



487th REPORT OF THE ACADEMIC POLICY COMMITTEE TO SENATE

Items submitted for the May 9th, 2018 meeting of APC and electronically approved on May 11th, 2018

I. TO BE APPROVED BY SENATE

(A) NEW TEACHING PROGRAMS REQUIRING SENATE APPROVAL

School of Continuing Studies

Certificate of Proficiency in Bilingual Professional Communication (30 cr.) – appendix A

On May 11th, 2018, APC electronically approved a proposal from the School of Continuing Studies to create a Certificate of Proficiency in Bilingual Professional Communication. The School of Continuing Studies currently offers two similar 30-credit certificates leading to proficiency either in French or in English Professional Communication. This new Certificate will target learners who wish to attain a high level of proficiency in both French and English in a professional context.

APC therefore recommends that Senate approve the following resolution:

Be it resolved that Senate approve the proposed Certificate of Proficiency in Bilingual Professional Communication.

Diploma in Professional Practice in Finance (30 cr.) – appendix B

On May 11th, 2018, APC electronically approved a proposal from the School of Continuing Studies to create a Diploma in Professional Practice in Finance. This new Diploma will prepare its graduate for the Chartered Financial Analyst (CFA) examination, unlike the currently offered Diploma in Applied Finance, which will be retired. The CFA designation is sought after by employers in the financial sectors and will greatly improve the success of the graduates on the job market.

APC therefore recommends that Senate approve the following resolution:

Be it resolved that Senate approve the proposed Diploma in Professional Practice in Finance (30 cr.)

Faculty of Education

Professional Development Certificate in Global Trends in Education (12 CEUs) – appendix C

On May 11th, 2018, APC electronically approved a proposal from the Faculty of Education to create a Professional Development Certificate in Global Trends in Education. This non-credit certificate is aimed at teachers, educators and leaders from all levels (elementary school, high school etc...) who are interested in taking professional development courses to learn how to address, in a pedagogically innovative manner, the constantly evolving educational challenges of the 21st century. This program will only be delivered abroad, to requesting institutions, by professors of the Faculty of Education who will travel to the host institution to deliver their courses. The content will be tailored to the specific needs of the cohorts.

APC therefore recommends that Senate approve the following resolution:

Be it resolved that Senate approve the proposed Professional Development Certificate in Global Trends in Education (12 CEUs).

Graduate and Postdoctoral Studies/ Faculty of Medicine

Graduate Diploma in Medical Radiation Physics (31 cr.) – appendix D

On May 11th, 2018, APC electronically approved a proposal to create a Graduate Diploma in Medical Radiation Physics, aimed at students who want to train in medical radiation physics and do the coursework of the unit's M.Sc. in Medical Radiation Physics, but do not want to complete the thesis component of the degree. It is aimed at candidates who hold a graduate degree in a related field, and have the knowledge required to enter the Medical Radiation discipline.

APC therefore recommends that Senate approve the following resolution:

Be it resolved that Senate approve the proposed Graduate Diploma in Medical Radiation Physics (31 cr.)

Graduate and Postdoctoral Studies/ Schulich School of Music

Graduate Certificate in Performance – Choral Conducting (15 cr.) – appendix E

On May 11th, 2018, APC electronically approved a proposal from the Schulich School of Music to create a Graduate Certificate in Performance – Choral Conducting. This Graduate Certificate has been designed for choral conductors who wish to perfect their technical, pedagogical and musical skills, while maintaining their professional activities. Enrolments will be limited and candidates will be admitted by audition.

APC therefore recommends that Senate approve the following resolution:

Be it resolved that Senate approve the proposed Graduate Certificate in Performance – Choral Conducting (15 cr.).

Faculty of Science

B.Sc.; Major in Statistics (54 or 57 cr.) – appendix F

On May 11th, 2018, APC electronically approved a proposal from the Faculty of Science to create a new B.Sc.; Major in Statistics. This new Major responds to the growing need for qualified Statisticians at the Bachelor level on the job market and to students' interest. Unlike the existing Joint Major in Statistics and Computer Science, this Major in Statistics will provide its graduates with the possibility to obtain the A.Stat. professional accreditation from the Statistical Society of Canada, which will improve their job prospects. They will also receive training at the necessary level to apply to Graduate School in Statistics or Data Science.

APC therefore recommends that Senate approve the following resolution:

Be it resolved that Senate approve the proposed B.Sc.; Major in Statistics (54 or 57 cr.)

(B) ACADEMIC PERFORMANCE ISSUES / POLICIES / GOVERNANCE/AWARDS - none

(C) CREATION OF NEW UNITS / NAME CHANGES / REPORTING CHANGES

Faculty of Medicine

Proposal to create a provisional Department of Emergency Medicine – appendix G

On May 11th, 2018, APC electronically approved a proposal from the Faculty of Medicine to create a Department of Emergency Medicine with provisional status for two-years, at which point the Faculty of Medicine plans to submit a proposal for the creation of a permanent Department of Emergency Medicine. The need to create a Department of Emergency Medicine is clear (McGill University is currently one of the only institutions in Canada where Emergency Medicine does not have departmental status, despite its voluminous teaching load), and pressing, necessary to address issues related to the learning environment, and provide more opportunities for research and collaborations ahead of accreditation. This is why the Faculty of Medicine is seeking approval for a provisional department status for Emergency Medicine, fearing that any further delays in its creation might threaten its academic mission.

APC therefore recommends that Senate approve the following resolution:

Be it resolved that Senate approve recommend to the Board of Governors for approval the creation of a provisional Department of Emergency Medicine.

(D) CHANGES IN DEGREE DESIGNATION – none

(E) INTER-UNIVERSITY PARTNERSHIPS – none

(F) OTHER – none

II. TO BE ENDORSED BY SENATE / PRESENTED TO SENATE FOR DISCUSSION – none

III. APPROVED BY APC IN THE NAME OF SENATE

(A) DEFINITIONS – none

(B) STUDENT EXCHANGE PARTNERSHIPS / CONTRACTS / INTERUNIVERSITY PARTNERSHIPS - none

(C) OTHER - none

IV. FOR THE INFORMATION OF SENATE

A) ACADEMIC UNIT REVIEWS – none

B) APPROVAL OF COURSES AND TEACHING PROGRAMS

1. Programs

a) APC Approvals (new options/concentrations and major revisions to existing programs)

i. New Programs

Faculty of Education

B.Sc.(Kinesiology); Minor in Entrepreneurship (18 cr.): APC electronically approved this new Minor at a meeting on May 11th, 2018.

Faculty of Engineering

B.Eng.; Minor in Aerospace Engineering (24 cr.): APC electronically approved this new Minor at a meeting on May 11th, 2018.

Graduate and Postdoctoral Studies/Faculty of Agricultural and Environmental Sciences

M.Sc.(Applied) in Animal Science; Non-Thesis – Sustainable Agriculture (45 cr.): APC electronically approved this new Concentration at a meeting on May 11th, 2018.

Graduate and Postdoctoral Studies/Faculty of Engineering

M.Eng. in Materials Engineering; Non-Thesis- Environmental Engineering (45 cr.): APC electronically approved this new Concentration at a meeting on May 11th, 2018.

ii. Major Revisions of Existing Programs

On May 11th, 2018, APC electronically approved major revisions to the following programs:

Faculty of Arts

B.A.; Major Concentration in Latin American and Caribbean Studies (36 cr.): approved by APC on May 9th, 2018.

Graduate and Postdoctoral Studies/ Faculty of Engineering

M.Sc. in Electrical Engineering (46 cr.)

Graduate and Postdoctoral Studies/ Desautels Faculty of Management

M.M. in International Masters for Health leadership; Non-Thesis (45 cr.)

Graduate and Postdoctoral Studies/ Faculty of Medicine

M.Sc.(Applied) in Advanced Nursing; Non-Thesis (48 cr.)

M.Sc.(Applied) in Advanced Nursing; Non-Thesis- Global Health (48 cr.)

M.Sc.(Applied) in Advanced Nursing; Non-Thesis – Nursing Services Administration(49 cr.)

M.Sc.(Applied) in Nursing; Non-Thesis (58 cr.)

M.Sc.(Applied) in Nursing; Non-Thesis- Global Health (58 cr.)

M.Sc.(Applied) in Nurse Practitioner; Non-Thesis – Mental Health (45 cr.)

M.Sc.(Applied) in Nurse Practitioner; Non-Thesis – Neonatology (45 cr.)

M.Sc.(Applied) in Nurse Practitioner; Non-Thesis – Pediatrics (45 cr.)

M.Sc.(Applied) in Nurse Practitioner; Non-Thesis – Primary Care (45 cr.)

b) APC Subcommittee on Courses and Teaching Programs (SCTP) Approvals

(Summary Reports: <http://www.mcgill.ca/sctp/documents/>)

i. Moderate and Minor Program Revisions

Approved by SCTP on March 8nd, 2018 and reported to APC on May 9th, 2018

Faculty of Engineering

B.Eng. in Mechanical Engineering; Aeronautical Engineering (15 cr.)

B.Eng.; Honours in Mechanical Engineering; Aeronautical Engineering (15 cr.)

Graduate and Postdoctoral Studies/ Faculty of Law

LL.M. in Law; Environment (45 cr.)

Graduate and Postdoctoral Studies/ Faculty of Medicine

M.Sc. in Experimental Surgery; Surgical Innovation (15 cr.)

Graduate Certificate in Surgical Innovation (15 cr.)

Graduate Diploma in Surgical Innovation (30 cr.)

Faculty of Science

B.Sc.; Honours in Neuroscience (74 cr.)

B.Sc.; Major in Neuroscience (65 cr.)

B.Sc.; Honours in Microbiology and Immunology (72 cr.)

B.Sc.; Major in Microbiology and Immunology (66 cr.)

B.Sc.; Honours in Immunology (Interdepartmental) (75 cr.)

B.Sc.; Major in Statistics and Computer Science (72 cr.)

B.Sc.; Liberal Program – Core Science Component Statistics (45 or 48 cr.)

B.Sc.; Liberal Program – Core Science Component Computer Science (45 cr.)

Approved by SCTP on March 22nd, 2018 and reported to APC on May 9th, 2018

School of Continuing Studies

Certificate in Human Resources Management (30 cr.)

Diploma in Human Resources Management (30 cr.)

Diploma in Management; International Business (30 cr.)

Graduate Certificate in Human Resources Management (15 cr.)

Graduate Certificate in International Business (15 cr.)
Graduate Certificate in Leadership (24 cr.)
Professional Development Certificate in Business Analysis (33.5-35 CEUs)
Professional Development Certificate in Project Management (33-34.5 CEUs)

Faculty of Engineering

B.Eng.; Co-op in Software Engineering (141-147 cr.)

Faculty of Science

B.Sc.; Honours in Software Engineering (72-75 cr.)
B.Sc.; Major in Software Engineering (60-63 cr.)
B.Sc.; Liberal Program – Core Science Component in Software Engineering (49 cr.)
B.Sc.; Liberal Program – Core Science Component in Microbiology and Immunology (50 cr.)

Approved by SCTP on April 5th, 2018 and reported to APC on May 9th, 2018

Faculty of Arts

B.A.; Major Concentration in Hispanic Studies
B.A.; Honours in Hispanic Studies (60 cr.)
B.A.; Joint Honours - Hispanic Studies Component (36 cr.)
B.A.; Honours in International Development Studies (57 cr.)
B.A.; Joint Honours - International Development Studies Component (36 cr.)
B.A.; Major Concentration in International Development Studies (36 cr.)
B.A.; Minor Concentration in International Development Studies (18 cr.)
B.A.; Minor Concentration in Québec Studies (18 cr.)

School of Continuing Studies

Graduate Certificate in Legal Translation (15 cr.)

Faculty of Engineering

B.Sc.(Architecture) (126 cr.)

Faculty of Medicine

B.Sc.(Rehabilitation Science); Major in Physical Therapy (90 cr.)
B.Sc.(Nursing) (103 cr.)

Approved by SCTP on April 19th, 2018 and reported to APC on May 9th, 2018

Faculty of Education

B.Ed. in Kindergarten and Elementary Education (120 cr.)
B.Ed. in Secondary Social Sciences; History and Citizenship, Ethics and Religious Culture (120 cr.)
B.Ed. in Kindergarten and Elementary Pédagogie de l'immersion française (120 cr.)

Faculty of Law

B.C.L./LL.B. (105 cr.)
B.C.L./LL.B. with Minor (123 cr.)
B.C.L./LL.B. with Honours (120 cr.)
Joint M.B.A. & B.C.L./LL.B. (144 cr.)
Joint M.S.W. & B.C.L./LL.B. (132 cr.)

Approved by SCTP on May 3rd, 2018 and reported to APC on May 9th, 2018

Faculty of Arts

B.A.; Honours in Latin American and Caribbean Studies (60 cr.)
B.A.; Major Concentration in Software Engineering (36 cr.)
B.A.; Major Concentration in Computer Science (36 cr.)
B.A.; Minor Concentration in Computer Science (18 cr.)

Faculty of Engineering

B.Eng.; Major in Bioengineering (142-152 cr.)
B.Eng. in Electrical Engineering (134-138 cr.)
B.Eng.; Honours in Electrical Engineering (138-142 cr.)
B.Eng.; Co-op in Software Engineering (141-147 cr.)
B.Eng.; Minor in Software Engineering (18 cr.)

Graduate and Postdoctoral Studies/ Faculty of Arts

Ph.D. in Anthropology; Neotropical Environment (0 cr.)

Graduate and Postdoctoral Studies / Faculty of Engineering

M.Arch. (Professional); Non-Thesis – Design Studio (45 cr.)
M.Arch. (Professional); Non-Thesis – Design Studio – Directed Research (60 cr.)
M.Arch. (Post-Professional); Non-Thesis – Urban Design and Housing (45 cr.)
Ph.D. in Architecture (0 cr.)
M.Eng. in Mining Engineering; Non-Thesis – Environmental Engineering (45 cr.)
Ph.D. in Materials Engineering (0 cr.)
M.U.P.; Non-Thesis (66 cr.)
M.U.P.; Non-Thesis – Transportation Planning (66 cr.)
M.U.P.; Non-Thesis – Urban Development and Urban Design (66 cr.)

Faculty of Science

B.Sc.; Honours in Anatomy and Cell Biology (73 cr.)

ii. Program Retirements

Approved by SCTP on March 22nd, 2018 and reported to APC on May 9th, 2018

School of Continuing Studies

Professional Development Certificate in Management Consulting (2.5 CEUs)

Approved by SCTP on April 5th, 2018 and reported to APC on May 9th, 2018

Faculty of Arts

B.A.; Major Concentration in Latin American Studies (36 cr.)
B.A.; Major Concentration in Hispanic Studies; Literature and Culture (36 cr.)
B.A.; Major Concentration in Hispanic Studies; Languages (36 cr.)

Approved by SCTP on April 19th, 2018 and reported to APC on May 9th, 2018

Graduate and Postdoctoral Studies/ Faculty of Medicine

M.Sc.(Applied) in Nursing; Non-Thesis – Nursing Education (50 cr.)

Approved by SCTP on May 3rd, 2018 and reported to APC on May 9th, 2018

Faculty of Arts

B.A.; Honours in Latin American and Caribbean Studies; Thematic (60 cr.)
B.A.; Honours in Latin American and Caribbean Studies; Area (60 cr.)

Graduate and Postdoctoral Studies/ Faculty of Engineering

M.Eng. in Electrical Engineering (46 cr.)

Graduate and Postdoctoral Studies/ Desautels Faculty of Management

M.M. in International Masters for Practicing Managers in Health Leadership; Non-Thesis (45 cr.)

Graduate and Postdoctoral Studies/ Faculty of Medicine

M.Sc.(Applied) in Nursing; Non-Thesis – Advanced Clinical Practice (48 cr.)

M.Sc.(Applied) in Nursing; Non-Thesis – Global Health (48 cr.)
 M.Sc.(Applied) in Nursing; Non-Thesis – Nursing Services Administration (49 cr.)
 M.Sc.(Applied) in Nursing; Non-Thesis – Direct Entry Nursing (58 cr.)
 M.Sc.(Applied) in Nursing; Non-Thesis – Global Health Direct Entry (48 cr.)
 M.Sc.(Applied) in Nursing; Non-Thesis – Mental Health Nurse Practitioner (45 cr.)
 M.Sc.(Applied) in Nursing; Non-Thesis – Neonatology Nurse Practitioner (45 cr.)
 M.Sc.(Applied) in Nursing; Non-Thesis – Pediatric Nurse Practitioner (45 cr.)
 M.Sc.(Applied) in Nursing; Non-Thesis – Primary Care Nurse Practitioner (45 cr.)

2. Courses

a) New Courses

Reported as having been approved by SCTP on March 8th, 2018: 14

Faculty of Engineering: 5

Faculty of Medicine: 3

Faculty of Science: 6

Reported as having been approved by SCTP on March 22nd, 2018: 18

School of Continuing Studies: 9

Faculty of Engineering: 1

Schulich School of Music: 7

Faculty of Science: 1

Reported as having been approved by SCTP on April 5th, 2018: 39

Faculty of Arts: 10

School of Continuing Studies: 24

Faculty of Engineering: 2

Faculty of Medicine: 3

Reported as having been approved by SCTP on April 19th, 2018: 5

Faculty of Agricultural and Environmental Sciences: 1

Faculty of Engineering: 1

Graduate and Postdoctoral Studies/ Interfaculty Studies: 2

Faculty of Medicine: 1

Reported as having been approved by SCTP on May 3rd, 2018: 50

Faculty of Agricultural and Environmental Sciences: 3

Faculty of Arts: 10

Faculty of Education: 13

Faculty of Engineering: 21

Faculty of Science: 3

b) Course Revisions

Reported as having been approved by SCTP on March 8th, 2018: 21

Faculty of Arts: 2

Faculty of Engineering: 8

Faculty of Law: 2

Faculty of Medicine: 4

Faculty of Science: 5

Reported as having been approved by SCTP on March 22nd, 2018: 49

School of Continuing Studies: 3

Faculty of Engineering: 44

Faculty of Science: 2

Reported as having been approved by SCTP on April 5th, 2018: 17

Faculty of Arts: 6
School of Continuing Studies: 1
Faculty of Engineering: 9
Faculty of Medicine: 1

Reported as having been approved by SCTP on April 19th, 2018: 33

Faculty of Agricultural and Environmental Sciences: 1
School of Continuing Studies: 4
Faculty of Education: 23
Faculty of Law: 3
Desautels Faculty of Management: 1
Faculty of Medicine: 1

Reported as having been approved by SCTP on May 3rd, 2018: 29

Faculty of Arts: 6
Faculty of Engineering: 21
Faculty of Science: 2

c) **Course Retirements**

Reported as having been approved by SCTP on March 8th, 2018: 4

Faculty of Engineering: 3
Faculty of Science: 1

Reported as having been approved by SCTP on March 22nd, 2018: 10

Desautels Faculty of Management: 2
Schulich School of Music: 8

Reported as having been approved by SCTP on April 5th, 2018: 6

Faculty of Arts: 6

Reported as having been approved by SCTP on April 19th, 2018: 1

Faculty of Agricultural and Environmental Sciences: 1

3. Other

a) **Office of the Provost and Vice-Principal Academic**

- i. Terms of Reference: Subcommittee on Professional Programs – *appendix H*

On May 11th, 2018, APC electronically approved the revised Terms of Reference for its Subcommittee on Professional Programs (SoPP). SoPP will discuss and address transversal concerns that are relevant to academic units delivering programs with a professional component or orientation. The Subcommittee will be comprised of representatives of each faculty, and one representative of a School that delivers a professional program, meet four times a year and report annually to APC.

- ii. Administrative overload and academic performance – *appendix I*

In Fall 2017, Senate Steering referred to APC a question that had been proposed as a topic for a Senate open discussion, namely, whether a perceived increase in administrative work shouldered by professors curtailed their potential for success or adversely impacted professorial retention. APC looked at three metrics: the tenure rates from 2000, the total Tri-Agency funding at McGill, relative to the U15 (percentage and overall dollar amounts) over the last 15 years; and the numbers of voluntary departures from McGill over the last 15 years. APC

found that these metrics indicate that the academic performance from the McGill Faculty members has remained stable despite any perceived increase in administrative work.

APC APPENDIX A [18-APC-05-44]



McGill

New Program/Major or Minor/Concentration Proposal Form

(2017)

<p>1.0 Degree Title Please specify the two degrees for concurrent degree programs</p> <p>Certificate</p>	<p>2.0 Administering Faculty/Unit</p> <p>School of Continuing Studies (SCS)</p>
<p>1.1 Major (Legacy= Subject)(30-char. max.)</p> <p>Proficiency in Bilingual Professional Communication</p>	<p>Offering Faculty/Department</p> <p>SCS/Language and Intercultural Communication</p>
<p>1.2 Concentration (Legacy = Concentration/Option) If applicable to Majors only (30 char. max.)</p>	<p>3.0 Effective Term of Implementation (Ex. Sept. 2004 = 200409) Term</p> <p>201809</p>
<p>1.3 Minor (with Concentration, if Applicable) (30 char. max.)</p>	

4.0 Rationale and Admission Requirements for New Proposal

The Language & Intercultural Communication unit of McGill University's School of Continuing Studies currently offers two (2) part-time 30-credit programs that lead to the Certificate of Proficiency - English for Professional Communication and the Certificate of Proficiency - French for Professional Communication. The student demographic is composed of local residents, within the Greater Montreal region, whose average age is about 33 years. They are adult learners, many of whom have time constraints as well as employment and family ... continued on next page.

5.0 Program Information
Please check appropriate box(es)

<p>5.1 Program Type</p> <p><input type="checkbox"/> Bachelor's Program</p> <p><input type="checkbox"/> Master's</p> <p><input type="checkbox"/> M.Sc.(Applied) Program</p> <p><input type="checkbox"/> Dual Degree/Concurrent Program</p> <p><input checked="" type="checkbox"/> Certificate</p> <p><input type="checkbox"/> Diploma</p> <p><input type="checkbox"/> Graduate Certificate</p> <p><input type="checkbox"/> Graduate Diploma</p> <p><input type="checkbox"/> Ph.D. Program</p> <p><input type="checkbox"/> Doctorate Program (Other than Ph.D.)</p> <p><input type="checkbox"/> Private Program</p> <p><input type="checkbox"/> Off-Campus Program</p> <p><input type="checkbox"/> Distance Education Program (By Correspondence)</p> <p><input type="checkbox"/> Other (Please specify)</p>	<p>5.2 Category</p> <p><input type="checkbox"/> Faculty Program (FP)</p> <p><input type="checkbox"/> Major</p> <p><input type="checkbox"/> Joint Major</p> <p><input type="checkbox"/> Major Concentration (CON)</p> <p><input type="checkbox"/> Minor</p> <p><input type="checkbox"/> Minor Concentration (CON)</p> <p><input type="checkbox"/> Honours (HON)</p> <p><input type="checkbox"/> Joint Honours Component (HC)</p> <p><input type="checkbox"/> Internship/Co-op</p> <p><input type="checkbox"/> Thesis (T)</p> <p><input type="checkbox"/> Non-Thesis (N)</p> <p><input type="checkbox"/> Other</p> <p>Please specify</p>	<p>5.3 Level</p> <p><input checked="" type="checkbox"/> Undergraduate</p> <p><input type="checkbox"/> Dentistry/Law/Medicine</p> <p><input type="checkbox"/> Continuing Ed (Non-Credit)</p> <p><input type="checkbox"/> Collegial</p> <p><input type="checkbox"/> Masters & Grad Dips & Certs</p> <p><input type="checkbox"/> Doctorate</p> <p><input type="checkbox"/> Post-Graduate Medicine/Dentistry</p> <p><input type="checkbox"/> Graduate Qualifying</p> <p><input type="checkbox"/> Postdoctoral Fellows</p> <p>5.4 FQRSC (Research) Indicator (for GPS) Yes ___ No ___</p> <p>5.5 Requires Resources Yes ___ No <input checked="" type="checkbox"/></p>
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<p>6.0 Total Credits</p> <p>30 credits</p>	<p>7.0 Consultation with Related Units Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Financial Consult Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Attach list of consultations.</p>
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Certificate of Proficiency in Bilingual Professional Communication

4.0 Rationale (cont'd)

responsibilities. Students have up to four (4) years to complete one of the two (2) existing certificates –either the English one or the French one. We have constituted, however, that many students take both English and French courses simultaneously, as the need for a certain level of bilingualism at the workplace is apparent, but very few apply for admission to both certificates of proficiency because the time to complete them both is prohibitive.

To address the need for bilingual proficiency in English and French, the Language & Intercultural Communication unit is proposing the creation of a new part-time 30-credit *Certificate of Proficiency - Bilingual Professional Communication* program. The Certificate will lead to a high level of proficiency in both English and French, as per recognized industry standards such as the Canadian Language Benchmarks (CLB), the Common European Framework of Reference for Languages (CEFR), and the American Council on the Teaching of Foreign Languages (ACTFL). The objective of the proposed *Certificate of Proficiency - Bilingual Professional Communication* program is to provide students with proof of proficiency in both English and French under one umbrella.

The program will be made up of eight (8) required courses (starting at the 400 level) and two (2) complementary courses taken from the existing part-time credit certificates stated above. In order to satisfy the requirements of the Certificate, students must complete 24 credits in required courses and 6 credits in complementary courses. The complementary courses are to be chosen in consultation with, and approved by, the Program Coordinator. All potential students must sit the McGill Entrance Placement Test (EPT) to determine their current level of English and French. In order to be admitted to the program, students must be placed at an Advanced 1 level of English and French as per the McGill EPT, and must be 18 years of age or older. Entry level to the required courses is Advanced 1. Nevertheless, students have the opportunity to take prerequisite courses at a lower level (ex. intermediate-mid, intermediate-high, etc.) should there be a need to do so.

The current Certificates in English or French Professional Communication will continue to exist and be offered. The unit has reviewed any current obsolete/low enrollment programs, has considered whether they should be revised or retired, and has determined that no changes need to be made at this time.

8.0 Program Description (Maximum 150 words)

The Certificate of Proficiency in Bilingual Professional Communication addresses the need for bilingual proficiency in English and French in a professional context. It is intended for adult learners who wish to acquire proof of proficiency in these two languages simultaneously, and attain a high level of bilingualism for the workplace. The program may be completed on a part-time basis.

9.0 List of proposed program for the New Program/Major or Minor/Concentration.

If new concentration (option) of existing Major/Minor (program), please attach a program layout (list of all courses) of existing Major/Minor.

Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight under the headings of: Required Courses, Complementary Courses, Elective Courses)

Certificate of Proficiency in Bilingual Professional Communication (30 credits)

Program Prerequisites:

If your English Entrance Placement level is not at Advanced 1, you may need some or all of these courses (above the 30 credits for the program):

CEEN 211 Functional English Grammar/Writing 1 (3 credits)
CEEN 212 English Communication Practice 1 (3 credits)
CEEN 221 Functional English Grammar/Writing 2 (3 credits)
CEEN 222 English Communication Practice 2 (3 credits)
CEEN 331 Functional English Grammar/Writing 3 (3 credits)
CEEN 332 English Communication Practice 3 (3 credits)

If your French Entrance Placement level is not at Advanced 1, you may need some or all of these courses (above the 30 credits for the program):

CEFN 211 Functional French Grammar/Writing 1 (3 credits)
CEFN 212 French Communication Practice 1 (3 credits)
CEFN 221 Functional French Grammar/Writing 2 (3 credits)
CEFN 222 French Communication Practice 2 (3 credits)
CEFN 331 Functional French Grammar/Writing 3 (3 credits)
CEFN 332 French Communication Practice 3 (3 credits)

Required Courses: (24 credits)

CEEN 411 English Grammar and Writing Techniques (3 credits)
CEEN 412 English Oral Communication Techniques (3 credits)
CEEN 421 English Written Communication Contexts (3 credits)
CEEN 422 English Oral Communication Contexts (3 credits)
CEFN 411 French Grammar/Writing Techniques (3 credits)
CEFN 412 French Oral Communication Techniques (3 credits)
CEFN 421 French Written Communication Contexts (3 credits)
CEFN 422 French Oral Communication Contexts (3 credits)

Complementary Courses: (6 credits)

To be chosen in consultation with, and approved by, the Program Coordinator.

CEEN 401 English Vocabulary in Context (3 credits)
CEEN 402 English Communication and Cultural Patterns (3 credits)
CEFN 401 French Vocabulary in Context (3 credits)
CEFN 402 Persuasive French in Communication (3 credits)

10.0 Approvals

Routing Sequence	Name	Signature	Date
Department	Firas Alhafidh		9 March 2018
Curric/Acad Committee	Carmen Sicilia		March 13, 2018
Faculty 1	Judith Potter		MARCH 12, 2018
Faculty 2	Effie Dracopoulos		March 9, 2018
Faculty 3	Manon Gadois		03/03/2018
CGPS			
SCTP			April 5, 2018
APC			
Senate			

**SCTP
APPROVED**

Submitted by

Name

To be completed by ARR:

Phone

CIP Code

Email

Submission Date

EXISTING PROGRAMS:

Certificate in Proficiency in English for Professional Communication (30 credits)

Offered by: Language & Intercultural Comm. **Degree:** Certificate Prof Engl for Prof Comm
Program Requirements

This award-winning part-time certificate program has been designed to enable students to master English oral and written linguistic and communication skills necessary to function effectively in a professional anglophone environment.

The program is the equivalent of one year of full-time university studies, requires the completion of ten 3-credit courses, and starts at the low-intermediate level (courses CEEN 211 and CEEN 212). Students with a basic or an elementary knowledge of English will need to complete non-credit prerequisite courses before entering the program. The overall program structure is divided into two modules:

- 1) The Non-Credit Module comprises three prerequisite courses (one at the basic level and two at the elementary level) of 60 hours each.
- 2) The Credit Module consists of ten 3-credit courses of 39 hours each. It includes courses at the 200, 300, and 400 levels.

The program is offered three times a year: in Fall and Winter for a period of 12 weeks (Non-Credit Module) and 13 weeks (Credit Module), and in Spring for a period of nine weeks. Courses are offered during the evening and on Saturday mornings.

Every student registered in a credit or non-credit course has exclusive access to online pedagogical material and other resources through the myCourses platform. This allows students to participate in virtual projects and/or reinforce their language training on an individual basis and at their own pace. The communication tools integrated in myCourses further consolidate the individual pedagogical support offered by the lecturer.

The program leads, under certain conditions, to the Certificate of Proficiency - English for Professional Communication. See School of Continuing Studies > Areas of Study > Languages > English Language Programs > Certificate of Proficiency - English for Professional Communication Overview > Certificate of Proficiency – English for Professional Communication: Academic Regulations.

The level of this certificate corresponds to the Advanced Level recognized by the American Council on the Teaching of Foreign Languages (ACTFL).

Prerequisite Courses - Non-Credit Module

CEGL 102 Basic English (11 CE units)
CEGL 104 Elementary English 1 (11 CE units)
CEGL 106 Elementary English 2 (11 CE units)

Required Courses (30 credits)

CEEN 211 Functional English Grammar/Writing 1 (3 credits)
CEEN 212 English Communication Practice 1 (3 credits)
CEEN 221 Functional English Grammar/Writing 2 (3 credits)
CEEN 222 English Communication Practice 2 (3 credits)
CEEN 331 Functional English Grammar/Writing 3 (3 credits)
CEEN 332 English Communication Practice 3 (3 credits)
CEEN 411 English Grammar and Writing Techniques (3 credits)
CEEN 412 English Oral Communication Techniques (3 credits)
CEEN 421 English Written Communication Contexts (3 credits)
CEEN 422 English Oral Communication Contexts (3 credits)

Complementary Courses

CEEN 301 English Grammar in Context (3 credits)
CEEN 401 English Vocabulary in Context (3 credits)
CEEN 402 English Communication and Cultural Patterns (3 credits)
CEEN 403 Strategic Communication in English (3 credits)

Notes:

- * 1 Students who begin their studies with courses CEEN 221/CEEN 222 and who would like to be admitted to the Certificate of Proficiency – English for Professional Communication must take two complementary courses (CEEN 301 or CEEN 401 or CEEN 402 or CEEN 403), or equivalent courses as approved by the Language and Intercultural Communication unit, to satisfy the requirements of the program. These courses may be taken as part of the advanced module of the program. For more information, please contact the Language and Intercultural Communication unit.

- * 2 Students who begin their studies with courses CEEN 331/CEEN 332 and who would like to be admitted to the Certificate of Proficiency – English for Professional Communication must take four complementary courses (CEEN 301 and CEEN 401 and CEEN 402 and CEEN 403), or equivalent courses as approved by the Language and Intercultural Communication unit, to satisfy the requirements of the program. These courses may be taken as part of the advanced module of the program. For more information, please contact the Language and Intercultural Communication unit.

- * 3 Students who begin their studies with courses CEEN 411/CEEN 412 are not eligible for admission to the Certificate of Proficiency – English for Professional Communication. However, these students may register as "Special Students" and may be eligible to receive the McGill Attestation of Proficiency in English if they successfully complete all four (4) courses of the Advanced module (CEEN 411, CEEN 412, CEEN 421, and CEEN 422) with a minimum grade of B- (65%).

Certificate in Proficiency in French for Professional Communication (30 credits)

Offered by: Language & Intercultural Comm. **Degree:** Certificate Prof French for Prof Comm

This award-winning part-time certificate program has been designed to enable students to master, in both oral and written French, the linguistic and communicative skills necessary to function effectively in a professional francophone environment.

The program is the equivalent of one year of full-time university studies, requires the completion of ten 3-credit courses, and starts at the low-intermediate level (courses CEFN 211 and CEFN 212). Students with a basic or an elementary knowledge of French will need to complete credit prerequisite courses before entering the program. Those credit courses won't be accepted as part of the Certificate. The overall program structure is divided into two modules:

- 1) The Preparatory Module comprises four prerequisite courses (one at the basic level and three at the elementary level) of 39 hours each.
- 2) The Intermediate and Advanced Credit Module consists of ten 3-credit courses of 39 hours each. It includes courses at the 200, 300, and 400 levels.

The program is offered three times a year: in Fall and Winter for a period of 13 weeks (Preparatory and Intermediate and Advanced Credit Modules). In Spring, both Modules last nine weeks. Courses are offered during the evening and on Saturday mornings.

Every student registered in a credit or non-credit course has exclusive access to online pedagogical material and other resources through the myCourses platform. This allows students to participate in virtual projects and/or reinforce their language training on an individual basis and at their own pace. The communication tools integrated in myCourses further consolidate the individual pedagogical support offered by the lecturer.

The program leads, under certain conditions, to the Certificate of Proficiency - French for Professional Communication (see "Academic Regulations"). The level of this certificate corresponds to the Advanced Level recognized by the American Council on the Teaching of Foreign Languages (ACTFL). For information on term dates, please refer to the Department's website.

Prerequisite courses

- CEFN 102 Basic French (3 credits)
- CEFN 104 Elementary French (3 credits)
- CEFN 106 Fundamentals of French Grammar and Writing (3 credits)
- CEFN 107 Fundamentals of French Oral Communication (3 credits)

Required courses - Intermediate and Advanced (30 credits)

- CEFN 211 Functional French Grammar/Writing 1 (3 credits)
- CEFN 212 French Communication Practice 1 (3 credits)
- CEFN 221 Functional French Grammar/Writing 2 (3 credits)
- CEFN 222 French Communication Practice 2 (3 credits)
- CEFN 331 Functional French Grammar/Writing 3 (3 credits)
- CEFN 332 French Communication Practice 3 (3 credits)
- CEFN 411 French Grammar/Writing Techniques (3 credits)
- CEFN 412 French Oral Communication Techniques (3 credits)
- CEFN 421 French Written Communication Contexts (3 credits)
- CEFN 422 French Oral Communication Contexts (3 credits)

Complementary courses

- CEFN 401 French Vocabulary in Context (3 credits)
- CEFN 402 Persuasive French in Communication (3 credits)

Notes:

- * 1 Students who begin their studies with courses CEFN 221/CEFN 222 and who would like to be admitted to the Certificate of Proficiency - French for Professional Communication must take two complementary courses (CEFN 401 and CEFN 402), or equivalent courses as approved by the Language and Intercultural Communication unit, to satisfy the requirements of the program. These courses may be taken as part of the advanced module of the program. For more information, please contact the Language and Intercultural Communication unit.

- * 2 Students who begin their studies with courses CEFN 331/CEFN 332 and who would like to be admitted to the Certificate of Proficiency - French for Professional Communication must take up to two Comprehensive Challenge Exams which correspond to the previous level (CEFN 221/CEFN 222), and two complementary courses (CEFN 401 and CEFN 402), or equivalent courses as approved by the Language and Intercultural Communication unit, in order to satisfy the requirements of the program. These courses may be taken as part of the advanced module of the program. For more information, please contact the Language and Intercultural Communication unit.

- * 3 Students who begin their studies with courses CEFN 411/CEFN 412 are not eligible for admission to the Certificate of Proficiency - French for Professional Communication. However, these students may register as Special Students and may be eligible to receive the McGill Attestation of Proficiency in French if they successfully complete all four (4) courses of the Advanced Module (CEFN 411, CEFN 412, CEFN 421, and CEFN 422) with a minimum grade of B- (65%).



McGill

New Program/Major or Minor/Concentration Proposal Form

(2017)

1.0 Degree Title

Please specify the two degrees for concurrent degree programs

2.0 Administering Faculty/Unit

1.1 Major (Legacy= Subject)(30-char. max.)

Offering Faculty/Department

1.2 Concentration (Legacy = Concentration/Option)
If applicable to Majors only (30 char. max.)

3.0 Effective Term of Implementation

(Ex. Sept. 2004 = 200409)

Term

1.3 Minor (with Concentration, if Applicable) (30 char. max.)

4.0 Rationale and Admission Requirements for New Proposal

As part of our program roster, the Department of Career and Professional Development (Credit) (CPD), currently offers a Diploma in Applied Finance. The majority of students taking programs and courses in CPD (Credit), wish to obtain both academic and professional credentials, including a professional designation such as the Chartered Financial Analyst (CFA) designation. (Rationale and Admission requirements continued – see next page.)

5.0 Program Information

Please check appropriate box(es)

5.1 Program Type

- Bachelor's Program
 Master's
 M.Sc. (Applied) Program
 Dual Degree/Concurrent Program
 Certificate
 Diploma
 Graduate Certificate
 Graduate Diploma
 Ph.D. Program
 Doctorate Program
 (Other than Ph.D.)
 Self-Funded/Private Program
 Off-Campus Program
 Distance Education Program
 (By Correspondence)
 Other (Please specify)

5.2 Category

- Faculty Program (FP)
 Major
 Joint Major
 Major Concentration (CON)
 Minor
 Minor Concentration (CON)
 Honours (HON)
 Joint Honours Component (HC)
 Internship/Co-op
 Thesis (T)
 Non-Thesis (N)
 Other

Please specify

5.3 Level

- Undergraduate
 Dentistry/Law/Medicine
 Continuing Studies (Non-Credit)
 Collegial
 Masters & Grad Dips & Certs
 Doctorate
 Post-Graduate Medicine/Dentistry
 Graduate Qualifying
 Postdoctoral Fellows

5.4 FQRSC (Research) Indicator

(for GPS) Yes ___ No ___

5.5 Requires Resources

Yes ___ No x

6.0 Total Credits

7.0 Consultation with

Related Units

Yes No

Financial Consult

Yes No

Attach list of consultations.

APPENDIX 1

4.0 Rationale and Admission Requirements for New Proposal (CONTINUED)

For many of these students, their main motivation includes improving their job prospects, becoming eligible for a promotion, upgrading their skills or for professional development. The acquisition of a designation is beneficial as it can distinguish our students from others in the workplace, especially as some of our students may not necessarily have a graduate degree or, may have one from another country that is not recognized within Canada.

The CFA is an internationally renowned designation with over 142,000 members across the globe of which 2533 are finance professionals in Quebec. It is intended for those working in the finance sector including, investment management professionals, portfolio and wealth management professionals, investments and research analysts and those working in the banking and insurance industry. The average salary in Canada for a professional with a CFA designation is \$296,020. Those interested in earning the CFA designation must have a Bachelor's degree (or equivalent) and pass three exams: Level I, Level II and Level III.

This globally recognized designation has become increasingly important, as employers in the finance sector prefer to hire candidates who have earned the CFA designation. A job market analysis has revealed that there are currently 400,000 vacant positions in Canada related to the field of Finance.

Unfortunately, students graduating from the current Diploma in Applied Finance program have not necessarily found jobs in their field. In addition, the program has not attracted as many students as anticipated despite the fact that Montreal is the thirteenth (13th) largest financial centre in the world. Students also expressed a desire to acquire a professional designation, something that the program did not offer. This represented a missed market opportunity on the part of the department. In order to prepare students for the CFA designation, the program would have to cover one hundred percent (100%) of all three levels of the CFA exams including ethics. This meant that the current program would have to be dramatically changed. In addition, to fully benefit from accreditation, the department would also need to have academic staff and course lecturers who are CFA charter holders, which would in turn, provide CFA scholarships to students. In an effort aimed at improving the program and acquiring full accreditation, the department conducted an extensive review of the Diploma in Applied Finance program and as a result identified gaps in knowledge and competencies required by local and international employers in the finance sector.

The content therefore had to be created, revised and updated, with some material being deleted and some being shifted to other courses. Duplicated topics were removed and some topics which were previously superficially covered were now covered in-depth. All of this was implemented in order to stream-line, update and remap the program to the CFA curriculum. The new and improved proposed program, which is aligned with the requirements of the CFA designation, would allow students to acquire a graduate-level Diploma and prepare them for the job market. In addition, it would also provide them with the knowledge needed to write the three CFA exams and thus with the ability to obtain the CFA designation which is valued globally.

Upon approval of the proposed Diploma in Professional Practice in Finance program, the current Diploma in Applied Finance program and the associated courses will be retired.

In order to distinguish between the current program and the proposed program and to avoid confusion on the part of students, the department has also requested the creation of a new subject code CCFA (which represents Continuing Studies Certification in Financial Analysis) and course numbers to reflect the new and improved program and associated courses. These necessary changes will reflect the amendments to the content of the program and courses and the new qualifications required to teach these courses. The new subject code will also allow the University to better market and brand the new program as the subject code mirrors the CFA designation.

Admission Requirements

1. Bachelor's degree (or equivalent) as approved by the Graduate and Postdoctoral Studies Office; AND
2. Have a minimum cumulative grade point average (CGPA) of 3.0 out of 4.0 or 3.2 out of 4.0 in the last two years of full-time academic studies.

8.0 Program Description (Maximum 150 words)

The Diploma in Professional Practice in Finance, a Chartered Financial Analyst (CFA) University Affiliated Program, prepares students to write level I, II and III exams for the CFA Designation. This program is intended to allow students to develop professional competencies that will be recognized nationally and internationally. The program is designed to provide training in the competencies, techniques, and specific expertise required to become a successful professional in various finance-related fields, such as corporate finance, investment banking and portfolio management, risk management, treasury finance, financial planning, and sustainable financial management.

9.0 List of proposed program for the New Program/Major or Minor/Concentration.

If new concentration (option) of existing Major/Minor (program), please attach a program layout (list of all courses) of existing Major/Minor.

Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight under the headings of: Required Courses, Complementary Courses, Elective Courses)

Diploma in Professional Practice in Finance (30 credits)

Prerequisites Courses to the Program:

CACC 521 Concepts of Financial Accounting (3 credits)
CMS2 500 Mathematics for Management (3 credits)

Corequisites Courses to the Program

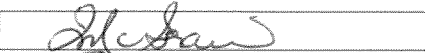

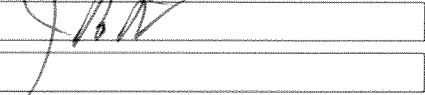
CEC2 532 Business Economics (3 credits)
CMS2 521 Applied Management Statistics (3 credits)

Required Courses: (27 credits)

CCFA 500 Professional Ethical Practices (1.5 credits)
CCFA 505 Financial Modeling (1.5 credits)
CCFA 510 Current Operations in Global Financial Markets (3 credits)
CCFA 515 Essentials of Financial Reporting and Analysis (3 credits)
CCFA 520 Theory of Capital Structure and Corporate Finance 1 (3 credits)
CCFA 523 Corporate Treasury Management (3 credits)
CCFA 528 Investment Decisions and Effect of Behavioural Finance (3 credits)
CCFA 530 Introduction to Applications and Uses of Derivatives (3 credits)
CCFA 535 Theory of Capital Structure and Corporate Finance 2 (3 credits)
CCFA 540 Portfolio Strategies and Management (3 credits)

Complementary Course: (3 credits)

CCFA 536 Wealth Planning (3 credits)
CCFA 538 Mergers and Acquisitions including Firm Valuation Methods (3 credits)
CCFA 542 Hedge Fund (3 credits)
CCFA 548 Alternative Investments (3 credits)
CCFA 595 Special Topics in Finance (3 credits)

10.0 Approvals				
Routing Sequence	Name	Signature	Date	
Department	MCGRAW, Janice		MAR. 9, 2018	
Curric/Acad Committee	SICILIA, Carmen		Feb. 14, 2018	
Faculty 1	POTTER, Judith		MAR. 12, 2018	
Faculty 2				
Faculty 3				
CGPS				
SCTP	SCTP APPROVED		April 5, 2018	
APC				
Senate				
Submitted by				
Name		SICILIA, Carmen (Director, CPD & Associate Dean, SCS)		
Phone	514-398-5894			
Email	carmen.sicilia@mccoll.ca			
Submission Date				
		To be completed by ARR:		
		CIP Code		

EXISTING PROGRAMS:

Certificate (Cert.) Applied Finance (30 credits)

Offered by: Career & Professional Development **Degree:** Certificate in Applied Finance
Program Requirements

This program aims to provide students with the appropriate competencies in the area of finance using learner-centered instructional methods to prepare them for a variety of careers in finance. The program is designed to provide a solid knowledge base in various finance related fields, such as corporate finance, investment banking and portfolio management, risk management, treasury finance, financial planning and sustainable financial management.

Note: There are two external prerequisite courses to the program, which must be taken prior to taking certain required courses in this program. Students who wish to apply for advanced standing for prerequisite courses must complete an Advanced Standing form at the time of admission or they may take an Exemption by Examination test. Prerequisites and corequisites are not included in the total credit requirements for the program.

Prerequisite Courses

CMSC 101 Mathematical Tools for Management Professionals (3 credits) *

MGCR 211 Introduction to Financial Accounting (3 credits) *

* or the Exemption by Examination Test

Corequisite Courses

MGCR 273 Introductory Management Statistics (3 credits) *

MGCR 293 Managerial Economics (3 credits) *

* or the Exemption by Examination Test

Required Courses (21 credits)

ACCT 354 Financial Statement Analysis (3 credits)

CFIN 300 Fundamentals of Financial Markets and Institutions (3 credits)

CFIN 310 Short-Term Financial Management (3 credits)

CFIN 410 Investment and Portfolio Management (3 credits)

FINE 342 Corporate Finance (3 credits)

FINE 482 International Finance 1 (3 credits)

MGCR 341 Introduction to Finance (3 credits)

Complementary Courses (9 credits)

CFIN 200 Retirement Planning (3 credits)

CFIN 305 Investor Behaviour (3 credits)

CFIN 401 Sustainable Finance and the Firm (3 credits)

CFIN 402 Business Valuation and Project Finance (3 credits)

CFIN 403 Mergers and Acquisitions (3 credits)

CFIN 421 Asset Liability Management (3 credits)

CPDV 301 Risk Management (3 credits)

CPDV 302 Risk Control (3 credits)

CPDV 303 Risk Financing (3 credits)

Diploma (Dip.) in Applied Finance (30 credits)

Offered by: Career & Professional Develop **Degree:** Diploma in Applied Finance

Program Requirements

This program aims to provide students with effective and applicable competencies in the frontiers of finance using learner-centered instructional methods. The program is designed to provide training in the techniques and nuances expected of a successful professional in various finance related fields, such as corporate finance, investment banking and portfolio management, risk management, treasury finance, financial planning and sustainable financial management.

Note: There are two external prerequisite courses to the program, which must be taken prior to taking certain required courses in this program. Students who wish to apply for advanced standing for prerequisite courses must complete an Advanced Standing form at the time of admission or they may take an Exemption by Examination test.

Prerequisites and corequisites are not included in the total credit requirements for the program.

Prerequisite Courses

CACC 521 Concepts of Financial Accounting (3 credits) *

CMS2 500 Mathematics for Management (3 credits) *

* or the Exemption by Examination Test

Corequisite Courses

CEC2 532 Business Economics (3 credits) *

CMS2 521 Applied Management Statistics (3 credits) *

* or the Exemption by Examination Test

Required Courses (21 credits)

CFIN 500 Financial Markets and Institutions (3 credits)

CFIN 507 Analysis of Financial Statements (3 credits)

CFIN 512 Corporate Finance (3 credits)

CFIN 522 Applied Topics: Corporate Finance (3 credits)

CFIN 525 Treasury Management (3 credits)

CFIN 530 Investment Analysis (3 credits)

CFIN 540 Introduction to International Finance (3 credits)

Complementary Courses (9 credits)

CFIN 501 Retirement, Estate and Tax Planning (3 credits)

CFIN 515 Behavioural Finance (3 credits)

CFIN 528 Strategic Asset and Liability Management (3 credits)

CFIN 552 Firm Valuation (3 credits)

CFIN 553 Corporate Mergers and Acquisitions (3 credits)

CFIN 562 Finance and Sustainable Enterprise (3 credits)

CFIN 590 Topics in Finance (3 credits)

CFIN 595 Derivatives and Risk Management Tools (3 credits)

CPD2 505 Risk Management and Insurance (3 credits)



McGill

New Program/Major or Minor/Concentration Proposal Form

(2017)

<p>1.0 Degree Title Please specify the two degrees for concurrent degree programs</p> <input type="text" value="Professional Development Certificate"/>	<p>2.0 Administering Faculty/Unit</p> <input type="text" value="Faculty of Education"/>
<p>1.1 Major (Legacy= Subject)(30-char. max.)</p> <input type="text" value="Global Trends in Education"/>	<p>Offering Faculty/Department</p> <input type="text" value="Faculty of Education/Dean's Office"/>
<p>1.2 Concentration (Legacy = Concentration/Option) If applicable to Majors only (30 char. max.)</p> <input type="text"/>	<p>3.0 Effective Term of Implementation (Ex. Sept. 2004 = 200409) Term</p> <input type="text" value="201809"/>
<p>1.3 Minor (with Concentration, if Applicable) (30 char. max.)</p> <input type="text"/>	

4.0 Rationale and Admission Requirements for New Proposal

Educators and educational leaders who wish to effectively foster the development of 21st century skills and competencies and address issues arising from current global trends, require professional development programs based on recent research findings. As of yet, the Faculty of Education does not provide professional development opportunities in international settings. By creating this new Professional Development Certificate, the Faculty of Education is responding to the demand for professional development opportunities to better prepare educators and educational leaders for the challenges of the 21st century, internationally (see appendix for further details)

5.0 Program Information
Please check appropriate box(es)

<p>5.1 Program Type</p> <input type="checkbox"/> Bachelor's Program <input type="checkbox"/> Master's <input type="checkbox"/> M.Sc.(Applied) Program <input type="checkbox"/> Dual Degree/Concurrent Program <input type="checkbox"/> Certificate <input type="checkbox"/> Diploma <input type="checkbox"/> Graduate Certificate <input type="checkbox"/> Graduate Diploma <input type="checkbox"/> Ph.D. Program <input type="checkbox"/> Doctorate Program (Other than Ph.D.) <input checked="" type="checkbox"/> Private Program <input checked="" type="checkbox"/> Off-Campus Program <input type="checkbox"/> Distance Education Program (By Correspondence) <input checked="" type="checkbox"/> Other (Please specify) <input type="text" value="Professional Development Certificate"/>	<p>5.2 Category</p> <input type="checkbox"/> Faculty Program (FP) <input type="checkbox"/> Major <input type="checkbox"/> Joint Major <input type="checkbox"/> Major Concentration (CON) <input type="checkbox"/> Minor <input type="checkbox"/> Minor Concentration (CON) <input type="checkbox"/> Honours (HON) <input type="checkbox"/> Joint Honours Component (HC) <input type="checkbox"/> Internship/Co-op <input type="checkbox"/> Thesis (T) <input type="checkbox"/> Non-Thesis (N) <input type="checkbox"/> Other Please specify <input type="text"/>	<p>5.3 Level</p> <input type="checkbox"/> Undergraduate <input type="checkbox"/> Dentistry/Law/Medicine <input checked="" type="checkbox"/> Continuing Ed (Non-Credit) <input type="checkbox"/> Collegial <input type="checkbox"/> Masters & Grad Dips & Certs <input type="checkbox"/> Doctorate <input type="checkbox"/> Post-Graduate Medicine/Dentistry <input type="checkbox"/> Graduate Qualifying <input type="checkbox"/> Postdoctoral Fellows <p>5.4 FQRSC (Research) Indicator (for GPS) Yes ___ No ___</p> <p>5.5 Requires Resources Yes ___ No <input checked="" type="checkbox"/></p>
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6.0 Total Credits

7.0 Consultation with Related Units Yes No

Financial Consult Yes No

Attach list of consultations.

8.0 Program Description (Maximum 150 words)

The Professional Development Certificate in Global Trends in Education targets teachers, educators and leaders from all levels of education (K-12, college, university, and industry/government, public and private sectors). The goal of this Professional Development Certificate is to provide tailored, pedagogically innovative and interactive professional development courses for educators to more effectively respond to educational challenges of the 21st century. Courses will be delivered in person, with our prominent faculty traveling to the host institution. Each course is 2-5 days long, allowing students to complete the courses with minimal inconvenience to their work schedules. By including online resources and discussion boards, students will be able to continue to be part of a professional learning community, communicating with one another and obtaining ongoing support from one another and from the instructor.

9.0 List of proposed program for the New Program/Major or Minor/Concentration.

If new concentration (option) of existing Major/Minor (program), please attach a program layout (list of all courses) of existing Major/Minor.

Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight under the headings of: Required Courses, Complementary Courses, Elective Courses)

Complementary Courses (12CEUs)

*There are no required courses for this Professional Development Certificate. Courses are chosen based on interest and relevance. Accumulation of 12 CEUs is required to obtain the Professional Development Certificate.

- EDPD 250 Students with Diverse Abilities (2 CEU)
- EDPD 251 Communicative Competence in English as a Second Language (2 CEU)
- EDPD 252 Competency Based Training and Industry Benefits (2 CEU)
- EDPD 253 Teacher Burnout: Retention to Sustainability (2 CEU)
- EDPD 254 Course Design and Teaching Development (4.5 CEU)
- EDPD 255 Inclusive Education (2 CEU)
- EDPD 256 Motivating the Unmotivated (2 CEU)
- EDPD 257 Self-Awareness in Pedagogy (2 CEU)
- EDPD 258 Making Technology Educational (2 CEU)
- EDPD 259 Real-World Connections for the Math Classroom (2 CEU)
- EDPD 260 Enhancing Educators' Well-Being: Best Practices in Action (2 CEU)
- EDPD 261 Effective School Response to Self-Injury (2 CEU)
- EDPD 262 Developing Communication in the Mathematics Classroom (2 CEU)

10.0 Approvals

Routing Sequence	Name	Signature	Date
Department	MENDOUSH SAROYAN	<i>Menoush Saroyan</i>	03.04.2018
Curric/Acad Committee	FIONA J. BENSON	<i>Fiona J. Benson</i>	10.04.2018
Faculty 1	DILSON RASSIER	<i>[Signature]</i>	18.04.2018
Faculty 2			
Faculty 3			
CGPS			
SCTP			MAY 3, 2018
APC			
Senate			

**SCTP
APPROVED**

Submitted by

Name

Phone

Email

Submission Date

To be completed by ARR:

CIP Code



INTEROFFICE MEMO

TO: Christopher Manfredi, Provost and Vice-Principal (Academic)

CC: Dilson Rassier, Dean, Faculty of Education; Daniela Frischer, Senior Manager, Finance and Resource Planning, Faculty of Education; Philip J. Smith, Associate Director, Academic Program Development Support and Cyclical Reviews

FROM: Brad Tucker, Executive Director, Analysis, Planning and Budget

DATE: 29 March 2018

RE: Professional Development Certificate in Global Trends in Education

Introduction

Analysis, Planning and Budget has completed their review of the professional development certificate in Global Trends in Education. In our opinion, the program is viable under the assumptions provided by the Faculty of Education and the commitments made by it.

Because those completing the certificate, offered entirely outside of Canada, will be receiving a certificate of completion and not a McGill sanction, the program does not need Ministerial approval. There is mention in the document of offering the certificate on the McGill campus, but as this option would change the cost structure and possibly impact other aspects of the McGill operations, APB is recommending that this option be held in abeyance.

Table 1: Profile of the Proposed Professional Development Certificate

Program Name	Global Trends in Education
Credential Type	Professional Development Certificate
Faculty	Faculty of Education
Unit	Dean's Office
Funding	Self-funded
Location	Fully offsite
Completion	12 CE Units
Projected Start Date	Summer 2018

The Faculty provided the following summary of their initiative, which has been edited for concision:

The Faculty of Education proposes the creation of a Professional Development Certificate in Global Trends in Education. Beyond general objectives of professional development, the specific objectives of the program are:

- (1) to develop and deliver relevant and quality face-to-face courses for educators and education leaders outside of Canada and enable them to effectively meet the needs and educational challenges of the 21st century and
- (2) to provide culturally sensitive tailored courses of varying length to meet the specific needs of the respective educational institution, organization or company.

This Professional Development Certificate is targeted towards in-service teachers (K-12), college and university lecturers and faculty, and education leaders from non-profit organizations, school boards, and industry.

This certificate will be comprised of a series of short courses that will be delivered face-to-face, off campus (delivered at the requesting institution). Students will select courses to build their own curriculum based on their needs. This Professional Development Certificate has no required courses as the professional development needs will differ significantly based on the country and/or institution. Additionally, each short course will be tailored to offer culturally relevant, and context specific content.

Twelve Continuing Education Units (CEUs) must be earned to be awarded the Professional Development Certificate.

Enrolment

The Faculty has agreed that a course will be offered only when a minimum of 20 students have committed to the course and that the number of courses offered will increase over the years.

Table 2: Enrolment Plan

	2018-19	2019-20	2020-21	2021-22	2022-23
Number of students	20	40	48	80	88
Number of courses offered	1	2	3	3	4
Total number of CEUs	40	80	116	160	196

Funding Profile

Tuition fees are to be set at \$1,200 per CEU, which would bring the base tuition fees for completing a 2 CEUs course to \$2,400 – to which \$120 would be added in additional fees. The based tuition fees for completing a 4.5 CEU course will be \$5,400.

Revenue-Expense Model

The following table presents a revenue-expense model for this Professional Development Certificate. The current model has built in 30% overhead, but we understand this number is under discussion. The model can be modified based on the results of that discussion.

Table 3: Revenue-Expense Comparison

	2018-19	2019-20	2020-21	2021-22	2022-23
Revenues					
Tuition	\$48,000	\$96,000	\$139,200	\$192,000	\$235,200
Fees – materials& supplies (course pack)	\$2,400	\$4,800	\$5,760	\$9,600	\$10,560
Total revenues - University	\$50,400	\$100,800	\$144,960	\$201,600	\$245,760
Revenues - Cross-program financing (cash or in-kind)					
Admin staff loan - Faculty's International Office (0.1 FTE)	\$6,000	\$6,180	\$0	\$0	\$0
Total revenues - New Program	\$56,400	\$106,980	\$144,960	\$201,600	\$245,760
Expenses					
Admin salaries (incl. benefits)	\$0	\$0	\$32,357	\$33,328	\$34,328
Professor salaries	\$0	\$0	\$0	\$0	\$0
Office supplies	\$1,000	\$1,020	\$1,040	\$1,061	\$1,082
Course materials& supplies (course pack)	\$2,400	\$4,800	\$5,760	\$9,600	\$10,560
Promotion	\$3,000	\$3,060	\$3,121	\$3,184	\$3,247
Course teaching salaries	\$2,500	\$6,283	\$12,943	\$13,331	\$20,597
Travel	\$7,500	\$15,150	\$24,931	\$31,836	\$41,674
Translation	\$4,000	\$3,060	\$3,121	\$3,184	\$3,247
Expenses - Cross-program financing					
Admin staff loan - Faculty's International Office (0.1 FTE)	\$6,000	\$6,180	\$0	\$0	\$0
Sub-total - expenses (program)	\$26,400	\$39,553	\$83,273	\$95,523	\$114,736
University Overhead (30% of revenues)	\$16,920	\$32,094	\$43,488	\$60,480	\$73,728
Contingency - 10% of sub-total expenses	\$2,640	\$3,955	\$8,327	\$9,552	\$11,474
Total expenses	\$45,960	\$75,602	\$135,089	\$165,556	\$199,937
Total revenues - total expenses (Program)	\$4,440	\$25,198	\$9,871	\$36,044	\$45,823
Total revenues - total expenses (University)	\$10,440	\$31,378	\$9,871	\$36,044	\$45,823



McGill

Faculty of
Education

PROFESSIONAL
DEVELOPMENT CERTIFICATE
IN GLOBAL TRENDS IN
EDUCATION

Proposal Submitted for Approval
APPENDIX

Professional Development Certificate in Global Trends in Education (12 CEUs)

Administering Faculty/Unit: Faculty of Education

Offering Faculty/Department: Education/Dean's Office

Title: Professional Development Certificate in Global Trends in Education (12 CEUs)

Projected Start Date: Fall 2018

Rationale for the Program

The objective of this new self-funded Professional Development Certificate is to provide educators at all levels (in-service teachers, postsecondary faculty, educators and trainers in business and industry, leaders and administrators) teaching and leadership skills that foster 21st century learning outcomes and competencies. The delivery of this program is international and in person with online support and resources.

Presently, the Faculty of Education offers two Graduate Certificates in Educational Leadership (1 and 2) that serve a very specific local, market – Quebec School boards. Additionally, we have a newly approved, blended (online and face to face) Graduate Certificate in International Leadership in Educational and Administrative Development. As of yet, the Faculty of Education does not provide professional development courses, workshops or seminars to in-service teachers, faculty, or industry educators in international settings.

The U.S. Department of Education's Institute of Education Sciences (2007) has asserted that student achievement can improve by as much as 21 percentile points as a result of teachers' participation in well-designed professional development programs. Further, the UNESCO Institute for Statistics (2016) has affirmed that *"...Improving education quality requires far more than just having enough teachers in the education system: teachers need to be trained, supported through professional development, motivated and willing to continually improve their teaching practices."*

In today's climate, teachers, educators, and leaders around the globe are working in increasingly diverse environments with audiences of varied abilities and cultural backgrounds. Educators and educational leaders who wish to effectively foster the development of 21st century skills and competencies and address issues arising from the current global trends (e.g., globalization, family matters, technological advances) (OECD, 2016)¹ require professional development programs that are based on most recent research findings and delivered by leading researchers in the field.

By creating this new Professional Development Certificate, the Faculty of Education is responding to the demand for professional development opportunities to better prepare educators and educational

¹ OECD (2016), *Trends Shaping Education 2016*, OECD Publishing, Paris. DOI: http://dx.doi.org/10.1787/trends_edu-2016-en

leaders for the challenges of the 21st century internationally. The program will draw on the strength of prominent McGill Academics faculty to design and deliver face-to-face professional development short courses, oriented to meet cultural and contextual needs.

Courses in the Professional Development Certificate are associated with Continuing Education Units (CEUs). Each CEU is equivalent to about 10 hours of academic interaction. The successful completion of 12 CEUs (~120 contact hours) may lead to a Professional Development Certificate in Global Trends in Education. It is possible that not all students will intend on completing the full program, as such, they will accumulate CEU's for the courses they have completed but will not obtain the Professional Development Certificate.

The majority of the short courses are equivalent to 2 CEUs and are offered in a two-day face-to-face format with supplementary online activities. As such, not only will the courses be completed in a short amount of time, but will lessen any inconveniences to students with understandably limited time. Courses will be typically delivered on site, at the requesting institution's campus to reduce travel, accommodation, and subsistence expenses for students.

Criteria for Admissions

Admissions for the Professional Development Certificate will be open-enrollment. Interested institutions will select and put forward the names of the individuals they would like to take part in the courses.

The language of instruction will be in English. Where English language competency is not adequate, instruction will take place with the assistance of a translator at extra cost to the client institution. Applicants will be asked to provide a brief statement of interest, written or translated in English, indicating their background (education and work experience) and what they hope to achieve from the particular course.

Program Description

The Professional Development Certificate in Global Trends in Education targets teachers, educators and leaders from all levels of education (k-12, college, university, and industry-government, public and private sectors). The goal of this Professional Development Certificate is to provide tailored, and pedagogically innovative and interactive professional development courses for educators to more effectively respond to educational challenges and trends of the 21st century. Courses will be delivered in person, with our prominent faculty travelling to the host institution. Each course is 2-5 days long, allowing students to complete the courses with minimal inconvenience to their work schedules. By including online resources and discussion boards, course participants will be able to continue to be part of a professional learning community, communicating with one another and obtaining ongoing support from one another and from the instructor.

Objectives

The objectives of this self-funded Professional Development Certificate are to:

1. Develop and deliver relevant and quality face-to-face courses for educators and education leaders outside of Canada and enable them to effectively meet the needs and educational challenges of the 21st century.
2. Provide culturally sensitive tailored courses of varying length to meet the specific needs of the respective educational institution, organization or company.
3. Expose students to best professional practices, informed by cutting edge research and innovative pedagogies.
4. Provide students with the opportunity to accumulate Continuing Education Units that can lead to a McGill Professional Development Certificate
5. To facilitate networking amongst practitioners who share interests and concerns.

Program Comparison

The proposed program is unique in that we are offering face-to-face short courses off campus that, if combined together, can lead to a professional development certificate. Other than the School of Continuing Studies, the Faculty of Education is the first Faculty at McGill to offer an open enrolment, non-credit, Professional Development Certificate. Additionally, while other departments and institutions offer professional development courses and programs (McGill's School of Continuing Studies; Oxford; University College London; University of British Columbia; Royal Roads), many of those delivering face-to-face courses are delivered on home campuses and not offsite and few offer the possibility to accumulate Continuing Education Units to be used towards a certificate program.

Target Market

This Professional Development Certificate is targeted towards in-service teachers (K-12), college and university lecturers and faculty, and education leaders from non-profit organizations, school boards, and industry.

Program Structure

This program will be comprised of a series of short courses that will be delivered in person, off campus (delivered at the requesting institution). From the wide variety of complementary short courses, students will select courses to build their own program based on their needs. This Professional Development Certificate has been created to not include required courses as the professional development needs will differ significantly based on the country and/or institution. Additionally, each short course will be tailored to offer culturally relevant, and context specific content. In order to obtain the full Professional Development Certificate, 12 CEUs will need to be accumulated. The duration of the short courses are 2 to 5 days, as such, students will not only be able to complete the courses with minimal inconvenience to their work schedules, but they will also receive the courses from a McGill instructor face-to-face in their respective city. This is not only a significant cost saving incentive but also time saving one— as students do not have to pay for their travel and accommodations or take additional time off for travel. Given the short duration of each course, courses will be delivered upon request and will not need to follow academic terms – having this flexibility in course delivery also provides the opportunity for McGill to offer the courses when it will be most convenient to the particular institution.

Upon the successful completion of the courses, students will be awarded Continuing Education Units that they will be able to put towards not only their own governing bodies, but towards a professional development certificate from McGill.

Support for Learning

At the end of each course, students will receive additional resources for continued support. Peer support and networking will be facilitated in the group by the use of an online communication board through the *MyCourses* platform. Course instructors will be available to answer questions through email for the duration of 1 month following the completion of the course.

Enrolment Rationale

A minimum number of 20 participants for each workshop is required to justify the travel related expenses for our faculty and to ensure that costs related to overhead and administration and a marginal profit are also taken into account. Given that short courses are offered by different professors, we are not limited in the number of short courses we can offer annually. Some courses will have to be capped at 12 to successfully meet the educational objectives of the course and others can be delivered to larger groups with the same results.

We estimate that we would deliver roughly five workshops annually by year 6 (steady state). The Faculty of Education has already engaged in meetings with several education institutions and charitable organizations that operate K-12 schools. They have expressed interest in receiving (or subsidizing) our professional development short courses.

Tuition costs in Canadian Funds

Per CEU cost: 1,200.00\$

Base tuition for a 2 day short course (worth 2 continuing education units (CEU)): 2,400\$

Base tuition for Professional Development Certificate (12 CEUs): 16,291.50\$

Justification: This rate is slightly inflated when compared to McGill's School of Continuing Studies professional development courses (specifically, onsite parliamentary management courses) and other short course tuition fees offered by other national, and international institutions (see budget for further justification and details). However, the tuition rates of the above programs are for programs delivered on-campus. As such, students travelling to take courses are incurring their own travel and accommodation costs, or the students attending these courses are local.

In addition to this base rate, students will be charged deliverable fees that include course materials (see budget details). The total cost of deliverables will depend on the materials required for the course.

Overview of Short courses

- 1. EDPD 250 - Students with Diverse Abilities (2 day short course):** Explore evidence-based methods of improving educational achievement and identifying and addressing the needs of students with learning disabilities, especially students with low general mental ability. Emphasis on providing improved instruction for students with low general mental ability as it is applied in a heterogeneous regular education classroom; how to prevent, identify and provide interventions for students with a variety of issues that negatively affect schooling and academic achievement.

BANNER/SHORT TITLE: StudentsWithDiverseAbilities
- 2. EDPD 251 - Communicative Competence: English as a Second Language (2 day short course):** Develop an exemplary thematic unit that implements an empirically-proven model for form-focused, communicative teaching for English language teachers targeting grammar, reading, writing, listening and speaking. Explore methods of balancing classroom realities with empirically based prescriptions for communicative teaching. Enhance the use of literacy texts to develop students' communicative competence. Acquire in-depth understanding for the Noticing-Awareness-Practice model for integrating focus on form instruction into communicative teaching.

BANNER/SHORT TITLE: CommunCompt:EngasaSecndLang
- 3. EDPD 252 - Competency-Based Training and Industry Benefits (2 day short course):** Individual and organizational factors that affect the productivity of talent in an organization; effective management and deployment of learning solutions in the industry. Focus on competency-based training (CBT) to help achieve better organizational results with high levels of knowledge-transfer consistency and criteria for acceptable performance.

BANNER/SHORT TITLE: Comptcy-BaseTrain&IndusBenfts
- 4. EDPD 253 - Teacher Burnout: Retention to Sustainability (2 day short course):** Examine concrete strategies to help administrators and teachers be more sustained, and in turn, more satisfied in their education careers. Explore and understand trends and tendencies in research surrounding teacher attrition. Teacher induction and mentorship strategies to sustain teachers, administrators. Explore strategies for negotiating unsustainable environments and creating sustainable working environments.

BANNER/SHORT TITLE: TeacherBurnout:RetentoSustain
- 5. EDPD 254 - Course Design and Teaching Development (5 day workshop):** Promote learning-centered teaching, and provide pedagogical tools to subject experts to orient teaching to attain specified and intended learning outcomes, especially outcomes related to soft skills such as problem-solving, reasoning, analytical thinking. Encourage reflection on personal teaching style and learn from own practice, and focus on the outcome and sustainability of higher education and the knowledge, skills and competencies required of graduates.

BANNER/SHORT TITLE: CourseDesign&TeachingDev

6. **EDPD 255 Inclusive Education (2 day short course):** Introduce and clarify the notion of Inclusive Education and explore Universal Design for Learning (UDL). Design inclusive environments and Individualized Education Plans (IEPs) and practice the strategies that form the basis of inclusion.
7. **EDPD 256 Motivating the Unmotivated (2 day short course):** Explore and understand various types of motivation, examine why some students are unmotivated, and consider strategies teachers can implement in the classroom to address motivational issues. In-class activities provide the opportunity to implement the various strategies learned.
8. **EDPD 257 Self-awareness in Pedagogy (2 day short course):** A theoretical look at pedagogy. Explore and draw on pre-service teachers' knowledge and experiences to provide concrete steps to infuse personal value orientations and productivity styles into pedagogy. Strategic sessions on instruction, curriculum and assessment provide applied opportunities to further explore the inclusion of themselves and students in their pedagogy.
BANNER/SHORT TITLE: Self-AwarenessinPedagogy
9. **EDPD 258 Making Technology Educational (2 day short course):** Demonstration of why technology should be part of education by illustrating not only how a technology rich classroom prepares students to live and work in an increasingly technological society (i.e., digital citizenship), but how technology, when properly integrated into the classroom, can enhance both the efficiency and effectiveness of teaching through increased engagement (i.e., digital badging) and provide new types of learning opportunities. Incorporation of both existing and emerging educational technologies into classrooms and provide concrete examples of educational technologies in action.
10. **EDPD 259 Real-world connections for the math classroom (2 day short course):** Explore the importance and value of making connections in the mathematics classroom, namely through cross-curricular approaches and real-world connections. Experience activities that can be used in the classroom that encourages students to see that mathematics is all around them. Group planning and discussion will consider how the ideas and activities presented may be adapted to meet the needs of their students and the teaching context.
BANNER/SHORT TITLE: Realworldconnectforthemathclass
11. **EDPD 260 - Enhancing Educators' Well-Being: Best Practices in Action (2 day short course):** Review factors contributing to educator well-being using a positive psychology framework. Introduction to recognized core elements of best-practice programs for educator well-being with a focus on overcoming common challenges at the individual, classroom, school, and system level. Practice of skills and strategies for use by educators and schools to ensure educator resilience and well-being in today's stressful classroom/school environment.
BANNER/SHORT TITLE: EnhEducuWel-Bng:BesPracinActn
12. **EDPD 261 - Effective School Response to Self-injury (2 day short course):** Covers essentials of internationally recommended guidelines for school response to student self-injury. Uncovers myths and misconceptions about the prevalence, gender differences and underlying causes of self-injury. Framework for school response is provided with specific training on identification, first response, early assessment, effective referral, school appropriate intervention and support.

Recommendations are provided for managing common challenges such as student disclosure of scars, spread/contagion, parental notification and social media and self-injury.

BANNER/SHORT TITLE: EfftveSchoolRespstoSelf-Injry

13. **EDPD 262 - Developing Communication in the Mathematics Classroom:** This course explores research-based techniques and strategies to support and increase students' communication (written, verbal and visual) in the mathematics classroom. Group planning and discussions will consider how the ideas and activities presented may be adapted to meet the needs of students and personal teaching context.

BANNER/SHORT TITLE: DevelopCommintheMathClassroom



(2017)

<p>1.0 Degree Title Please specify the two degrees for concurrent degree programs</p> <div style="border: 1px solid black; padding: 2px; width: 80%;">Graduate Diploma</div>	<p>2.0 Administering Faculty/Unit</p> <div style="border: 1px solid black; padding: 2px; width: 80%;">Graduate and Postdoctoral Studies</div>
<p>1.1 Major (Legacy= Subject)(30-char. max.)</p> <div style="border: 1px solid black; padding: 2px; width: 80%;">Medical Radiation Physics</div>	<p>Offering Faculty/Department</p> <div style="border: 1px solid black; padding: 2px; width: 80%;">Medicine/Medical Physics</div>
<p>1.2 Concentration (Legacy = Concentration/Option) If applicable to Majors only (30 char. max.)</p> <div style="border: 1px solid black; height: 20px; width: 80%;"></div>	<p>3.0 Effective Term of Implementation (Ex. Sept. 2004 = 200409) Term</p> <div style="border: 1px solid black; padding: 2px; width: 80%;">201809</div>
<p>1.3 Minor (with Concentration, if Applicable) (30 char. max.)</p> <div style="border: 1px solid black; height: 20px; width: 80%;"></div>	

4.0 Rationale and Admission Requirements for New Proposal

This graduate diploma program is created for students who wish to complete the course work for the existing M.Sc. in Medical Radiation Physics [52 cr.] without completing the 24-credit thesis and with an added medical ethics course.
 Admission requirements: Candidate must hold M.Sc. or Ph.D. in Physics, Engineering Physics, Biomedical Engineering, or related discipline. Candidate's B.Sc. must be in Physics, physics engineering, or related field. The graduate diploma program is only accredited by the Commission for Accreditation of Medical Physics Programs for students holding a Ph.D.
 The Medical Physics Unit offers only one program, therefore there are no low-enrolment programs to review, revise or retire.

5.0 Program Information
Please check appropriate box(es)

<p>5.1 Program Type</p> <p>Bachelor's Program</p> <p>Master's</p> <p>M.Sc. (Applied) Program</p> <p>Dual Degree/Concurrent Program</p> <p>Certificate</p> <p>Diploma</p> <p>Graduate Certificate</p> <p><input checked="" type="checkbox"/> Graduate Diploma</p> <p>Ph.D. Program</p> <p>Doctorate Program (Other than Ph.D.)</p> <p>Self-Funded/Private Program</p> <p>Off-Campus Program</p> <p>Distance Education Program (By Correspondence)</p> <p>Other (Please specify)</p>	<p>5.2 Category</p> <p>Faculty Program (FP)</p> <p>Major</p> <p>Joint Major</p> <p>Major Concentration (CON)</p> <p>Minor</p> <p>Minor Concentration (CON)</p> <p>Honours (HON)</p> <p>Joint Honours Component (HC)</p> <p>Internship/Co-op</p> <p>Thesis (T)</p> <p>Non-Thesis (N)</p> <p>Other</p> <p>Please specify</p> <div style="border: 1px solid black; height: 20px; width: 80%; margin-top: 5px;"></div>	<p>5.3 Level</p> <p>Undergraduate</p> <p>Dentistry/Law/Medicine</p> <p>Continuing Studies (Non-Credit)</p> <p>Collegial</p> <p><input checked="" type="checkbox"/> Masters & Grad Dips & Certs</p> <p>Doctorate</p> <p>Post-Graduate Medicine/Dentistry</p> <p>Graduate Qualifying</p> <p>Postdoctoral Fellows</p> <p>5.4 FQRSC (Research) Indicator (for GPS) Yes ___ No <input checked="" type="checkbox"/></p> <p>5.5 Requires Resources Yes ___ No <input checked="" type="checkbox"/></p>
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<p>6.0 Total Credits</p> <div style="border: 1px solid black; padding: 2px; width: 80%;">31</div>	<p>7.0 Consultation with Related Units Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Financial Consult Yes ___ No <input checked="" type="checkbox"/></p> <p>Attach list of consultations.</p>
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8.0 Program Description (Maximum 150 words)

The Graduate Diploma in Medical Radiation Physics is intended to provide candidates holding a graduate degree in a related field with the knowledge required to enter into the field of medical physics. The program relies on a strong fundamental science background. The graduate diploma program is accredited by the Commission for Accreditation of Medical Physics Education Programs (CAMPEP) **only** for students holding a Ph.D. degree.

9.0 List of proposed program for the New Program/Major or Minor/Concentration.

If new concentration (option) of existing Major/Minor (program), please attach a program layout (list of all courses) of existing Major/Minor.

Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight under the headings of: Required Courses, Complementary Courses, Elective Courses)

Graduate Diploma in Medical Radiation Physics (31 credits)

Required Courses (31 credits)

- MDPH 601 Radiation Physics (3 credits)
- MDPH 602 Radiotherapy Physics (3 credits)
- MDPH 603 Laboratory Radiotherapy Physics (2 credits)
- MDPH 607 Medical Imaging (3 credits)
- MDPH 608 Laboratory - Diagnostic Radiology and Nuclear Medicine (2 credits)
- MDPH 609 Radiation Biology (2 credits)
- MDPH 612 Instrumentation and Computation in Medical Physics (3 credits)
- MDPH 613 Health Physics (2 credits)
- MDPH 614 Physics of Diagnostic Radiology (3 credits)
- MDPH 615 Physics of Nuclear Medicine (2 credits)
- MDPH 618 Anatomy and Physiology for Medical Physics (3 credits)
- PHIL 643 Seminar: Medical Ethics (3 credits)

Existing program:**Master of Science (M.Sc.) in Medical Radiation Physics; Thesis (52 credits)**

Program Requirements

The M.Sc. program in Medical Radiation Physics provides candidates with the knowledge required to enter into the field of medical physics. The program relies on a strong fundamental science background and enables candidates to undergo further training through a clinical residency program or to further advanced graduate studies in medical physics through a Ph.D. degree. Graduates from the program typically find employment in clinical settings, academia, industry, or governmental research and regulatory agencies. The program is accredited by the Commission for Accreditation of Medical Physics Education Programs (CAMPEP).

Thesis Courses (24 credits)

MDPH 690 M.Sc. Thesis Research (24 credits)

Required Courses (28 credits)

MDPH 601 Radiation Physics (3 credits)

MDPH 602 Radiotherapy Physics (3 credits)

MDPH 603 Laboratory Radiotherapy Physics (2 credits)

MDPH 607 Medical Imaging (3 credits)

MDPH 608 Laboratory - Diagnostic Radiology and Nuclear Medicine (2 credits)

MDPH 609 Radiation Biology (2 credits)

MDPH 612 Instrumentation and Computation in Medical Physics (3 credits)

MDPH 613 Health Physics (2 credits)

MDPH 614 Physics of Diagnostic Radiology (3 credits)

MDPH 615 Physics of Nuclear Medicine (2 credits)

MDPH 618 Anatomy and Physiology for Medical Physics (3 credits)

10.0 Approvals			
Routing Sequence	Name	Signature	Date
Department	Jan Seuntiens, Ph.D.	<i>[Signature]</i>	April 3, 2018
Curric/Acad Committee	Henry Gizmaris on behalf of	<i>[Signature]</i>	April 5, 2018
Faculty 1	Elaine Davis	<i>[Signature]</i>	April 5, 2018
Faculty 2			
Faculty 3			
CGPS	SCTP	CGPS APPROVAL	April 16, 2018
SCTP	APPROVED		MAY 3, 2018
APC			
Senate			

Submitted by		To be completed by ARR:
Name		
Phone		CIP Code
Email		
Submission Date		



<p>1.0 Degree Title Please specify the two degrees for concurrent degree programs</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Graduate Certificate (Gr.Cert.)</div> <p>1.1 Major (Legacy = Subject) (30-char. max.)</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Performance – Choral Conducting</div> <p>1.2 Concentration (Legacy = Concentration/Option) If applicable to Majors only (30 char. max)</p> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <p>1.3 Minor (with Concentration, if Applicable) (30char. max)</p> <div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div>	<p>2.0 Administering Faculty/Unit</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Graduate and Postdoctoral Studies (GPS)</div> <p>Offering Faculty/Department</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">MU - Performance</div> <p>3.0 Effective Term of Implementation (Ex. Sept. 2004 = 200409) Term</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">201809</div>
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4.0 Rationale and Admission Requirements for New Proposal

The Graduate Certificate is designed for active choral conductors wishing to perfect their technical, pedagogical and musical skills. This certificate will allow advanced choral conductors to develop their craft while maintaining their professional activities outside the university. Students are admitted by audition and after successful completion of the conducting entrance exam. Must have completed a B.Mus., Licentiate or the equivalent.

5.0 Program Information
Please check appropriate box(es)

<p>5.1 Program Type</p> <p><input type="checkbox"/> Bachelor's Program</p> <p><input type="checkbox"/> Master's</p> <p><input type="checkbox"/> M.Sc. (Applied) Program</p> <p><input type="checkbox"/> Dual Degree/Concurrent Program</p> <p><input type="checkbox"/> Certificate</p> <p><input type="checkbox"/> Diploma</p> <p><input checked="" type="checkbox"/> Graduate Certificate</p> <p><input type="checkbox"/> Graduate Diploma</p> <p><input type="checkbox"/> Ph.D. Program</p> <p><input type="checkbox"/> Doctorate Program (Other than Ph.D.)</p> <p><input type="checkbox"/> Private Program</p> <p><input type="checkbox"/> Off-Campus Program</p> <p><input type="checkbox"/> Distance Education Program (By Correspondence)</p> <p><input type="checkbox"/> Other:</p> <p>Please specify</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	<p>5.2 Category</p> <p><input type="checkbox"/> Faculty Program (FP)</p> <p><input type="checkbox"/> Major</p> <p><input type="checkbox"/> Joint Major</p> <p><input type="checkbox"/> Major Concentration (CON)</p> <p><input type="checkbox"/> Minor</p> <p><input type="checkbox"/> Minor Concentration (CON)</p> <p><input type="checkbox"/> Honours (HON)</p> <p><input type="checkbox"/> Joint Honours Component (HC)</p> <p><input type="checkbox"/> Internship/Co-op</p> <p><input type="checkbox"/> Thesis (T)</p> <p><input type="checkbox"/> Non-Thesis (N)</p> <p><input type="checkbox"/> Other:</p> <p>Please specify</p> <div style="border: 1px solid black; height: 20px; width: 100%; margin-top: 5px;"></div>	<p>5.3 Level</p> <p><input type="checkbox"/> Undergraduate</p> <p><input type="checkbox"/> Dentistry/Law/Medicine</p> <p><input type="checkbox"/> Continuing Studies (Non-Credits)</p> <p><input checked="" type="checkbox"/> Masters & Grad Dip & Certs</p> <p><input type="checkbox"/> Doctorate</p> <p><input type="checkbox"/> Post-Graduate Medicine/ Dentistry</p> <p><input type="checkbox"/> Graduate Qualifying</p> <p><input type="checkbox"/> Postdoctoral Fellows</p> <p>5.4 FQRSC (Research) Indicator (For GPS)</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>5.5 Requires Resources (financial, personnel, space)</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
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6.0 Total Credits

15

7.0 Consultation with

Related Units Yes No

Financial Consult Yes No

Attach list of consultations.

8.0 Program Description (Maximum 150 words)

The Graduate Certificate in Performance - Choral Conducting is designed for choral conductors wishing to perfect their technical, pedagogical, and musical skills. This flexible program allows conductors to develop their craft while maintaining their professional activities. The program includes group tutorial instruction in conducting, ensemble participation, and complementary courses offering the opportunity to focus on conducting technique, rehearsal pedagogy, or performance practice. Enrollment is limited.

9.0 List of proposed program for the New Program/Major or Minor/Concentration

If new concentration (option) of existing Major/Minor (program), please attach a program layout (list of courses) of existing Major/Minor.

Proposed program (list course as follow: Subj Code/Crse Num, Title, Credit weight, under the heading of: Required Courses, Complementary Courses, and Elective Courses).

Graduate Certificate in Performance – Choral Conducting (15 credits)

Required courses (8 credits)

MUIN 637 Graduate Certificate Conducting Tutorial 1 (3 credits)

MUPD 560 Introduction to Research Methods in Music (1 credit)

MUPG 648 Graduate Certificate Conducting Project (4 credits)

Complementary courses (7 credits)

4 credits from the following:

MUEN 563 Jazz Vocal Workshop (2 credits)

MUEN 572 Cappella Antica (2 credits)

MUEN 593 Choral Ensembles (2 credits)

3 credits from the following:

MUIN 638 Graduate Certificate Conducting Tutorial 2 (3 credits)

MUPG 580 Rehearsal Techniques for Conductors (1.5 credits)*

MUPG 677 Seminar in Performance Topics 1 (3 credits)

MUPG 678 Seminar in Performance Topics 2 (3 credits)

MUPP 690 Performance Practice Seminar 1 (3 credits)

MUPP 691 Performance Practice Seminar 2 (3 credits)

MUPP 692 Performance Practice Seminar 3 (3 credits)

MUPP 693 Performance Practice Seminar 4 (3 credits)

MUPP 694 Performance Practice Seminar 5 (3 credits)

MUPP 695 Performance Practice Seminar 6 (3 credits)

*If this course is chosen, it must be taken for two terms (for 3 credits).

10.0 Approvals

Routing Sequence

Department

Stéphane Lemelin

Signature

Stéphane Lemelin

Date

October 12, 2017

Curric/Acad Committee

John Mac Master

John Mac Master

October 16, 2017

Faculty 1

Brenda Ravenscroft

B.R.

November 16, 2017

Faculty 2

Faculty 3

CGPS

SCTP

CGPS APPROVAL

December 11, 2017

SCTP

SCTP APPROVED

April 5, 2018

APC

Senate

Submitted By

Name

To be completed by ARR:

Phone

CIP Code

Email

Submission Date

[Click here to enter a date.](#)



McGill

APC APPENDIX B 18-APC-05-42
**New Program/Major or Minor/Concentration
 Proposal Form**

(2017)

<p>1.0 Degree Title Please specify the two degrees for concurrent degree programs</p> <p>Bachelor of Science</p>	<p>2.0 Administering Faculty/Unit</p> <p>Science</p>
<p>1.1 Major (Legacy= Subject)(30-char. max.)</p> <p>Statistics</p>	<p>Offering Faculty/Department</p> <p>Science/Mathematics and Statistics</p>
<p>1.2 Concentration (Legacy = Concentration/Option) If applicable to Majors only (30 char. max.)</p> <p></p>	<p>3.0 Effective Term of Implementation (Ex. Sept. 2004 = 200409) Term</p> <p>201809</p>
<p>1.3 Minor (with Concentration, if Applicable) (30 char. max.)</p> <p></p>	

4.0 Rationale and Admission Requirements for New Proposal

There is a growing need for Statisticians at the Bachelor level on the job market and a substantial interest in a Major in Statistics program among students. Thanks to the improved course offerings, our department can now create such a program. It provides a training in statistics, with a solid mathematical core, and basic training in computing. Students have the option to obtain the professional accreditation A.Stat from the Statistical Society of Canada, which is .../continued

5.0 Program Information
Please check appropriate box(es)

<p>5.1 Program Type</p> <p><input checked="" type="checkbox"/> Bachelor's Program</p> <p>Master's</p> <p>M.Sc. (Applied) Program</p> <p>Dual Degree/Concurrent Program</p> <p>Certificate</p> <p>Diploma</p> <p>Graduate Certificate</p> <p>Graduate Diploma</p> <p>Ph.D. Program</p> <p>Doctorate Program (Other than Ph.D.)</p> <p>Self-Funded/Private Program</p> <p>Off-Campus Program</p> <p>Distance Education Program (By Correspondence)</p> <p>Other (Please specify)</p>	<p>5.2 Category</p> <p>Faculty Program (FP)</p> <p><input checked="" type="checkbox"/> Major</p> <p>Joint Major</p> <p>Major Concentration (CON)</p> <p>Minor</p> <p>Minor Concentration (CON)</p> <p>Honours (HON)</p> <p>Joint Honours Component (HC)</p> <p>Internship/Co-op</p> <p>Thesis (T)</p> <p>Non-Thesis (N)</p> <p>Other</p> <p>Please specify</p> <p></p>	<p>5.3 Level</p> <p><input checked="" type="checkbox"/> Undergraduate</p> <p>Dentistry/Law/Medicine</p> <p>Continuing Studies (Non-Credit)</p> <p>Collegial</p> <p>Masters & Grad Dips & Certs</p> <p>Doctorate</p> <p>Post-Graduate Medicine/Dentistry</p> <p>Graduate Qualifying</p> <p>Postdoctoral Fellows</p> <p>5.4 FQRSC (Research) Indicator (for GPS) Yes ___ No ___</p> <p>5.5 Requires Resources Yes ___ No <u>X</u></p>
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<p>6.0 Total Credits</p> <p>54 or 57</p>	<p>7.0 Consultation with Related Units</p> <p>X Yes No</p> <p>Financial Consult Yes No</p> <p>Attach list of consultations.</p>
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RATIONALE [continued]

regarded as the entry level requirement for a Statistician practicing in Canada. As such, it improves job prospects for students. The Joint Major in Statistics and Computer Science program does not lead to the A.Stat accreditation, for: (i) A.Stat requires a minor in an area different from statistics; (ii) the number of statistics courses in that program is not sufficient (two more courses in statistics and one more course in communication beyond the program course requirements are needed). The proposed program also features challenging courses so that students will have the option to go to graduate school in Statistics or Data Science. Admission requirements for the proposed program are the same as the current B.Sc. requirements. The Department of Mathematics and Statistics has conducted a review of programs and is satisfied that there are no programs that need to be revised or retired due to low enrolment.

8.0 Program Description (Maximum 150 words)

The program provides training in statistics, with a solid mathematical core, and basic training in computing. With satisfactory performance in an appropriate selection of courses, this program can lead to the professional accreditation A.Stat from the Statistical Society of Canada, which is regarded as the entry level requirement for a Statistician practicing in Canada. The program is a path to a wide variety of careers in industry, academia and government in the statistical sciences, and provides preparation for graduate work in statistics and data science.

9.0 List of proposed program for the New Program/Major or Minor/Concentration.

If new concentration (option) of existing Major/Minor (program), please attach a program layout (list of all courses) of existing Major/Minor.

Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight under the headings of: Required Courses, Complementary Courses, Elective Courses)

B.Sc.; Major in Statistics (54 or 57 credits)

Program Prerequisites

Students entering the Major in Statistics program are normally expected to have completed the courses below or their equivalents. Otherwise, they will be required to make up any deficiencies in these courses over and above the 54 credits of program courses.

MATH 133 Linear Algebra and Geometry (3 credits)

MATH 140 Calculus 1 (3 credits)

MATH 141 Calculus 2 (4 credits)

In addition, a student who has not completed the equivalent of MATH 203 on entering the program must consult an academic adviser. If a student is advised to take MATH 203, this course has to be taken as a complementary course in the first semester, increasing the total number of program credits from 54 to 57.

Students are strongly advised to complete all required courses and all Part I complementary courses by the end of U2, except for MATH 423 and MATH 523.

Students interested in the professional accreditation should consult an academic adviser.

Where appropriate, Honours courses may be substituted for equivalent Major courses. Students planning to pursue graduate studies are encouraged to make such substitutions, and to take MATH 556 and MATH 557 as complementary courses.

Required Courses (34 credits)

* Students who have sufficient knowledge in a programming language do not need to take COMP 202, but must replace it by either COMP 250 or COMP 350.

** Students must take MATH 204 before taking MATH 324.

*** Students who have successfully completed a course equivalent to MATH 222 with a grade of C or better may omit MATH 222, but must replace it with MATH 314.

**** MATH 236 is an equivalent prerequisite to MATH 223 for required and complementary Computer Science courses listed below.

COMP 202 Foundations of Programming (3 credits) *

MATH 204 Principles of Statistics 2 (3 credits)**

MATH 222 Calculus 3 (3 credits) ***

MATH 235 Algebra 1 (3 credits)

MATH 236 Algebra 2 (3 credits) ****

MATH 242 Analysis 1 (3 credits)

MATH 243 Analysis 2 (3 credits)

.../continued

B.Sc.; Major in Statistics (54 or 57 credits)

Required Courses (34 credits) [continued]

MATH 323 Probability (3 credits)

MATH 324 Statistics (3 credits) **

MATH 423 Regression and Analysis of Variance (3 credits)

MATH 523 Generalized Linear Models (4 credits)

Complementary Courses (20 - 23 credits)

0-3 credits selected from:

MATH 203 Principles of Statistics I (3 credits)

Part I: 6 credits selected from:

*Students take either MATH 317 or COMP 350, but not both.

COMP 250 Introduction to Computer Science (3 credits)

COMP 350 Numerical Computing (3 credits) *

MATH 314 Advanced Calculus (3 credits)

MATH 315 Ordinary Differential Equations (3 credits)

MATH 316 Complex Variables (3 credits)

MATH 317 Numerical Analysis (3 credits) *

MATH 326 Nonlinear Dynamics and Chaos (3 credits)

MATH 327 Matrix Numerical Analysis (3 credits)

MATH 329 Theory of Interest (3 credits)

MATH 340 Discrete Structures 2 (3 credits)

MATH 350 Graph Theory and Combinatorics (3 credits)

MATH 417 Linear Optimization (3 credits)

MATH 430 Mathematical Finance (3 credits)

Part II: 14 credits selected from:

*Students take either MATH 410 or MATH 420, but not both.

CCOM 314 Communicating Science (3 credits)

COMP 551 Applied Machine Learning (4 credits)

MATH 410 Majors Project (3 credits) *

MATH 420 Independent Study (3 credits) *

MATH 427 Statistical Quality Control (3 credits)

MATH 447 Introduction to Stochastic Processes (3 credits)

MATH 524 Nonparametric Statistics (4 credits)

MATH 525 Sampling Theory and Applications (4 credits)

MATH 540 Life Actuarial Mathematics (4 credits)

MATH 541 Nonlife Actuarial Models (4 credits)

MATH 545 Introduction to Time Series Analysis (4 credits)

MATH 556 Mathematical Statistics 1 (4 credits)

MATH 557 Mathematical Statistics 2 (4 credits)

MATH 598 Topics in Probability and Statistics (4 credits)

Routing Sequence	Name	Signature	Date
Department	Johanna G. NESLEHOVA	<i>J. G. Neslehova</i>	2018-02-21
Curric/Acad Committee	<i>Tosie D. Ames</i>	<i>Tosie D. Ames</i>	23 Jan 2018
Faculty 1			20 Feb 2018
Faculty 2			
Faculty 3			
SCTP	SCTP		
SCTP	APPROVED		MARCH 8, 2018
GS			
APPC			
Senate			

Submitted by		
Name	<input type="text"/>	To be completed by ARR:
Phone	<input type="text"/>	CIP Code
Email	<input type="text"/>	<input type="text"/>
Submission Date	<input type="text"/>	<input type="text"/>

EXISTING PROGRAMS:

B.Sc.; Major in Mathematics (54 credits)

Offered by: Mathematics and Statistics

Program Prerequisites

Students entering the Major program are normally expected to have completed the courses below or their equivalents. Otherwise, they will be required to make up any deficiencies in these courses over and above the 54 credits of required courses.

MATH 133 Linear Algebra and Geometry (3 credits)

MATH 140 Calculus 1 (3 credits)

MATH 141 Calculus 2 (4 credits)

Guidelines for Selection of Courses in the Major Program

The following informal guidelines should be discussed with the student's adviser. Where appropriate, Honours courses may be substituted for equivalent Major courses. Students planning to pursue graduate studies are encouraged to make such substitutions.

Students interested in computer science are advised to choose courses from the following: MATH 317, MATH 318, MATH 327, MATH 335, MATH 340, MATH 407, MATH 417 and to complete the Computer Science Minor.

Students interested in probability and statistics are advised to take MATH 204, MATH 324, MATH 407, MATH 423, MATH 447, MATH 523, MATH 525.

Students interested in applied mathematics should take MATH 317, MATH 319, MATH 324, MATH 326, MATH 327, MATH 407, MATH 417.

Students considering a career in secondary school teaching are advised to take MATH 318, MATH 338, MATH 346, MATH 348.

Students interested in careers in business, industry or government are advised to select courses from the following list: MATH 317, MATH 319, MATH 327, MATH 329, MATH 407, MATH 417, MATH 423, MATH 430, MATH 447, MATH 523, MATH 525.

Required Courses (27 credits)

Note: Students who have done well in MATH 235 and MATH 242 should consider entering the Honours stream by registering in MATH 251 and MATH 255 instead of MATH 236 and MATH 243.

* Students may select either MATH 249 or MATH 316 but not both.

** Students who have successfully completed a course equivalent to MATH 222 with a grade of C or better may omit MATH 222, but must replace it with 3 credits of elective courses.

MATH 222 Calculus 3 (3 credits) **

MATH 235 Algebra 1 (3 credits)

MATH 236 Algebra 2 (3 credits)

MATH 242 Analysis 1 (3 credits)

MATH 243 Analysis 2 (3 credits)

MATH 249 Honours Complex Variables (3 credits) *

MATH 314 Advanced Calculus (3 credits)

MATH 315 Ordinary Differential Equations (3 credits)

MATH 316 Complex Variables (3 credits) *

MATH 323 Probability (3 credits)

.../continued

B.Sc.; Major in Mathematics (54 credits) [continued]

Complementary Courses (27 credits)

27 credits selected as follows:

6-12 credits selected from the following:

MATH 317 Numerical Analysis (3 credits)

MATH 324 Statistics (3 credits)

MATH 335 Computational Algebra (3 credits)

MATH 340 Discrete Structures 2 (3 credits)

15-21 credits selected from the following: at least 6 credits must be at the 400 or 500 level.

MATH 204 Principles of Statistics 2 (3 credits)

MATH 318 Mathematical Logic (3 credits)

MATH 319 Introduction to Partial Differential Equations (3 credits)

MATH 320 Differential Geometry (3 credits)

MATH 326 Nonlinear Dynamics and Chaos (3 credits)

MATH 327 Matrix Numerical Analysis (3 credits)

MATH 329 Theory of Interest (3 credits)

MATH 338 History and Philosophy of Mathematics (3 credits)

MATH 346 Number Theory (3 credits)

MATH 348 Topics in Geometry (3 credits)

MATH 352 Problem Seminar (1 credit)

MATH 407 Dynamic Programming (3 credits)

MATH 410 Majors Project (3 credits)

MATH 417 Mathematical Programming (3 credits)

MATH 423 Regression and Analysis of Variance (3 credits)

MATH 427 Statistical Quality Control (3 credits)

MATH 430 Mathematical Finance (3 credits)

MATH 447 Introduction to Stochastic Processes (3 credits)

MATH 523 Generalized Linear Models (4 credits)

MATH 525 Sampling Theory and Applications (4 credits)

MATH 545 Introduction to Time Series Analysis (4 credits)

If necessary, 6 additional credits in Mathematics or related disciplines selected in consultation with the Adviser.

EXISTING PROGRAMS: [continued]

B.Sc.; Major in Statistics and Computer Science (72 credits)

Offered by: Mathematics and Statistics

Program Requirements

This program provides students with a solid training in both computer science and statistics together with the necessary mathematical background. As statistical endeavours involve ever increasing amounts of data, some students may want training in both disciplines.

Program Prerequisites

Students entering the Joint Major in Statistics and Computer Science are normally expected to have completed the courses below or their equivalents. Otherwise they will be required to make up any deficiencies in these courses over and above the 72 credits of required courses.

MATH 133 Linear Algebra and Geometry (3 credits)

MATH 140 Calculus 1 (3 credits)

MATH 141 Calculus 2 (4 credits)

Required Courses (51 credits)

* Students who have sufficient knowledge in a programming language do not need to take COMP 202 but can replace it with an additional Computer Science complementary course.

** Students take either COMP 350 or MATH 317, but not both.

*** Students take either MATH 223 or MATH 236, but not both.

COMP 202 Foundations of Programming (3 credits) *

COMP 206 Introduction to Software Systems (3 credits)

COMP 250 Introduction to Computer Science (3 credits)

COMP 251 Algorithms and Data Structures (3 credits)

COMP 273 Introduction to Computer Systems (3 credits)

COMP 302 Programming Languages and Paradigms (3 credits)

COMP 330 Theory of Computation (3 credits)

COMP 350 Numerical Computing (3 credits) **

COMP 360 Algorithm Design (3 credits)

MATH 222 Calculus 3 (3 credits)

MATH 223 Linear Algebra (3 credits) ***

MATH 235 Algebra 1 (3 credits)

MATH 236 Algebra 2 (3 credits) ***

MATH 242 Analysis 1 (3 credits)

MATH 314 Advanced Calculus (3 credits)

MATH 317 Numerical Analysis (3 credits) **

MATH 323 Probability (3 credits)

MATH 324 Statistics (3 credits)

MATH 423 Regression and Analysis of Variance (3 credits)

Complementary Courses (21 credits)

12 credits in Mathematics selected from:

* Students take either MATH 340 or MATH 350, but not both.

** MATH 578 and COMP 540 cannot both be taken for program credit.

MATH 327 Matrix Numerical Analysis (3 credits)

MATH 340 Discrete Structures 2 (3 credits) *

MATH 350 Graph Theory and Combinatorics (3 credits) *

MATH 352 Problem Seminar (1 credit)

MATH 410 Majors Project (3 credits)

MATH 427 Statistical Quality Control (3 credits)

MATH 447 Introduction to Stochastic Processes (3 credits)

MATH 523 Generalized Linear Models (4 credits)

B.Sc.; Major in Statistics and Computer Science (72 credits)

Complementary Courses (21 credits) [continued]

MATH 524 Nonparametric Statistics (4 credits)

MATH 525 Sampling Theory and Applications (4 credits)

MATH 545 Introduction to Time Series Analysis (4 credits)

MATH 578 Numerical Analysis 1 (4 credits) **

9 credits in Computer Science selected as follows:

At least 6 credits selected from:

COMP 424 Artificial Intelligence (3 credits)

COMP 462 Computational Biology Methods (3 credits)

COMP 526 Probabilistic Reasoning and AI (3 credits)

COMP 540 Matrix Computations (4 credits) **

COMP 547 Cryptography and Data Security (4 credits)

COMP 551 Applied Machine Learning (4 credits)

COMP 564 Computational Gene Regulation (3 credits)

COMP 566 Discrete Optimization 1 (3 credits)

COMP 567 Discrete Optimization 2 (3 credits)

The remaining Computer Science credits are selected from COMP courses at the 300 level or above (except COMP 396 and COMP 431) and ECSE 508.

B.Sc.; Minor in Statistics (24 credits)

Offered by: Mathematics and Statistics

Program Requirements

The Minor may be taken in conjunction with any primary program in the Faculty of Science. Students should declare their intention to follow the Minor Statistics at the beginning of the penultimate year and must obtain approval for the selection of courses to fulfil the requirements for the Minor from the Departmental Chief Adviser (or delegate).

All courses counted towards the Minor must be passed with a grade of C or better. Generally, no more than 6 credits of overlap are permitted between the Minor and the primary program. However, with an approved choice of substantial courses, the overlap restriction may be relaxed to 9 credits for students whose primary program requires 60 credits or more, and to 12 credits when the primary program requires 72 credits or more.

Required Courses (15 credits)

* MATH 223 may be replaced by MATH 235 and MATH 236. In this case the complementary credit requirement is reduced by 3 credits.

MATH 222 Calculus 3 (3 credits)

MATH 223 Linear Algebra (3 credits) *

MATH 323 Probability (3 credits)

MATH 324 Statistics (3 credits)

MATH 423 Regression and Analysis of Variance (3 credits)

Complementary Courses (9 credits)

9 credits selected from:

CHEM 593 Statistical Mechanics (3 credits)

GEOG 351 Quantitative Methods (3 credits)

MATH 427 Statistical Quality Control (3 credits)

MATH 447 Introduction to Stochastic Processes (3 credits)

MATH 523 Generalized Linear Models (4 credits)

MATH 525 Sampling Theory and Applications (4 credits)

MATH 545 Introduction to Time Series Analysis (4 credits)

MATH 556 Mathematical Statistics 1 (4 credits)

MATH 557 Mathematical Statistics 2 (4 credits)

PHYS 362 Statistical Mechanics (3 credits)

PHYS 559 Advanced Statistical Mechanics (3 credits)

SOCI 504 Quantitative Methods 1 (3 credits)

No more than 6 credits may be taken outside the Department of Mathematics and Statistics.

Further credits (if needed) may be freely chosen from the required and complementary courses for majors and honours students in Mathematics, with the obvious exception of courses that involve duplication of material.

B.Sc.; Liberal Program - Core Science Component Statistics (45 credits)

Offered by: Mathematics and Statistics

Program Requirements

Program Prerequisites

Students entering the Core Science Component in Statistics are normally expected to have completed the courses below or their equivalents. Otherwise they will be required to make up any deficiencies in these courses over and above the 45 credits required for the program.

MATH 133 Linear Algebra and Geometry (3 credits)

MATH 140 Calculus 1 (3 credits)

MATH 141 Calculus 2 (4 credits)

Required Courses (27 credits)

* Students who have successfully completed a course equivalent to MATH 222 with a grade of C or better may omit MATH 222, but must replace it with 3 credits of elective courses.

MATH 222 Calculus 3 (3 credits) *

MATH 235 Algebra 1 (3 credits)

MATH 236 Algebra 2 (3 credits)

MATH 242 Analysis 1 (3 credits)

MATH 243 Analysis 2 (3 credits)

MATH 314 Advanced Calculus (3 credits)

MATH 323 Probability (3 credits)

MATH 324 Statistics (3 credits)

MATH 423 Regression and Analysis of Variance (3 credits)

Complementary Courses (18 credits)

18 credits selected from the following list, with at least 6 credits selected from:

* Students may take either MATH 316 or MATH 249, but not both.

MATH 249 Honours Complex Variables (3 credits) *

MATH 315 Ordinary Differential Equations (3 credits)

MATH 316 Complex Variables (3 credits) *

MATH 317 Numerical Analysis (3 credits)

MATH 335 Computational Algebra (3 credits)

MATH 340 Discrete Structures 2 (3 credits)

at least 7 credits selected from:

MATH 447 Introduction to Stochastic Processes (3 credits)

MATH 523 Generalized Linear Models (4 credits)

MATH 525 Sampling Theory and Applications (4 credits)

the remainder of the 18 credits to be selected from:

MATH 204 Principles of Statistics 2 (3 credits)

MATH 318 Mathematical Logic (3 credits)

MATH 319 Introduction to Partial Differential Equations (3 credits)

MATH 320 Differential Geometry (3 credits)

MATH 326 Nonlinear Dynamics and Chaos (3 credits)

MATH 327 Matrix Numerical Analysis (3 credits)

MATH 329 Theory of Interest (3 credits)

MATH 338 History and Philosophy of Mathematics (3 credits)

MATH 346 Number Theory (3 credits)

MATH 348 Topics in Geometry (3 credits)

MATH 352 Problem Seminar (1 credit)

MATH 407 Dynamic Programming (3 credits)

MATH 410 Majors Project (3 credits)

MATH 417 Mathematical Programming (3 credits)

B.Sc.; Liberal Program - Core Science Component Statistics (45 credits) [continued]

MATH 427 Statistical Quality Control (3 credits)

MATH 430 Mathematical Finance (3 credits)

2017-2018 UG eCalendar
Cindy Smith, Secretary to SCTP



McGill

Faculty of
Medicine

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MEMORANDUM

TO: Professor Christopher Manfredi
Provost and Vice-Principal Academic
Chair of Academic Policy Committee (APC)

FROM: Dr. David Eidelman, M.D., CM
Vice-Principal (Health Affairs)
Dean of Medicine

c.c.: Julie Degans
Academic Program Officer

DATE: April 30, 2018

SUBJECT: **Request for the Creation of a Provisional Department of Emergency Medicine**

For: information **discussion** **decision**

Dear Professor Manfredi, as Dean of the Faculty of Medicine, I am putting forward a request to the Academic Policy Committee (APC) to consider and approve a request for the creation of a Provisional Department of Emergency Medicine. As indicated below, this special request reflects an urgent situation that touches on the education of many students and residents that make it inadvisable to delay until all of the formal procedures for the establishment of a department have been completed.

Background and Rationale/issues to address

Emergency Medicine (EM) was recognized as a specialty in the US in 1979, in Canada (Royal College) in 1982 and in Quebec in 1998. The first residency program in EM in the world was in the US at the University of Cincinnati and the second program was at McGill in 1973.

Special competency in EM through a third year of training was established in Canada in 1986 by the Canadian College of Family Physicians. Since then, the McGill program has had more graduates than any other program in Canada.



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It is thus quite an anomaly that EM does not have departmental status at McGill. Out of the 17 Canadian Universities, EM has full Departmental status in 47%, status of joint Departments in 18%, and status of division/section in 24%. Only 2 (12%) of Canadian Universities have no academic status for EM, McGill being one of them.

In September 2016, the Faculty of Medicine commissioned an academic consultation for Emergency Medicine, led by Dr. Ian Stiell, member of the Canadian Association of Emergency Physicians (CAEP). A copy of his report is attached (#1). Dr. Stiell's first and main recommendation to McGill was the creation of a new, independent Department of Emergency Medicine as soon as the necessary requirements could be met.

This request for the creation of a Provisional Department of Emergency Medicine (EM) comes following the external review and after a first and prolonged effort to explore a Divisional or Interdepartmental structure solution. The current emergency medicine faculty hold departmental affiliations in different departments. After much consultation and discussion, the three implicated EM Chiefs (Dr. Marc Afilalo, JGH; Dr. Jean-Marc Troquet, MUHC; Dr. Rick Mah, St-Mary's Hospital) confirmed that these alternatives were not feasible. Hence, we are pursuing the option of departmental status. Given the considerations outlined below, we feel that a provisional approach is the logical and time-sensitive first step in this process.

Alignment with mission and strategic priorities

The creation of a Provisional Department of Emergency Medicine will immediately ensure focus on academic excellence and oversight, particularly in relation to the major teaching mandate of EM both for undergraduate and postgraduate medical education programs. This structure will also enhance opportunities for further growth, collaborations and development of research opportunities and the research mission in general.

In addition, the creation of a Provisional Department will also be in full alignment with the hospital governance structure as confirmed by the Ministry of Health and Social Services recently with the implementation of Law 10 (i.e. the government retained EM Department status within each hospital).

Consultations

A broad consultation process regarding the creation of an Academic Department of EM was undertaken for the external review in 2016 and included wide-ranging representation from the Departments of Medicine and Family Medicine as well as the affiliated teaching hospitals' leadership (Directors of Professional Services). Subsequently, strategic discussions were held with the Dean's Operations Committee (DOC) and with the Deanery Executive Committee of the Faculty of Medicine. More recently, at a meeting with the Committee for Medical Education Governance (C-MEG) held on April 23, members unanimously supported the pursuit of a Provisional Department as an immediate prelude to the creation of an independent and Full Department of Emergency Medicine.



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In further response to the External Review, the three Chiefs of Emergency Medicine held a retreat (April 18, 2017) from which a proposed organizational structure for EM was developed. A copy of this chart is provided (attachment #2), clearly depicting the many different and complex teaching obligations that exist in EM.

The Faculty of Medicine is in full support of the creation of a Provisional Department of EM and is prepared to offer a stipend to the Provisional Chair commensurate with other academic chair stipends and is committed to ensuring provision of the required administrative support. This support has been communicated to the EM Chiefs (See attachment #3) and copies of this letter were sent to the Chair of Medicine (Dr. Jim Martin) and the Chair of Family Medicine (Dr. Howard Bergman). They too have expressed their support for this request.

Risk factors

As the Faculty reflected on any potential risk factors, the only ones to emerge are those related to not moving forward. This is especially true with respect to issues that exist in the learning environment. For example, there is often confusion as to whom is best placed to handle issues of learner mistreatment, given that the hospital EM Chief will be very familiar with the professor and the EM environment, whereas the academic Chair with whom the EM clinician is affiliated, is not (currently in another discipline either Medicine or Family Medicine).

Impact of Decision, next steps

There is some time pressure to the creation of a provisional Department, given the volume of teaching (undergrad, postgrad) and the issues related to the learning environment that must be addressed in a timely manner in light of accreditation. Having an Academic Chair to oversee these issues is very important. This will have an impact on important and upcoming Postgraduate Medical Education accreditation and will continue to have an impact on ongoing accreditation issues with Undergraduate Medical Education. The need to address the learning environment has come to the forefront increasingly in the Faculty of Medicine in the last years. The anomalous situation in EM (i.e. absence of academic status) must be addressed in order to ensure effective management and oversight, in a sustained manner, of such issues.

The Dean's letter of agreement with the three EM Chiefs (attachment #3), clearly indicates the immediate next steps that would be undertaken should provisional status be approved. Following approval, I will name a Chair of the provisional department and will ensure the provision of an appropriate stipend. Administrative support is already being provided to EM, to a certain extent, via the Department of Medicine but this support will be assessed and further formalized. The new Chair will be included in the Faculty's governance structure as described in the letter and the creation of the Provisional Department of Emergency Medicine will be communicated Faculty-wide using our various communications media (e.g. Faculty Leadership Commons, Med e-News, etc.). The news will be officially announced at the next Faculty of Medicine Faculty Council meeting on May 23, should approval be granted before that date.



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In preparation for the APC meeting, the three EM Chiefs prepared a document (attachment #4) that provides additional and important background on the situation in Emergency Medicine.

On behalf of the Faculty of Medicine, I hope that the APC will be favorable to our request. I have asked Dr. Ludwig to act as my delegate for this important topic as I am committed to another meeting and cannot attend, but strongly believe that we must not delay this discussion and hopeful approval to a fall APC meeting.

Sincerely,

David Eidelman, M.D., C.M.

Attachments (supporting documents):

1. External Review Report (October 6, 2016)
2. EM vision document and proposed structure – post retreat (April 18, 2017)
3. Letter from the Dean to EM Chiefs (April 15, 2018)
4. EM proposal document (April 23, 2018)

CAEP Academic Consultation for Emergency Medicine, Faculty of Medicine, McGill University

Prepared by Dr. Ian Stiell

September 29, 2016

1. Introduction

At the request of Dr. David Eidelman, Dean of Medicine, McGill University, we have undertaken a review of academic emergency medicine at McGill. This process was part of the Academic Consultation service provided by the Academic Section of the Canadian Association of Emergency Physicians (CAEP). The goal of the review was to determine the appropriateness and readiness of creating a new and independent Department of Emergency Medicine within McGill University.

Sources of information included the CAEP-sponsored Environmental Scan (Appendix 1) of academic emergency medicine at Canada's 17 medical schools, materials provided by the emergency group, and interviews with various members of the emergency group, Faculty of Medicine, and major teaching hospitals.

The CAEP Environmental Scan revealed that emergency medicine has full departmental status at 9 universities and joint departmental status with Family Medicine at 3 Quebec universities. Emergency Medicine currently has no academic designation at McGill. CAEP believes that full departmental status allows emergency group to improve their education and scholarship programs while attracting and retaining the most accomplished physicians. Ultimately this leads to better patient care, both locally and across the province.

2. Assessment

This report focuses on the strengths and weaknesses of the emergency medicine faculty at the major teaching hospitals: McGill University Health Centre, Jewish General Hospital, and St. Mary's Hospital.

a) Strengths

- Excellent, well-trained EM faculty at the three teaching hospitals, providing first-rate tertiary care to ill and injured patients.
- Well respected clinical services within highly regarded major teaching hospitals.
- Very successful and well-established teaching programs at all trainee levels, with excellent collaboration amongst the 3 teaching hospitals.
- Very strong undergraduate clerkship program for all McGill medical students.
- Well established CCFP (EM) residency training program that was the largest in Canada until recent cuts.
- Internationally recognized FRCPC residency training program that trains "specialists" in emergency medicine.
- Offer postgraduate fellowships in Trauma and Point-of-Care Ultrasound.

b) Weaknesses

- The three teaching hospital EM groups, despite collaborating on teaching programs, seem to have functioned somewhat independently and without a common vision of developing academics.
- There is considerable variation amongst the 3 groups in the physicians' contributions to an academic practice plan.
- While the Jewish General has a research program, there is none at MUHC; consequently the

group's publication record is modest and they currently hold no peer-reviewed grants.

- There are no investigators who have an MSc epidemiology or who have completed a research fellowship.
- There is minimal interaction with experienced researchers from other departments.
- The residents feel that some faculty members contribute very little apart from bedside teaching; most staff physicians do not attend grand rounds or journal club.
- In the absence of department status, the EM group feel they have no voice with the Faculty or with government.

c) Opportunities

- Dean Eidelman is very supportive of creating a Department of Emergency Medicine once the group is ready.
- The chairs of both Family Medicine and Medicine are willing to create a new Division of EM as a step towards full departmental status; these offers come with willingness to mentor and support scholarship initiatives.
- The EM faculty and residents are uniformly supportive of creating a fully independent Department of EM and question the value of being a division within other very large departments that have a quite different clinical focus.

d) Threats

- The government has recently cut positions in both residency training positions and this is a major threat to the viability of EM in Quebec.
- The government significantly restricts physician positions, creating a large barrier to recruitment of new faculty, especially those with research or education scholarship training.

3. Recommendations

a) Governance

- McGill University should create *a new independent Department of Emergency Medicine* as soon as requirements can be met by the emergency medicine faculty (see below).
- If a delay is expected in reaching departmental conditions, then the EM group *may benefit from the creation of a Division* within either Family Medicine or Medicine; these two departments are very willing to provide mentorship and resources to increase scholarly activities. The emergency medicine group have little in common with Family Medicine or Medicine and feel their progress would be more rapid as an independent department.
- The Faculty of Medicine should provide *sufficient resources* to the new Department to facilitate the increasing education demands as well as a strong program of scholarship. The group will need assistance with the government in hiring physicians with special academic qualification.
- All McGill emergency physicians at the three major teaching hospitals should be encouraged to change their *primary university appointment* to the new Department; some may wish to retain a cross-appointment with Family Medicine or Medicine.
- *Pediatric emergency physicians* at Montreal Children's Hospital should be encouraged to seek a cross-appointment with the new Department.
- The three physician groups are strongly encouraged to create a *common academic fund* to foster development of scholarly activities.

b) Clinical

- Despite provincial barriers to hiring, the emergency groups should continue to **strategically hire physicians** who are certified by one of the two national colleges, with preference given to those who have a potential for scholarship in research and education (possessing MSc or MEd degrees).

c) Education

- The Faculty of Medicine should increase **administrative support for the clerkship program**.
- The Faculty of Medicine should **lobby the government** to increase rather than decrease emergency medicine residency positions in both the CCFP (EM) and FRCPC training programs.
- The new Department would be expected to continue the strong links with the **Department of Family Medicine** for the CCFP (EM) Residency Program; the FRCPC program would be wholly administered by the new Department.
- Further develop inter-hospital **recognized fellowship training programs** in areas of strength such as ultrasound.
- Provide regular **Faculty Development Sessions**.
- Set expectations of **regular attendance** at weekly grand rounds sessions by all faculty.

d) Scholarship

- Encourage the development of separate but complementary **streams of scholarship and research** in both Medical Education and Clinical Care.
- Encourage local residents or young physicians to complete **formal 2-year fellowships** in Clinical Research or Medical Education.
- Encourage some FRCPC residents to enroll in the **Clinician Investigators Program**.
- Ensure that designated education or research scholars have **sufficient time protected** from clinical, teaching, and administrative responsibilities.
- The new Department of Emergency Medicine might consider facilitating scholarly activities by faculty and residents by providing **small internal grants**.
- Consider providing a **points or compensation system** that rewards faculty for scientific abstracts and peer-reviewed publications.
- Ensure that emergency medicine scholars have **good access to methodological support**, particularly from PhD biostatisticians and educators at both JGH and MUHC.
- Encourage **mentorship or collaboration** from experienced research and education scholars in other local departments and elsewhere in Canada.
- Ensure that emergency medicine faculty have full access to provincial and national **funding opportunities**, and that they have full support in application processes.
- Ensure that residents and faculty have **travel funding** to present abstracts at scientific meetings.
- Consider other recommendations in the **CAEP Research Consultation** prepared by Dr. Jeff Perry.

e) Requirements to Become a Full Department

- Preparation by the emergency medicine faculty of a ***Vision and Planning document*** that clearly articulates the academic goals and the approach to achieving them, as well as proposed organization and governance; this document should address all issues outlined above in ***section d) Scholarship***.
- Creation of a ***joint academic fund*** for support of teaching and scholarly activities, with contributions from all three teaching hospital faculty; this should have clear terms of reference and likely should be administered by someone who is not a current hospital ED chief.
- Agreement that ***the new Chair*** not be a current sitting hospital ED chief.
- ***Milestones*** of success in scholarship include:
 - Supporting at least one specific physician to complete a ***2-year research fellowship***.
 - Supporting at least one specific physician to serve as a ***new investigator*** for at least 3 years after completing a research fellowship.
 - Meeting ***reasonable targets for*** scientific abstract presentation, peer-reviewed publications, and peer-reviewing funding by faculty and residents in the new Department.
- We expect that the Faculty of Medicine and major teaching hospitals will have to ***advocate for the emergency group with the government*** in order to secure new academic faculty positions.

Acknowledgements

I wish to thank Jennifer Artz, Kelly Wyatt, and Demetra Kafantaris for their very strong support in organizing this evaluation process.

Further Resources

- The **CAEP Academic Environmental Scan Report Card for Emergency Medicine at McGill University**, attached as an Appendix.
- The **CAEP Consultation on EM Research at McGill University**, currently being prepared by Dr. Jeff Perry.
- The CAEP 4-part series of articles on **How to Succeed in Emergency Medicine Research**, as recently published in *CJEM*.
 - [Executive summary of the CAEP 2014 Academic Symposium: How to make research succeed in your department](#)
 - [CAEP 2014 Academic Symposium: How to make research succeed in your department: How to fund your research program](#)
 - [CAEP 2014 Academic Symposium: How to make research succeed in your emergency department: How to develop and train career researchers in emergency medicine](#)
 - [CAEP 2014 Academic Symposium: How to make research succeed in your emergency department: Achieving excellence in residents' research](#)
- The CAEP 3-part series of articles on **How to Improve Governance and Funding for Emergency Medicine University Groups**, soon to be published in *CJEM*.
 - <http://journals.cambridge.org/action/displayJournal?jid=CEM>

Appendix 1

CAEP 2014 Academic Environmental Scan Report Card for Emergency Medicine at McGill University

Table 1. University status of emergency medicine at the 17 Canadian medical schools.

	<i>n</i> (%)		McGill
Status			
Full Department	8 (47)		
Joint Department with Family Medicine	3 (18)		
Division/Section	4 (24)		
No Status	2 (12)		
		Status	n/a
Division/Section Affiliations (<i>n</i> = 4)^b			n/a
Medicine	3 (75)	Medicine	
Surgery	0 (0)	Surgery	
Family Medicine	2 (50)	Family Medicine	
Pediatrics	2 (40)	Pediatrics	
EM Pediatrics		Ped EM identified	yes
EM Pediatrics has University Status	11 (65)		
EM Pediatric Faculty Cross-appointed with Department of Emergency Medicine	8 (47)	Peds	yes
		EM	
		Other	
EM Academic Positions			
Chair	16 (94)	Dept chair/chief	no
		\$	n/a
Vice chair	3 (18)	Vice-chair/chief	no
		\$	n/a
Dedicated Staff for Chair:	15 (88)		n/a
Mean Number of Staff	1.0		
Dedicated Space for Academic Leadership:	16 (94)		n/a
Mean Number of Offices	2.2		

^aThree respondents reported multiple divisions.

^bResults are for those EM units that are departments and divisions only (*n* = 12).

Table 2. Teaching hospitals and emergency medicine faculty at the 17 Canadian medical schools.

	<i>n</i> (%)	Mean ($\pm\sigma$)	Min	Max	McGill
Hospitals					
Major Teaching Hospitals ^b	17 (100)	2.7	1	6	4
Specialized Pediatrics Teaching Hospitals	13 (76)	1	1	1	yes
Other Hospitals Taking Clinical Clerks	14 (82)	4.9	1	11	1
Other Hospitals Taking Residents	17 (100)	4.5	1	10	1
Faculty Physicians, Number					
In Major Teaching Hospitals	17 (100)	90	32	200	92
With Academic Appointment	17 (100)	83.7	30	175	92
Full Professors	13 (76)	2.4	0	9	0
Associate Professors	16 (94)	10.3	0	34	2
PhDs with Primary EM Appointments	7 (41)	0.4	0	2	n/a
At Other Teaching Hospitals with Academic Appointment	14 (82)	68.2	0	250	n/a

Table 3. Undergraduate, residency, and fellowship programs at the 17 Canadian medical schools.

	<i>n</i> (%)	Mean (±σ)	Min	Max		McGill
Undergraduate Clerkship (<i>n</i> = 16)	16 (94)					yes
Weeks Duration		3.6	2	4		4
Clerks per Year		171	64	340		180
Hospital Campuses		7.3	1	19		4
Clerkship Director	16 (100)					yes
Assistant Clerkship Director	2 (13)				\$	yes
Electives Director	6 (38)				\$	no
Other Director	3 (19)				\$	N/A
Provide Non-clinical "Teaching Shifts"	6 (38)				\$	no
Observership Pre-clerkship	13 (81)				\$	n/a
Electives Pre-clerkship	11 (69)				\$	n/a
FTE Support Staff	16 (100)	0.8	0.5	2		0.5
Offices for Staff/Directors	15 (94)	1.6	0	2		1.0
CCFP-EM Residency Program (<i>n</i> = 17)	17 (100)					
CARMS Residents	17 (100)	7.6	4	12		12
Residents with Other Funding	7 (41)	0.5	0	2		n/a
Major Teaching Hospitals		4.8	2	12		5.0
Program Director	17 (100)					yes
Assistant Program Director	11 (65)				\$	no
FTE Support Staff	16 (94)	0.6	0.1	1		yes
Offices for Staff/Directors	14 (82)	1.6	1	2		0.2
Program Administered by:						1.0
Emergency Medicine	8 (47)					FM
Family Medicine	4 (24)					
Joint Emergency/Family Medicine	5 (29)					
RCPSC-EM Residency Program (<i>n</i> = 14)	14 (82)					yes
CARMS Residents	14 (100)	5.5	2	12		3
Residents with Other Funding	3 (21)	0.3	0	2		2
Major Teaching Hospitals		4.3	2	8		5
Program Director	14 (100)					yes
Assistant Program Director	11 (79)				\$	no
FTE Support Staff	14 (100)	1.1	0.5	2.5		yes
Offices for Staff/Directors	14 (100)	2.3	1	6		1.0
Off-service Residency Program (<i>n</i> = 17)	17 (100)	138	30	375		2.0
						200

	<i>n</i> (%)	Mean ($\pm\sigma$)	Min	Max	McGill
Specific Education Sessions	11 (65)				yes
Specific Program Director	11 (65)				no
				\$	n/a
Fellowship Training Programs (<i>n</i> = 11)	11 (65)				
Pediatrics	5 (45)				
Ultrasound	7 (64)				yes
EMS	7 (64)				
Simulation	1 (9)				
Education	4 (36)				yes
Trauma/Resuscitation/Airway	3 (27)				yes
Physician Teaching Stipends (<i>n</i> = 17)					
Ultrasound	15 (88)	1.8	0	5	0
Simulation	12 (71)	1.5	0	5	0

Table 4. Education scholarship and continuing professional development at the 17 Canadian medical schools.

	n (%)	Mean ($\pm\sigma$)	Min	Max	McGill
Education Faculty					
Director of EM Education	5 (29)				no
				\$	N/A
Director of EM Scholarship	4 (24)				no
				\$	N/A
FTE Education Staff	16 (94)	2.1	1	4	3
Offices Directors/Staff	14 (88)	3.6	2	7	4
Combined Education Committee	9 (53)				no
Education Committee Members		13.3	7	32	n/a
Education Committee Meetings		4.4	3	10	n/a
Compensation to Reward Teaching	14 (82)				no
Continuing Professional Development (CPD)					
Director	9 (53)				no
Host Annual CPD Conference	10 (59)				yes
Length / Days		2.4	1	8	2
Registrants		257	100	850	150
Participate in Other CPD Conference	9 (53)				yes
Host ACLS Course/Workshop	11 (65)	5.8	1	20	n/a
				#	n/a
Host ATLS Course/Workshop	10 (59)	2.9	1	4	n/a
				#	n/a
Host Ultrasound Course/Workshop	14 (82)	1.7	1	2.5	yes
				#	2
Host Simulation Course/Workshop	10 (59)	12	1	58	n/a
				#	n/a
Other Course /Workshop	6 (35)	4.2	1	7	n/a
				#	n/a
CPD Outreach	10 (59)	11	4	50	no
				#	N/A
Faculty Development Program					
Provide Faculty Development	13 (76)				no
Director	10 (59)				no
				\$	n/a
Annual Faculty Retreats	13 (76)	1.5	0.5	4	no
					n/a
Leadership Courses Available Locally	17 (100)				n/a
Education Scholarship:					
Faculty with MEd or Equivalent	14 (82)	3.4	1	12	2
Completed Formal Education Fellowship	5 (29)	1.6	1	3	0
Funded for Education Scholarship	8 (47)	2.4	1	6	0
Peer-reviewed Salary Awards	0 (0)				0
Peer-reviewed Education Grants	7 (41)	2.6	1	5	0
Peer-reviewed Education Publications (5	11 (65)	9.9	1	30	0

	<i>n</i> (%)	Mean ($\pm\sigma$)	Min	Max	McGill
Years)					
Access to PhD Educators	14 (82)				yes
Reward Faculty for Education Scholarship (Not Salary Awards)	8 (47)				no
Provide Education Grants (Non-salary)	11 (65)				yes

Table 5. Research activities and resources at the 17 Canadian medical schools.

	n (%)	Mean (±σ)	Min	Max		McGill
Faculty						
Research Director	14 (82)					yes
Salary-supported Researchers	13 (76)	4.2	1	13	\$	yes 4
Salary-supported Researchers with MSc, MPH, or PhD	12 (71)	3.8	1	10		0
Researchers with 25% Protected Time	13 (76)	3.5	1	10		4
External Research Funding						
Peer-reviewed Salary Awards	7 (41)	2.4	1	5		0
Peer-reviewed Grants Currently Held	15 (88)	8.0	1	28		6
CIHR & HSFC Grants Currently Held	12 (71)	4.0	1	20		2
Studies						
Multi-centre Studies Coordinated	11 (65)	4.0	1	10		4
All Peer-reviewed Studies (Including as Co-PI)	14 (82)	10.9	1	43		2
Peer-reviewed Publications (Non-education) (5 years)	16 (94)	81	4	235		36
Resources						
Affiliated with Research Institute	14 (82)					yes
Compensation for Abstracts or Publication	5 (29)					no
Internal Grants (Non-salary Awards)	8 (47)					yes
Resident Research Facilitator	13 (76)					no
Summer Students	17 (100)	3.5	1	10		2
Research Fellowship / Years	3 (18)	1.7	1	2	Yrs	no n/a
Access to PhD Biostatistician	15 (88)					yes
Database or Programming Support	14 (82)					yes
Staff/offices:						
Non-MD FT Research Staff	12 (71)	8.0	1	50		4
Non-MD PT Research Staff	12 (71)	11.5	1	70		4
Dedicated Offices (Staff/Researchers)	14 (82)	10	2	50		5

Table 6. Funding for academic activities at the 17 Canadian medical schools.

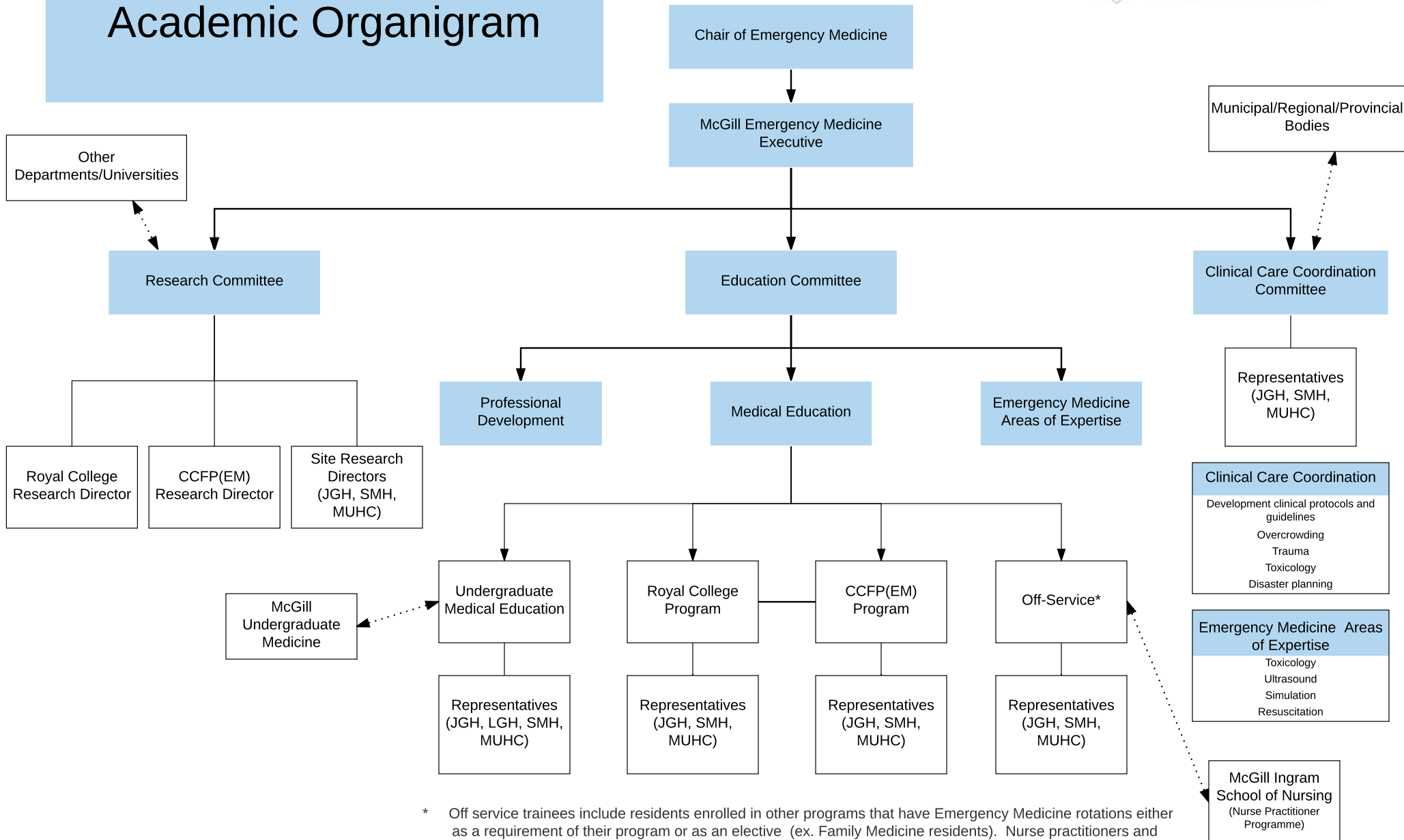
	<i>n</i> (%)	Mean ($\pm\sigma$)	Median	Min	Max	McGill
Annual budget (<i>n</i> = 16) ^a						
Overall	16 (100) ^b	\$1,076,000	\$863,000	\$200,000	\$2,225,000	\$600,000
>\$2,000,000	2 (13)					
\$1,000,000 to \$2,000,000	5 (31)					
\$500,000 to \$999,000	5 (31)					
\$250,000 to \$499,000	2 (13)					
<\$250,000	2 (13)					
Funding sources by % (<i>n</i> = 17)						
University	17 (100)	46%	33%	2%	100%	0.25
Hospital	6 (35)	12%	8%	4%	25%	
Practice Plan	7 (41)	29%	8%	2%	93%	0.75
Ministry of Health/Alternate Funding Plan	10 (59)	65%	62%	22%	98%	

^a One institution did not provide any data.

^b Percentages do not total 100 due to rounding.

^c Ministry of Health or Alternate funding plan

McGill Emergency Medicine Academic Organigram



* Off service trainees include residents enrolled in other programs that have Emergency Medicine rotations either as a requirement of their program or as an elective (ex. Family Medicine residents). Nurse practitioners and physician assistants are also the responsibility of this committee.

RESEARCH

The Research Committee has the mandate to prioritize the advancement of Research within the Department.

It will rely on an organizational structure that will enable a joint research agenda, a strong scientific support (epidemiologist, statistician, research assistants) and building research expertise by our attending staff (education, protected time).

The research program will include:

- High quality clinical research (RCTs, grants, multicentre studies and collaboration with other McGill Departments)
- Operational research to improve crowding with the collaboration of McGill Faculty of Management. To also serve as content expert to the MSSS
- Educational research in simulation

The goal of our research program is for McGill Emergency Medicine Department to be recognized as a leader in Quebec, Canada and beyond by the quality of its publications and by its peer review grants.

A priority of the program will be to foster research among our residents by education, training and supporting their research ideas. The development of a research fellowship program will be considered as well as the training of PhD candidates and post-graduate PhDs.

The Departments of Emergency Medicine across McGill hospitals have agreed in principal to promote a practice plan that will support the research endeavours of the McGill Department of Emergency Medicine.

Education

The Educational committee has the mandate to oversee all teaching activities taking place within the department.

Emergency medicine is a mandatory rotation at the undergraduate level. At the graduate level, a large number of residency programs have an emergency medicine rotation in their curriculum. We have two emergency training programs. We also offer three post graduate fellowships (Toxicology, Trauma, Ultrasonography).

Education is the academic mandate that is the most developed at our different sites. Because of all those activities, emergency medicine has a significant role and is a major contributor within the Faculty. For most of those training tracks, we have already achieved a high level of integration between the different training sites and already function as an academic department.

What remain to be done is:

- 1) Better integration of the two emergency medicine training programs.
Although we have made significant progress over the past years, there are still opportunities to increase the interaction between the two training tracks
- 2) Establish a coordination committee for the off-service rotation. This will allow us to develop common training objectives and ensure uniformity in the training offered at the different sites.
- 3) Continue our current integration initiatives for the fellowship programs to optimize the clinical exposure of trainees. This is particularly relevant for toxicology and ultrasonography.
- 4) Develop departmental initiatives for professional development. This is an area which is underdeveloped at the present time.
- 5) Continue to develop simulation as a McGill expertise in Education
- 6) Recruit an emergentologist with specific post graduate training in Medical Education (at least a master degree) to further consolidate and improve our educational program.

Clinical Care

The Clinical Care Coordination Committee has the mandate to unite all efforts to continuously improve the care to our patients and assume a role of leader of evidence based knowledge and knowledge translation.

Collectively, the McGill Emergency Medicine (EM) brings together expertise in various domains allowing knowledge translation, leadership, and capacity building between the academic sites of the McGill University Health Network as well as its affiliated community hospitals (ie Lakeshore General Hospital, Lasalle Hospital, and Lachine General Hospital). The principal teaching hospitals along with the affiliated sites constituted 292,533 adult visits to the Emergency Department in the last fiscal year which represents 40% of all visits to adult Emergency Departments in Montreal. Given the broad reach of McGill Emergency Medicine, the Department has the potential to be leaders in Emergency Medicine in Montreal, Quebec, and beyond in patient care and safety.

The Clinical Care Coordination Committee oversees such activities such as development of clinical protocols, trauma, toxicology, overcrowding, and disaster planning. Collaboration between sites has been successful in standardizing troponin ordering as well as guidelines for the usage of cardiac monitors in the Emergency Department. As well, the MGH, as a Level I Trauma centre, provides expertise and leadership in the management of trauma patients. Collaboration in medical toxicology has been primarily in education but within a more structured network, coordinating antidotes between sites and clinical expertise would improve the care of the poisoned patient. Emergency Department overcrowding is a significant problem in all Emergency Departments and having experts in the area as well as a forum for the ED leadership to discuss and share strategies will advance the management of this important public health problem. As a recognized academic entity, this committee along with McGill EM may serve as a reference and resource for other institutions or organizations. Along the same lines, Emergency Medicine is at the front-line of disaster planning whether it is natural disasters, pandemics, or terrorist attacks. McGill EM has the expertise and experience to lead in this domain.



McGill

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Sent by electronic mail

April 5, 2018

Dr. Marc Afilalo, Head of Emergency Medicine, JGH
Dr. Jean-Marc Troquet, Head of Emergency Medicine, MUHC
Dr. Rick Mah, Head of Emergency Medicine, SMH

Subject: update on Provisional Department status for Emergency Medicine

Dear Marc, Jean-Marc and Rick,

In follow-up to our efforts to create a Provisional Department of Emergency Medicine, I met with the Provost. I am very pleased to report that the Provost expressed support of this request, which is unique, and has asked that we petition the Academic Policy Committee (APC) for provisional status.

As the last two meeting dates for the APC are April 12 and May 10, I propose that we try to submit a proposal for the May 10 meeting. To do so, we will need to receive the document you have been working on as soon as possible so that we may prepare adequately.

Should we be successful and get approval from APC for EM provisional Department status, you will have exactly two years from that date forward to meet all of the requirements necessary to attain formal Department status. These requirements will be provided to you in detail following the APC meeting. It is important to note that if EM is unsuccessful within the two-year time-period, provisional Department status will be revoked and a different solution will need to be sought.

Should we be successful with the petition to APC and attain approval, here are some of the immediate outcomes and actions:

- The Dean will name an interim Chair of Emergency Medicine
- The Interim Chair of EM will be invited to participate in the Faculty's Governance structure and committees as follows:
 - as a member of the Faculty Leadership Commons – FLC (monthly meetings)
 - as a member of the Clinical Chairs Committee (meetings every 2 months)
 - responsible for ensuring the election of 2 EM reps for the Faculty Council (4x/year)
- Administrative support will be provided by the Administrative Excellence Centre (AEC) that supports the Department of Medicine, led by the Associate Director, Teresa Alper

.../2

- The interim Chair will need to develop a plan for organizing teaching and research
- The interim Chair will need to propose the organization of an EM Practice Plan

The next step is to prepare for the APC. I ask that you each please sign your understanding and acceptance of the terms outlined herein.

I sincerely hope that once we have completed this exercise, we will see EM academic representation in the Faculty as of September 2018, with the new slate of governance meetings for the 2018-19 academic year.

Yours sincerely,



David Eidelman, MD CM, FRCPC, FACP

I, **Marc Afilalo**, understand and accept the terms and conditions stated in this letter.

Signed:




Date:

April 10, 2018

I, **Jean-Marc Troquet**, understand and accept the terms and conditions stated in this letter.

Signed:



Date:

April 10, 2018

I, **Rick Mah**, understand and accept the terms and conditions stated in this letter.

Signed:



Date:

April 10, 2018

Request to Establish a “Provisional” Department of Emergency Medicine Within the Faculty of Medicine.

Preamble

Emergency care is a significant and a growing need for our population. In Montreal:

- The volume of Emergency Department (ED) visits has increased by 19% in the last 10 years, reaching 718,338 visits in 2017-2018.
- McGill institutions received 43% of all visits in 2017-2018.

EDs have become the main entry door to McGill hospitals in terms of hospitalizations. At the McGill University teaching hospitals, 50 to 70% of all hospitalizations originate from the ED.

Emergency Medicine (EM) was recognized as a specialty in the US in 1979, in Canada (Royal College) in 1982 and in Quebec in 1998. The first residency program in EM in the world was in the US the University of Cincinnati and the second was at McGill in 1973.

EM special competency in EM through a third year of training was established in Canada in 1986 by the Canadian College of Family Physicians. Since then, the McGill program has had more graduates than any other program in Canada.

Out of the 17 Canadian Universities, EM has full Departmental status in 47%, status of joint Departments in 18%, and status of division/section in 24%. Only 2 (12%) of Canadian Universities have no status for EM and McGill is one of them.

In September 2016, the Faculty of Medicine commissioned an academic consultation for EM, led by Dr. Ian Stiell. His first and main recommendation was that McGill creates a new, independent Department of EM as soon as requirements could be met by the EM faculty.

EM Strengths at McGill

A) **FACULTY:**

Over 180 physicians, 40 of which are specialists FRCP-EM and the majority of the others are CCFP-EM

B) **TEACHING:**

a) **Number of trainees per year:**

Undergraduate: 170 students, mandatory rotations
50 students, elective rotations

Postgraduate: Over 500 residents' rotation. This includes residents from our 2 EM residency programs (FRCP-EM and CCFP-EM) and residents from other McGill residency programs (family medicine, medical, surgical...) where many have mandatory EM rotations.

b) **Location:**

- Five clinical sites for EM
- Three clinical sites for in-patient short stay units

c) **Areas of expertise at McGill:**

Beyond the curriculum of both the FRCP-EM and CCFP-EM residency programs, McGill has established recognized areas of expertise in:

- Trauma (only fellowship program in Canada)
- Point of Care ultrasound (POCUS, first fellowship program established in Canada). Leaders in teaching students, residents and in research
- Toxicology (fellowship program)
- Simulation is the most rapidly growing activity in the last 2 to 3 years.

C) **CLINICAL CARE:**

The McGill hospitals are known to offer excellent emergency care. As mentioned previously, they received 43% of all ED visits in 2017-2018 in Montreal. The collaboration between FRCP-EM specialists and CCFP-EM is excellent and contributes to the enrichment of all.

a) **Areas of expertise at McGill**

1. *Trauma:*

As the Adult Trauma Centre for downtown Montreal, the Montreal General is one of three designated level 1 adult trauma centers in Quebec. The Emergency Department at the MGH sees approximately 10000 trauma patients per year and receives referrals from other hospitals as well as Northern Quebec. Within the department, some of the ED physicians have a special interest in trauma and are Trauma Team Leaders. As the trauma center, the MGH has also developed further expertise in managing mass casualty events (ex. natural disasters, terrorist attacks.)

2. *Prehospital:*

Additionally, a number of members at all three academic sites are involved with pre-hospital care, working in close collaboration with Urgences Santé. The position of chair of research at Urgences Santé is occupied by a McGill emergency physician.

3. *Toxicology:*

McGill emergency medicine is fortunate to have expertise in toxicology with a number of members with such expertise. These physicians have been instrumental in providing consultation in the Emergency Department as well as through Quebec Poison Control Center.

4. *Point of Care Ultrasound (POCUS):*

Bedside ultrasound has become a vital tool in the diagnosis and care of emergency patients. McGill Emergency Medicine Faculty, has played a pivotal role applying this technology and advancing its use in patient care.

5. *Evidence Based Medicine:*

The academic sites have collaborated on a number of projects to apply best evidence and judicious use of resources developing McGill-wide policies such as standardizing cardiac troponin testing, guidelines for use of cardiac monitoring, and a diagnostic pathway to diagnose pulmonary embolism.

D) **RESEARCH:**

Collectively at McGill, we cannot state that Research is a strength. However, in the last 20 years, we have achieved the following results:

a) **Grants:**

- 1) Grants with ED physicians as Principal Investigators: \$3,839,402.00, mainly in CIHR, FRQS and CHSRF.
- 2) Grants with ED physicians as Co-Principal Investigators: \$219,400.00 from FRQS
- 3) Grants with ED physicians as Co-Investigators: \$10,314,348.00 mainly from CIHR, FRQS and CHSRF.
- 4) Grants with ED physicians as Collaborators: \$1,702,339.00 from CIHR

b) **Publications:**

- 1) 188 Publications with 122 in peer-reviewed journals
- 2) 120 publications as first author
- 3) 97 publications as last author

c) **Abstracts presentations at conferences:**

- 1) 228 presentations
- 2) 169 presentations as first author
- 3) 150 presentations as last author

d) **Active participation in research of the EM residents during their training**

- e) **Strong collaboration with other McGill Departments in joint research projects** (Pulmonary, Cardiology, Geriatrics, Hematology, Obstetrics, ID, Faculty of management) in the following spheres: asthma, acute coronary syndrome, congestive heart failure, frailty, delirium, high risk elderly identification and management, thrombo-embolic disease, first trimester bleeding, influenza, triage, crowding.

E) **ED OPERATIONS MANAGEMENT AND MEDICAL INFORMATICS:**

Medico-administrative activities have always been a strength at McGill. They encompass: LEAN management, ED design, Patients' centered fragmentation of ED sections, information technologies, information management and flow management. These areas have helped us tackle the number one problem in our health care system, that is, crowding. McGill Hospitals have regularly been amongst the best performing in Quebec. The academic EDs of McGill are considered some of the

most performant hospitals in Montreal and McGill EM is fortunate to have recognized experts in the field.

While EM at McGill has been an early adopter of data driven performance, we have also been instrumental in the development and application of the most advanced and integrated ED management system in Quebec.

F) **HEALTH CARE SYSTEMS:**

The reach of McGill Emergency Medicine goes beyond the emergency department and the hospital. We have been leaders in the disaster preparedness in Quebec. Members of our department have been instrumental in elaboration of regional preparedness plans. We were the first institution in Montreal doing large scale simulations in collaboration with Urgences Santé, public security and the Canadian armed forces. It is worthy to mention the role and influence we developed at the level of the Quebec Health Ministry through our operational performance and our following contributions:

- We have co-authored the “Guide de Gestion des Urgences du Québec”
- We have assumed the presidency of the Ministry of Health Expert Committee in Emergency Medicine (2001-2003).

Challenges and Action Plan

A) **RESEARCH:**

Research is our top priority to address. We plan on unifying all research endeavors in a research committee / division of EM department.

The research committee has the mandate to prioritize the advancement of research within the department. The goal of our research program is for McGill Emergency Department to be recognized as a leader in Quebec, Canada and beyond by the quality of its publications and by its peer review grants.

It will rely on an organizational structure that will enable a joint research agenda, a strong scientific support (epidemiologist, statistician, research assistants) and building research expertise by our attending staff (education, protected time). The recruitment of emergency physician(s) with research training will be sought.

The research program will include:

- High quality clinical research (RCTs, grants, multicenter studies and collaboration with other McGill Departments)
- Operational research to improve crowding with the collaboration of McGill Faculty of Management. To also serve as content expert to the MSSS
- Educational research in simulation

A priority of the program will be to foster research among our residents by education, training (research fellowship will be encouraged) and supporting their research ideas. The development of a

research fellowship program will be considered as well as the training of PhD candidates and post-graduate PhDs.

The Department of Emergency Medicine across McGill hospitals have agreed in principal to promote a practice plan that will support the research endeavors of the McGill Department of Emergency Medicine.

B) TEACHING:

We need to continue building excellence for our training programs. An educational committee will be created to coordinate activities between all the sites and address the following priorities:

- a) Better integration of the two emergency medicine training programs. Although we have made significant progress over the past years, there are still opportunities to increase the interaction between the two training tracks.
- b) Establish a coordination committee for the off-service rotation. This will allow us to develop common training objectives and ensure uniformity in the training offered at the different sites.
- c) Continue our current integration initiatives for the fellowship programs to optimize the clinical exposure of trainees. This is particularly relevant for toxicology and ultrasonography.
- d) Standardization of the EM academic staff evaluation
- e) Develop departmental initiatives for professional development. This is an area which is underdeveloped at the present time.
- f) Continue to develop simulation as a McGill expertise in Education
- g) Recruit an emergentologist with specific post graduate training in Medical Education (at least a master's degree) to further consolidate and improve our educational program.

C) CLINICAL:

We propose a Clinical Care Coordination Committee that will unite all efforts to improve the care to our patients and assume a role of leader of evidence based practice and of knowledge translation. The actual clinical collaboration between sites is not optimal and will benefit by:

- Developments of guidelines and protocols of care with emphasis on patient safety and "Choosing Wisely" principles
- Harmonization of medical practice
- Resources stewardship
- Development of strategies to deal with ED crowding

D) STAFFING:

We need to work more towards influencing the health ministry to adapt the PEMs/PREMS (# of physician positions allowed) to the number of visits and to the academic activities.

The creation of a McGill EM department will definitely have a very significant positive impact on recruitment and retention of staff with a scholarly academic career plan.

E) INNOVATIONS:

Uniting our efforts across all the sites with the support of a McGill EM department will allow us to address more efficiently the innovative programs such as:

- ED Geriatric Section
- Emergency Telehealth
- Hospital at home
- EDs Big data/forecasting use

Conclusion

In conclusion, we believe that McGill EM will benefit significantly from the creation of a provisional department to be able to meet its goals of excellence and national/international leadership in Academia (Research, Teaching), Clinical care and innovative programs.

We would very much like to express our gratitude and appreciation to the Academic Policy Committee for considering our proposal

Marc Afilalo, MD

Jean-Marc Troquet, MD

Rick Mah, MD

April 23, 2018

Subcommittee on Professional Programs

Terms of Reference

The Subcommittee on Professional Programs (SoPP) is a standing committee of the Academic Policy Committee (APC). It is mandated to explore and address concerns of particular relevance to units delivering academic programs that have a professional component or orientation in the sense that they lead to a professional designation, are governed by a professional order, or are targeted toward working professionals. Comprised of members who represent diverse Faculties, the SoPP will focus on questions and topics that bear transversal relevance across the University.

Specific issues that the SoPP will consider include:

- Relations and communications between McGill University and professional orders and accreditation committees, paying particular attention to the importance of preserving and protecting academic units' autonomy and capacity to determine their own curricula while simultaneously abiding by accreditation and licensing requirements and influencing their content.
- Relations between McGill University and industry partners in connection with professional programs
- Relations between McGill University and government bodies in connection with professional programs.
- Academic staffing, including the unique roles, contributions and constraints associated by different categories of academic staff, including unionized teaching staff
- The advantages of professional programs in a research-intensive university
- The role continuing education in support of professional programs
- Teaching and learning needs and strategies relevant to professional programs.
- Mobility of graduates, particularly with respect to the recognition of McGill professional credentials both in and outside of Quebec
- Education, training, and placements for foreign-trained professionals that allow them to gain admission to Quebec's professional orders and communities
- Best practices and knowledge sharing in relation to professional programs
- Access to and recognition of internationals, co-op terms, clinical affiliations, practica or any other professional-related learning experience
- All other issues falling within the domain professional programs

The SoPP may develop and propose policies and procedures in relation to the foregoing topics. Where appropriate, the SoPP may also develop and propose a unified position for the University on issues related to professional education. In taking up these activities, the SoPP will consult with APC.

The SoPP will be supported as required in its activities by the Program Working Group, who will serve as the primary coordinator of initiatives with programmatic content.

The SoPP will meet up to four times annually and will report to APC at least once annually.

Composition

- 1 Member each from the following Faculties:
 - Agricultural and Environmental Sciences
 - Arts
 - Continuing Studies
 - Dentistry
 - Education
 - Engineering
 - Law
 - Management
 - Medicine
 - Music
 - Science
- One member representing a McGill School delivering professional programs
- Director, Teaching & Learning Services (or delegate)
- Executive Director, Analysis, Planning & Budget
- Associate Provost, Equity & Academic Policies
- Academic Program Officer (Secretary)

A Chair for SoPP will be elected amongst members, on a rotating basis.



MEMORANDUM

DATE: 10 May 2018

TO: Members of Academic Policy Committee (APC)

FROM: Professor Angela Campbell, Vice-Chair APC

SUBJECT: Success in the tenure-stream in view of perceptions of increased administrative workload for professors

In Fall 2017, Senate Steering referred to APC a question that had been proposed as a topic for a Senate open discussion, namely, whether a perceived increase in administrative work shouldered by professors curtailed their potential for success or adversely impacted professorial retention.

Three sources of information were examined to assess this question:

1. tenure rates at McGill 2000-present;
2. total Tri-Agency funding at McGill, relative to the U15 (in terms of percentage and overall dollar amounts) over the last 15 years; and
3. voluntary departures from McGill over the last 15 years.

This information, shared for APC's review and discussion, does not point to reduced success by ordinary standards for professors in the tenure stream, or to difficulties with respect to McGill's retention of them.

Tenure Data – 2000-present

Year	Withdrawal	Number in Cohort	Denied Tenure	Appeals of the Decision of Denial of Tenure	Appeal Outcome of Denial of Tenure (Appeal dismissed)
2000-2001	?	?	?	2	?
2001-2002	?	?	?	2	2
2002-2003	?	?	?	1	?
2003-2004	?	?	?	0	0
2004-2005	?	?	?	1	0
2005-2006	?	?	?	2	2
2006-2007	?	?	?	5	2 appeals withdrawn due to reinstatement, 1 appeal denied, 1 unclear
2007-2008	?	?	?	3	2 appeals denied, 1 appeal allowed
2008-2009	?	95	?	2	2 appeals denied
2009-2010	8	76	1	0	0
2010-2011	0	68	1	0	0
2011-2012	4	79	?	5	3 appeals denied, 1 appeal withdrawn, 1 appeal allowed (reinstated),
2012-2013	6	54	1	1	1 appeal denied
2013-2014	3	71	1	0	0
2014-2015	3	55	3	3	2 appeals denied, 1 withdrawn
2015-2016	4	59	1	1	1 appeal withdrawn due to reinstatement
2016-2017	2	49	1	1	1 appeal allowed (reinstatement)
2017-2018 in progress	2	47	--	--	---

Notes:

- We have no records prior to 2000-2001.
- Question marks indicate where we have no records.
- Withdrawals include candidates who have submitted their tenure dossier earlier than their ordinary year of tenure consideration who withdraw during that cycle but may then resubmit their dossiers in their regular year of tenure consideration

Total Tri-Agency funding for the past 15 years

Overall, the total Tri-agency funding over the period increased by 3% yearly on average, but that includes six years of no growth or decrease (2007-08-2013-14 period). (This is calculated using constant dollars: 2002=100)

The growth in funding during the period at McGill, on average, matched the growth in the total funding provided by the Tri-Agency (and in NSERC and CIHR). In SSHRC, McGill's average annual growth in funding was higher than the average annual growth for that agency overall. This is also reflected in change in market share.

McGill's share of total Tri-Agency funding was stable at 8% to 8.5% of all funding throughout the period.

McGill's share of all CIHR funding was stable at 11.5%-12.2%.

McGill's share of all NSERC funding was stable at 5-6%.

McGill's SSHRC market share has significantly increased in the past 15 years from 4% in 2002-03 to 7.5% in 16-17. This change happened "at the expense" of UdeM (that went from 8% down to 6.4% over the period) and Toronto (from 10% to 8.6%); UBC has been relatively stable at around 7-8%.

Source: Official tri-agency statistics compiled by OST

Included: Career awards, grants, NCEs, CRCs, incl. CREATEs but excludes all scholarships.

Prepared by: AMD-SI Unit 13/04/2018

Total Tri-Agency funding for the past 15 years (includes career awards, grants, NCEs, CRCs, excludes Scholarships, except for CREATEs which are included)

FactPayment(Agency) (All)

Sum of Amt	Column Labels														
Row Labels	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
N	21.72%	22.07%	22.74%	22.74%	22.65%	29.04%	24.30%	24.10%	24.51%	24.80%	24.00%	25.61%	24.74%	24.53%	24.59%
U15	78.28%	77.93%	77.26%	77.26%	77.35%	70.96%	75.70%	75.90%	75.49%	75.20%	76.00%	74.39%	75.26%	75.47%	75.41%
University of Toronto	14.40%	14.00%	13.76%	13.76%	14.56%	13.11%	13.94%	13.16%	13.16%	13.27%	13.35%	13.37%	14.08%	14.77%	14.41%
University of British Columbia	8.30%	8.20%	8.53%	8.63%	8.35%	8.14%	8.84%	9.30%	9.76%	9.47%	9.43%	9.34%	8.96%	9.05%	8.25%
McGill University	8.00%	8.24%	8.09%	8.45%	8.25%	7.74%	8.30%	8.29%	8.15%	8.46%	8.54%	8.32%	8.70%	8.40%	8.47%
Université de Montréal	7.77%	7.83%	7.39%	7.25%	7.35%	6.30%	7.11%	6.93%	7.02%	6.59%	6.64%	6.38%	6.46%	6.30%	6.72%
University of Alberta	6.56%	6.56%	6.32%	5.69%	5.60%	5.11%	5.44%	4.98%	5.13%	5.10%	5.05%	5.15%	5.31%	5.20%	5.13%
Université Laval	5.05%	5.29%	5.49%	5.31%	5.11%	4.54%	4.80%	4.95%	4.90%	4.91%	4.75%	4.57%	4.34%	5.14%	4.63%
McMaster University	3.77%	3.60%	3.51%	3.98%	3.89%	3.78%	4.13%	4.30%	4.16%	4.22%	4.50%	4.87%	4.65%	4.46%	4.64%
University of Ottawa	3.98%	3.77%	3.88%	3.99%	4.09%	3.68%	4.11%	4.61%	4.56%	4.27%	4.41%	4.02%	4.07%	4.01%	3.68%
University of Calgary	4.14%	4.08%	3.94%	3.72%	3.46%	3.09%	3.47%	3.49%	3.45%	3.41%	3.32%	2.90%	3.01%	3.04%	3.32%
University of Western Ontario	3.63%	3.86%	3.58%	3.64%	3.52%	3.21%	3.24%	3.16%	3.05%	3.09%	3.04%	3.07%	3.24%	3.28%	3.59%
Queen's University	3.43%	3.27%	3.09%	3.29%	3.42%	2.98%	2.89%	2.78%	2.74%	2.61%	2.83%	2.77%	2.71%	2.62%	2.70%
University of Waterloo	2.50%	2.56%	2.59%	2.62%	2.67%	2.62%	2.66%	2.78%	2.78%	2.80%	2.99%	3.08%	3.24%	2.76%	3.21%
Dalhousie University	2.51%	2.27%	2.25%	2.14%	2.26%	2.14%	2.13%	2.42%	2.31%	2.62%	2.66%	2.51%	2.49%	2.16%	2.25%
University of Manitoba	2.69%	2.65%	2.62%	2.52%	2.52%	2.40%	2.41%	2.23%	1.96%	1.93%	1.96%	2.18%	2.14%	2.07%	2.02%
University of Saskatchewan	1.56%	1.74%	2.22%	2.28%	2.29%	2.13%	2.23%	2.52%	2.37%	2.43%	2.55%	1.88%	1.86%	2.23%	2.38%

Total CIHR funding for the past 15 years (includes career awards, grants, NCEs, CRCs, excludes Scholarships)

FactPayment(Agency) CIHR

Sum of Amt	Column Labels														
Row Labels	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
N	8.38%	9.03%	9.77%	9.59%	9.62%	16.99%	10.29%	10.25%	11.10%	11.02%	11.14%	12.60%	11.84%	12.27%	12.62%
U15	91.62%	90.97%	90.23%	90.41%	90.38%	83.01%	89.71%	89.75%	88.90%	88.98%	88.86%	87.40%	88.16%	87.73%	87.38%
University of Toronto	21.00%	20.49%	20.24%	20.33%	21.90%	19.96%	21.37%	19.65%	19.95%	20.17%	20.39%	19.81%	20.93%	22.30%	22.00%
McGill University	12.01%	12.15%	11.65%	12.25%	11.93%	11.41%	12.01%	11.79%	11.66%	12.03%	11.77%	11.56%	12.24%	11.73%	12.17%
University of British Columbia	9.71%	9.48%	10.47%	10.33%	9.92%	9.48%	10.49%	10.79%	11.73%	11.69%	11.48%	11.30%	11.16%	10.20%	9.52%
Université de Montréal	9.06%	9.17%	8.64%	8.62%	8.71%	7.61%	9.06%	8.81%	9.12%	8.75%	8.70%	7.99%	8.28%	8.14%	8.07%
McMaster University	4.40%	3.94%	3.86%	4.63%	4.60%	4.82%	5.51%	6.17%	5.57%	5.54%	6.02%	6.70%	5.96%	6.16%	6.73%
University of Ottawa	5.53%	5.02%	5.15%	5.42%	5.58%	4.86%	5.56%	6.17%	5.87%	5.76%	6.03%	5.31%	5.37%	5.16%	4.42%
University of Alberta	6.46%	6.55%	6.33%	5.71%	5.64%	5.14%	5.46%	4.98%	4.97%	4.93%	4.80%	5.00%	5.01%	4.64%	4.33%
Université Laval	4.31%	4.87%	5.20%	4.98%	4.60%	4.13%	4.47%	4.70%	4.44%	4.55%	4.88%	4.68%	4.31%	5.33%	4.92%
University of Calgary	5.38%	5.31%	5.08%	4.69%	4.27%	3.64%	4.05%	3.99%	3.61%	3.48%	3.28%	3.15%	3.25%	3.48%	3.74%
University of Western Ontario	4.33%	4.71%	4.42%	4.46%	4.32%	3.75%	3.70%	3.60%	3.58%	3.79%	3.46%	3.49%	3.55%	3.44%	4.01%
University of Manitoba	3.08%	2.97%	2.91%	2.76%	2.66%	2.43%	2.41%	2.45%	2.10%	1.98%	1.87%	2.36%	2.39%	2.20%	2.25%
Dalhousie University	2.55%	2.39%	2.35%	2.24%	2.28%	2.17%	2.11%	2.93%	2.70%	2.91%	2.46%	2.03%	2.07%	1.64%	1.44%
Queen's University	2.44%	2.39%	2.41%	2.39%	2.45%	2.10%	1.97%	1.94%	1.98%	1.84%	2.04%	2.32%	1.98%	1.80%	1.79%
University of Saskatchewan	1.11%	1.20%	1.20%	1.25%	1.19%	1.02%	0.96%	1.21%	1.06%	0.92%	0.93%	0.96%	0.92%	1.01%	1.45%
University of Waterloo	0.25%	0.32%	0.33%	0.33%	0.33%	0.48%	0.56%	0.57%	0.57%	0.66%	0.76%	0.76%	0.72%	0.49%	0.53%

Total NSERC funding for the past 15 years (includes career awards, grants, NCEs, CRCs, excludes Scholarships, except for CREATEs which are included)

FactPayment(Agency)		NSERC														
Sum of Amt	Column Labels															
Row Labels	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	
N	31.73%	31.37%	31.34%	31.05%	30.94%	35.82%	34.05%	33.43%	33.46%	33.89%	31.77%	33.67%	32.73%	31.78%	31.80%	
U15	68.27%	68.63%	68.66%	68.95%	69.06%	64.18%	65.95%	66.57%	66.54%	66.11%	68.23%	66.33%	67.27%	68.22%	68.20%	
University of Toronto	8.61%	8.23%	8.26%	8.25%	8.60%	7.64%	7.51%	7.78%	7.43%	7.71%	7.77%	8.32%	8.72%	9.10%	8.74%	
University of British Columbia	7.11%	7.06%	6.90%	7.33%	7.19%	7.34%	7.79%	8.28%	8.37%	7.68%	7.85%	7.85%	7.25%	8.43%	7.27%	
University of Alberta	6.66%	6.60%	6.41%	5.77%	5.72%	5.38%	5.70%	5.18%	5.58%	5.59%	5.75%	5.86%	6.09%	6.17%	6.39%	
McGill University	4.99%	5.31%	5.40%	5.57%	5.32%	4.81%	5.28%	5.64%	5.43%	5.75%	6.19%	5.84%	5.85%	5.48%	5.21%	
Université de Montréal	6.36%	6.46%	6.24%	5.93%	6.11%	5.15%	5.34%	5.28%	5.14%	4.72%	4.85%	5.03%	4.90%	4.77%	5.52%	
University of Waterloo	5.04%	5.16%	5.17%	5.29%	5.37%	5.10%	4.97%	5.11%	5.11%	4.98%	5.27%	5.43%	5.83%	5.13%	5.99%	
Université Laval	5.57%	5.77%	5.90%	5.88%	5.70%	5.03%	5.08%	5.22%	5.42%	5.40%	4.78%	4.50%	4.42%	5.17%	4.50%	
Queen's University	4.74%	4.38%	3.98%	4.50%	4.66%	4.21%	4.02%	3.78%	3.59%	3.44%	3.74%	3.42%	3.55%	3.39%	3.74%	
University of Saskatchewan	2.10%	2.44%	3.60%	3.64%	3.78%	3.66%	3.86%	4.17%	3.96%	4.21%	4.44%	2.86%	2.82%	3.56%	3.42%	
McMaster University	3.37%	3.65%	3.50%	3.78%	3.50%	3.19%	3.25%	3.02%	3.25%	3.45%	3.55%	3.63%	3.84%	3.27%	3.18%	
University of Calgary	3.41%	3.33%	3.29%	3.19%	3.07%	2.90%	3.19%	3.36%	3.62%	3.62%	3.67%	3.01%	3.11%	2.98%	3.27%	
University of Western Ontario	2.82%	2.91%	2.61%	2.74%	2.62%	2.50%	2.64%	2.61%	2.48%	2.43%	2.60%	2.69%	3.09%	3.29%	3.38%	
University of Ottawa	2.11%	2.25%	2.34%	2.32%	2.33%	2.34%	2.49%	2.98%	3.15%	2.60%	2.69%	2.63%	2.69%	2.93%	2.94%	
Dalhousie University	2.80%	2.46%	2.49%	2.33%	2.55%	2.36%	2.29%	2.10%	2.11%	2.54%	3.03%	3.20%	3.13%	2.52%	2.82%	
University of Manitoba	2.58%	2.62%	2.56%	2.44%	2.55%	2.56%	2.55%	2.06%	1.91%	1.99%	2.04%	2.07%	1.99%	2.03%	1.83%	

Total SSHRC funding for the past 15 years (includes career awards, grants, NCEs, CRCs, excludes Scholarships)

FactPayment(Agency)		SSHRC														
Sum of Amt	Column Labels															
Row Labels	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	
N	36.59%	36.96%	38.87%	40.07%	40.23%	48.79%	42.52%	41.51%	42.74%	41.87%	42.57%	43.49%	42.09%	42.73%	40.50%	
U15	63.41%	63.04%	61.13%	59.93%	59.77%	51.21%	57.48%	58.49%	57.26%	58.13%	57.43%	56.51%	57.91%	57.27%	59.50%	
University of Toronto	10.33%	10.71%	9.91%	9.67%	9.15%	7.39%	9.05%	8.89%	8.82%	8.80%	8.42%	8.74%	9.27%	8.40%	8.61%	
University of British Columbia	7.24%	7.55%	7.31%	7.14%	6.82%	6.06%	6.31%	7.51%	7.37%	8.08%	7.81%	7.72%	7.39%	7.06%	7.46%	
Université de Montréal	8.03%	7.82%	6.99%	6.97%	6.83%	5.59%	6.15%	6.05%	6.07%	5.72%	5.80%	5.54%	5.70%	5.32%	6.42%	
McGill University	3.54%	4.30%	4.83%	5.03%	5.35%	4.68%	5.13%	5.00%	4.89%	5.43%	5.49%	5.75%	6.55%	7.17%	7.52%	
Université Laval	5.98%	5.14%	5.12%	4.56%	4.85%	4.32%	5.02%	4.86%	4.70%	4.37%	4.18%	4.38%	4.12%	4.25%	4.07%	
University of Ottawa	4.99%	4.61%	4.72%	4.72%	4.90%	3.99%	4.50%	4.87%	4.98%	5.20%	5.06%	4.59%	4.54%	3.84%	3.86%	
University of Alberta	6.59%	6.43%	6.01%	5.34%	5.02%	4.07%	4.37%	4.17%	3.97%	3.81%	3.16%	2.93%	3.37%	3.51%	3.13%	
University of Western Ontario	3.92%	4.11%	3.98%	3.86%	3.83%	3.70%	3.70%	3.60%	3.21%	3.09%	3.17%	3.00%	2.67%	2.62%	2.90%	
McMaster University	2.81%	2.22%	2.25%	2.44%	2.68%	2.11%	2.06%	2.07%	2.13%	2.22%	2.43%	2.76%	2.85%	2.65%	2.61%	
Queen's University	2.28%	2.49%	2.41%	2.29%	2.57%	1.92%	2.20%	2.20%	2.38%	2.28%	2.20%	1.88%	2.16%	2.70%	1.98%	
University of Waterloo	1.74%	1.45%	1.59%	1.48%	1.64%	1.75%	2.17%	2.26%	2.31%	2.38%	2.47%	2.62%	2.59%	2.04%	2.19%	
University of Calgary	1.97%	2.20%	2.16%	2.13%	1.93%	1.78%	2.29%	2.07%	2.13%	2.31%	2.08%	1.49%	1.77%	1.62%	2.02%	
University of Manitoba	1.52%	1.59%	1.80%	1.92%	1.96%	1.76%	1.84%	2.06%	1.56%	1.47%	1.97%	1.95%	1.80%	1.75%	1.97%	
Dalhousie University	1.17%	1.17%	1.03%	1.16%	1.16%	1.26%	1.63%	1.72%	1.54%	1.82%	1.93%	1.64%	1.54%	2.68%	2.99%	
University of Saskatchewan	1.30%	1.24%	1.01%	1.21%	1.08%	0.85%	1.07%	1.16%	1.18%	1.15%	1.28%	1.52%	1.59%	1.65%	1.75%	

Total Tri-Agency funding for the past 15 years (includes career awards, grants, NCEs, CRCs, excludes Scholarships, except for CREATES which are included)

FactPayment(Agency)	(All)															Yearly growth (NOT ADJUSTED FOR INFLATION)																													
Sum of Amt	Column Labels															2003-2004 2004-2005 2005-2006 2006-2007 2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 2016-2017															2003-2004 2004-2005 2005-2006 2006-2007 2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 2016-2017 average														
Row Labels	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	average															
N	\$262,186,275	\$300,359,222	\$341,340,464	\$367,858,075	\$383,892,512	\$466,908,044	\$465,204,834	\$460,488,642	\$482,513,748	\$491,843,758	\$473,664,122	\$506,315,950	\$500,518,673	\$512,884,793	\$554,906,877	15%	14%	8%	4%	48%	-18%	-1%	5%	2%	-4%	7%	-1%	2%	8%	6%															
U15	\$945,025,490	\$1,060,390,901	\$1,159,977,399	\$1,249,817,905	\$1,310,873,602	\$1,390,349,202	\$1,486,130,617	\$1,450,004,469	\$1,486,160,701	\$1,491,445,825	\$1,500,154,889	\$1,470,737,563	\$1,522,251,713	\$1,577,940,156	\$1,701,600,298	12%	9%	8%	5%	6%	4%	0%	2%	0%	1%	-2%	4%	4%	8%	4%															
University of Toronto	\$173,891,799	\$190,508,247	\$206,544,410	\$222,554,424	\$246,809,584	\$256,891,096	\$266,826,821	\$251,330,782	\$259,086,616	\$263,226,565	\$263,431,669	\$264,295,474	\$284,781,057	\$308,787,413	\$325,206,867	10%	8%	8%	11%	4%	4%	-6%	3%	2%	0%	0%	8%	5%	5%	5%															
University of British Columbia	\$100,422,242	\$111,512,720	\$120,065,691	\$139,373,234	\$149,588,370	\$159,429,941	\$169,245,430	\$177,717,786	\$192,126,114	\$187,105,549	\$186,252,248	\$184,621,109	\$181,260,995	\$189,121,951	\$186,267,961	11%	9%	10%	12%	11%	11%	1%	2%	-3%	-1%	1%	2%	5%	2%	5%															
McGill University	\$96,615,716	\$112,106,767	\$121,500,682	\$136,645,444	\$159,898,709	\$151,688,850	\$158,900,990	\$160,423,310	\$167,708,870	\$168,566,611	\$164,450,543	\$175,537,230	\$176,077,142	\$191,049,923	\$201,049,923	16%	8%	12%	2%	8%	5%	0%	1%	5%	0%	1%	-2%	7%	0%	9%	5%														
Université de Montréal	\$93,750,154	\$106,575,965	\$111,000,546	\$117,272,239	\$124,591,401	\$123,492,560	\$136,135,686	\$132,422,503	\$138,126,156	\$130,687,046	\$131,015,486	\$126,068,427	\$130,625,031	\$131,722,295	\$151,651,798	14%	4%	6%	6%	-1%	10%	-3%	4%	-5%	0%	-4%	4%	1%	15%	4%															
University of Alberta	\$79,190,939	\$89,261,538	\$94,933,655	\$92,033,496	\$94,869,095	\$100,046,367	\$104,189,291	\$95,069,871	\$100,964,036	\$101,205,685	\$99,609,700	\$102,484,969	\$107,423,958	\$108,753,663	\$115,695,618	13%	6%	-3%	3%	5%	4%	-10%	-7%	6%	0%	-2%	2%	5%	1%	6%	3%														
University of Laval	\$60,916,635	\$72,037,766	\$82,438,161	\$85,972,967	\$88,551,961	\$88,925,017	\$91,849,346	\$94,520,687	\$96,557,894	\$97,465,567	\$93,853,720	\$90,284,379	\$87,757,216	\$107,374,738	\$104,500,970	8%	14%	4%	1%	3%	3%	2%	1%	-4%	-4%	-3%	22%	-3%	4%																
McMaster University	\$45,507,622	\$49,038,430	\$52,642,456	\$64,408,593	\$65,909,618	\$74,115,349	\$79,093,106	\$82,201,227	\$81,885,732	\$83,747,276	\$88,841,682	\$96,244,567	\$93,961,067	\$93,218,270	\$104,619,957	18%	7%	22%	2%	12%	7%	4%	2%	6%	8%	-2%	-1%	12%	6%																
University of Ottawa	\$48,015,848	\$51,325,574	\$58,247,570	\$64,564,084	\$69,312,447	\$72,015,460	\$76,622,224	\$88,046,237	\$89,804,423	\$84,652,750	\$87,406,296	\$79,439,165	\$82,237,293	\$83,756,889	\$83,088,997	7%	13%	11%	7%	4%	9%	12%	2%	-6%	3%	-4%	2%	-1%	4%																
University of Calgary	\$49,972,937	\$55,540,053	\$59,199,570	\$60,468,290	\$66,531,713	\$66,630,477	\$66,516,584	\$68,711,200	\$67,916,584	\$60,927,057	\$65,487,927	\$67,567,804	\$66,931,677	\$65,646,676	\$74,944,554	11%	7%	2%	-2%	3%	10%	0%	2%	0%	-3%	-13%	6%	4%	18%	3%															
University of Western Ontario	\$43,772,026	\$52,526,435	\$53,733,123	\$58,901,511	\$59,698,211	\$62,842,810	\$61,994,701	\$60,435,355	\$60,057,388	\$61,381,662	\$59,952,285	\$60,748,165	\$65,608,892	\$68,553,449	\$81,059,151	20%	2%	10%	1%	5%	-1%	-3%	1%	2%	-2%	1%	8%	4%	18%	5%															
Queen's University	\$41,355,979	\$44,438,405	\$46,404,812	\$53,221,186	\$57,918,846	\$58,437,279	\$55,321,395	\$53,168,841	\$53,889,315	\$51,800,109	\$55,816,678	\$54,697,154	\$54,724,741	\$54,702,189	\$60,952,210	7%	4%	15%	9%	1%	-5%	-4%	1%	-4%	8%	-2%	0%	11%	3%																
University of Waterloo	\$30,235,544	\$34,777,837	\$38,844,358	\$42,381,999	\$45,239,373	\$51,272,337	\$50,952,301	\$53,018,093	\$54,735,454	\$55,601,353	\$58,959,881	\$60,830,879	\$65,570,238	\$57,701,261	\$72,412,919	15%	12%	9%	7%	13%	-1%	4%	3%	2%	6%	3%	8%	-12%	25%	7%															
Dalhousie University	\$30,245,659	\$30,921,912	\$33,743,880	\$34,644,882	\$38,234,723	\$41,888,555	\$40,842,557	\$46,322,592	\$45,479,296	\$52,027,718	\$52,452,909	\$49,611,811	\$50,356,483	\$45,104,552	\$50,755,211	2%	9%	3%	10%	10%	13%	-2%	-14%	-2%	-14%	1%	-5%	2%	-10%	13%	4%														
University of Manitoba	\$32,441,411	\$36,094,011	\$39,343,896	\$40,699,502	\$42,782,174	\$47,101,567	\$46,100,560	\$42,570,560	\$38,545,801	\$38,206,576	\$38,641,270	\$43,163,255	\$43,345,852	\$43,584,801	\$45,686,508	11%	9%	3%	5%	10%	-2%	-8%	-9%	-1%	1%	12%	0%	5%	3%																
University of Saskatchewan	\$18,870,297	\$23,709,062	\$33,334,608	\$36,817,582	\$38,836,837	\$41,734,838	\$42,766,662	\$48,077,422	\$46,562,743	\$48,239,869	\$50,426,517	\$37,169,862	\$37,550,671	\$46,613,690	\$52,707,045	26%	41%	10%	5%	7%	2%	12%	-3%	4%	5%	-26%	1%	24%	15%	9%															
Grand Total	\$1,207,211,764	\$1,360,750,122	\$1,501,317,863	\$1,617,675,950	\$1,699,275,180	\$1,999,275,246	\$1,914,575,451	\$1,940,493,110	\$1,968,674,449	\$1,983,289,859	\$1,973,819,011	\$1,977,053,513	\$2,022,770,386	\$2,126,833,948	\$2,567,507,176	13%	10%	8%	5%	16%	-2%	0%	3%	1%	0%	2%	3%	8%	5%																
CANSIM CPI	102.8	104.7	107	109.1	111.5	114.1	114.4	116.5	119.9	121.7	122.8	125.2	126.6	128.4	130.4	YEARLY GROWTH ADJUSTED FOR INFLATION	11%	8%	6%	3%	13%	-3%	-2%	0%	-1%	-1%	-2%	1%	2%	6%	3%														
Adjusted total	\$1,174,330,510	\$1,299,665,828	\$1,403,100,806	\$1,482,746,086	\$1,519,969,609	\$1,717,140,443	\$1,673,579,940	\$1,639,908,249	\$1,641,930,316	\$1,629,654,544	\$1,607,344,711	\$1,579,116,224	\$1,597,764,918	\$1,628,375,349	\$1,730,450,288	47%																													

Total CIHR funding for the past 15 years (includes career awards, grants, NCEs, CRCs, excludes Scholarships)

FactPayment(Agency)	(CIHR)															Yearly growth (NOT ADJUSTED FOR INFLATION)																													
Sum of Amt	Column Labels															2003-2004 2004-2005 2005-2006 2006-2007 2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 2016-2017															2003-2004 2004-2005 2005-2006 2006-2007 2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016 2016-2017 average														
Row Labels	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	average															
N	\$45,712,313	\$54,855,926	\$64,875,759	\$68,405,356	\$72,245,934	\$148,740,600	\$88,864,236	\$86,584,512	\$97,438,357	\$95,383,882	\$95,785,730	\$108,476,151	\$103,883,618	\$111,743,723	\$122,111,047	20%	18%	5%	6%	106%	-40%	-3%	13%	-2%	0%	13%	-4%	8%	9%	11%															
U15	\$499,889,854	\$552,540,388	\$598,899,808	\$644,644,844	\$676,687,685	\$726,719,877	\$774,617,779	\$758,441,717	\$780,191,960	\$770,158,670	\$764,413,287	\$752,595,519	\$773,435,860	\$798,710,027	\$845,375,726	11%	8%	8%	5%	7%	7%	-2%	3%	-1%	-1%	-2%	3%	6%	4%																
University of Toronto	\$114,585,339	\$124,480,630	\$134,320,325	\$144,970,099	\$164,466,005	\$174,709,405	\$184,544,509	\$166,031,370	\$175,045,274	\$174,599,704	\$170,538,746	\$175,426,746	\$173,833,516	\$183,628,746	\$203,021,088	9%	8%	8%	13%	6%	6%	10%	-5%	0%	0%	-3%	8%	11%	5%	5%															
McGill University	\$65,843,956	\$73,773,447	\$77,312,908	\$87,397,125	\$99,669,249	\$99,905,813	\$103,725,406	\$99,669,660	\$102,315,748	\$104,446,964	\$101,210,470	\$107,400,297	\$107,414,717	\$106,865,042	\$117,795,136	13%	5%	15%	3%	11%	4%	-4%	3%	-2%	-3%	-2%	1%	10%	4%																
University of British Columbia	\$53,024,144	\$59,433,765	\$61,496,130	\$61,496,390	\$65,405,054	\$66,625,411	\$78,247,868	\$74,480,154	\$80,050,576	\$75,693,792	\$74,877,371	\$72,660,841	\$74,122,973	\$78,093,414	\$83,375,136	13%	3%	7%	6%	2%	17%	-5%	7%	-5%	-1%	-8%	6%	2%	5%	4%															
McMaster University	\$23,984,564	\$23,907,086	\$25,622,165	\$33,009,504	\$34,574,465	\$42,217,869	\$47,557,992	\$52,104,547	\$48,847,339	\$47,922,531	\$51,761,006	\$57,694,323	\$52,298,385	\$56,099,487	\$65,149,655	0%	7%	29%	5%	22%	13%	10%	-6%	-2%	8%	11%	-9%	7%	16%	8%															
University of Ottawa	\$30,235,544	\$34,777,837	\$38,844,358	\$42,381,999	\$45,239,373	\$51,272,337	\$50,952,301	\$53,018,093	\$54,735,454	\$55,601,353	\$58,959,881	\$60,830,879	\$65,570,238	\$57,701,261	\$72,412,919	1%	12%	13%	8%	2%	13%	9%	-1%	-3%	4%	-12%	3%	0%	-9%	3%															
University of Alberta	\$35,224,828	\$39,799,926	\$41,995,577	\$40,715,687	\$42,350,247	\$44,969,087	\$47,180,095	\$42,115,015	\$43,586,131	\$42,648,137	\$41,319,302	\$40,040,937	\$43,958,920	\$42,212,032	\$41,922,127	13%	6%	-3%	4%	6%	5%	-11%	3%	-2%	-3%	4%	2%	-4%	-1%	1%															
Université de Montréal	\$23,488,986	\$29,598,802	\$34,506,466	\$35,524,395	\$34,562,996	\$36,174,557	\$38,619,019	\$38,678,034	\$38,930,571	\$39,369,543	\$41,981,810	\$40,313,607																																	

University of Waterloo	\$2,347,439	\$2,378,886	\$2,958,066	\$3,050,036	\$3,464,940	\$4,310,765	\$4,734,320	\$4,967,000	\$4,975,380	\$5,262,922	\$5,490,299	\$5,880,470	\$6,024,259	\$4,841,844	\$5,787,645	1%	24%	3%	14%	24%	10%	5%	0%	6%	4%	7%	2%	-20%	20%	7%
University of Calgary	\$2,663,938	\$3,604,378	\$4,021,666	\$4,388,893	\$4,074,499	\$4,387,729	\$4,996,683	\$4,533,379	\$4,596,163	\$5,123,064	\$4,621,319	\$3,351,317	\$4,104,920	\$3,857,440	\$5,320,159	35%	12%	9%	-7%	8%	14%	-9%	1%	11%	-10%	-27%	22%	-6%	38%	7%
University of Manitoba	\$2,052,377	\$2,602,033	\$3,338,623	\$3,946,673	\$4,143,053	\$4,351,634	\$4,027,940	\$4,507,355	\$3,369,663	\$3,266,132	\$4,387,555	\$4,374,083	\$4,190,380	\$4,167,408	\$5,183,724	27%	28%	18%	5%	5%	-7%	12%	-25%	-3%	34%	0%	-4%	-1%	24%	8%
Dalhousie University	\$1,584,827	\$1,912,775	\$1,921,472	\$2,384,647	\$2,443,582	\$3,100,375	\$3,562,010	\$3,770,808	\$3,322,162	\$4,042,697	\$4,304,526	\$3,685,414	\$3,572,986	\$6,379,979	\$7,888,243	21%	0%	24%	2%	27%	15%	6%	-12%	22%	6%	-14%	-3%	79%	24%	14%
University of Saskatchewan	\$1,761,997	\$2,027,347	\$1,884,896	\$2,492,529	\$2,271,841	\$2,094,917	\$2,340,454	\$2,538,521	\$2,536,006	\$2,540,343	\$2,860,226	\$3,407,762	\$3,699,879	\$3,932,986	\$4,613,010	15%	-7%	32%	-9%	-8%	12%	8%	0%	0%	13%	19%	9%	6%	17%	8%
Grand Total	\$135,208,532	\$163,516,517	\$185,844,006	\$205,711,868	\$211,211,548	\$246,580,110	\$218,610,635	\$219,315,205	\$215,447,729	\$221,573,239	\$222,601,596	\$224,753,939	\$232,364,218	\$237,781,198	\$263,702,201	21%	14%	11%	3%	17%	-11%	0%	-2%	3%	0%	1%	3%	2%	11%	5%

McGill Voluntary Departures January 1, 2003 to April 17, 2018
**Excludes deceased, terminations, failure to achieve
tenure/reappointment or to retirement**
Report date: April 17, 2018

Year	Departures
2003	44
2004	16
2005	17
2006	34
2007	22
2008	38
2009	20
2010	17
2011	25
2012	35
2013	24
2014	34
2015	32
2016	28
2017	30
2018	2