and skills to make an effective contribution, at the level of the executive board, to setting and operationalizing organizational strategy.

- Integrate theoretical concepts and synthesize knowledge from various disciplines to develop a digital innovation mindset.

Appendix C: The association of Program Learning Outcomes with the Graduate Degree Level Expectations

Program Learning Outcomes (PLOs)		Program Requirements	
By the end of the program, student graduating with a Masters degree will...	Master's Degree Level Expectations (DLEs)	Teaching Activities & Learning Opportunities	Assessments and Evidence
1. Anticipate the value-add of digital technologies in addressing business challenges and opportunities.	1, 2, 3, 4, 5, 6	• M600 MARKETING CONCEPTS • P734 STRATEGIC MANAGEMENT OF DIGITAL INNOVATION, TECHNOLOGY AND DATA • K603 DIGITAL INFORMATION SYSTEMS • B733 ENTREPRENEURSHIP FROM A DIVERSE BASE	• Assignments • Case studies • Class participation • Simulation score • Tests
2. Develop robust and persuasive business cases for new investments in technology and underlying processes and systems.	1, 2, 4, 6	• K603 DIGITAL INFORMATION SYSTEMS • B733 ENTREPRENEURSHIP FROM A DIVERSE BASE • M733 MARKETING ANALYTICS • V700 STRATEGIC BUSINESS ANALYSIS AND VALUATION	• Assignments • Case studies • Class participation • Simulation score • Tests
3. Successfully lead / manage a growing ecosystem of digital technology partners to ensure resource efficiency and alignment to business strategy.	1, 2, 4, 6	• TBD INNOVATION GOVERNANCE AND DESIGN THINKING • P720 STRATEGIC MANAGEMENT • K603 DIGITAL INFORMATION SYSTEMS • H721 DATA ANALYTICS FOR DECISION-MAKING	• Assignments • Case studies • Class participation • Simulation score • Tests
4. Analyze data, make critical interpretations and place these findings into context with the published scientific literature in the development and introduction of new innovation activities.	1, 2, 4, 5, 6	• A600/F600 ACCOUNTING/FINANCE INFORMATION FOR DECISION-MAKING • M600 MARKETING CONCEPTS • Q600 FOUNDATIONS OF BUSINESS STATISTICS (ANALYTICS) • M733 MARKETING ANALYTICS • H721 DATA ANALYTICS FOR DECISION-MAKING	• Assignments • Case studies • Class participation • Project • Simulation score • Tests

Program Learning Outcomes (PLOs)		Program Requirements	
By the end of the program, student graduating with a Masters degree will...	**Master's Degree Level Expectations (DLEs)**	**Teaching Activities & Learning Opportunities**	**Assessments and Evidence**
5. Lead and successfully manage a research project within a highly diverse (culture, function, geography, etc.) team structure.	3, 5	• D701 CAPSTONE PROJECT	• Project
6. Anticipate and effectively manage organizational risks linked to the use of current and emerging digital technologies, innovations and data-driven insights.	1, 2, 4, 6	• B715 INSPIRING INDIVIDUAL LEADERSHIP • B600 ORGANIZATIONAL BEHAVIOUR • H721 DATA ANALYTICS FOR DECISION-MAKING	• Assignments • Case studies • Class participation • Simulation score • Tests
7. Have the confidence and skills to make an effective contribution at the level of the executive board to setting and operationalizing organizational strategy.	1, 2, 3, 4, 5, 6	• TBD INNOVATION GOVERNANCE AND DESIGN THINKING • P720 STRATEGIC MANAGEMENT • D701 CAPSTONE PROJECT	• Assignments • Case studies • Class participation • Project • Simulation score • Tests
8. Integrate theoretical concepts and synthesize knowledge from various disciplines to develop a strategic innovation mindset.	1, 2, 3, 4, 5, 6	• M600 MARKETING CONCEPTS • M733 MARKETING ANALYTICS • H721 DATA ANALYTICS FOR DECISION-MAKING • P720 STRATEGIC MANAGEMENT • V700 STRATEGIC BUSINESS ANALYSIS AND VALUATION • D701 CAPSTONE PROJECT	• Assignments • Case studies • Class participation • Project • Simulation score • Tests

	MASTER'S DEGREE *This degree is awarded to students who have demonstrated:*
1. Depth and Breadth of Knowledge	A systematic understanding of knowledge, including, where appropriate, relevant knowledge outside the field and/or discipline, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study, or area of professional practice.
2. Knowledge of Methodologies	A conceptual understanding and methodological competence that a) Enables a working comprehension of how established techniques of

	research and inquiry are used to create and interpret knowledge in the discipline; b) Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence; and c) Enables a treatment of complex issues and judgments based on established principles and techniques; and,
	On the basis of that competence, has shown at least one of the following: a) The development and support of a sustained argument in written form; or b) Originality in the application of knowledge.
3. Level of Application of Knowledge	Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.

4. Professional Capacity/ Autonomy	a) The qualities and transferable skills necessary for employment requiring:
	    i) The exercise of initiative and of personal responsibility and accountability; and
	    ii) Decision-making in complex situations;
	b) The intellectual independence required for continuing professional development;
	c) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and
	d) The ability to appreciate the broader implications of applying knowledge to particular contexts.

5. Level of Communication Skills	The ability to communicate ideas, issues and conclusions clearly.
6. Awareness of Limits of Knowledge	Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.

Appendix D: Course descriptions for the EMBA.DT program

Module 1: Foundations Module

The rapidly growing volume, variety and velocity of data, along with the emergence of new digitally-driven innovations and technologies presents significant and novel opportunities and challenges to businesses. The primary goal of Module 1 is to provide students with both a foundation in core management concepts and knowledge and help them draw on this knowledge in order to better ask the right questions, to generate and communicate insights from analyses and to translate these insights into actions.

A600/F600 Accounting/Finance Information for Decision-Making
This course will introduce core concepts of accounting and finance and apply these concepts through extensive use of problems, cases, and real-time analyses. This course is preceded by pre-work self-study modules in accounting and finance (from HBR) that cover the basic principles in financial accounting and finance.

In the financial accounting part of the course, the conceptual framework of accounting, generally accepted accounting principles, financial statements, and financial statement analysis are covered. By the end of the term, students will have technical knowledge of the process by which the balance sheet, income statement, and cash flow statement are prepared. In addition, students will be able to read and interpret financial statements.

The finance part of the course coverage centers on the time value of money, the trade-off between risk and return, security valuation, capital budgeting, capital structure, dividend policy, and risk management. Upon completion of the finance unit, students will be able to price equities, fixed income securities, and derivatives; assess investment opportunities; manage working capital of the firm, ensuring smooth day to day operation; and evaluate financing decisions including capital structure and cash distribution strategies.

M600 Marketing Concepts
This course will introduce core principles of marketing and provide a sound, conceptual portfolio of marketing tools for analyzing and addressing marketing problems. The goal of this course is to facilitate better strategic and tactical marketing decision-making. What sets marketing apart from other disciplines is its focus on the customer, and time will be spent understanding how marketers view consumers and how that enhances the quality of their business decisions. This customer-centric view will provide the basis for examining key strategic marketing decisions of segmentation, targeting and position, as well as tactical marketing decisions based on elements of the marketing mix (such as pricing, distribution, product and promotion). Effective marketing results from systematic critical thinking, the reasoned application of essential marketing principles and the use of data-driven decision-making (and not merely from internalizing marketing facts and institutional knowledge). The course will therefore focus on understanding and applying core marketing principles to make better business decisions. Thus, the course will emphasize experiential learning approaches (including discussions of cases and the experiences of the delegates, as well as a simulation game) to focus on using a combination of core marketing

concepts and tools, critical thinking skills and data to make better strategic and tactical marketing decisions.

Q600 Foundations of Business Statistics (Analytics)
This core course will provide the fundamental ideas and concepts from statistical analysis, i.e. the art and science of extracting information from data. Commencing with a brief discussion of the basic elements of exploratory data analysis, probability theory and statistic inference, the course will then explore data modeling, and cover simple and multiple linear and nonlinear regression. This will be followed with a discussion of multicollinearity and fine-tuning the model to enhance its predictive power. Throughout the course data sets will be used, involving, for example, house prices, direct marketing, soft drink sales, customer spending and stock prices. The regression methodology and the data sets introduced will be used to solve business problems, such as the prediction of future sales and the response of the market to price changes. The use of regression diagnostics and various graphical displays will supplement the basic numerical summaries and provide insight into the validity of the models. The students will also gain familiarity with an easy-to-use spreadsheet-based statistical software, MegaStat (an Excel add-in) and the free software environment for statistical computing and graphics known as R. These software programs will help the students in solving the large-scale problems arising from the case discussions.

K603 Digital Information Systems
This course will introduce students to the fundamental concepts of digital information systems and how they support management and operations in the modern business environment. The fundamental question addressed is: What is the role of digital information systems in creating and sustaining a competitive advantage for organizations in today's complex business environment, and how can this could be achieved? The overall goal is to ensure that managers are equipped with sufficient knowledge to make informed decisions involving digital information systems (including those leveraging Big Data). As such, the roles and importance of digital information systems across various business functions will be examined. The critical role of such systems in achieving integration within organizations, as well as between organizations and their partners and customers, will also be covered. The course will employ an experiential learning approach utilizing case studies to expose students to the various opportunities and challenges involved in managing with digital information systems in different industries and contexts.

B715 Inspiring Individual Leadership
Personal and professional development will form a common theme throughout this course. The practice of leadership will also be thoroughly considered. Illustrations and applications of leadership principles will be demonstrated through self-assessment and coaching development exercises. An emphasis will be placed on a leader's ability to build engagement.

Module 2: The Big Data Life Cycle

Whether launching a new organization or extending an existing one in new directions, firms are increasingly drawing on the value-creating potential of digitally-driven innovations, technologies and Big Data/Data Analytics insights. This module will examine how these factors are reshaping the world of marketing and offering new opportunities for entrepreneurs and intrapreneurs to create new business ventures. This international module (set in Silicon Valley) will introduce students to the established firms and the start-ups who are transforming the digital landscape.

B733 Entrepreneurship from a Diverse Base
Bringing together teams with different sets of experiences and from different academic orientations to explore the development of new projects and new ventures will be one of the goals of this particular course. A secondary goal is to explore the theoretical and empirical study of entrepreneurship and intrapreneurship, entrepreneurial thinking and project promotion, development, support, and project life-cycle. This course will help students draw on current theoretical frameworks for their future entrepreneurial and intrapreneurial activities, through familiarity with what research says is most typical, effective, and characteristic for new ventures and project development. The course will include a one-day seminar with an experienced venture capitalist (Kevin Talbot, Relay Ventures), as well as site visits to luminary Silicon Valley firms such as Xerox Park, Google, and others.

M733 Marketing Analytics
For the marketing component, some key words heard frequently in marketing departments today are data science, analytics, informatics, bio-informatics, algorithms, Big Data and data mining. Great marketing decisions are typically based on the sophisticated analysis of timely in-depth consumer, competitor and environmental information. Students in Module 2 will get hands-on experience with the tools used by the most advanced marketing consultants and large successful marketers. We'll study predictive analytics, data visualization, key marketing models, social media research, text analytics, Big Data, marketing segmentation, data mining, and more, through discussions, site visits, cases and projects. Students will learn how to use the most popular and powerful software that they will encounter when conducting marketing analyses in business.

Module 3: Thinking and Leading Outside the Bytes

This module is designed to help students explore the organizational leadership challenges of building direction, alignment and commitment within a fast-moving ecosystem of technology partners. It will examine how Big Data/Data Analytics can be used to enhance decision-making related to the management of human capital as well as explore the application of data analytics and neuroscience to individual and team-based leadership perceptions and potential decision-making biases.

OB600 Organizational Behaviour
This course will enable to you analyze, understand and effectively manage the human dynamics that characterize organizations, so that data analytics and technology can best be leveraged to meet the needs of internal and external stakeholders. Individual differences in personality,

decision-making capabilities, and work motivation will be considered, along with such topics as power, influence and facilitating change. Insights from these areas will be applied to an examination of transformational leadership, which can be used to build a team-based culture characterized by mutual trust, support, and justice—all of which foster innovation and the ongoing attainment of organizational objectives. A complete understanding of human dynamics will be applied to leadership and management of teams within a complex ecosystem of partners.

H721 Data Analytics for HR Decision-Making
This course will provide you with the knowledge and abilities required to effectively leverage human resources so that they are optimally aligned with the strategic direction of the organization. The implications of emerging technology applications, including data analytics ("big data") and neuroscience, for contemporary human resource practice will be considered, as will the impact of varying legal frameworks that govern domestic and multinational operations. Job design, planning, recruiting, selection, orientation, training and development, performance management, compensation, and benefits, will each be addressed for their implications in the world-wide competition for talent. A group field project will provide the opportunity for participants to analyze and make recommendations regarding the optimal alignment of company talent management practices in relation to a target job. Group-oriented case work will also be used to fully leverage the collective experience of program participants.

TBD700 Innovation Governance and Design Thinking
This course is designed to help students explore the governance and leadership challenges of building direction, alignment and commitment within a fast-moving ecosystem of technology stakeholders tasked with advancing an innovation agenda such as the development of a new product or service. Challenges such as identifying and overcoming barriers to innovation will be examined through a multi-team negotiation exercise and change management case study. The course will introduce students to the concepts of Innovation Governance and Design Thinking with its emphasis on the framing and testing of hypotheses through ethnographic research as a complement to data mining and analytic techniques. The course will be delivered in a highly interactive format, drawing on small group activities, case studies and simulations that will challenge participants to think critically about how they can leverage the benefits of Big Data and ensure that these benefits are operationalized in a timely and effective manner. Students will also have an opportunity to engage with senior industry leaders with experience in the application of Design Thinking and Big Data approaches to address complex business challenges.

Module 4: Value Creation and Destruction in the Digital Age

This integrative module weaves together concepts and content from the preceding modules and the program's themes of digital transformation. Students will be equipped with the strategic knowledge and tools needed to leverage the dynamic capabilities that exist within a firm and its ecosystem of partners in order to create value. Faculty will draw on industry cases to illustrate examples of how business have both succeeded and failed in their attempts to leverage digitally-driven innovations, technologies and insights.

P720 Strategic Management
This class is designed for managers and executives who regularly make strategic decisions that affect the long-term viability of their firms and their careers. It begins at the premise that successful firms seek combinations of three types of competitive advantage—based on cost, differentiation, and innovation—that lead to strong performance. The discussion of strategic management is framed around the need to develop a clear vision for how a firm can create value for existing and potential customers. Students will systematically analyze key elements of the competitive environment, with the dual goal of identifying threats to their current positions as well as opportunities to create profitable new positions addressing emergent customer demands and segments, which often require developing a new vision for the business. Then discussions will take place on ways in which firms can build on their existing technological and organizational capabilities to take advantage of opportunities related to their existing value proposition and, more importantly, create new capabilities to take advantage of new opportunities that emerge in competitive and customer space. The course focus is explicitly on organizations in technology-intensive industries who seek to gain a completive advantage by effectively leveraging their digital and data assets.

V700 Strategic Business Analysis and Valuation
The course explores theoretical underpinnings and practical applications of contemporary valuation theory. During the course, students will learn how to evaluate a company's strategic position based on economic indicators constructed using historical data. Building on a traditional valuation framework, the course will introduce students to strategic valuation tools that recognize investment opportunities missed by standard discount cash flow analysis. Students will learn how to take into account the ability of firms to adjust to new conditions, and the costs and potential rewards of doing so. Accounting for the fact that knowledge economy has given rise to intellectual property competition, including proprietary digital technology, the course will also introduce students to intangible assets valuation.

The course is delivered in a collaborative learning environment through lectures, discussions, case studies and a review of current research. In-class instruction will be supported by an online component.

Module 5: Digital Frontiers

As in module 4, module 5 allows students to bring together the various concepts and tools they have acquired throughout the program. A strategic management course will present several up-and-coming issues and opportunities in the digital transformation space. Students will critically analyze digital innovation, technology and Big Data issues and gain insight that will help their respective organizations leverage forthcoming opportunities and mitigate associated risks. Additionally, the program-long Team Projects will culminate in a Capstone report and presentation, where students have an opportunity to apply, in a team context, what they have learned to a real digital transformation issue. This unique learning experience will provide tangible value to their organizations.

P734 Strategic Management of Digital Innovation, Technology and Big Data
This course covers current topics of particular interest in the management of digital innovation, technology and Big Data/Data Analytics, drawing on the expertise of faculty members and invited presentations by industry executives. Examples of topics that will be discussed include, but are not confined to, new market opportunities driven by emerging digital technologies, knowledge worker productivity, strategic management of intellectual capital, knowledge management tools and tactics, ethical issues associated with data privacy, and the risks posed by cybercrime. Learning will be through lectures, a series of original mini-cases, guest speakers and student papers.

D701 Capstone Project
The EMBA.DT Capstone Team Project is a two-credit course that is initiated at the beginning of the program and allows student teams to develop their projects throughout the program curriculum. Under the guidance of faculty and industry mentors, students will gain tangible experiences and insights on the opportunities and challenges associated with digital technologies (such as Big Data). This will be accomplished by delving into projects that are relevant and meaningful to their organizations and industries. Students will gain an understanding of how emerging technologies can revolutionize the way decision-makers and businesses can harness the power of digital technologies and they will gain practical lessons on leadership, teamwork and stakeholder management within the context of initiatives related to digital technologies.

Teams of up to five students will work together on the Capstone Team Project. These teams will be identified before the beginning of Module 2, based on project interests, employer industry and individual leadership/teamwork/personality inventories. Each student team will be assigned at least one faculty mentor and at least one industry mentor, who will work closely in guiding the teams on their project development throughout the program. The mentors will also be responsible for assessing the student teams at quality assurance tollgates and their final presentations/reports.

Upon completion of the EMBA.DT Capstone Team Project, students will be able to:

- Identify opportunities where digital technologies could be leveraged within organizations in a transformative way.
- Assess digital technology issues to identify root causes.
- Identify important and relevant information to support the analysis of digital technology related issues.
- Apply and integrate theories from various business disciplines to digital technology issues.
- Perform persuasive analyses to assess industry and organizational contexts.
- Generate realistic alternatives, from which a well-reasoned course of action is recommended.
- Build, foster and manage effective teams.
- Work in a cross-functional team and understand various stakeholders' points of view.

- Demonstrate skills to handle ambiguity.
- Demonstrate effective leadership and stakeholder management skills.

NOTE: All courses listed in this program brief are specific to the EMBA.DT program and as such, enrolment is restricted solely to EMBA.DT students. For the purposes of this document, **MBA course codes** *have been used to demonstrate a link to current MBA content and/or subject areas.*

Appendix E: A closer look at several Big Data/Data Analytics graduate programs

<u>**Queens – Master Program in Management Analytics**</u>
10-months modular
Optional 2 day intro course at SAS

Residential Session 1   (Kingston – one week in June)
        Creating High-Performance Teams
        Introduction to Management
        Mathematical Foundations
Module 1 (Toronto)
        Acquisition and Analysis of Data
        Big Data
Module 2 (Toronto)
        Multivariate Statistical Analysis
        Marketing Analytics

Residential Session 2 (Kingston - one week in October)
        Project Leadership
        High-Performance Teams
        Data Privacy Workshop
        Entrepreneurship Workshop
Module 3 (Toronto)
        Operations and Supply Chain Analytics
        Analytical Decision Making
Module 4 (Toronto)
        Analytics for Financial Markets
        Pricing Analytics
Module 5 (Toronto)
        Management of Analytics
        Text Analytics & Sentiment Analysis

<u>**Schulich**</u>
1 year Masters of Business Analytics
Required Core Courses

Fall
MBAN 5110 3.00
Introduction to Predictive Modeling
MBAN 5120 1.50
Data Management & Programming I
MBAN 5150 3.00
Skills For Leadership
OMIS 6000 3.00
Models and Applications in Operational Research

Winter
MBAN 5220 3.00
Data Management & Programming II
MBAN 5250 1.50
Analytics Consulting
MBAN 6300 3.00
Case Analysis and Presentation Skills
MBAN 6400 3.00
Multivariate Methods for Business Analytics

Summer
MBAN 6090 9.00
Major Research Project

Stream Options
Students can choose to specialize in marketing or supply chain management. Alternatively, students can pursue courses within the general stream which provides a large variety of electives to choose from.

MKTG 6360 3.00
Marketing Metrics
OMIS 6500 3.00
Global Operations and Information Management
MKTG 6050 3.00
Marketing Research
OMIS 6560 3.00
Supply Chain Management
OMIS 6350 3.00
Advanced Spreadsheet Modelling and Programming for Business
MKTG 6300 3.00
Service Marketing
MKTG 6250 3.00
Business Marketing
MKTG 6150 3.00
Consumer Behaviour

Johnson Graduate School of Management at Cornell University
1 year MBA

Summer semester in Ithaca
Prework: self-paced study of Statistics and Economics
May: testing for Statistics and Economics, NYC Intro, Leadership
June: Accounting, Critical Thinking, Tech Innovations
July: Finance, Strategy, Skills Clinics
August: Marketing, Big Data Analytics, Integrative Case

Fall semester in NYC

- August through December: Startup Project (ideation, team forming, proof of concept) and Existing Enterprise Project
- August: Boot Camp
- September: Product Management with technical degree students, Design Thinking, Operations
- October: Ethical Leadership, Digital Marketing, Tech Strategy
- November: Agility, FSA/Valuations
- December: Experiential Learning — Global Tech and Negotiations
- Early January: Global trek to Israel, Entrepreneurial Finance
- January to May: Career-directed Project Concentration/Focus
- February: Connective Media / Healthy Living, Macroeconomics
- March: Social Entrepreneurship, Cost Accounting
- April: Product/Software Development Process, Agility
- May: Sales and Business Development, Small Business Operations

Appendix F: Committee Members

Table 1: Faculty on Ad-hoc Program Design Committee:

Name	Title	Area
Nick Bontis	Associate Professor	Strategic Management
Anna Danielova	Associate Professor	Finance and Business Economics
Rick Hackett	Acting Associate Dean, Faculty Affairs & Accreditation	Human Resources Management
Michael Hartmann	Professor	Human Resources Management
Khaled Hassanein	Professor	Information Systems
Milena Head	Professor	Information Systems
Benson Honig	Professor	Human Resources Management
Manish Kacker	Associate Professor	Marketing
Tony Kang	Professor	Accounting and Financial Management Services
Brent McKnight	Assistant Professor	Strategic Management
Emad Mohammad	Associate Dean, Academic	Accounting and Financial Management Services
Ali Montazemi	Professor	Information Systems
Peter Miu	Professor	Finance and Business Economics
Mahmut Parlar	Professor	Operations Management
Kevin Veenstra	Assistant Professor	Accounting and Financial Management Services
Leonard Waverman	Dean	DeGroote School of Business

Staff:
Steve Cox, Casewriter
Bryan Mehi, Program Administrator

Table 2: Business Advisory Committee Members & Outreach:

Last Name	First Name	Organization	Title
Albright	John	Relay Ventures	Co-Founder & Managing Partner
Ariker	Matt	McKinsey	Chief operating officer, Consumer Marketing Analytics Center
Bigg	James	TheScore	Communications Manager
Burgess	Rob	Adobe, Inc.	Director
Chisholm	James	ExperiencePoint	Co-Founder & Principal
Cushing	Daniel	Executive Core	Executive Development Partner
Dembo	Ron	Zerofootprint	Founder & CEO
Dow	Cameron	SAS	VP Marketing
Jaffer	Ali	McKinsey	Consultant
Jenkins	Tom	OpenText	Chairman
Kawale	Nitin	Cisco Systems Canada Co.	President
Kestle	Jan	Environics	Founder & President
Levy	John	TheScore	CEO
Morreale	Mark	SAS	Academic Program Manager
O'Donnell	Brian	CIBC	Executive VP, Risk Services
Roman	Eugene	Canadian Tire	CTO
Safavi	Omid	KPMG	Senior Partner
Steep	Mike	PARC (Xerox)	Senior Vice President, Global Business Operations
Talbot	Kevin	Relay Ventures	Co-Founder & Managing Partner
Van Severen	Michael	Deloitte	Senior Manager
Vella	Sal	IBM	VP, Rational Product Development and Customer Support
Willemse	Diane	Wal-mart	VP Organizational Capability
Zed	Paul	Cisco Systems Canada Co.	Chairman, President's Advisory Board

Appendix G: Letters of Support

CIBC

Mr. Brian O'Donnell
Executive Vice President & Chief Data Officer
25 King Street West, CCN-21ˢᵗ Floor
Toronto, Ontario M5J 2S8
Tel: 416-594-8538

Wednesday, September 17, 2014

Dr. Leonard Waverman | Dean
DeGroote School of Business
McMaster University
1280 Main St W, Hamilton, ON L8S 4L8

Subject: EMBA program to McMaster University

CIBC has been providing banking services to Canadians since 1867 and is a long-time partner with McMaster University. With over 1000 branches, more than 4000 bank machines, and banking by phone, internet and a mobile salesforce, we have developed a knack for making the big data assembled from all of these touchpoints seem accessible and personal for our clients.

CIBC has been serving Canadians for more than 150 years and has been a long-time supporter of McMaster University. For CIBC, technology and innovation are part of our DNA. . We have a track record in being the first to introduce new technologies to our branches and have been leaders in leveraging technology in the development of new channels to better serve our clients. Most recently, we have been first to market with mobile banking apps that allow our clients to bank anytime, anywhere.

Looking to the future, big data presents opportunities for us to harness information to better serve our clients and deepen our relationships with them.

CIBC has been following with the development by the DeGroote School of Business of a new MBA degree program for executives in the growing field of data analytics. We are lending our support to this program in a number of ways, including by being part of a business advisory group that is a sounding board for the development of curriculum and by identifying senior management as potential candidates for obtaining this degree. We are also interested in big data as it relates to emerging business opportunities, for CIBC, as well as our clients.

On behalf of CIBC, and as Chief Data Officer for the bank, I look forward to the launch of this degree program.

Sincerely,

Brian O'Donnell
Executive Vice President & Chief Data Officer

Everyone at theScore is proud and excited to be a founding sponsor and wholehearted supporter of the new executive MBA in digital innovation that DeGroote is pulling together for professionals in our industry. As a company operating at the very forefront of the digital revolution, providing millions of fans with the ultimate, personalized mobile sports experience, big data plays an integral role in guiding our business strategy and product offering.

Identifying and understanding our user behaviour and industry trends is crucial to our continued success, and accreditation in this burgeoning field would be hugely beneficial for a number of our team members.

Please count on theScore's support for this program.
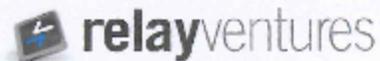
relayventures

September 29, 2014

DeGroote School of Business
McMaster University
1280 Main St W, Hamilton, ON L8S 4L8, Canada

RE: Relay Ventures supports EMBA

To Whom it May Concern:

We support the offering of an EMBA in big data analytics that is being designed and
developed by McMaster University's DeGroote School of Business.

Relay Ventures are venture capitalists to new enterprises, and are among some of
the first financiers to recognize the emerging field of big data analytics. We are very
interested in supporting the entrepreneurs behind business startups in this field,
and we have offered to play the role of host during the time students spend learning
in Palo Alto, California.

There is a tremendous market need for higher education in the field of big data
analytics, and we hope you will do everything to achieve 'speed to market' for this
offering.

With kind regards,

Kevin Talbot
Managing Partner
kevin@relayventures.com/650-223-5411

October 6, 2014

Dr. Len Waverman
Dean and Professor
DeGroote School of Buiness
McMaster University
Room, DSB 244

Dear Dr. Waverman,

I would like to acknowledge and support the proposal for the new EMBA degree within the
DeGroote School of Business that we have been discussing for several months.

This program fits within the strategies of the Faculty of Engineering and fills a gap that we see
within management programs. The proposed degree also fits with the overall direction of the
University. We are pleased to see this innovative new proposed degree. The EMBA has key
benefits that will provide future students with the development and knowledge needed to
succeed.

Thank you.

Kind Regards,

Ishwar Puri,
Dean and Professor
Faculty of Engineering

McMaster University

Vice-President
(Research and
International Affairs)

Gilmour Hall, Room 208
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone 905.525.9140
Ext. 22270
Fax 905.521.1960
Email vpresch@mcmaster.ca
http://www.mcmaster.ca/research

September 24, 2014

Dr. Leonard Waverman
Dean of Business
DeGroote School of Business
McMaster University
DSB 244

Dear Len:

I would like to acknowledge and endorse the proposal for the new EMBA degree within the DeGroote School of Business for which we have been discussing over the last year.

The EMBA not only has significant benefits on its own merit, it fits tremendously within McMaster University's Big Data initiative. The fact that the EMBA is complementary and its focus is on select areas of research and teaching excellence, it will allow future students the critical development and knowledge needed to succeed in an evergrowing marketplace of advanced analytics.

The program fits within the strategies and goals of raising McMaster University's global profile, and with that, I fully support the new EMBA degree program.

Sincerely,

Mo Elbestawi

49

To   :   Graduate Council

From   :   Christina Bryce
                Assistant Graduate Secretary
_____

At its meetings on September 29th and October 27th the Faculty of Business Graduate Curriculum and Policy Committee approved the following curriculum recommendations.

Please note that these recommendations were approved at the October 30th meeting of the Faculty of Business.

FOR APPROVAL OF GRADUATE COUNCIL:

Master of Finance
        -Change to Program Requirements

Professional Accountancy Diploma
        -Change to Admission Requirements
        -Change to Program Requirements

MBA
        -Change in Course Requirements:
                -Co-op Work Term
                -Accounting and Financial Management Services specialization

FOR INFORMATION OF GRADUATE COUNCIL:

Master of Finance
        -New Courses
                –*610 Career Development Tools and Strategies for Finance Professionals
                -*707 Financial Modeling Using Excel and VBA
                -*710 Financial Theory
                -Change to anti-requisites: BUS *710 Financial Economics and Quantitative Methods
                -Course Title and Description Change * 603 Macroeconomics

Professional Accountancy Diploma
        -New Course – DPA 600: Professional Workshops

MBA
        -Course Cancellation

-C735 Proposal Development for Health Care Leaders

-Change in Title and Description
-O735 Procurement Operations Management

-New Courses:
-C750 Ethical and Legal Issues in Health Care
-WT01 Co-op Work Term 1
-WT02 Co-op Work Term 2
-WT03 Co-op Work Term 3

Business Ph.D.
-Course Title and Description Changes: Q773 and Q774

Health Management
-Change to Course Evaluation
-HM 708 Leadership in Health Organizations

-New Courses
-HM 731 Economic Evaluation in Healthcare
-HM 732 Strategic Writing for Healthcare Professional
-HM 733 Knowledge Translation in Healthcare Practice and Management
-HM 734 Quality and Safety in Healthcare

McMaster University

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM
- FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS /
 PROCEDURES

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1. This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: *espiritu@mcmaster.ca*).
3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	DeGroote School of Business						
NAME OF PROGRAM	Master of Finance						
PROGRAM DEGREE	Ph.D. ( )	M.A. ( )	M.A.Sc. ( )	M.B.A. ( )	M. Eng. ( )	M.Sc. ( )	Diploma Program ( )	**Other** *(Specify)* X

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*			
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	**CHANGE IN COURSE REQUIREMENTS**
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	**EXPLAIN:**		
OTHER	**EXPLAIN:**		

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

Currently, there is not a Career Development Course for Master of Finance students

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

Please see attached document for a summary of the proposed course outline.

RATIONALE FOR THE RECOMMENDED CHANGE:

Currently there is not a mandatory career development component for MFin students. Given that most students are entering into the program with minimal business work experience, this course will help them to develop and augment their abilities to effectively market themselves to employers

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

A pilot of this program will be offered in Fall of 2014 with the formal course will commencing in August 2015 (new cohort).

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

NO

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

A career development series of lectures and interactive forums to equip students with the necessary tools to aid in their summer and graduate recruitment search process. Topics include: skills assessment, resume and cover letter development, interview skills, networking and job search strategies.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Michelle Reyes   Email: mreyes@mcmaster.ca   Extension: 27300   Date: September 4, 2014

If you have any questions regarding this form, please contact the Assistant Secretary and SynApps System Administrator, School of Graduate Studies, extension 24204.

SGS/December 2006

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

<table>
<tr><td colspan="2">IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

1. This form must be completed for ALL changes involving degree program requirements/procedures. All sections of this form must be completed.

2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.

3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which　　　　　this recommendation for change in graduate curriculum will be discussed.</td></tr>
</table>

<table>
<tr><td>DEPARTMENT</td><td colspan="8">DeGroote School of Business</td></tr>
<tr><td>NAME OF PROGRAM</td><td colspan="8">Finance and Business Economics Area, Master of Finance</td></tr>
<tr><td>PROGRAM DEGREE</td><td>Ph.D. ( )</td><td>M.A. ( )</td><td>M.A.Sc. ( )</td><td>M.B.A. ( )</td><td>M. Eng. ( )</td><td>M.Sc. ( )</td><td>Diploma Program ( )</td><td>Other (Specify)
M. Fin.</td></tr>
</table>

<table>
<tr><td colspan="4" align="center">NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</td></tr>
<tr><td>CHANGE IN ADMISSION REQUIREMENTS</td><td>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</td><td>CHANGE IN COURSE REQUIREMENTS</td><td>X</td></tr>
<tr><td>CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR</td><td colspan="3">EXPLAIN:</td></tr>
<tr><td>OTHER CHANGES</td><td colspan="3">EXPLAIN:</td></tr>
<tr><td colspan="4">DESCRIBE THE <u>EXISTING</u> REQUIREMENT/PROCEDURE:

BUS F735 is a permitted elective.</td></tr>
</table>

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

BUS F735 will be deleted and FIN 707 added as a permitted elective.

RATIONALE FOR THE RECOMMENDED CHANGE:

To provide a more appropriate course for the Master of Finance program.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

September 2015

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: C. C. Y. Kwan   Email: kwanc@ mcmaster.ca   Extension: 23979   Date submitted: Oct. 14, 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

McMaster University

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which   this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	DeGroote School of Business
NAME OF PROGRAM	Graduate Diploma in Professional Accountancy Program

PROGRAM DEGREE	Ph.D. ( )	M.A. ( )	M.A.Sc. ( )	M.B.A. ( )	M. Eng. ( )	M.Sc. ( )	Diploma Program (x)	Other *(Specify)*

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*		
CHANGE IN ADMISSION REQUIREMENTS	x **CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	**CHANGE IN COURSE REQUIREMENTS**
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	**EXPLAIN:**	
OTHER CHANGES	**EXPLAIN:**	

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

Candidates who have completed the equivalence of the CPA Prerequisite Education Program (PREP) in McMaster University's Honours Commerce program (and MBA program) are eligible to apply for the Graduate Diploma.

The admission requirements are:

(i)   A four-year honours bachelor degree;

(ii)   At least a B- (70 - 72%) average in courses on economics; statistics; corporate finance; introductory, intermediate and advanced financial accounting; introductory, intermediate and advanced managerial

accounting; accounting theory; audit and assurance; business law; and taxation with a passing grade (>= 60%) in each course; and

(iii) At least a B (73 - 76%) average in each of the last two years of university study.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

Candidates who have completed the equivalence of the CPA Prerequisite Education Program (PREP) in McMaster University's Honours Commerce program (and MBA program) are eligible to apply for the Graduate Diploma.

The admission requirements are:

(i) A four-year honours bachelor degree;

(ii) At least a B- (70 - 72%) average in courses on economics; statistics; corporate finance; information systems; operations management; introductory, intermediate and advanced financial accounting; introductory, intermediate and advanced managerial accounting; accounting theory; audit and assurance; business law; and taxation with a passing grade (>= 60%) in each course; and

(iii) At least a B (73 - 76%) average in each of the last two years of university study.

Candidates from other Ontario universities who have completed the equivalence of the technical and enabling competencies of the CPA PREP will be considered, on a case-by-case basis, for admission to the Graduate Diploma program, subject to an assessment of the detailed course outlines for courses listed under (ii). Candidates must submit the relevant course outlines in their application.

RATIONALE FOR THE RECOMMENDED CHANGE:

Courses in information system, operations management and strategic management are included to ensure that candidates in the Graduate Diploma program are well prepared for the CPA Professional Education Program.

Although the objective of the Graduate Diploma program is to prepare graduates of McMaster University's Honours Commerce program (and MBA program) for the CPA certification process, CPA Ontario recognizes programs of other post-secondary institutions (PSI) as long as the other PSI's programs have been assessed as developing substantially the equivalent competencies as those developed through our CPA-Accredited streams. Thus, qualified candidates from other Ontario universities should be considered for admission to the Graduate Diploma program.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

Summer 2015

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

Not applicable.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

Candidates who have completed the equivalence of the CPA Prerequisite Education Program (PREP) in McMaster University's Honours Commerce program (and MBA program) are eligible to apply for the Graduate Diploma.

The admission requirements are:

(i) A four-year honours bachelor degree;

(ii) At least a B- (70 - 72%) average in courses on economics; statistics; corporate finance; information systems; operations management; introductory, intermediate and advanced financial accounting; introductory, intermediate and advanced managerial accounting; accounting theory; audit and assurance; business law; and taxation with a passing grade (>= 60%) in each course; and

(iii) At least a B (73 - 76%) average in each of the last two years of university study.

Candidates from other Ontario universities who have completed the equivalence of the technical and enabling competencies of the CPA PREP will be considered, on a case-by-case basis, for admission to the Graduate Diploma program, subject to an assessment of the detailed course outlines for courses listed under (ii). Candidates must submit the relevant course outlines in their application.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Y. Lilian Chan   Email: ylchan@mcmaster.ca   Extension: 23974 Date submitted: Sept. 3, 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1. This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3. A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	DeGroote School of Business

NAME OF PROGRAM	Graduate Diploma in Professional Accountancy

PROGRAM DEGREE	Ph. D. ( )	M.A. ( )	M.A.Sc. ( )	M.B.A. ( )	M. Eng. ( )	M.Sc. ( )	Diploma Program (X)	Other *(Specify)*

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*				
CHANGE IN ADMISSION REQUIREMENTS		CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE	CHANGE IN COURSE REQUIREMENTS	X

CHANGE IN THE DESCRIPTION OF A **SECTION** IN THE GRADUATE CALENDAR	X	EXPLAIN: The four professional workshops on Case Analysis, Professionalism and Business Ethics, Communication and Team Building, and Leadership are included in a new course, DPA 600: Professional Workshops (non-credit), which all students have to complete for the diploma as part of the Course Requirements (http://academiccalendars.romcmaster.ca/preview_program.php?catoid=4&poid=4456&hl=%22professional+accountancy%22&returnto=search).
OTHER CHANGES	EXPLAIN:	

1

DESCRIBE THE <u>EXISTING</u> REQUIREMENT/PROCEDURE:

The existing Course Requirements include five term courses and two quarter modules as described below:

Course Requirements

The Graduate Diploma in Professional Accountancy program consists of five half courses and two quarter courses offered in the summer term as follows:

- DPA *601 / Advanced Accounting Topics
- DPA *602 / Advanced Auditing
- DPA *603 / Financial Reporting and Analysis
- DPA *701 / Corporate Controllership
- DPA *702 / Strategic Management Accounting
- DPA #703 / Advanced Canadian Tax Topics
- DPA #704 / Accounting Competencies Integration

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

With the introduction of the new course, DPA 600: Professional Workshops (non-credit), the proposed course requirements will be as follows:

Course Requirements

The Graduate Diploma in Professional Accountancy program consists of five half courses and two quarter courses offered in the summer term as follows:

- DPA 600 / Professional Workshops (non-credit)
- DPA *601 / Advanced Accounting Topics
- DPA *602 / Advanced Auditing
- DPA *603 / Financial Reporting and Analysis
- DPA *701 / Corporate Controllership
- DPA *702 / Strategic Management Accounting
- DPA #703 / Advanced Canadian Tax Topics
- DPA #704 / Accounting Competencies Integration

RATIONALE FOR THE RECOMMENDED CHANGE:

Students have to attend four professional workshops in the Graduate Diploma in Professional Accountancy program. The four workshops are: (1) Professionalism and Business Ethics; (2) Leadership; (3) Communication and Team Building; and (4) Case Analysis. At present, attendance and participation in these workshops are not recognized on the transcript. The addition of the new course, DPA 600: Professional Workshops (non-credit), will recognize students' attendance and participation in these workshops.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

May 2015

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

N/A

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

Course Requirements

The Graduate Diploma in Professional Accountancy program consists of five half courses and two quarter courses offered in the summer term as follows:

- DPA 600 / Professional Workshops (non-credit)
- DPA *601 / Advanced Accounting Topics
- DPA *602 / Advanced Auditing
- DPA *603 / Financial Reporting and Analysis
- DPA *701 / Corporate Controllership
- DPA *702 / Strategic Management Accounting
- DPA #703 / Advanced Canadian Tax Topics
- DPA #704 / Accounting Competencies Integration

DPA 600: Professional Workshops (non-credit)

A series of workshops on Professionalism and Business Ethics; Leadership; Communication and Team Building; and Case Analysis to equip students with the essential enabling competencies required for success in professional accounting certification program.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Y. Lilian Chan   Email: ylchan@mcmaster.ca   Extension: 23974   Date submitted: Sept. 22, 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

McMaster University

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

<table>
<tr><td colspan="2"><u>IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:</u>

1. This form must be completed for <u>ALL</u> changes involving degree program requirements/procedures. <u>All</u> sections of this form <u>must</u> be completed.

2. An electronic version of this form (must be in MS WORD <u>not</u> PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.

3. A representative from the department is <u>required to attend</u> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</td></tr>
</table>

<table>
<tr><td>DEPARTMENT</td><td colspan="7">DeGroote School of Business</td></tr>
<tr><td>NAME OF PROGRAM</td><td colspan="7">MBA, Co-op option</td></tr>
<tr><td>PROGRAM DEGREE</td><td>Ph.D. ( )</td><td>M.A. ( )</td><td>M.A.Sc.
( )</td><td>M.B.A.
(x)</td><td>M. Eng.
( )</td><td>M.Sc. ( )</td><td>Diploma Program
( )</td><td>Other
(Specify)</td></tr>
</table>

<table>
<tr><td colspan="4" align="center">NATURE OF RECOMMENDATION <i>(PLEASE CHECK APPROPRIATE BOX)</i></td></tr>
<tr><td>CHANGE IN ADMISSION REQUIREMENTS</td><td>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</td><td>CHANGE IN COURSE REQUIREMENTS</td><td>x</td></tr>
<tr><td>CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR</td><td colspan="3">EXPLAIN:</td></tr>
<tr><td>OTHER CHANGES</td><td colspan="3">EXPLAIN:</td></tr>
<tr><td colspan="4">DESCRIBE THE <u>EXISTING</u> REQUIREMENT/PROCEDURE:

Co-op work terms - Currently, an academic record will show that a student is registered in a separate session with sentences that outline the employer name, employer location, and dates of employment. For the Co-op MBA program, there are 3 required work terms (4 months each).</td></tr>
</table>

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

Work placement courses

• Identified by career (Grad), Faculty (School of Business), and course subject (Business)

• Course weight will be zero (0) academic units

• Full or part-time load - MBA students will be "registered full-time" on their Co-op work terms (since the work terms are required for the Co-op option). Registration in a work term course will also allow students to be appropriately credited on their T2202A tax form.

Process for registration

• Students can be block enrolled into the work placement course as a batch process. Staff in CBCD would provide a list of students going out on a work term to MASO staff in order to have the students loaded onto the system.

• Students can be blocked from dropping or adding work placements on their own.

• The employer information and dates of employment will be pulled from OSCARplus and attached to the work placement course.

• If the work placement is longer than 4 months, then the students will need to be block enrolled for each term of the placement.

Work placement "grades"

• The courses will have the grade area populated - IP (In Progress), COM (Complete), and NC (Not Complete). Students will be registered in the course for each 4-month term of the placement and the grade will be IP until they complete the work term. At the end of the placement, a grade of COM will appear in the grade area and a transcript note will indicate that the student successfully completed their work placement (if applicable). Should a student "fail" the work term, then the grade would be NC and a transcript note would be placed on the student's record indicating that the placement was not successfully completed.

• If a student is fired from the work placement, then the grade will be NC, and a transcript note will be added. Currently, the MBA policy states that the sentence "Withdrawn from Co-op" be placed on the transcript in this case.

The first registration in these courses will occur in the summer of 2015. Therefore, it is proposed that the School of Business create new MBA courses as follows:

• BUSNESS WT01 – Co-op Work Term 1

• BUSNESS WT02 – Co-op Work Term 2

• BUSNESS WT03 – Co-op Work Term 3

RATIONALE FOR THE RECOMMENDED CHANGE:

With the implementation of Mosaic's Student Records module (PeopleSoft Campus Solutions) in March 2015, students who will be participating in a Co-op or Internship work term will now be required to register in a course.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*
Summer 2015 (May 1, 2015 to August 31, 2015)
ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.
No
PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:
CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:
Name: Susan McCracken Email: smccrac@mcmaster.ca   Extension: 23993 Date submitted: October 9, 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

McMaster University

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1. This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3. A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	DeGroote School of Business
NAME OF PROGRAM	MBA program; Accounting and Financial Management Services Specialization

PROGRAM DEGREE	Ph.D. ( )	M.A. ( )	M.A.Sc. ( )	M.B.A. (X)	M. Eng. ( )	M.Sc. ( )	Diploma Program ( )	Other (Specify)

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*					
CHANGE IN ADMISSION REQUIREMENTS		CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	X
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR		EXPLAIN:			
OTHER CHANGES	EXPLAIN: Addition of the course A727 as one of the electives for specialization in Accounting and Financial Management Services speacialization				

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

The existing requirements is a list of courses that does not include this course A727, although the students can use the course for minor in Accounting and Financial Services specialization.

1

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

RATIONALE FOR THE RECOMMENDED CHANGE:

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

Facilitates student choice for accounting and financial management services specialization.

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

July 1, 2015

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

This change was passed unanimously at the area meeting on September 3, 2014.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: S.M. Khalid Nainar   Email: nainar@mcmaster.ca

Extension: 23990   Date submitted: October 3. 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

To   :   Graduate Council

From   :   Christina Bryce
               Assistant Graduate Secretary
_____

At its meeting on October 21st, 2015 the Faculty of Engineering Graduate Curriculum and Policy Committee approved the following graduate curriculum recommendations.

Please note that these recommendations were approved at the November 11th meeting of the Faculty of Engineering.

FOR APPROVAL OF GRADUATE COUNCIL:

Engineering Physics
-Change to Admission Requirements (M.Eng.)

Materials Science and Engineering
-Change to Course Requirements (Accelerated Option for M.A.Sc.)

Mechanical Engineering
-Change to Course Requirements (M.A.Sc. and Ph.D.)

FOR INFORMATION OF GRADUATE COUNCIL:

Chemical Engineering
-New Courses:
-*756 Optimization I
-*757 Stochastic Optimization
-*758 Nonlinear Control Systems

Civil Engineering
-Course Cancellations:
-*6SD4 Structural Dynamics and Earthquake Engineering
-New Courses:
-*748 Seismic Design and Analysis of Steel Structures

Computing and Software
-New Courses:
-*767 Information Privacy and Security
-*768 Development and Certification of Safety-Critical Software Intensive Systems

-*769 Distributed Algorithms

Electrical and Computer Engineering
-New Courses
-*736 3D Image Processing and Computer Vision
-*787 Electric Machines
-Change to Requisites
-*706 Digital Signal Processing
-*707 Linear Systems
-*708 Digital Communications

Engineering Physics and UNENE
-New Courses
-*705 III-V Materials and Devices
-*UN0503 Nuclear Energy in Society: Regulation and Our Energy Future

Materials Science and Engineering
-New Course - *703 Biomaterials and Tissue Engineering
-Course Title Change - 6D03 Materials and the Environment

Mechanical Engineering
-Course Description Change: *758 Graduate Seminars in Mechanical Engineering

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which   this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Engineering Physics
NAME OF PROGRAM	Industrial Internship

PROGRAM DEGREE	Ph.D. ( )	M.A. ( )	M.A.Sc. ( )	M.B.A. ( )	M. Eng. (X)	M.Sc. ( )	Diploma Program ( )	Other *(Specify)*

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*

CHANGE IN ADMISSION REQUIREMENTS	X	CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	X	**EXPLAIN:** "For the M.Eng. program, an average of at least B is required."			
OTHER CHANGES	**EXPLAIN:**				

DESCRIBE THE **EXISTING** REQUIREMENT/PROCEDURE:
"For the M.Eng. program, an average of at least B- is required."

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

RATIONALE FOR THE RECOMMENDED CHANGE:

Students were applying for this program when they did not have the GPA for the Master's of Applied Science and since we have very few M.Eng opportunities it will help eliminate the students who do not qualify for the Master's program.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

September 2015

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Chang-qing Xu   Email: cqxu@mcmaster.ca   Extension: 24314   Date submitted: Sept 15/14

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

McMaster University

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM
- FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS /
 PROCEDURES

<table>
<tr><td colspan="9">IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1. This form must be completed for ALL changes involving degree program requirements/procedures. All sections of this form must be completed.
2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</td></tr>
<tr><td>DEPARTMENT</td><td colspan="8">MATERIALS SCIENCE AND ENGINEERING</td></tr>
<tr><td>NAME OF PROGRAM</td><td colspan="8">RESEARCH PROGRAM MASTERS (M.A.Sc.)</td></tr>
<tr><td>PROGRAM DEGREE</td><td>Ph.D. ( )</td><td>M.A. (   )</td><td>M.A.Sc. (X)</td><td>M.B.A. (   )</td><td>M. Eng. (   )</td><td>M.Sc. ( )</td><td>Diploma Program (   )</td><td>Other <i>(Specify)</i></td></tr>
<tr><td colspan="9" align="center">NATURE OF RECOMMENDATION <i>(PLEASE CHECK APPROPRIATE BOX)</i></td></tr>
<tr><td colspan="2">CHANGE IN ADMISSION REQUIREMENTS</td><td></td><td colspan="2">CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</td><td></td><td colspan="2">CHANGE IN COURSE REQUIREMENTS</td><td>X</td></tr>
<tr><td colspan="2">CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR</td><td>X</td><td colspan="6">EXPLAIN:
Introduce the 'Accelerated Option' under the M.A.Sc. degree description</td></tr>
<tr><td colspan="2">OTHER CHANGES</td><td colspan="7">EXPLAIN:</td></tr>
</table>

DESCRIBE THE <u>EXISTING</u> REQUIREMENT/PROCEDURE:

M.A.Sc. or M.Sc. Degree

All candidates for the M.Sc. in Matierials Science and the M.ASc in Materials Engineering must complete satisfarorily no fewer than two full courses of which no more than a half course may be at the th 600-level. All students must complete *701, Graduate Seminar (Master's), as part of these course requirements. All candidates must present a thesis which embodies the results of the original research. It is anticipated that about sevetty-five percent of the candidates's effort wiill be devoted to the research problem on which the thesis is based.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

Proposed Accelerated Option
Who: Undergraduate students enrolled in our Materials Science and Engineering department at McMaster would be allowed in the first or second term of their penultimate year to apply for the Accelerated M.A.Sc. Option through the Associate Chair (Graduate). Students in the department will be made aware of the program at the start of their penultimate year. The student must identify a supervisor from the faculty of Materials Science and Engineering (hereafter known as supervisor) whom they will be working with and the supervisor must agree to fund this student for their summer research work as well as one year of graduate studies.

Registering: The Associate Chair and Supervisor will review the academic performance of the student (i.e., grades, prior research work, publications, etc.), requiring a minimum sessional average of 8.0 in the year of application, in order to apply for the Accelerated Option. The student will be notified if accepted under the Accelerated Option prior to their first summer work term under the Accelerated Option. Students will be encouraged to apply for NSERC USRAs. Students will be advised that they may drop out of the Accelerated Option at any time prior to entering Graduate Studies without any effect to their undergraduate degree, and that the permission to follow the Accelerated Option as an undergraduate does not guarantee acceptance into Graduate Studies. Students must meet the qualifications for admission to the graduate program as set by the School of Graduate Studies.

600-level course: A student following the Accelerated Option will be allowed to take one course in their final year of undergraduate studies at a 600-level that is offered within our department; no external courses whether in another department of Engineering or in another faculty will be acceptable for this course. The instructor of the course will be notified by the Associate Chair (Graduate) that this student intends to be evaluated at the 600-level. The instructor is responsible to keep record of the student's performance. This grade will be submitted to Graduate Studies once the student has been enrolled into the M.A.Sc. degree. The grade at the 400-level of work will be recorded in the student's undergraduate transcript. It is the responsibility of the instructor to keep the grades related to the additional work for the 600-level separate from the 400-level content. A student can not use a 400-level course taken prior to following the Accelerated Option towards this 600-level course requirement as they will not have completed the extra workload.

Project: Consistent with all other students taking the M.A.Sc. degree program, a student following the Accelerated Option must complete 20 months of work towards their thesis project. The Accelerated Option will allow up to 8 months of work towards that project to have been completed prior to admissions into Graduate Studies. The 8 months of research will be accomplished starting after the penultimate year of undergraduate studies with a departmental supervisor for two summer terms or an equivalent. We foresee the three most likely scenarios to be: 1) a 4 month summer work term in the student's penultimate year and enrolling in the M.A.Sc program in May of their final year to complete the remaining 16 months of project work – while still graduating within one academic year (September to September) as a graduate student, or 2) completing two 4 month work terms as an undergraduate student and then completing their remaining 12 months of project work once they enroll in the M.A.Sc. degree program, or 3) completing a 4 month summer work term and completing the MSE 4K06 senior thesis project as an undergraduate student, then completing their 12 months of project work once enrolled in the M.A.Sc. degree program. Some variance in the outlined paths is anticipated on rare occasions but the limit of a maximum of 8 months of work being counted towards the M.A.Sc. project prior to enrolling in Graduate Studies is firm.

Enrollment in the M.A.Sc. degree: The student must apply to Graduate Studies by the end of the final year of their undergraduate program and are expected to begin either in May or September of the year that they graduate from said undergraduate program; May enrollments for students from our own undergraduate program is not uncommon. Students may not defer enrollment to a later time without the permission of the department. A student must follow the normal application procedures to Graduate Studies and must meet the requirements of the department and Graduate Studies pertaining to any applicant interested in joining the M.A.Sc. program. Failing to enter Graduate Studies will have no influence on the student's undergraduate transcript.

Timeline:
• Enroll in the Accelerated Option in penultimate year of the undergraduate program.
• Complete 4 months of project-related work in the summer term of the penultimate year.
• Complete the 600-level course in the final year of the undergraduate program.
• Complete the second 4 months of project-related work or MSE 4K06 while in the undergraduate degree OR enroll in the M.A.Sc degree and complete the remaining time on the project.
• Enroll in M.A.Sc degree program completing two 700 level courses in the remaining project time

RATIONALE FOR THE RECOMMENDED CHANGE:

Objective: To increase our capacity to retain excellent students from our undergraduate program intending to follow a technical career path, the proposed accelerated option will allow such students to complete a M.A.Sc. degree within only one additional academic year (September to September) after completing their undergraduate degree. The accelerated option as outlined in subsequent sections is intended to maintain our standard of excellence in regards to the M.A.Sc. degree. To be clear, what is proposed is not a new degree program but rather a set of pre-requisites and requirements intended to allow select individuals to complete the full requirements of an M.A.Sc. degree in one academic year (September to September) following completion of their undergraduate degree from this department while maintaining excellence in their studies.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

September 2015

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

No

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

Research Program (M.A.Sc.)

A candidate is required to complete successfully at least three one-term courses, at least two of which should be at the 700-level. Students are required to present a thesis, which constitutes an original contribution to engineering knowledge. The thesis must be defended in an oral examination. Completion of the M.A.Sc. thesis typically requires five terms of full-time study.

An Accelerated Option is available to students currently enrolled at McMaster as undergraduate engineering students in the Department of Materials Science and Engineering whereby the M.A.Sc. degree may be completed in 12-16 months of full-time study. In exceptional circumstances, students from other Engineering departments in McMaster may apply for entry into the accelerated option by contacting the department's Associate Chair (Graduate). Application for entry into the Accelerated Option occurs in the penultimate year of undergraduate studies. Applicants must have a sessional average of 8.0 at the time they are applying for the option. The Accelerated Option requires students to complete at least one term of their research project with a supervisor from the department prior to completion of their undergraduate degree. A one-term 600 level course is required under the Accelerated Option in the final undergraduate year for graduate credit provided it is listed within the department. Entry into the M.A.Sc, program under the Accelerated Option must occur less than one year upon completing one's undergraudate degree and must meet the same requirements for admissions as other candidates.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Anthony Petric   Email: petric@mcmaster.ca   Extension: 27242   Date submitted: October 2, 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, extension 24204.

SGS/Medy/2013

McMaster University

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which   this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Mechanical Engineering
NAME OF PROGRAM	Mechanical Engineering

PROGRAM DEGREE	Ph.D. ( )	M.A. ( )	M.A.Sc. (x)	M.B.A. ( )	M. Eng. ( )	M.Sc. ( )	Diploma Program ( )	Other *(Specify)*

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*				
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**		**CHANGE IN COURSE REQUIREMENTS**
CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR	x	**EXPLAIN:** M.A.Sc. students in Mechanical Engineering are required to complete the MECH ENG 758 zero-credit seminar course. This requirement is specified in the course description and the Department Regulations, but not in the program description. The proposed change is to add a statement regarding the MECH ENG 758 course to the M.A.Sc. program description. The purpose of the proposed change is to better inform the students of this requirement.		
OTHER CHANGES	**EXPLAIN:**			

1

DESCRIBE THE <u>EXISTING</u> REQUIREMENT/PROCEDURE:

Please see the "EXPLAIN" box.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

Please see the "EXPLAIN" box.

RATIONALE FOR THE RECOMMENDED CHANGE:

Please see the "EXPLAIN" box.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

The program description should appear as follows:

M.A.Sc. Degree

Requirements

The requirements for the M.A.Sc. degree in Mechanical Engineering can be satisfied through full- or part-time study. The minimum course requirement is four half courses, at least three of which should be at the 700-level. Students are required to present a thesis which embodies the results of independent work that the candidate has completed and which demonstrates competence in Mechanical Engineering. An oral defense of the thesis is required.

In addition, all full-time graduate students are required to successfully complete MECH ENG 758 "Graduate Seminars in Mechanical Engineering". For further details see the MECH ENG 758 course description.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Gary Bone   Email: gary@mcmaster.ca   Extension: 27591   Date submitted: Oct. 7, 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

McMaster University

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1. This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3. A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Mechanical Engineering
NAME OF PROGRAM	Mechanical Engineering

PROGRAM DEGREE	Ph.D. (x)	M.A. ( )	M.A.Sc. ( )	M.B.A. ( )	M. Eng. ( )	M.Sc. ( )	Diploma Program ( )	Other *(Specify)*

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*							

CHANGE IN ADMISSION REQUIREMENTS		CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	x

CHANGE IN THE DESCRIPTION OF A **SECTION** IN THE GRADUATE CALENDAR	x	**EXPLAIN:** Change the minimum number of courses required for Ph.D. degree. Also adding material to clarify the program regulations to students.

OTHER CHANGES	**EXPLAIN:**

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

Existing requirements:

The minimum course program for this degree is at least eight half courses, at least seven of which should be at the 700-level, beyond the Bachelor's degree or four half courses at the 700-level, beyond the Master's degree.

In addition, the students are required to complete the MECH ENG 758 zero-credit seminar course. This requirement is specified in the course description and the Department Regulations.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

- Reduction of the minimum course requirements as follows: The minimum course program for this degree is at least six half courses, at least five of which should be at the 700-level, beyond the Bachelor's degree or two half courses at the 700-level, beyond the Master's degree.
- Adding a statement regarding the MECH ENG 758 course to the program description.
- Adding statements regarding the enrollment of students holding a Bachelor's degree, and regarding students being transferred to the Ph.D. program without completing their Master's degree.

RATIONALE FOR THE RECOMMENDED CHANGE:

- The reduction in the minimum course requirements will allow our Ph.D. students to spend more time on their research. This will make their degree more research-intensive and will also help to improve their degree completion time. There is precedence for reducing a Ph.D. student's course load in the Chemical Engineering and Engineering Physics programs. In the Chemical Engineering program the requirements stated in the Graduate Calendar are "The minimum course program for this degree is at least six half courses, at least four of which should be at the 700-level, beyond the baccalaureate degree or three half courses, at least two of which should be at the 700-level, beyond the M.A.Sc. degree." The course requirements for the Engineering Physics program are the same, except that different wording is used. It should also be noted that these are minimum course requirements, and the student may take additional courses if desired.
- The purpose of adding the statement about the MECH ENG 758 course is to better inform the students of this requirement.
- The purpose of adding the statements regarding enrollment of students holding a Bachelor's degree, and regarding students being transferred to the Ph.D. program without completing their Master's degree is to highlight this information for both current students and prospective students. It is expected that this information, plus the reduction in the minimum course requirements, will make the program more attractive to prospective students.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

Ph.D. Degree

Requirements

The minimum course program for this degree is at least six half courses, at least five of which should be at the 700-level, beyond the Bachelor's degree or two half courses at the 700-level, beyond the Master's degree. A Ph.D. candidate is also required to pass a Comprehensive Examination designed to test their breadth of knowledge and the

ability to synthesize and integrate ideas. A candidate must complete a thesis which embodies the results of original research and mature scholarship. The general University requirements for the thesis and oral defense will apply.

Students holding a Bachelor's degree should enroll at the Master's level. Excellent students may be transferred to the Ph.D. program without completing their Master's degree.

In addition, all full-time graduate students are required to successfully complete MECH ENG 758 "Graduate Seminars in Mechanical Engineering." For further details see the MECH ENG 758 course description.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Gary Bone   Email: gary@mcmaster.ca   Extension: 27591   Date submitted: Oct. 7, 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

To   :   Graduate Council

From   :   Christina Bryce
                 Assistant Graduate Secretary
_____

At its meeting on October 24th the Faculty of Humanities Graduate Curriculum and Policy Committee approved the following graduate curriculum recommendations.

Please note that these recommendations were approved at the November 11th meeting of the Faculty of Humanities.

FOR APPROVAL OF GRADUATE COUNCIL:

Cognitive Science of Language
        -Change to Course Requirements (M.Sc. and Ph.D.)
        -Change to Comprehensive Requirements

Communication Management
        -Program Change: Deletion of the thesis option

FOR INFORMATION OF GRADUATE COUNCIL:

Cognitive Science of Language
        -New Course: *6AS3 Topics in Advanced Semantics

        -Course Cancellations:
                -*733 Intonational Phonology
                - #741 Research Proposal Development (Master's Thesis)
                - #742 Research Proposal Development (Ph.D. Thesis)
                -*750 Research Design and Methods

Communication and New Media
        -Change in Graduate Calendar Description

Communication Management
        -New Courses
                -*725 Understanding Audiences for Strategic Communications
                -*726 Strategic Brand Management
                -*727 Organizational Social Responsibility and Sustainability
                -*728 Investor Relations and Financial Communications

-Course Title and Description Change
       -*731 Reputation and Brand Management

French
-New Course:
       -*735 Écritures francophones de l'Asie et de sa diaspora (Diasporic / Asian Writings in French)

-Course Cancellations:
       -*702 Sociolinguistique et francophonie
       -*712 Lire le Moyen Âge: XIIe et XIIIe siècles
       -*713 Lire le Moyen Âge: XIVe et XVe siècles
       -*714 Stylistique et linguistique textuelle
       -*720 Poésie québécoise
       -*727 L'Être humain et l'animal dans les littératures francophones

McMaster University

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which   this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Linguistics & Languages						
NAME OF PROGRAM	MSc in Cognitive Science of Language						
PROGRAM DEGREE	**Ph.D. ( )**	**M.A. ( )**	**M.A.Sc. ( )**	**M.B.A. ( )**	**M. Eng. ( )**	**M.Sc. (X)**	**Diploma Program ( )**	**Other *(Specify)***

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*				
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	**CHANGE IN COURSE REQUIREMENTS**	X
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	**EXPLAIN:**			
OTHER CHANGES	**EXPLAIN:**			

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

The MSc currently requires five half-courses (including CogSciL *750) and two pass/fail modules (including CogSciL #741).

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

We propose to remove the requirement for CogSciL *750 and reduce the number of required half-courses to four.

We propose to remove the requirement for CogSciL #741.

RATIONALE FOR THE RECOMMENDED CHANGE:

The current CogSciL 750 has considerable overlap with Ling 2DD3. Students who enter the program without competency in basic experimental design and statistical analysis from a prior degree will be required to take Ling 2DD3 or equivalent. Releasing the teaching resources currently allocated to 750 will allow the graduate program to offer more sophisticated stats or other courses in future. Students whose research relies on methods other than basic experimental design and statistical analysis can be guided to suitable methods courses in other departments.

The pass/fail module #741 served only as a "shell" under which students meet regularly with the thesis supervisor. In practice, many students meet regularly with their supervisor but forget to register in the module, leading to hasty paperwork at the end of their degree as they seek retroactive registration in the course. If there were a student who did not meet regularly with the supervisor, that student would receive a rating of Marginal or Unsatisfactory at the annual supervisory committee meeting, so the course itself serves no practical purpose.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

September 2015

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

Coursework
5 4 half courses plus two pass/fail modules
Note: * denotes half courses; # denotes quarter course modules
Required Courses:
- COGSCIL *750 / Research Design and Methods (or equivalent course)
- COGSCIL *721 / Fundamentals of the Cognitive Neuroscience of Language and
- COGSCIL *722 / Contemporary Issues in the Cognitive Neuroscience of Language
-
- COGSCIL *730 / Language Analysis Methods: Phonology and Morphology or
- COGSCIL *731 / Language Analysis Methods: Syntax and Semantics
-
- plus one half course approved by the student's supervisory committee
Additional Requirements
(these are this is a **Pass/Fail** courses):
- COGSCIL #741 / Research Proposal Development (Master's Thesis)
- COGSCIL #725 / The Cognitive Science of Language Master's Lecture Series

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Catherine Anderson Email: canders@mcmaster.ca   Extension: 26241   Date submitted: 14 Oct 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

McMaster University

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.   2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.   3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which   this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Linguistics & Languages
NAME OF PROGRAM	PhD in Cognitive Science of Language

PROGRAM DEGREE	Ph.D. (X)	M.A. ( )	M.A.Sc. ( )	M.B.A. ( )	M. Eng. ( )	M.Sc. ( )	Diploma Program ( )	Other *(Specify)*

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*				
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	X	**CHANGE IN COURSE REQUIREMENTS** X
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR		**EXPLAIN:**		
OTHER CHANGES	**EXPLAIN:**			

DESCRIBE THE **EXISTING** REQUIREMENT/PROCEDURE:

The PhD currently requires eight half-courses (four for students with an MSc in CogSciL) including CogSciL *750 and two pass/fail modules including CogSciL #742.

The Comprehensive Exam currently requires two separate papers on two distinct topics.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

We propose to remove the requirement for CogSciL *750 and reduce the number of required half-courses to seven (three for students with an MSc in CogSciL).

We propose to remove the requirement for CogSciL #742.

We propose to restructure the Comprehensive requirement as described below in the calendar copy.

RATIONALE FOR THE RECOMMENDED CHANGE:

The current CogSciL 750 has considerable overlap with Ling 2DD3. Students who enter the program without competency in basic experimental design and statistical analysis from a prior degree will be required to take Ling 2DD3 or equivalent. Releasing the teaching resources currently allocated to 750 will allow the graduate program to offer more sophisticated stats or other courses in future. Students whose research relies on methods other than basic experimental design and statistical analysis can be guided to suitable methods courses in other departments.

The pass/fail module #741 served only as a "shell" under which students meet regularly with the thesis supervisor. In practice, many students meet regularly with their supervisor but forget to register in the module, leading to hasty paperwork at the end of their degree as they seek retroactive registration in the course. If there were a student who did not meet regularly with the supervisor, that student would receive a rating of Marginal or Unsatisfactory at the annual supervisory committee meeting, so the course itself serves no practical purpose. .

The existing Comprehensive structure required two separate papers on topics distinct from the thesis topic, each of which was supervised by a committee of faculty members distinct from the supervisory committee. In practice, these papers have expanded in scope until each resembled a Master's thesis; this has had the effect of making it almost impossible for students to complete the requirement in a timely fashion, and has therefore delayed their progress on the thesis and their completion of the degree. The propose change limits the requirement to a single paper and sets clearer guidelines for the scope of the paper, which should make it more likely that students will complete the requirement on time, and also more likely that the one paper will be of a publishable quality (rather than two poorer-quality papers that are rushed to meet the deadline). Supervisors are also encouraged to ensure that their students acquire sufficient breadth through careful selection of courses.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

September 2015

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

A. For students holding an M.Sc. in the Cognitive Science of Language
Note: * denotes half courses; # denotes quarter course modules
Required Courses:
Students entering with the M.Sc. in the Cognitive Science of Language are required to complete ~~four~~ three half courses plus ~~two~~ one pass/fail module~~s~~. If the following courses were not completed in the M.Sc. program, they must be included in the

Ph.D. program of study:

- ~~COGSCIL *750 / Research Design and Methods~~ ~~or equivalent~~
- COGSCIL *730 / Language Analysis Methods: Phonology and Morphology
- COGSCIL *731 / Language Analysis Methods: Syntax and Semantics
- plus additional courses approved by the student's supervisory committee to total four half courses

Additional Requirements

(this is a ~~these are~~ **Pass/Fail** course~~s~~):

- ~~COGSCIL #742 / Research Proposal Development (Ph.D. Thesis)~~
- COGSCIL #726 / The Cognitive Science of Language Ph.D. Lecture Series must be completed in Year 1 of the Ph.D.

B. For students entering with a Master's degree but not an M.Sc. in the Cognitive Science of Language

Coursework

(~~eight~~ seven half courses plus ~~two~~ one pass/fail module~~s~~)

Required courses:

- ~~COGSCIL *750 / Research Design and Methods~~ ~~(or equivalent course)~~
- COGSCIL *721 / Fundamentals of the Cognitive Neuroscience of Language
- COGSCIL *722 / Contemporary Issues in the Cognitive Neuroscience of Language
- COGSCIL *730 / Language Analysis Methods: Phonology and Morphology
- COGSCIL *731 / Language Analysis Methods: Syntax and Semantics
- plus additional courses approved by the student's supervisory committee to total eight half courses.

Additional requirements

(this is a ~~these are~~ **Pass/Fail** course~~s~~):

- COGSCIL #726 / The Cognitive Science of Language Ph.D. Lecture Series must be completed in Year 1 of the Ph.D.

~~COGSCIL #742 / Research Proposal Development (Ph.D. Thesis)~~

Comprehensive Examination

The Comprehensive Examination is intended to ensure that the student develops competence in a subfield of Cognitive Science of Language beyond the focus of the thesis. In consultation with the supervisory committee, the student will identify a topic for the Comprehensive that is distinct from the thesis topic.

In most cases, the Director of the Comprehensive will not be the thesis supervisor. The student and the Comprehensive Director agree in writing on the nature of the deliverable for the Comprehensive and on interim and final deadlines. At a minimum, the Comprehensive consists of a written paper and oral examination of the topic of the paper. The paper may consist of a literature review, proposal for a research project, report of a research project, or report of a teaching project. The scope of the project should be such that it can reasonably be completed within one semester; the paper will usually be 20-30 pages long.

The Comprehensive Director identifies at least one other faculty member; together, the Director and these other faculty members constitute the Comprehensive Exam Committee. (Comprehensive Directors are encouraged to recruit Comprehensive

Examiners from beyond the Department of Linguistics and Languages.) The Comprehensive Director advises the student on the preparation of the paper. The Comprehensive Exam Committee determine whether the paper is ready for an oral defense, and conduct the oral examination. The oral examination consists of a brief presentation by the student of the content of the paper followed by questions from the Committee.

The Comprehensive Exam must be successfully completed within 20 months of entering the PhD program.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Catherine Anderson Email: canders@mcmaster.ca   Extension: 26241   Date submitted: 14 Oct 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING DEGREE PROGRAM REQUIREMENTS / PROCEDURES

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies.
3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which   this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Department of Communication Studies and Multimedia
NAME OF PROGRAM	McMaster-Syracuse Master of Communications Management

PROGRAM DEGREE	Ph.D. ( )	M.A. ( )	M.A.Sc. ( )	M.B.A. ( )	M. Eng. ( )	M.Sc. ( )	Diploma Program ( )	Other *(Specify)* MCM

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*

CHANGE IN ADMISSION REQUIREMENTS		CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR		**EXPLAIN:**			
OTHER CHANGES	X	**EXPLAIN:** Removal of the MCM thesis as an option in the MCM program.			

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

The graduate calendar describes that a student can do a thesis, but does not specify the mechanics of how a student would do so.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)*

Removal of the MCM thesis as an option for completion of the program.

RATIONALE FOR THE RECOMMENDED CHANGE:

The MCM program was created in 2005 as a partnership degree between McMaster and Syracuse Universities. It is the Canadian sibling of Syracuse's Master of Science in Communications Management. As such, the curriculum and course offerings were meant to the be identical (at least to start). This was all implemented correctly, except for a 6 unit Master's Thesis course, which was never put on our McMaster books.

Officially, according to SGS calendar copy, the MCM program comprises twelve 3 unit courses. If a student chooses to do a capstone project (MRP), then they take 8 core courses, 3 electives and the 3 unit "Capstone Research" course. If a student chooses to do a thesis, then they take 8 core courses, 2 electives, the 3 unit "Capstone Research" course, plus a 3 unit Master's Thesis course.

Given that the capstone project is the equivalent to a Major Research Project (50 pages of original research on a topic of the student's choice) and that the completion of an MRP is not an obstacle to admission into a PhD program, the MCM program committee votes unanimously that the thesis option be removed.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*

Effective for 2015-16 academic year.

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

None.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:

Deletion of any mention of the thesis option.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Alexandre Sévigny Email: sevigny@mcmaster.ca   Extension: 27661   Date submitted: Sep. 12, 2014

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, cbryce@mcmaster.ca

SGS/2013

Ian and Shirley Rowe Scholarship

Established in 2014 by Dr. Ian and Shirley Rowe. To be awarded to doctoral and post-doctoral students and early-career faculty members within the School of Rehabilitation Science who are pursuing studies in the field of childhood disability