498th REPORT OF THE ACADEMIC POLICY COMMITTEE TO SENATE
on the APC meeting held on April 16th, 2020

I. TO BE APPROVED BY SENATE

(A) NEW TEACHING PROGRAMS REQUIRING SENATE APPROVAL

Graduate and Postdoctoral Studies
Faculty of Medicine
Ph.D. in Health Sciences Education (0 cr.) – *appendix A*
At a meeting on April 16th, 2020, APC reviewed and approved a proposal from the Institute of Health Sciences Education to create a new doctoral program. The field of Health Sciences Education has known a steady growth over the past few years, which has led to an increasing demand for graduate education in the field. The proposed Ph.D. in Health Sciences Education will fit perfectly within the newly created Institute of Health Sciences Education, whose purpose is to advance research in the field and foster a community of researchers and experts. It will be a great opportunity for McGill University to position itself as a leader in the delivery of formal research training in Health Sciences Education.

Be it resolved that Senate approve the creation of the proposed Ph.D. in Health Sciences Education, with the understanding that the proposal will go through the external approval process and be submitted to the Bureau de Coopération Interuniversitaire (BCI) and the Ministry of Education (MEES).

School of Continuing Studies
Professional Development Certificate in Cloud Computing (33 CEUs) – *appendix B*
At a meeting on April 16th, 2020, APC reviewed and approved a proposal from the School of Continuing Studies to create a new Professional Development Certificate in Cloud Computing. Despite the rapid growth of public cloud services, there is currently a lack of cloud computing expertise within the IT workforce. This program will allow IT professionals to update their skills and to adapt to the rapidly evolving emerging technologies.

Be it resolved that Senate approve the creation of the proposed Professional Development Certificate in Cloud Computing.

Graduate Diploma in Legal Translation (30 cr.) – *appendix C*
At a meeting on April 16th, 2020, APC reviewed and approved a proposal from the School of Continuing Studies to create a new Graduate Diploma in Legal Translation. While the need for qualified translators keeps increasing in Canada's bilingual legal framework, there are very few training programs in legal translation across the country. To address this need, the School of Continuing Studies launched a Graduate Certificate in Legal Translation (15 cr.) in 2017. To respond to the need for a longer and more in depth training, the School of Continuing Studies is now transforming this existing Graduate Certificate into a Graduate Diploma in Legal Translation (30 cr.), which will offer a more robust training, thanks to additional translation courses, and will be offered online to be accessible to even more candidates across Canada.

Be it resolved that Senate approve the creation of the proposed Graduate Diploma in Legal Translation.

(B) ACADEMIC PERFORMANCE ISSUES / POLICIES / GOVERNANCE/AWARDS – *none*

(C) CREATION OF NEW UNITS / NAME CHANGES / REPORTING CHANGES - *none*

(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 Arts

Ph.D. in Philosophy; Teaching Philosophy (0 cr.)

On April 16th, 2020, APC reviewed and approved a proposal from the Faculty of Arts to create a new concentration in Teaching Philosophy within the existing Ph.D. in Philosophy. The role of teacher has gained more and more importance in the discipline over the past few years, and this new concentration will address this new concern by providing students with formal pedagogical training, therefore enhancing their profile on the academic job market. The Faculty of Arts also expects that this new concentration will render the program more attractive for prospective students.

ii. Major Revisions of Existing Programs- *none*

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 January 23rd, 2020 and reported to APC on April 16th, 2020

Faculty of Agricultural and Environmental Sciences
B.Sc.; Major in Environment; Water Environments and Ecosystems – Biological (60 cr.)
B.Sc.(Ag.Env.Sc); Major in Environment; Water Environments and Ecosystems – Biological (60 cr.)
B.Sc.(Ag.Env.Sc); Major in Environment; Water Environments and Ecosystems – Physical (63 cr.)
B.Sc.; Major in Environment; Water Environments and Ecosystems – Physical (63 cr.)
B.Sc.; Major in Environment; Land Surface Processes and Environmental Change (63 cr.)
B.Sc.(Ag.Env.Sc); Major in Environment; Land Surface Processes and Environmental Change (63 cr.)

Approved by SCTP on February 6th, 2020 and reported to APC on April 16th, 2020
Faculty of Arts
B.A.; Major Concentration in Classics (36 cr.)

Graduate and Postdoctoral Studies
Faculty of Arts
M.A. in Economics; Non-Thesis (45 cr.)

Faculty of Science
B.Sc. Honours in Microbiology and Immunology (72 cr.)

Approved by SCTP on March 12th, 2020 and reported to APC on April 16th, 2020
Faculty of Arts
B.A.; Minor Concentration in Science for Arts Students (18 cr.)

Graduate and Postdoctoral Studies
Faculty of Medicine
M.Sc. in Pharmacology (45 cr.)
M.Sc. in Pharmacology; Environmental Health Sciences (45 cr.)
Ph.D. in Pharmacology (0 cr.)
Ph.D. in Pharmacology; Environmental Health Sciences (0 cr.)

Faculty of Law
B.C.L./J.D. (105 cr.)
B.C.L./J.D.; Honours in Law (120 cr.)
B.C.L./J.D. with Minor in Law (123 cr.)
B.C.L./J.D. with Major Concentration in International Human Rights and Development (123 cr.)
B.C.L./J.D. with Major Concentration in Commercial Negotiation and Dispute Resolution (123 cr.)

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

ii. Program Retirements
Approved by SCTP on March 12th, 2020 and reported to APC on April 16th, 2020
Graduate and Postdoctoral Studies
Faculty of Science
M.Sc. in Earth and Planetary Sciences; Environment (48 cr.)
Ph.D. in Earth and Planetary Sciences; Environment (0 cr.)

2. Courses

a) New Courses
Reported as having been approved by SCTP January 23rd, 2020:3
Faculty of Medicine: 3

Reported as having been approved by SCTP on February 20th, 2020: 1
Schulich School of Music: 1

Reported as having been approved by SCTP on March 12th, 2020: 26
Faculty of Arts: 4
School of Continuing Studies: 17
Faculty of Law: 1
Faculty of Science: 4

b) Course Revisions
Reported as having been approved by SCTP on January 23rd, 2020: 12
Faculty of Arts: 3
School of Continuing Studies: 7
Interfaculty/ Graduate and Postdoctoral Studies: 1
Faculty of Science: 1

Reported as having been approved by SCTP on February 6th, 2020: 1
Faculty of Medicine: 1

Reported as having been approved by SCTP on February 20th, 2020: 2
Faculty of Arts: 2

Reported as having been approved by SCTP on March 12th, 2020: 31
Faculty of Arts: 1
School of Continuing Studies: 3
Faculty of Engineering: 8
Faculty of Law: 2
Faculty of Medicine: 2
Faculty of Science: 15

c) Course Retirements

Reported as having been approved by SCTP on February 20th, 2020: 4
Faculty of Arts: 4

Reported as having been approved by SCTP on March 12th, 2020: 3
Faculty of Arts: 1
Faculty of Law: 1
Faculty of Science: 1

McGill New Program/Concentration Proposal Form

(2019)

1.0 Degree Title
Please specify the two degrees for concurrent degree programs

Ph.D.

1.1 Major (Subject/Discipline) (30-char. max.)

Health Sciences Education

1.2 Concentration (Option) (30 char. max.)

1.3 Complete Program Title (info from boxes 1.0+1.1+1.2+5.2)

PhD; Health Sciences Education

2.0 Administering Faculty or GPS

Graduate and Postdoctoral Studies (GPS)

Offering Faculty & Department

Faculty of Medicine / Institute of Health Sciences Education

3.0 Effective Term of Implementation
(Ex. Sept. 2019 or 201909)
Term

202209

4.0 Rationale and Admission Requirements for New Program/Concentration

McGill University currently has PhD programs in the clinical sciences and the social sciences, and in education, which touch upon aspects of Health Sciences Education (HSE). However, the intellectual needs of the inter-professional contexts of HSE, and the inter-disciplinary understanding required for HSE research, are not met in these research programs. To fill this unmet need, this proposal is for the establishment of a PhD in Health Sciences Education, delivered through the newly-created Institute of Health Sciences Education (IHSE), Faculty of Medicine. Admission requirements: Candidates will require a Master's degree in a relevant field, or under particular circumstances, a high quality undergraduate degree. (This is elaborated upon in the executive summary).

5.0 Program Information
Indicate an "x" as appropriate

5.1 **Program Type**

- Bachelor's Program
- Master's
- M.Sc.(Applied) Program
- Dual Degree/Concurrent Program
- Certificate
- Diploma
- Graduate Certificate
- Graduate Diploma
- Professional Development Cert
- X Ph.D. Program
- Doctorate Program (Other than Ph.D.)
- Self-Funded/Private Program
- Off-Campus Program
- Distance Education Program
- 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
- X Thesis (T)
- Non-Thesis (N)
- Other
- Please specify

5.3 **Level**

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

5.4 **Requires Centrally-Funded Resources**

Yes _X_ No ___

6.0 Total Credits or CEUs (if latter, indicate "CEUs" in box)

0

7.0 Consultation with

Related Units	X	Yes	No
Financial Consult	X *	Yes	No

Attach list of consultations.
*Consulted with PWG and APB

8.0 Program Description (Maximum 150 words)

The Ph.D. in Health Sciences Education focuses on research training, including investigation into issues related to healthcare, health professions education, and health policy education in the biomedical and health social sciences.

9.0 List of proposed new Program/Concentration

If new concentration (option) of existing program, a program layout (list of all courses) of existing program **must** be attached.

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

Ph.D. in Health Sciences Education (0 credits)

Required Courses (9 credits)
HSED 701 PhD Comprehensive Examination (0 credits)
HSED 702D1/D2 Advanced Topics in Health Sciences Education (6 credits)
HSED 703 Research Design for Health Sciences Education (3 credits)

Complementary Course (3 credits)
3 credits from the following:

Psychiatry
PSYT 625 Qualitative Research in Health Care (3 credits)

Family Medicine
FMED 509 Epidemiology and Data Analysis in Primary Care 2 (3 credits)
FMED 604 Advanced Participatory Research in Health (3 credits)
FMED 625 Qualitative Health Research (3 credits)
FMED 690 Advanced Ethnography: Context, Complexity and Coordination (3 credits)

Epidemiology
EPIB 628 Measurement in Epidemiology (3 credits)

Nursing
NUR2 702 Quantitative Research (3 credits)
NUR2 706 Qualitative Nursing Research (3 credits)

Management
MGPO 701 Seminar in Qualitative Methods (3 credits)

Education
EDEC 707 Interpretive Inquiry (3 credits)
EDPE 682 Univariate/Multivariate Analysis (3 credits)
EDPE 687 Qualitative Methods in Educational Psychology (3 credits)

Sociology
SOCI 588 Biosociology/Biodemography (3 credits)

Electives (0-9 credits)
Depending on the student's prior coursework and in consultation with the Supervisor and/or Doctoral Advisory Committee, an additional 0-9 credits of elective courses at the 500 level or higher may be required.

Attach extra page(s) as needed

10.0 Approvals

Routing Sequence	Name	Signature	Meeting Date
Department	Yvonne Steinert		Nov. 4th/19
Curric/Acad Committee	Melissa Vollrath		Nov. 8 2019
Faculty 1	Aimee Ryan		Nov. 8 2019
Faculty 2			
Faculty 3			
CGPS	SCTP APPROVED	CGPS Approval	December 2, 2019
SCTP			JAN. 9, 2020
APC			
Senate			

Submitted by

Name	Leah Moss
Phone	514-265-4529
Email	Leah.moss@mcgill.ca
Submission Date	September 26, 2019

To be completed by ES:

CIP Code

REMINDERS:
*Box 5.4 – Must be completed; see section 6.5.4 within the New Program Guidelines at: https://www.mcgill.ca/sctp/guidelines.
**All new program proposals must be accompanied by a 2-3 page support document.

PhD in Health Sciences Education
Submission from the Institute of Health Sciences Education (IHSE)

Section A: Rationale for the Proposed Program

1. Evolution of the Health Sciences Education discipline - brief history of the field and where it's headed. How the new Graduate program fits within the discipline.

The Field of Health Sciences Education

Health sciences education (HSE) is an emerging field that contributes to the better integration and study of education and health care. The field of HSE focuses on the teaching and learning of future health professionals, basic and social scientists working in areas related to health, and policy makers and other stakeholders involved in health care. HSE research investigates issues related to healthcare, including health professions education, health policy education, and teaching and learning in the bio-medical and health social sciences. The field of HSE has grown in response to changes in health care, changes in instructional delivery, and increasing demands of educators for evidence-informed teaching and learning. HSE research has responded to these changes, consolidating a unique body of inter-disciplinary knowledge spanning from the classroom and laboratory to clinical educational contexts. While the theories and methods that make up this body of knowledge have been drawn from other, related disciplines, they have required substantial modification because of HSE's unique combination of learning in both the classroom and the clinical environment. As a result, distinct methods of instruction and assessment have been developed, leading to the emergence of a distinct knowledge base, which requires further elaboration and scholarship.

What makes HSE research distinctive from the educational sciences are the unique challenges of the health professions educational contexts that demand adaptation of traditional theories and methods from conventional disciplines. The need for adaptation stems from the fact that many of the topics of HSE research arise from clinical practice. For example, there is a strong emphasis on work-based learning in clinical and educational settings. Strong interest among HSE researchers in knowledge translation and knowledge mobilization and exchange further reflects this context-specific learning. The practice fields that give rise to HSE research are also characterized by stage-specific learning, such as from medical school, through residency, to the continuing professional development of physicians. The applied field of HSE also sparks considerable research interest in professionalism in health professions education, and accountability related to accreditation and educational processes.

Education in the field of Health Sciences Education

Education is distinctive in the health sciences on account of the variety of settings of teaching and learning. HSE covers unique intersections of: a spectrum from formal to informal education on the one hand; and a distinction between theoretical and applied education, on the other. This is reflected in the considerable distinctiveness between the teaching and learning contexts of HSE, exemplified as follows. Undergraduate education in health professional programs is often characterized by formal teaching in the "classroom". Laboratory supervision is applied but is external to the setting of frontline healthcare delivery. On-site clinical seminars are relatively formal, but are held in clinical settings and are directly influenced by the immediate context of healthcare delivery. "Bedside teaching" is often informal and applied. "Corridor conversations", daily or weekly medical rounds to each patient, and spontaneous discussions about patient assessment, diagnosis, external

consultations and clinical and organizational pathways, are relatively informal. Being relatively external to direct patient interaction at "the bedside", however, these encounters, and the teaching and learning that accompanies such clinical care delivery supervision, are often theoretical in the sense that they integrate discussion, debates, information and advice about research evidence in making clinical decisions.

Health Sciences Education (HSE) is distinctive from Health Professions Education (HPE). HPE is a sub-set of HSE. HPE refers solely to education in explicit relation to health professionals in a variety of occupations, which includes preparation for professional licensing and practice, and continuing professional development for healthcare professionals, in occupations such as medicine, nursing, physical therapy, occupational therapy, social work, psychology, dietetics, speech language pathology, and others. HSE is broader, encompassing the education of those who work in the health care sector and are invested in the way people deliver optimal health care. This can include policy-makers and basic and social scientists, in addition to professionals directly involved in healthcare delivery. In the taxonomy of this field, then, the distinction between HSE and HPE relates to the scope and individuals involved in the delivery of education. HSE is the meeting place of theory and practice as they overlap in the fields of education and healthcare. This is expressed as design, delivery, assessment of, and contextual and institutional factors influencing, the learning of those working in the healthcare sector. HSE research is the systematic investigation of processes related to HSE.

The field of HSE has seen a significant increase in the quality of research, which advances knowledge production, knowledge translation and application to practice. Examples of the domains of research in HSE include: how health professionals and health educators learn and teach in relation to health care; assessment of learning by health professionals and health educators; evaluation of health educational programs; decision-making in relation to clinical diagnosis and treatment; identity formation of health professionals and health science educators; faculty development; and continuing professional development in health professions education.

In the last 10 years, the field of HSE has grown significantly. [1-5] This growth, marked by a distinct knowledge base related to HSE, has been reflected in a growing number of HSE journals and publications, the creation of designated academic units devoted to HSE scholarship both nationally and internationally, an increasing number of tenure-track positions in the field, and increasing competition for research dollars.

As evidence of the growth in HSE research, the number of Master's programs in HSE worldwide has increased from seven in 1996, to 76 in 2012, and 127 in 2018.[2] In 1980, there were 10 academic HSE journals. In 1990, there were 20, and in 2018, there were 45. Most HSE research is now found in such journals dedicated to the field of medical and health professions education, rather than in general medical, surgical or other clinical health professional journals. Between 2010 and 2018, there was a 23% increase in the number of abstracts submitted to the Canadian Conference on Medical Education (from 535 to 696). [3] Similarly, the Royal College of Physicians and Surgeons of Canada reports an increase in educational grant opportunities and grant funding available for health sciences and health professions education.[4] Tenure-track opportunities in HSE are also increasing, as the field expands and professionalizes. While McGill proudly boasts one of the first tenure-track positions in HSE in Canada, the University of Ottawa recently filled three tenure-track positions in HSE research. During the month of February 2019, at least seven tenure-track openings existed in North America, including ones at the University of Michigan, Uniformed Services University in Washington DC, and the Mayo Institute.

How the Proposed PhD Fits within HSE

McGill University currently has PhD programs in the clinical sciences and the social sciences, including education, that touch upon aspects of HSE. However, these programs do not meet the intellectual needs of the inter-professional contexts of HSE, and the inter-disciplinary understanding required for HSE research. In essence, the authentic environments that give rise to much of HSE research require learning about the ways that knowledge is produced, used, shared, exchanged and translated in complex, diverse and practice-based settings.

In keeping with the research intensive, inter-disciplinary and inter-professional tradition, reputation and mission of McGill University, the proposed PhD program will help realize the ambition of the new McGill Institute of Health Sciences Education (IHSE), which was approved in February 2019, to advance HSE research. The proposed PhD program will provide structured development to the community of HSE researchers that the Institute of Health Sciences Education was developed to foster. This PhD program provides an opportunity for the newly formed Institute of Health Sciences Education, and by extension McGill University, to be a leader in the delivery of formal research training in HSE.

HSE is uniquely inter-disciplinary and inter-professional. HSE researchers have applied various disciplinary perspectives, from the social sciences, such as psychology, anthropology and sociology, as well as from professional fields, such as nursing, dietetics, speech language pathology (SLP), social work, psychology, and medicine. Research training programs in the fields of health sciences and education are no longer adequate for the maturing HSE field. HSE research has grown from being a broad collection of HSE topics, whose researchers borrowed from other disciplines to solve practical problems, to a cohesive body of knowledge focused on discovery-driven science, as well as knowledge in search of solutions to practical problems.

The vast range of stakeholders involved and interacting in the field of HSE fosters a diverse community of practice. The proposed PhD program provides an opportunity for McGill University and its newly-formed Institute of Health Sciences Education to be a leader in the delivery of formal research training in HSE and provide an established forum for a HSE community of practice. The expertise in the HSE community of practice will engage learners in the necessary adaptation of traditional theories and methods, and in the assessment of learning in educational contexts, which is different across laboratories, clinical sites and classrooms. In summary, the proposed PhD program will provide unique theoretical, methodological, and professional knowledge and skills in a growing field, to inform the future work of its graduates, whether they be researchers, university academics, policy-makers, health care professionals or health educational program experts.

Definition of proposed body of knowledge – what skills and understanding will students in the program gain? In what key research areas?

The PhD, via its courses and requirements (elaborated below), will ensure that graduates achieve the following four central competencies: 1) they will be able to independently conduct, lead and appraise peer-reviewed research; 2) they will have a core area of content expertise within HSE; 3) they will have a core area of methodological expertise relevant to HSE; and 4) they will understand and be able to facilitate knowledge production and exchange from a range of conceptual and methodological perspectives, to address a range of research and applied challenges in HSE.

Guiding Principles
The proposed PhD in Health Sciences Education reflects three guiding principles of *inter-disciplinarity and inter-professionalism; conceptual and contextual competence;* and *knowledge translation and exchange. Inter-disciplinarity and inter-professionalism* concerns the contribution and coalescence of different academic and professional disciplines to the field of HSE. *Conceptual and contextual competence* relates to the research-practice interface, recognizing the conceptual and methodological distinctiveness of research on problems that have their origins in the applied setting of health care and health sciences education. *Knowledge translation and exchange* centers on: a) knowledge to inform practice; b) practice to inform knowledge; and c) membership of, mutual inspiration and learning in, and equitable and just engagement with, a professionally diverse community of practice,[6] in the new Institute of Health Sciences Education and its broader scholarly and practice communities. These guiding principles inform our proposed program.

Related Programs at McGill
The broad inter-disciplinary and inter-professional context of HSE has no equivalent at McGill. McGill University currently has PhD programs in the clinical sciences and the social sciences. Some programs relate to the proposed program in sharing practical contexts, such as Family Medicine, Surgery and Nursing. However, the context of HSE research is unique in its interplay of theory and practice in relation to learning, because much of the subject matter of HSE research arises from challenges in, and is invariably connected to, the applied contexts of health care and health education. McGill University already has a Masters of HSE, which is formally under the Faculty of Education, and jointly delivered across the Faculties of Education and Medicine. However, there is currently no immediate pathway from a Masters to a PhD in HSE at McGill University, which the proposed PhD program will provide.

Similar programs offered elsewhere
The proposed PhD adds to the field of HSE by providing robust educational preparation for researchers and scholars to advance this field of knowledge. Notwithstanding the growth in the field, there are only 27 dedicated Medical Education PhD programs in the world (see Appendix A).[5] Moreover, there are only three such PhD programs in Canada, with none being offered within the scholarly community of a distinctive unit, department, centre or institute. Accordingly, researchers and educators have lamented the dearth of formal structures for knowledge creation in the field of HSE.[7-8] Although there are a limited number of PhD programs in medical education and health professions education, there are very few in the broader field of health sciences education – this means that McGill University has a unique opportunity to offer the proposed PhD in HSE.

2. Academic Dossier

Program Administration
The program will be offered by the Institute of Health Sciences Education, Faculty of Medicine. The Director of the Institute of Health Sciences Education, in liaison with the Associate Director, Graduate Programs, will appoint members to the Graduate Programs Committee to coordinate the program. This appointment will be made every four years and filled by a Chairperson (Associate Director, Graduate Programs), a Graduate Programs Coordinator who will serve as Secretary, and up to eight academics with expertise in the development of MA and PhD programs, bringing the total number on the committee to an odd number to facilitate voting.

It is customary that Graduate Programs Committee members hold this appointment for a maximum of two consecutive terms. The Graduate Programs Committee will oversee the

admission process, and will regularly review the program and initiate proposals for revisions as necessary. The Associate Director, Graduate Programs chairs and guides the Committee, and provides senior support for the graduate program, faculty and graduate students. The Graduate Program Coordinator, supervised by the Associate Director, Graduate Programs, is the point of contact for prospective and current students regarding the graduate program and university regulations, fellowships and admissions, handling many of the day-to-day details for graduate student activities. The Graduate Programs Committee is also the administrative link between the IHSE and other faculties and units at McGill, including Graduate and Postdoctoral studies, Enrolment Services, and Scholarship and Student Aid Office.

Application and admission requirements

Applicants must contact and have confirmation of a potential dissertation supervisor individually before applying to the program. A list of approved Graduate Research Supervisors will be available on the Institute of Health Sciences' website. The Graduate Programs Committee will consider applications upon receipt of the following documentation:

- Completed application form
- Non-refundable application fee
- Official copies of academic transcripts of post-secondary studies from all previously attended universities
- Curriculum vitae
- Two recent letters of recommendation from academic sources – either on institutional letterhead paper with original signatures, or submitted via the Uapply admission system – with applicant evaluation form
- A 1-2 page personal statement of interest
- A 2-3 page research proposal organized into: desired area of study, summary of the literature in the specific research area, provisional research objective/s or question/s, provisional methodology (such as qualitative, quantitative, participatory or method-method), indication of potential contributions, and list of references.
- CGPA of 3.5 out of 4.0
- Proof of English proficiency for non-Canadian applicants whose mother tongue is not English and whose undergraduate education was not in English. An International English Language Testing Systems (IELTS) score of 6.5, or a Test of English as a Foreign Language (TOEFL) score of 550 on the paper-based test (PBT), 213 on the computer-based test (CBT), or 86 on the internet-based test (iBT) with each component score not less than 20.

The Graduate Programs Committee's mandate is to decide whether: a) The applicant has the prerequisites to undertake graduate research; b) The research proposal is suitable for a doctoral program; and c) The Program is able to provide the scholarly expertise required for the proposed research. After evaluation, the Graduate Programs Committee will decide whether to recommend acceptance of the candidate to the Office of Graduate and Postdoctoral Studies. Applicants are admitted to one of two levels, Ph.D. 1 or Ph.D. 2 (McGill's own internal terminology). The requirements of admission at either level are as follows: (1) Ph.D. 1 level: A candidate who holds a bachelor's degree from McGill University or an approved institution in exceptional circumstances may be admitted to Ph.D. 1. Applicants without a Master's degree will be required to have either a Medical Doctor degree or a professional degree, and a CGPA of no less than 3.50, and their GRE will be expected to be no less than 155 for Verbal Reasoning Score, 156 for Quantitative Reasoning Score and 4.1 for Analytical Writing Score; these scores are above the average for North

American graduate program applicants;[9] (2) Ph.D. 2 level: A candidate will also qualify for admission if they hold a master's degree in a relevant field offered by McGill University or an approved institution.

Required Academic Activities

The above-mentioned four central competencies will be realized through a combination of four courses, listed below, comprising 12 credits in total. These courses cut across occupation-specific topics and themes, and cut across domains of theory and practice regarding education for and about healthcare and its delivery:

a) *HSED 702D1/D2: Advanced Topics in Health Sciences Education* (Foundational Course; mandatory; 6 credits; offered internally by the Institute of Health Sciences Education):
b) *HSED 703: Research Design for Health Sciences Education* (mandatory; 3 credits; offered internally by the Institute of Health Sciences Education; focused on research design);
c) *HSED 701: Comprehensive Examination* (mandatory; 0 credits; offered internally by the Institute of Health Sciences Education);
d) An advanced methods course (mandatory; 3 credits; offered by another department; see Appendix B, listing courses for which written approval has been given for the enrolment of IHSE PhD students).

(a) *HSED 702D1/D2: Advanced Topics in Health Sciences Education* (Foundational Course)
The full title of this course is: "Advanced Topics in Health Sciences Education: Knowledge, Context and Exchange." This course will advance understanding and critiques of literature on central phenomena in the applied worlds of HSE research. A growing concern for the accreditation agencies is the relative inattention to research infrastructure in relation to health professions teaching that happens outside of the formal teaching structures. A recent review article argued compellingly for research training in HSE research to form a bridge between understanding knowledge translation, patient safety, and continuing professional development.[10] Ultimately, this foundational course is intended to grapple with the complexity of the professional-research interface in health sciences education research, and to fulfill the accompanying need for a vibrant and diverse research-practice community for mutual learning, and the inter-disciplinarity of the field of HSE research.[11-12]

This foundational course will include the following topics:

a) The relationship between research knowledge and health educational practice, including the continuum of knowledge creation and engagement;
b) Education and healthcare systems, including: policy and practice; governance and accountability; the representation of practices of competency assessment; formal and informal governmental and profession regulation (e.g., accreditation and professional bodies); professional, social and institutional responsibility; and how these topics could be researched through particular theories and methodologies.
c) Program design and teaching and learning approaches in HSE, including: curriculum theory, design and development; competency-based education; simulation-based education; and work-based learning.
d) Assessment and evaluation, including: quantitative and qualitative approaches and methods based on various conceptual perspectives.
e) Social Accountability in HSE and HSE research including: equity; diversity and inclusion, especially in the context of global migration.
f) Professional research skills, including: research management; academic communication in various genres; and research supervision.

Appendix C provides the course outline for *Advanced Topics in Health Sciences Education.*

(b) *HSED 703: Research Design for Health Sciences Education*
The full title of this course is: "Research Design for Health Sciences Education: Theories and Methodologies". This course will emphasize conceptual foundations of empirical research as a core distinction of the activity and contribution of knowledge production. The course will promote the importance of coherence among particular frameworks, theories and methodologies that contribute to HSE research, and will examine the character of inter-disciplinary academic contributions and foci in HSE research. As such, the course aligns particularly with the theme of *inter-disciplinarity and inter-professionalism.* The strong conceptual basis that the course *Research Design for Health Sciences Education* will provide is especially important in a newly emerging and "post-practice" field of research, such as HSE, to ensure its academic rigour.[13]

This course focuses on coherent designs of research, rather than particular methods. As such, the course stands apart from, and supplements, specific elective methods courses that students will take in other units, departments and schools at McGill University, depending on their needs and in consultation with their supervisor. Appendix D provides the course outline for *Research Design for Health Sciences Education.*

(c) *HSED 701: Comprehensive Examination*
The *Comprehensive Examination* will play a central role in assuring the quality of the PhD program and its graduates. The examination will require students to synthesize understanding of appropriate ways to research how learning occurs and how it is influenced in various health settings. As part of their *Comprehensive Examination*, students will be required to submit a written research protocol for their emerging research topic, justifying their perspective and approach in the light of alternative options for conceptualizing and executing their research project. This written protocol will be examined by the Graduate Programs Committee of the Institute and if passed, the student will be required to defend it in an oral presentation, followed by questions. Appendix E provides the details of the Comprehensive Examination process.

(d) An advanced methods course
At some stage during the PhD, each student will be required to undertake an advanced three-credit methodology course, the topic of which will be decided in consultation with their supervisor. Appropriate advanced graduate-level methodology courses on quantitative and qualitative methodologies are also offered in various allied departments, schools and faculties at McGill. Qualitative, quantitative, mixed-methods and participatory methods courses are offered in academic units such as the Faculty of Dentistry, Department of Psychiatry, Ingram School of Nursing, Department of Family Medicine, Faculty of Education, and Desautels Faculty of Management (Please see Appendix B). Each of these departments and schools has provided written approval for future students from the Institute of Health Sciences Education to enroll in specific methodology courses.

Students who appear to lack specific methodology experience may be accepted to this program. However, up to nine additional credits, in the form of elective courses at the 500 level or higher, may be required of such students. This will depend on the student's prior coursework, and in consultation with the student's supervisor or doctoral advisory committee.

Viability of the PhD Program

This PhD programme is viable. The PhD programme can expect to attract the following categories of students: educational leaders; educational researchers; basic science educators and researchers; social scientists; and clinician educators and researchers. In preparation for this proposal, a survey was conducted of the 17 Canadian universities that have Health Sciences or Health Professions Education (HSE/HPE) units. The survey was conducted by the IHSE to determine the viability of a potential PhD program in HSE. "Units" means centres, departments or units. Sixteen units (94%) responded to the survey, the surveys being completed by unit directors. The growth of the field of HSE/HPE appears to be matched by a growing demand for graduate education in HSE/HPE. On average, each individual unit has seven residents or graduate student members whom the unit director believes could conceivably enrol in a PhD program in HSE/HPE. HSE is an emerging field, which is steadily growing. The 127 Masters programs in HPE and HSE, including McGill University's Masters program, are potential feeder programs for the proposed PhD. The above-mentioned Canada-wide survey of HPE/HSE units showed that the current Masters students in HSE Masters programs across Canada alone include students from a range of disciplines, such as psychology, sociology, and anthropology; from the health professions, such as nurses, doctors, physical therapists, speech language pathologists, occupational therapists, psychologists, respiratory therapists; from the basic sciences; and from non-clinically trained researchers. This points to a relatively wide pool of potential graduate students who would potentially embark on a PhD in HSE. Further, HSE is an interdisciplinary field with students from social sciences, education and health sciences having transferable knowledge to an HSE PhD.

The Institute of Health Sciences Education would commence enrolment and anticipate a consistent increase in the number of candidates. The IHSE's initial target is modest, at three for each of the first two years, after which the IHSE anticipates admitting five new PhD students per year with an average attrition rate of 10%. Students will be required to spend a minimum of 12 months in the first two years of their training resident in Montreal. After two years, they may reside in Montreal or elsewhere. This will be important for international students. Annual on-campus "research camps" will feature structured exchange of research feedback among faculty and students. Such camps, and the regular weekly meetings among the Institute's diverse and vibrant community of practice, will enhance the attractiveness of the PhD program, and further increase the program's viability.

Most of the graduate programs in HSE in Canada are provided on a full fee-paying basis. This ranges from 5,000 (CAD) to 20,000 (CAD) annually, with 10,000 (CAD) being the average for both domestic and international students. The standard McGill tuition fees fall within this range. Fees could be offset by PhD students serving as Teaching Assistants (TAs) in Institute of Health Sciences Education courses. The Institute of Health Sciences Education is also seeking private sponsorship for student scholarships.

The Institute of Health Sciences Education's high-performing cohort of four full-time, PhD-qualified tenure-track and tenured faculty, including a new tenure-track position currently being hired, and five Faculty Members and Associate Members based in other departments, can support this student body as supervisors for the first four years. Our PhD researchers have experience in graduate research supervision. They have held or hold competitive salary awards (e.g. FRQR-S) and grants (e.g., Social Sciences & Humanities Research Council (SSHRC), the Canadian Institutes of Health Research (CIHR), the Royal College of Physicians & Surgeons of Canada (RCPSC) and the Association of Medical Education of Europe (AMEE). Of our current faculty, two will be able to supervise three additional PhD students, one will be able to supervise two additional PhD students, and six will be able to supervise one

additional PhD student each. Each student's thesis committee will comprise at least: a supervisor, co-supervisor (if relevant), internal member (from the Institute of Health Sciences Education), and external member.

The five Faculty Members and Associate Members would also be involved in the teaching of formal courses, as well as graduate supervision. In addition, the Institute has approximately 35 additional IHSE members who will collaborate with students, consult and advise as needed, and participate as members of thesis committees. The Institute's strong and diverse community of practice finds its most articulate expression in its weekly meetings, which will provide PhD students with opportunities for spontaneous learning, research problem-solving, community-building, networks and employment opportunities. Graduates of the HSE PhD program will be employable as HSE faculty in universities; clinical educators in a variety of healthcare professions; health and health educational policy-makers; as medical and surgical residency, and other healthcare professional training, program directors; as curriculum and competency-based program leads in health sciences faculties of universities; and as strategic research and as learning development leads in industries related to pharmaceuticals, biotechnologies, and in the domain of medical technology, equipment and facilities production and distribution.

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12. Albert, M., Hodges, B. & Regehr, G. (2007). Research in Medical Education: Balancing service and science, *Advances in Health Sciences Education*, 12(1): 103-115.
13. Norman, G. (2011). Fifty years of medical education research: Waves of migration. *Medical Education*, 45(8): 785-791.

Appendix A
List of PhD Programs in Health Professions Education

Country	Institution	Program
Australia	James Cook University*	Doctor of Medical Education
Belgium	Ghent University**	Ph.D in Medical Education
Canada	University of Calgary***	Ph.D in Medical Sciences: Medical Education
Canada	University of Ottawa*	Ph.D in Education with concentration in Health Professions Education
Canada	Western University Faculty of Health Sciences*	Ph.D in Health Professions Education
Italy	Ambrosiana University***	Ph.D in Medical Education
Kenya	Moi, University College of Health Sciences*	Doctor of Philosophy in Medical Education
Netherlands	Maastricht University**	Ph.D in Health Professions Education
Netherlands	Utrecht University***	Ph.D in Medical Education
Turkey	Ege Üniversitesi*	Ph.D in Medical Education
United Kingdom	Swansea University*	D. Prof in Education for the Health Professions
United Kingdom	University College London*	Ph.D in Medical Education
United Kingdom	University of Dundee***	Ph.D in Medical Education
United Kingdom	University of Galsgow***	Professional Doctorate in Health Professions Education (DHPE)
United States	Allen College***	Doctor of Education in Health Professions Education
United States	College of Saint Mary***	Doctor of Education (Ed.D) with emphasis in Health Professions Education
United States	Logan University**	Doctorate of Health Professions Education
United States	North Carolina State University***	Ph.D Specialization in Adult & Community College Education: Health Professions Concentration
United States	Nova Southeastern University***	Doctor of Education (Ed.D) with concentration in Health Care Education
United States	Seton Hall University***	Ph.D in Health Sciences
United States	Simmons College*	Ph.D in Health Professions Education
United States	University of California, San Francisco / Utrecht University Medical Center, Netherlands***	Ph.D in Medical Education
United States	University of Illinois at Chicago***	Ph.D in Curriculum Studies with focus on Health Professions Education

United States	University of Texas at El Paso*	Ph.D in Inter-disciplinary Health Sciences

*face-to-face only, **distance/online only, ***both face-to-face and distance/online, #information not available

Sources: Tekian A. Doctoral programs in health professions education. Medical Teacher. 2014;36(1):73-81.

Tekian A, Artino AR. AM Last Page: Overview of Doctoral Programs in Health Professions Education. Academic Medicine. 2014;89(9):1309.

Appendix B
Confirmed McGill Graduate Methodology and Courses Open to IHSE PhD students

Course Name	Type of course	Offered by	Instructor	Code
Qualitative Research in Health Care	Qualitative Methodology	Psychiatry (Faculty of Medicine)	Dr. Danielle Groleau	PSYT 625
Qualitative Health Research		Family Medicine (Faculty of Medicine)	Dr. Rosario Rodriguez	FMED 625
Advanced Seminar in Qualitative Health Research		Dentistry (Faculty of Dentistry)	Drs. Franco Carnevalle, Mary Ellen Macdonald	DENT 706
Advanced Ethnography: Context, Complexity and Coordination		Family Medicine (Faculty of Medicine)	Dr. Peter Nugus	FMED 690
Seminar in Qualitative Methods		Desautels Faculty of Management	Dr. Saku Mantere	MGPO 701
Interpretive Inquiry		Integrated Studies in Education (Faculty of Education)	Dr. Lynn Butler Kisber	EDEC 707
Qualitative Research		Ingram School of Nursing	Dr. Nancy Feeley	NUR2 702
Qualitative Methods in Educational Psychology		Educational and Counselling Psychology (Faculty of Education)	Dr. Sandra Pelaez	EDPE 687
Univariate/Multivariate Analysis	Quantitative Methodology	Educational and Counselling Psychology (Faculty of Education)	Dr. Chiaki Konishi	EDPE 682
Quantitative Research		Ingram School of Nursing	Dr. Christine Maheu	NUR2 706
Measurement in Epidemiology		Epidemiology and Biostatistics (Faculty of Medicine)	Dr. Norbert Schmitz	EPIB 628
Epidemiology and Data Analysis in Primary Care I		Family Medicine (Faculty of Medicine)	Drs. Alexandra De Pokomandy, Tracie Barnett, Belinda Nicolau	FMED 509 DENT 509
Biosociology/Biodemography		Sociology (Faculty of Arts)	Dr. Aniruddha Das	SOCI 588
Advanced Participatory Research in Health	Participatory Research	Family Medicine (Faculty of Medicine)	Dr. Neil Anderson	FMED 604

APPENDIX C

HSED 702D1/D2: Advanced Topics in Health Sciences Education (6 credits)

Coordinator: Dr. Peter Nugus
Institute of Health Sciences Education
Office 207, Lady Meredith House, 1110 Pine Avenue West
McGill University

Time, day & dates: [*Time, day and dates of classes*]

Location of class: Room 100, Institute of Health Sciences Education, Lady Meredith House, 1110 Pine Avenue, Montreal QC, H3A 1A3

Contact details: peter.nugus@mcgill.ca

Calendar Course Description: Addresses the range of topics, themes and contextual issues and challenges that are addressed by health sciences education (HSE) researchers, and that can shape the design and execution of their research. This includes coverage of educational design and teaching approaches; educational assessment and evaluation; the education and health care systems that contextualize health sciences education (HSE); practice and professional communities in health care and HSE; learning and practice development; the relationship between knowledge creation and knowledge use; social accountability in HSE; and particular professional research skills needed by HSE researchers. As a 6–credit course, each of the sessions is held over two classes, and the entire course will be held over two semesters. This exploration will seek to position students as broadly-based and informed members of the scholarly communities of HSE research.

Learning objectives
By the end of the course, students should be able to:

1. Identify the range of topics and perspectives engaged in by HSE researchers and that impact HSE research.
2. Discuss – using empirical evidence, and arguments from conceptual literature – particular positions on a range of topics in HSE research.
3. Describe the relationship between topics in HSE research, and the conceptual, policy, knowledge translational and social accountability implications of topics and perspectives;
4. Position their research topic in the perspective of the broad field of HSE research.

Instructional method
Instructional methods involve student-led, case-based discussion, with formal presentations, including by guest presenters, and online critique and discussion.

Assignments and assessments
Students will be assessed on their performance in:

- Two written assignments
- An oral presentation

- Online critique and discussion, and forum moderation
- Participation and professionalism

There are no exams in this course.

1. Oral Presentation: The oral presentation will be an analysis of a particular dilemma or controversy in one of the first 6 topics covered in Sessions 1 to 12. Students and the instructor will negotiate which topics will be allocated to each student in Session 2.

The oral presentation will be 20 minutes, followed by up to 10 minutes of in-class discussion for each student. This time distribution reflects an expected enrolment of between three and seven students for the year, and specific time length of the assignment will be adjusted accordingly. A formal slide presentation is optional. It will include:

- Introduction to the topic and the dilemma / controversy;
- Presentation and critique of perspectives, evidence and arguments;
- Conclusions and implications.

The oral presentations will take place in sessions 14 and 15.

2. Assignment 1: Assignment 1 will be a refined and written version of the oral presentation, taking account of in-class discussion and further reflection. It will be approximately 2,000 words in length, and must include at least eight scholarly references, either from the assigned readings or from other scholarly outlets. Assignment 1 is due before the second class (to be submitted on *MyCourses*) of Topic 8 (Session 17).

Allocation of particular students to particular topics for the oral presentation and Assignment 1 will be negotiated at the end of Session 2, to ensure that as many topics as possible are covered in student presentations and the first assignment.

3. Assignment 2: Assignment 2 will also be an analysis of a particular dilemma or controversy addressed in the course. The focus of the assignment can come from any one of Topics 1-6 or 10-12. However, it must be based on a different topic from that chosen for the oral presentation and Assignment 1.

Assignment 2 will be approximately 5,000 words in length. Assignment 2 will be based on one of the topics that is more closely aligned with the student's own research than that chosen for the oral presentation and Assignment 1. The assignment will cover:

- General scope of the broad topic
- Specific research focus and problem in the literature in that topic that the student's research would address;
- Strategies for taking account of topics or perspectives you might not otherwise have considered;
- The potential contribution of the research to the topic and HSE generally;
- Practical educational implications of the potential contribution (e.g. for how you would teach this broad topic, or assess it);

- Implications for policy, knowledge translation and social accountability.

The assignment must include at least 12 scholarly references, chosen from among the assigned readings or from other scholarly outlets. Assignment 2 is due for submission in *MyCourses* prior to the final Session (Session 26: [*name the date*]).

4. Critique: Students are also required to post a **critique** of the set readings to the *Discussion Forum* on *MyCourses* each session, which will be assessed. The critique interweaves all readings listed for that session. It should be approximately 350 words in length. All critiques need to be posted 48 hours before the first of the two classes of the forthcoming session to which the critique relates. The critique should be free-flowing prose (rather than dot-points) and be without headings, and should cover:

- A brief overview of the central argument or findings of the reading/s, in relation to the topic of the forthcoming session;
- Questions or critique in relation to what the author/s could have done differently, or discussion of what lessons each reading has, or how it could be similar or different from the student's engagement with HSE research in their research project. It should conclude with a question/s you would pose to the author/s or the class.

If the student has not firmly chosen a research topic, the above point should relate to the student's interest or potential project. The objective of this activity is to foster engagement with the literature relating to HSE. Students will only be able to see other students' contributions after they have posted their critique. Following posting, each student is required to read the contributions by other students and post two further comments or questions, either generally, or in reference the contribution of an individual student/s. The students whose contribution is commented on do not need to respond further. The readings will be discussed in class. Individual critiques are to be posted by 11:59pm [*name day*], two days preceding the first session of the topic to which the readings refer. The course instructor will give periodic, progressive feedback to students on their critiques. Marks for the critiques and forum discussion will be based on peer assessment. Students will assess each other's contribution in Session 25, in a specially designed form based on the two above points that the critiques should cover.

5. Discussion Forum Moderation: For each forthcoming session, a particular student will moderate the forthcoming session's *Discussion Forum*. The Moderator will provide a 300-350 word synthesis of the discussion, and relate it to the topic for the forthcoming session. The Moderator's synthesis can be presented in dot-points or prose. While individual critiques are to be posted by 11:59pm [*name day*], two days preceding the first class of the session to which the readings refer, the Moderator's synthesis is due at 8am on [*name the day of class*], the day of the first class of the session. Please note that the Moderator is not required to submit a second, responding post to the *Discussion Forum* – only their original post (by 11:59pm, [*name day*], two days prior to the first class of the session) and their synthesis (by 8am on [*name the day of class*], the day of class).

In-class participation will be based on attendance, punctuality, reliability, respect and courtesy for others, and active and literature-informed participation in class discussions. Please note that everyone is expected to read the indicated readings, and participate in in-class discussion.

Written assignments will need to be uploaded to *MyCourses* before the commencement of class on the date on which it is due. Late assignments will be penalized at 10% per day unless an extension has been granted by the instructor or in the case of an emergency. Further written and verbal instructions for each assignment will be given in class.

Assessment task	% value
1. Oral presentation	20%
2. Written assignment (1)	25%
3. Written assignment (2)	30%
4. Shared online critical reviews	10%
5. Forum discussion moderation	5%
6. In-class participation and professionalism	10%
	100%

Assessment Criteria Rubric

This applies for each assessment item, and for the course as a whole

Grade	Mark	Grade Point	Description
A	85-100	4.0	Sophisticated and coherent links made between conceptual and empirical material. Conceptual material is used in an original way to illuminate empirical findings and create persuasive arguments that reflect a strong understanding of key debates.
A-	80-84	3.7	Strong links made between concepts and empirical data. Solid understandings of concepts are demonstrated and applied appropriately to illuminate empirical data.
B+	75-79	3.3	Solid links made between concepts and empirical data. Concepts are applied appropriately but arguments lack originality.
B	70-74	3.0	Solid links made between concepts and empirical data, but some lack of coherent understanding of conceptual material is evident and arguments lack originality.
B-	65-69	2.7	Some links made between concepts and empirical data, but a lack of coherent understanding of conceptual material is evident.
F	50-64	1.0	Demonstrates weak, few or no attempts to link concepts to empirical data. Material lacks coherence. Weak or underdeveloped understandings of conceptual material are evident.

Course Content, and overview of events and readings by session (two sessions per topic)
The course comprises 12 topics, each topic comprising two sessions (weeks). The course is comprised of 72 contact hours in total. The two reading weeks, in which there are no classes are counted as sessions (9 and 18). Please remember that all critiques need to be posted 48 hours prior to the class.

Please note that there is no class on [name the dates], those being in Reading Weeks.

Topic 1: Sessions 1&2
Topic: *Health & education: What is the scope and evolution of HSE, and how will our learning proceed?* (Sub-topic/s: Course introduction: Includes overview of course outline, objectives, readings, activities, assessment tasks, criteria); relationship, in historical perspective, between health, health sciences, education and health professions.
Topic 2: Sessions 3&4
Topic: *What healthcare & educational systems & contexts shape & are shaped by HSE?* (Sub-topic/s: Policy and practice; governance and accountability; systemic and local practices relating to competency-based assessment; formal and informal governmental and profession regulation [e.g., accreditation and professional bodies]; professional, social and institutional responsibility; and how these topics could be researched through particular theories and methodologies.)
Guest presenter: [*Name of guest presenter*]
Discussion Forum Moderator: [*Name of student*]
Readings: 1. Boyd, V.A., Whitehead, C.R., Thille, P., Ginsburg, S., Brydges, R. & Kuper, A. (2018). Competency-based medical education: The discourse of infallibility. *Medical Education*, 52(1): 45-57. 2. Chiarello, E. (2013). How organizational context affects bioethical decision-making: Pharmacists' management of gatekeeping processes in retail and hospital settings. *Social Science & Medicine*, 98(319-329). 3. Dixon-Woods, M., Leslie, M., Bion, J. & Tarrant, C. (2012). What counts? An ethnographic study of infection data reported to a patient safety program. *Milbank Quarterly*, 90(3): 548-591. 4. Waring, J. (2007). Adaptive regulation or governmentality: Patient safety and the changing regulation of medicine. *Sociology of Health & Illness*, 29(2): 29(2): 163-179. 5. Denis, J-L., Langley, A. & Rouleau, L. (2007). Strategizing in pluralistic contexts: Rethinking theoretical frames. *Human Relations*, 60(1): 179-215.
Topic 3: Sessions 5&6
Topic: *Communities of (inter)professional practice: What are and should be the roles between various players in HSE?* (Sub-topic/s: Communities of practice; professional practice and professionalism; the role of professional identity in learning, teamwork and decision-making; interprofessional learning and

practice; expert / professional patient; roles and empowerment of consumers and citizens)

Guest presenter: [*Name of guest presenter*]

Discussion Forum Moderator: [*Name of student*]

Readings:

6. Wenger, E. (2010). Communities of practice and social learning systems: The career of a concept. In Blackmore, C. (Ed.) *Social Learning Systems & Communities of Practice.* Milton Keynes, UK: Springer. Pp. 179-198.
7. Brosnan, C. & Turner, B. (2009). Introduction: The struggle over medical knowledge. In Brosnan, C. & Turner, B. (Eds). *Handbook of the Sociology of Medical Education.* Milton Park, UK: Routledge, Pp. 1-12.
8. Dunn, M.B. & Jones, C. (2010). Institutional logics and institutional pluralism: The contestation of care and science logics in medical education, 1967-2005. *Administrative Science Quarterly,* 55: 114-145.
9. Cruess, R., Cruess, S., Boudreau, D., Snell, L. & Steinert, Y. (2014). Reframing medical education to support professional identity formation. *Academic Medicine*, 89(11): 1446-1451.
10. Nugus, P., Greenfield, D., Travaglia, J., Westbrook, J., & Braithwaite, J. (2010). How and where clinicians exercise power: Interprofessional relations in health care. *Social Science & Medicine, 71*(5), 898-909.
11. Lhussier, M. & Carr, S. (2008). Health-related lifestyle advice: Critical insights. *Critical Public Health*, 18(3): 299-309.

Topic 4: Sessions 7&8

Topic: *How should HSE researchers understand the relationship between decision-making, work, learning and practice development? What research questions and methodologies might apply?*

(Sub-topic/s: The role of cognition and interaction in decision-making; clinical reasoning; the hidden curriculum; work-based learning; continuing professional development)

Guest presenter: [*Name of guest presenter*]

Discussion Forum Moderator: [*Name of student*]

Readings:

12. Kitto, S., Bell, M., Peller, J., Sargeant, J., Etchells, E., Reeves, S. & Silver, I. (2013). Positioning continuing education: Boundaries and intersections between the domains of continuing education, knowledge translation, patient safety and quality improvement. *Advances in Health Sciences Education*, 18(1): 141-156.
13. Bleakley, A. (2006). Broadening conceptions of learning in medical education: The message from teamworking. *Medical Education*, 40(2): 150-157.
14. Niccolini, D. (2010). Practice as the site of knowing: Insights from the field of telemedicine. *Organization Science*, 22(3): 602-620.
15. Lubarsky, S., Dory, V., Audétat, M-C., Custers, E. & Charlin, B. (2015). Using script theory to cultivate illness script formation and clinical reasoning in health professions education. *Canadian Medical Education Journal*, 6(2): e61-e70.
16. Steinert, Y. Basi, M. & Nugus, P. (2017). How physicians teach in the clinical setting: The embedded roles of teaching and clinical care, *Perspectives on Medical Education*, 39(12), 1238-1244.

Session 9: No class on [indicate the day and date], being Reading Week

Topic 5: Sessions 10&11

Topic: *How ought educational curriculum design debates be framed in HSE, and what theoretical assumptions and priorities underlie particular perspectives on curriculum design?*

(Sub-topic/s: Curriculum theory, design and development)

Guest presenter: [*Name of guest presenter*]

Discussion Forum Moderator: [*Name of student*]

Readings:

17. Zhao, Z. (2014). Curriculum research. In Zhao, Z. & Rauner, F. (Eds). *Areas of Vocational Education Research*. Berlin, Germany: Springer, Pp.189-214.
18. Rees, C. (2004). The problem with outcomes-based curricula in medical education: Insights from educational theory. *Medical Education*, 38(6): 593-598.
19. Lee, A., Steketee, C., Rogers, G. & Moran, M. (2013). Towards a theoretical framework for curriculum development in health professions education. *Focus on Health Professional Education*, 14(3): 70-83.
20. Bleakley, A. (2012). The curriculum is dead! Long live the curriculum! Designing and undergraduate medicine and surgery curriculum for the future. *Medical Teacher*, 34(7): 543-547.
21. Norman, G.R. & Schmidt, H.G. (2001). Effectiveness of problem-based learning curricula: Theory, practice and paper darts. *Medical Education*, 34(9): 721-728.
22. Quintero, G.A., Vergel, J., Arredondo, M., Ariza, M-C., Gómez, P. & Pinzon-Barrios, A-M. (2016). Integrated medical curriculum: Advantages and disadvantages. *Journal of Medical Education & Curriculum Development*, 3: 133-137: https://doi.org/10.4137/JMECD.S18920

Topic 6: Sessions 12&13

Topic: *What assumptions & priorities underlie theories of learner assessment & educational program evaluation?*

(Sub-topic/s: Difference between assessment and evaluation; philosophies underlying different approaches to assessment and evaluation; Assumptions and perspectives underlying quantitative and qualitative approaches and methods to assessment and evaluation)

Guest presenter: [*Name of guest presenter*]

Discussion Forum Moderator: [*Name of student*]

Readings:

23. Frye, A.W. & Hemmer, P.A. (2012). Program evaluation models and related theories: AMEE guide no. 67. *Medical Teacher*, 34(5): e288-e299.
24. Baird, J-A., Andrich, D., Hopfenbeck, T.N., & Stobart, G. (2017). Assessment and learning: Fields apart? *Assessment in Education: Principles, Policy & Practice*, 24(3): 317-350.
25. Young, M., Dory, V., Lubarsky, S. & Thomas, A. (2018). How different theories of clinical reasoning influence teaching and assessment. *Academic Medicine*, 93(9): 1415.

26. Govaerts, M.J.B., van der Vleuten, C.P.M., Lambert, W.T., Schuwirth, L.W.T. & Muiktens, A.M.M. Broadening perspectives on clinical performance assessment: Rethinking the nature of in-training assessment. *Advances in Health Sciences Education*, 12(2): 239-260.
27. Regehr, G., Eva, K., Ginsburg, S., Halwani, Y. & Sidhu, R. (2011). Assessment in postgraduate medical education: Trends and issues in assessment in the workplace. *Members of the FMEC PG Consortium*. The Association of Faculties of Medicine of Canada, The College of Family Physicians of Canada, Le Collège des médecins du Québec, and The Royal College of Physicians and Surgeons of Canada, Canada. https://afmc.ca/pdf/fmec/13_Regehr_Assessment.pdf (Accessed 22 August 2019).
28. Gomez-Garibello, C. & Young, M. (2018). Emotions and assessment: Considerations for rater-based judgements of entrustment. *Medical Education*, 52(3): 254-262.

Topic 7: Sessions 14&15

Topic: *What is similar and different about the way different research students conceptualize challenges in HSE research?*

Student oral presentations

Discussion Forum Moderator: [*Name of student*]

Topic 8: Sessions 16&17

Assignment 1 due before class

Topic: *What skills are needed for research practice & leadership in relation to HSE? (Part I)*

(Sub-topic/s: Similarities across and differences between particular genres of academic communication [theses, articles, grant applications, abstracts]; differences in language and structure for different genres; career pathways and public identity management.

Discussion Forum Moderator: [*Name of student*]

Readings:

29. Anyangwe, E. (2012). Getting it write: Best practice in academic writing. *The Guardian*. 25 July. https://www.theguardian.com/higher-education-network/blog/2012/jul/25/the-art-of-academic-writing (Accessed 22 August 2019)
30. Hyland, K. & Salager-Meyer (2008). Scientific writing. *Annual Review of Information Science & Technology*, 42: 297-338.
31. Varpio, L., O'Brien, B., Durning, S.J., va der Vleuten, C., Gruppen, L., ten Cate, O., Humphrey-Murto, S., Irby, D.M., Hamstra, S.J. & Hu, W. (2017). Health professions education scholarship unit leaders as institutional entrepeneurs. *Academic Medicine*, 92(8): 1189-1195.
32. Hu, W., Thistlethwaite, J.E., Weller, J., Gallego, G., Monteith, J. & McColl, G.J. (2015). "It was serendipity": A qualitative study of academic careers in medical education. *Medical Education*, 49(11): 1124-1136.
33. Bhattacharya, K. (2015). The vulnerable academic: Personal narratives and strategic de/colonizing of academic structures. *Qualitative Inquiry*. 22(5): 309-321.
34. Connell, R. (1994). Encounters with structure. *International Journal of Qualitative Studies in Education*, 17(1): 10-27.
35. Dominus, S. (2017). When the revolution came for Amy Cuddy. *New York Times Sunday Magazine*, 22 October. https://www.nytimes.com/2017/10/18/magazine/when-the-revolution-came-for-amy-cuddy.html (Accessed 10 February 2017).

Session 18: No class on [indicate the day and date], being Reading Week

Topic 9: Sessions 19&20

Topic: *What skills are needed for research practice & leadership? (Part II)*

(Sub-topic/s: Research organization and management; student research supervision and mentoring)

Discussion Forum Moderator: [*Name of student*]

Readings:

36. Kallestinova, E.D. (2011). How to write your first research paper. *Yale Journal of Biological Medicine*, 84(3): 181-190.
37. Norman, G. (n.d.). Advances in Health Sciences Education: Standards for an acceptable manuscript. https://static.springer.com/sgw/documents/1478659/application/pdf/Instructions+to+authors +absolutely+final+%282%29.pdf (Accessed 9 June 2016).
38. Kennett, B. (2014). How to plan and manage a project. In *Planning and Managing Scientific Research: A Guide for the Beginning Researcher*. Canberra, Australia: ANU e-Press. Pp.38-59. https://www.jstor.org/stable/j.ctt6wp816 (Accessed 21 August 2019).
39. Silvia, P. (2007). *How to Write a Lot: A Practical Guide to Productive Academic Writing*. Washington, DC: American Psychological Association. Pp.1-149.

Topic 10: Sessions 21&22

Topic: *How should we conceptualize particular learning & teaching approaches & innovations in relation to HSE research?*

(Sub-topic/s: Theories to understand and critique technological and other innovations in teaching and learning, including simulation-based education)

Guest presenter: [*Name of guest presenter*]

Discussion Forum Moderator: [*Name of student*]

Readings:

40. Colbert, J.A. & Chokshi, D.A. (2014). Technology in medical education: Osler meets Watson. *Journal of General Internal Medicine*, 29(12): 1584-1585.
41. Fenwork, T. & Dahlgren, M.A. (2015). Towards socio-material approaches in simulation-based education: Lessons from complexity theory. *Medical Education*, 49(4): 359-367.
42. MacLeod, A., Kits, O., Whelan, E., Fournier, C., Wilson, K., Power, G., Mann, K., Tummons, J. & Brown, P.A. (2015). Sociomateriality: A theoretical framework for studying distributed medical education. *Academic Medicine*, 90(11): 1451-1456.
43. Dearnley, C., McClelland, G.T. & Irving, D. (2013). *Innovations in Teaching and Learning in Health Higher Education: Literature Review*. University of Bradford, Bradford, UK: Advisory Group, comprising members of the Council of Deans of Health and Higher Education Academy. http://www.councilofdeans.org.uk/wp-content/uploads/2013/11/Innovation-in-Teaching-and-Learning-in-Health-HE-Lit-Review-20130926.pdf (Accessed 22 August 2019).
44. Elharram, M., Dinh, T., Lalande, A., Ge, S., Gao, S. & Noël, G. (2017). Global health

values of a multidirectional near peer training program in surgery, pathology, anatomy, research methodology and medical education for Haitian, Rwandan and Canadian medical students. *Annals of Global Health*, 83(3), 274-280.

Topic 11: Sessions 23&24

Topic: *How should health sciences education researchers understand and enact the relationship between knowledge creation and use?*

(Sub-topic/s: Knowledge translation; knowledge mobilization; knowledge exchange; relationship between research knowledge and health educational practice; continuum of knowledge creation and engagement)

Guest presenter: [*Name of guest presenter*]

Discussion Forum Moderator: [*Name of student*]

Readings:

45. Albert, M., Hodges, B. & Regehr, G. (2007). Research in Medical Education: Balancing service and science, *Advances in Health Sciences Education*, 12(1): 103-115.
46. Thomas, A., Gruppen, L.D., van der Vleuten, Chilingaryan, G., Amari, F. & Steinert, Y. (2019). Use of evidence in health professions education: Attitudes, practices, barriers and supports. *Medical Teacher*, DOI: 10.1080/0142159X.2019.1605161
47. Kreindler, S.A. (2014). What if implementation is not the problem? Exploring the missing links between knowledge and action. *International Journal of Health Planning & Management*, 31(2): 208-226.
48. Kitto, S., Sargeant, J., Reeves, S. & Silver, I. (2012). Towards a sociology of knowledge translation: The importance of being dis-interested in knowledge translation. *Advances in Health Sciences Education*, 17(2): 289-299.
49. Thomas, A., Menon, A., Boruff, J., Rodriguez, A.M. & Ahmed, S. (2014). Applications of social constructivist learning theories in knowledge translation for healthcare professionals: A scoping review. *Implementation Science*, 9(1): 54: https://implementationscience.biomedcentral.com/articles/10.1186/1748-5908-9-54
50. Ferlie, E., Fitzgerald, L., Wood, M. & Hawkins, C. (2005). The nonspread of innovations: The mediating role of professionals. *Academy of Management Journal*, 48(1): 117-134.
51. Nugus, P., Greenfield, D., Travaglia, J. & Braithwaite, J. (2012). The politics of action research: 'If you don't like the way things are going, get off the bus'. *Social Science & Medicine*, *75*(11), 1946-1953.

Topic 12: Sessions 25&26

Assignment 2 due before class

Topic: *What does social accountability in HSE research mean, to whom is it owed, and how can HSE researchers be socially accountable?*

(Sub-topic/s: Social accountability; equity; diversity; inclusion; marginalization, disadvantage and vulnerability; roles, responsibilities and entitlements of learners, patients and citizens)

Guest presenter: [*Name of guest presenter*]

Discussion Forum Moderator: [*Name of student*]

Readings:

52. Thompson, L.G. & Davis, P.M. Best medical practices in social accountability and continuing professional development: A survey and literature review. *Journal of Interprofessional Care*, 22(Sup1): 30-39: DOI: 10.1080/13561820802013347.

53. Light, D.W. (2010). Health-care professions, markets and counterveiling powers. In Bird, C., Conrad, P., Fremont, A. & Timmermans, S. (Eds). *Handbook of Medical Sociology*. Nashville, TN: Vanderbilt University Press. Pp. 270-289.
54. Coburn, D. (2006). Medical dominance then and now: Critical reflections. *Health Sociology Review*, 15(5): 432-443.
55. Young, M., Razack, S., Hanson, M., Slade, S., Varpio, L., Dore, K.L. & McKnight, D. (2012). Calling for a broader conceptualization of diversity: Surface and deep diversity in four Canadian medical schools. *Academic Medicine*, 87(11): 1501-1510.
56. Macdonald, M.E., Carnevale, F.A. & Razack, S. (2009). Understanding what residents want and what residents need: The challenge of cultural training in pediatrics. *Medical Teacher*, 29(5): 464-471.
57. Claridge, H., Stone, K. & Ussher, M. (2018). The ethnicity attainment gap among medical and biomedical science students: A qualitative study. *BMC Medical Education*, 18(1): 325: https://doi.org/10.1186/s12909-018-1426-5
58. Southgate, E., Kelly, B.J. & Symonds, I.M. (2015). Disadvantage and the 'capacity to aspire' to medical school. *Medical Education*, 49(1): 73-83.
59. Murphy, M. (2016). Hiding in plain sight: The production of heteronormativity in medical education. *Journal of Contemporary Ethnography*, 45(3), 256-289.

McGill Policy Statements

McGill University values academic integrity. All students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures. In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French written work that is to be graded. End-of-course evaluations are one of the ways that McGill works towards maintaining and improving the quality of courses and the student's learning experience. You will be notified by e-mail when the evaluations are available on Mercury, the online course evaluation system. Please note that a minimum number of responses must be received for results to be available to students.

APPENDIX D

HSED 703: Research Design for Health Sciences Education (3 credits)

Coordinator: Dr. Meredith Young
Institute of Health Sciences Education
McGill University:

Time, day & dates: [*Time, day and dates of classes*]

Location of class: Room 100, Institute of Health Sciences Education, Lady Meredith House, 1110 Pine Avenue, Montreal QC, H3A 1A3

Contact details: Meredith.young@mcgill.ca

Calendar Course Description: Addresses the importance and meaning of, and ways to produce, a coherent research contribution in health sciences education (HSE). In doing so, the course conveys the connection between making explicit theoretical assumptions underlying particular research methodologies and how to structure and present a research contribution, including a coherent PhD thesis. As such, the course emphasizes conceptual foundations of empirical research as the defining feature of academic knowledge production. This is not a methodology course *per se* but complements and is foundational to skill-based courses in particular methodologies or methods. In this course, students will encounter various frameworks, theories and methodologies that do, can, or should contribute to HSE research, but most importantly, come to understand how these elements fit together to make a particular project coherent. Students will examine the character of inter-disciplinary academic contributions and foci in HSE research. The course comprises 13 weeks, each of which takes the form of a three-hour weekly class. The 13 weeks and sessions include the Reading Week in which there are no classes. The broad aim of this course is to contribute to the development of independent scholars who are well-rounded, critical, open-minded and reflective, and who conduct research in ethical and just ways.

Learning objectives

By the end of the course, students should be able to:

1. Describe the importance of theory in empirical research;
2. Describe what makes a research contribution, and the importance of aligning assumptions about knowledge, methodologies and methods to make a research contribution;
3. Identify similarities and differences in the way particular assumptions about knowledge, theories, methodologies and methods align for different research projects;
4. Identify and account for specific ethical challenges that accompany their research methodology and methods;
5. Align assumptions about knowledge, theory, methodology and methods to frame a coherent PhD research project.
6. Formulate a researchable question that coheres with assumptions and methods of a proposed study.

Instructional method
Instructional methods balance lectures with discussion, drawing on student projects as cases.

Prescribed text

1. Punch, K.F. & Oancea, A. (2014). *Introduction to Research Methods in Education.* (2nd ed.). London, UK: Sage.

Recommended texts

2. Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage.
3. *Academic Medicine (forthcoming 2020). Special Issue on Research Design.*
4. Booth, W.C., Colomb, G.C., Williams, J.M., Bizup, J. & Fitzgerald, W.T. (2016). *The Craft of Research*. (4th ed.). Chicago, IL: University of Chicago Press.
5. Creswell, J.W. (2014). *Research Design: Qualitative, Quantitative & Mixed Methods Approaches*. (4th ed.). London, UK: Sage.
6. Saylor Academy. (2012). *Principles of Sociological Inquiry: Qualitative & Quantitative Methods*. Washington, DC: Saylor Academy. https://saylordotorg.github.io/text_principles-of-sociological-inquiry-qualitative-and-quantitative-methods/s00-license.html (Accessed 21 August 2019).

Assignments and assessments
Students will be assessed on their performance in:

- An oral presentation
- Three written assignments
- Participation and professionalism

There are no exams in this course.

1. Oral presentation: The oral presentation will take the form of an **"elevator-pitch",** albeit one of 5 minutes, and will follow the previous week's workshop on the articulation of students' research contributions. The pitch is entitled: "What is the contribution of my research?" The presentation must address the following questions:

- To what area of knowledge am I contributing?
- What do we know about that area of knowledge?
- What do we not know?
- Why do we need to know this?
- How will I go about producing this knowledge?
- What is this knowledge likely to contribute (i.e. what area of knowledge does it belong to?) and to what end?

Guidelines for rendering the proposed research as an argumentative problem statement will be given in class, and derive from the content and discussions of Sessions 1, 2 and 3. The oral presentations will occur in Session 4 [*name the date*].

2. Assignment 1 will take the form of a short **grant proposal**, as if for funding. It is a written version of the oral presentation, which is intended to take feedback from the oral presentation into account. It will be approximately 1,000 words (approximately 3 pages at 1.5 spacing) and include at least six scholarly references. Assignment 1 is due for submission in *MyCourses* before the commencement of Session 5 [*name the date*].

3. Assignment 2 is a group assignment, in which each group will render one HSE topic proposed by the group but determined by the instructor from three different epistemological, theoretical and methodological perspectives. Each group will have 2-3 members, depending on number of registered students. The same assignment will be submitted by each student of a particular group. However, each individual will submit an individual written **reflection** of their contribution and engagement with the group. The joint assignment will be between 500 and 750 words, and will include at least four scholarly references, at least three of which must be different from any particular student's Assignment 1. The reflection component will be approximately 250 words. Assignment 2 is due for submission in *MyCourses* before the commencement of Session 9 [*name the date*].

4. Assignment 3 is a draft version of the student's PhD research proposal. It can be considered an extension of the grant proposal (Assignment 1). Assignment 3 is the culmination of lessons of previous assessment tasks and the content in the readings and class lectures and discussions. The structure of the assignment may vary, but will need to conform broadly to categories of:

- Introduction (and must include, whether explicitly named or not, the literature review)
- Objectives / Questions
- Methodology (population, sampling strategies, data collection, data analysis, ethical considerations, validation / ensuring credibility and trustworthiness)
- Potential Findings
- Knowledge Translation (implications for research, education and policy), and
- Potential Contributions.

The assignment is expected to reflect the persuasive genre of academic writing, and coherence among the parts of the proposal. The assignment need to be approximately 1,500 words in length), and include at least 15 scholarly references. Assignment 3 is due for submission in *MyCourses* prior to the final Session (Session 12: [*name the date*]).

Participation and professionalism will be based on attendance, punctuality, reliability, respect and courtesy for others, and active and literature-informed participation in class discussions. Please note that everyone is expected to read the indicated readings, and participate in in-class discussion.

Before Session 3, students are required to email the instructor a copy of their certificate verifying completion of levels 1, 2 and 3 of the Quebec government *Tutorial in Research Ethics* (*Formation en éthique de la recherche*). Failure to send this certificate by Session 3 will result in reduced marks for Participation and Professionalism. Information on the tutorial can be found here: http://ethique.msss.gouv.qc.ca/didacticiel/?lang=fr_ca

Written assignments will need to be uploaded to *MyCourses* before the commencement of class on the date on which it is due. Late assignments will be penalized at 10% per day unless an extension has been granted by the instructor or in the case of an emergency. Further written and verbal instructions for each assignment will be given in class.

Assessment task	% value
1. Oral presentation	20%
2. Written assignment (1)	20%
3. Written assignment (2)	20%
4. Written assignment (3)	30%
5. Participation and professionalism	10%
	100%

Assessment Criteria Rubric

This applies for each assessment item, and for the course as a whole

Grade	Mark	Grade Point	Description
A	85-100	4.0	Sophisticated and coherent links made between conceptual material, or between conceptual and empirical material. Conceptual material is used in an original way to illuminate empirical findings and create persuasive arguments that reflect a strong understanding of key debates.
A-	80-84	3.7	Strong links made between concepts, or between concepts and empirical data. Solid understandings of concepts are demonstrated and applied appropriately to illuminate empirical data.
B+	75-79	3.3	Solid links made between concepts, or between concepts and empirical data. Concepts are applied appropriately but arguments lack originality.
B	70-74	3.0	Solid links made between concepts, or concepts and empirical data, but some lack of coherent understanding of conceptual material is evident and arguments lack originality.
B-	65-69	2.7	Some links made between concepts, or concepts and empirical data, but a lack of coherent understanding of conceptual material is evident.
F	50-64	1.0	Demonstrates weak, few or no attempts to link concepts, or concepts to empirical data. Material lacks coherence. Weak or underdeveloped understandings of conceptual material are evident.

Course Content and weekly overview of events and readings
Sessions denote the in-class time and weeks follow the progression of the course, including Reading Week (week 9).

Please note that there is no class on [name the date], it being in Reading Week.

Session 1: Week 1

Topic: *What is a research contribution?*

(Sub-topic/s: What does it mean to "add" to a body of knowledge?; How do we define a "body of knowledge?"; A contribution as not merely new knowledge, but new knowledge that is important and that contributes to a discipline or field; what does it mean to be "theoretical"?; what are the different ways in which the word "theory" is used? the role of theory in making a research contribution; description versus argumentation; research versus evaluation).

Session 2: Week 2

Topic: *Positioning research in relation to previous literature*

(Sub-topic/s: Similarities and differences in patterns of argument-positioning language in the natural and social / behavioural sciences; the relationship between "theory" and "literature"; relationship between introduction, background, literature review and problem statement).

Readings:

1. Crotty, M.J. (1998). Introduction: The research process. In Crotty, M. (1998). *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage. Pp.1-17.
2. Booth, W.C., Colomb, G.C., Williams, J.M., Bizup, J. & Fitzgerald, W.T. (2016). Thinking in print: The uses of research, public and private. In *The Craft of Research*. (4th ed.). Chicago, IL: University of Chicago Press. Pp. 9-15.
3. Mann, K.V. (2011). Theoretical perspectives in medical education: Past experience and future possibilities. *Medical Education*, 45(1): 60-68.
4. Creswell, J.W. (2014). The use of theory. In *Research Design: Qualitative, Quantitative & Mixed Methods Approaches*. (4th ed.). London, UK: Sage. Pp.51-76.

Session 3: Week 3

Certificate verifying completion of *Tutorial in Research Ethics* due before class.

Topic: *Workshop of student research contributions*

(Sub-topic/s: This session is not the assessable oral presentations. Spending 20-30 minutes on each student's research project, questions addressed will be: To what area of knowledge am I contributing? What do we know about that area? What do we not know? Why do we need to know this? How will I go about producing this knowledge? What is this knowledge likely to contribute?)

Readings:

5. Reid, A.D. (2014). Conceptualizing research in education: Challenging concepts and conceptions. In Reid, A.D., Hart, E.P. & Peters, M.A. (Eds). *A Companion to Research in Education*. London, UK: Springer. Pp.3-12.

6. Alexander, H.A. (2014). Traditions of inquiry in education: Engaging the paradigms of educational research. In Reid, A.D., Hart, E.P. & Peters, M.A. (Eds). *A Companion to Research in Education*. London, UK: Springer. Pp.13-26.

Session 4: Week 4

Student oral presentations

Topic: *Research design: Coherence between philosophy (epistemology and ontology), theory, methodology and methods*

(Sub-topic/s: What makes a research contribution, or product, coherent? How do philosophy [ontology, epistemology], theory, methodology and methods fit together? Why do we need to consider these elements, and why is it important for them to fit together to make a research contribution? What are the basic differences among particular philosophies [epistemologies], theories, methodologies and methods? What are the different ways that the different exemplars at each of these levels be categorized / modeled?)

Readings:

7. Graue, E. & Karabon, A. (2013). Standing at the corner of Epistemology Ave, Theoretical Trail and Methodology Blvd, and Methods Street: The intersections of qualitative research. Trainor, A.A. & Graue, E. (Eds). *Reviewing Qualitative Research in the Social Sciences*. Oxford, UK: Taylor & Francis. Pp.11-20.
8. Ramlo, S.E. & Newman, I. (2011). Q methodology and its position in the mixed-methods continuum. *The International Journal of Q Methodology*, 34(3): 172-191Athens, L. (2010). Naturalistic inquiry in theory and practice. *Journal of Contemporary Ethnography*, 39(1), 87-125.
9. Booth, W.C., Colomb, G.C., Williams, J.M., Bizup, J. & Fitzgerald, W.T. (2016). Revising style: Telling your story clearly. In *The Craft of Research*. (4th ed.). Chicago, IL: University of Chicago Press. Pp.248-268.

Session 5: Week 5

Assignment 1 due before class

Topic: *Structuring a research contribution*

(Sub-topic/s: How do we organize a research product so that these elements fit together? What similarities and differences are there in different academic areas, disciplines or fields [e.g. natural versus human / social / behavioural sciences]? What similarities and differences are there in different academic products [e.g. theses, articles, grant applications, abstracts]?)

Readings:

10. Corley, K.G. & Gioia, D.A. (2011). Building theory about theory building: What constitutes a theoretical contribution? *Academy of Management Review*, 36(1): 12-32.
11. Sutton, R.I. & Staw, B.M. (1995). What theory is not. *Administrative Science Quarterly*, 40(3): 371-384.
12. Weick, K.E. (1995). What theory is not, theorizing is. *Administrative Science Quarterly*, 40(3): 385-390.

13. Davies, P., Walker, A.E. & Grimshaw, J.M. (2010). A systematic review of the use of theory in the design of guideline dissemination and implementation strategies and interpretation of the results of rigorous evaluations. *Implementation Science*, 5:14: http://www.implementationscience.com/content/5/1/14

Session 6: Week 6

Topic: *Forming a research question*

(Sub-topic/s: What is a research question? What constitutes a "good" research question? How does a research question relate to a study's objective? How do research questions relate to the elements of a study's design? What are the patterns in the wording of research questions according to particular methodologies?)

Readings:

14. Punch, K.F. & Oancea, A. (2014). Research questions. In *Introduction to Research Methods in Education*. (2nd ed.). London, UK: Sage. Pp. 77-96.
15. Creswell, J.W. (2014). Research questions and hypotheses. In *Research Design: Qualitative, Quantitative & Mixed Methods Approaches*. (4th ed.). London, UK: Sage. Pp.139-154.

Session 7: Week 7

Topic: *Epistemology & Theory 1: Positivism, constructionism and interpretivism: Implications for data collection, analysis and production*

(Sub-topic/s: What are the central differences between positivism, post-positivism, constructionism and interpretivism? What are the concrete implications for these differences in data collection, data analysis and production? Should some combinations of elements be preferred over others?)

Readings:

16. Crotty, M. (1998). Positivism: The march of science. In *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage. Pp.18-41.
17. Crotty, M. (1998). Constructionism: The making of meaning. In *The Foundations of Social Research: Meaning and Perspective in the Research Process*. In London: Sage. Pp. 42-65.
18. Crotty, M. (1998). Interpretivism: For and against culture. In *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage. Pp. 66-86.
19. Crotty, M. (1998). Interpretivism: The way of hermeneutics. In *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage. Pp.87-111.

Session 8: Week 8

Topic: *Epistemology & Theory 2: Postmodernism, and critical perspectives and inquiry: Implications for data collection, analysis and production*

(Sub-topic/s: What are the central similarities and differences between postmodernism, and critical perspectives and inquiry? How plausible is the claim that feminism and indigenous knowledge represent distinct epistemologies? What are the concrete implications for the differences between

these epistemologies in data collection, data analysis and production)

Readings:

20. Crotty, M. (1998). Critical inquiry: The Marxist heritage. In *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage. Pp.112-138.
21. Crotty, M. (1998). Critical inquiry: Contemporary critics and contemporary critique. *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage.Pp.139-159.
22. Crotty, M. (1998). Feminism: Re-visioning the man-made world. In *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage. Pp.160-182.
23. Crotty, M. (1998). Postmodernism: Crisis of confidence or moment of truth? In *The Foundations of Social Research: Meaning and Perspective in the Research Process*. London: Sage. Pp.183-213.

No class on [indicate the day and date], in Week 9 / Session 9, it being Reading Week

Session 10: Week 10

Topic: *Bridging Theory and Methodology*

(Sub-topic/s: What are the similarities and differences between various theories: including but not limited to: positivism, symbolic interactionism, Marxism, feminism and critical realism? What puts these theories / do they share that put them on the same conceptual level? What are the implications of the similarities and differences between particular theories for data collection, data analysis and production?)

Readings:

24. Kitchel, T. & Ball, A.L. (2014). Quantitative theoretical and conceptual framework use in agricultural education research. *Journal of Agricultural Education,* 55(1): 186-199.
25. Pauwels, L. (2015). "Participatory" visual research revisited: A critical-constructive assessment of epistemological, methodological and social activist tenets. *Ethnography*, 16(1), 95-117.
26. Lather, P. (2007). Postmodernism, Post-structuralism and post (critical) ethnography: Of ruins, aporias and angels. In Atkinson, P., Coffey, A., Delamont, S., Lofland, J. & Lofland, L. (Eds). *Handbook of Ethnography*. London: Sage: 477-92.

Session 11: Week 11

Topic: *Methodologies: How are they similar and different, and to what methods do particular methodologies speak?*

(Sub-topic/s: Revision of relationship between research elements; similarities and differences in the rationales and operationalization of quantitative, qualitative, mixed-method and participatory methodologies; How do differences in methodologies relate to epistemologies and theories?

Methodologies that align with epistemology versus those that align with methodology)

Readings:

27. Gold, R.L. (1997). The ethnographic method in sociology. *Qualitative Inquiry*, 3(4): 388-402.
28. Reed-Danahay, D. (2002). Turning points and textual strategies in ethnographic writing. *International Journal of Qualitative Studies in Education*, 15(4), 421-425.
29. Katz, J. (2015). Situational evidence: Strategies for causal reasoning from observational field notes. *Sociological Methods & Research*, 44(1), 108-144.
30. Rosenthal, R. (1963). On the social psychology of the psychological experiment: The experimenter's hypothesis as unintended determinant of experimental results. *American Scientist,* 51(2): 268-283.
31. Campbell, D.T. & Ross, H.L. (1968). The Connecticut crackdown on speeding: Time-series data in quasi-experimental analysis. *Law & Society Review*, 3(1): 33-54. http://www.jstor.org/stable/3052794

Session 12: Week 12

Topic: *What makes research credible and trustworthy?*

(Sub-topic/s: Assumptions underlying research rigour; rigour according to different methodologies; reliability and validity; randomized versus purposive sampling; what do article and grant reviewers look for?)

Readings:

32. Yilmaz, K. (2013). Comparison of quantitative and qualitative research traditions: Epistemological, theoretical and methodological differences. *European Journal of Education*, 48(2): 311-325.
33. Seale, C. (1999). Quality in qualitative research. *Qualitative Inquiry*, 5(4): 465-478.
34. Kuhn, T. S. (1963). The function of dogma in scientific research. In Crombie, A.C. (Ed.). *Scientific Change* (Symposium on the History of Science, University of Oxford, July 9–15, 1961). New York and London: Basic Books and Heinemann. Pp. 347-369.
35. Popper, K.R. 1979. Conjectural knowledge: My solution to the problem of induction. In *Objective Knowledge: An Evolutionary Approach*. (2nd ed.). Oxford, UK: Oxford University Press. Pp. 1-31.
36. Sugrue, D. (2016). *How to review manuscripts*. Elsevier. https://www.elsevier.com/reviewers-update/story/tutorials-and-resources/how-to-review-manuscripts (Accessed on 24 August 2019).

Session 13: Week 13

Assignment 2 due before class

Topic: *What makes research ethical?*

(Sub-topic/s: Why ethics?; Governance frameworks for ethical research; how is ethical research similar and different for different methodologies? What is the relationship between ethics and methodology?)

Readings:

37. Punch, K.F. & Oancea, A. (2014). Ethics in educational research. In *Introduction to Research Methods in Education*. (2nd ed.). London, UK: Sage. Pp.57-76.
38. Anspach, R.R. & Mizrachi, N. (2006). The field worker's fields: Ethics, Ethnography and medical sociology. *Sociology of Health & Illness*, 28(6), 713-731.
39. Stein, A. (2010). Sex, truth and audiotape: Anonymity and the ethics of exposure in public ethnography, *Journal of Contemporary Ethnography*, 39(5), 554-568.

McGill Policy Statements

McGill University values academic integrity. All students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures. In accord with McGill University's Charter of Students' Rights, students in this course have the right to submit in English or in French written work that is to be graded. End-of-course evaluations are one of the ways that McGill works towards maintaining and improving the quality of courses and the student's learning experience. You will be notified by e-mail when the evaluations are available on Mercury, the online course evaluation system. Please note that a minimum number of responses must be received for results to be available to students.

APPENDIX E

PhD Course Outline
HSED701: Comprehensive Examination (0 credits)

Including provision of the written and oral tasks to successfully complete the PhD program

Introduction

The Comprehensive Examination of the PhD program of the Institute of Health Sciences Education (IHSE) is divided into two components: a written component and an oral component. The student submits a written proposal for examination which, following responses or amendments and re-examination, is the basis of an oral examination. The comprehensive examination is a mandatory requirement for the awarding of a PhD at McGill University. All procedures concerning the assessment of written and oral components of the Comprehensive Examination can be found on the McGill University Graduate and Postdoctoral Studies website (https://www.mcgill.ca/gps/). PhD students of the Institute of Health Sciences Education are required to enrol in *HSED701: Doctoral Comprehensive Examination* (0 credits; assessed as pass/fail). The purpose of the Comprehensive Examination is to assess whether the student has the knowledge and academic ability (including the ability of critical synthesis) needed to continue in the PhD program. The student must demonstrate that they are able to design an original research project and that they have the necessary research capabilities to carry it out.

Students must have completed this examination process by the end of their second year of full-time equivalent enrolment. Students must pass both the written and the oral components of the examination to be considered to have passed. Regulations relating to failure are found under the University's Summary Examination Policy: http://www.mcgill.ca/study/2016- 2017 / university_regulations_and_resources / graduate (English only).

The Comprehensive Examination process will take the form of a written and oral defense of a research proposal. This process will span a period of 16 weeks which will allow sufficient time for review, modifications and re-reviews. The student must plan to submit their proposal at the beginning of the Fall or Winter semester to comply with the academic deadline for the submission of grades for progress in the program. The written and oral components of the comprehensive examination will be rated either as "successful" or "unsuccessful". Decisions of the oral component of the examination are made by consensus of the examination committee or, if necessary, by majority vote. At both written and oral stages of the examination process, the assessment and the reasons for it will be documented and provided to the student in detail.

Within the Institute of Health Sciences Education, a Graduate Programs Committee will internally govern the processes of the Comprehensive Examination, in line with the policies of the Graduate and Postdoctoral Studies Office. The Graduate Programs Committee will be chaired by the Associate Director (Graduate Studies) and will

comprise up to eight of the Institute's faculty members, or associate members who have been approved by the committee for supervision in the Institute, and a graduate student representative, comprising an overall odd number to facilitate voting.

The Comprehensive Examination process
The following sections provide more detail about the written and oral components of the comprehensive examination.

1. Although the written proposal is the first activity, the date for the oral examination will be established by the PhD candidate, the supervisor (s) and the Associate Director (Graduate Studies), from which the examination proceed.

2. The supervisor will recommend to the Associate Director (Graduate Studies) two examiners, who are, respectively, internal and external to the Institute, and who are not in a conflict of interest with the student or the primary supervisor, as defined by McGill University. The examiners are chosen on the basis that they contain substantive or methodological expertise relevant to the project. The supervisor must ensure the availability of examiners for the period of examination of the written proposal and the date of the oral examination.

3. The Associate Director (Graduate Studies) will formally invite the examiners to participate as examiners.

4. Following agreement by the supervisor, the written doctoral proposal will be provided to the Associate Director (Graduate Studies), for transmission to the examination committee 16 weeks prior to the date of the oral component of the examination. The examiners will have four weeks (or 30 days) to review the written proposal and prepare a series of comments to improve the proposal, and questions for the PhD candidate to answer in a written response. The examiners will indicate which comments and questions must mandatorily be addressed and which ones are optional.

5. Comments and questions from the examiners will be returned to the Associate Director (Graduate Studies), and for review to the PhD Supervisor, and include between three and six questions. These comments and questions will be forwarded to the candidate within one week of receipt by the Associate Director (Graduate Studies). The student will have three weeks to respond in writing to the Associate Director (Graduate Studies).

5. Written responses by the student to questions and comments will be reviewed by the supervisor and the Associate Director (Graduate Studies) within one week of receipt of responses from the student, and will be forwarded to examiners no later than six-weeks prior to the oral examination.

6. The examiners will have three weeks to review the answers to the questions and comments to ensure that they are satisfactory. They are required to notify the Associate Director (Graduate Studies) of their response. If they are deemed unsatisfactory, the process will be considered a failure for the written component, and the oral examination

procedure will be resumed in the next semester. If the answers are deemed satisfactory, the candidate will proceed to the final stage, that being the oral examination, three weeks later.

7. The candidate will present a privately-convened oral defense of their PhD proposal on the day of the oral examination and respond to committee questions.

Written component
The written component has three parts:

- Document A: Research proposal
- Document B: Statement of the relationship of the research to the field of Health Sciences Education
- Document C: Statement of the relationship of the research to the conceptual and methodological landscape relating to IHSE research.

The proposal (Document A) must accord with the appropriate standard to be submitted to a funding agency as a grant application. It is expected to be between 5,000-10,000 words in length, not including references or appendices. Documents B and C are expected to be between 500 and 1,000 words in length.

The proposal (Document A) must accomplish or be comprised of the following:

- Situates the topic in the broad field of HSE research;
- Identifies and states what is known in the particular topic area of the HSE field to which the research project belongs;
- Identifies both a gap and problem in that body of literature, which conveys the importance of and, hence, rationale for, resolving the gap;
- Presents a clear and specific objective or question, or set of objectives or questions that follow from the above problem statement;
- Outlines a clear and detailed methodology which coheres with the above problem statement, which clarifies the ethical dimensions and limitations of the research project, which documents ways to enhance the study's research validity or trustworthiness, and a timeline of the research;
- Conveys the potential original contributions of the project to the knowledge in their topic area and also to the field of HSE research;
- Outlines implications for further research
- Includes considerations for knowledge translation to policy and practice; and
- Includes appropriate references, and appendices (such as data collection tools or evidence of ethical approval).

Document B must situate the research in the perspective of the broad field of IHSE research. Its purpose is to show integration of material contained within the mandatory courses, *Advanced Topics in Health Sciences Education: Knowledge, Context & Exchange* (*insert course code*) and *Research Design: Theories & Methodologies* [*insert*

course code], and key components of these courses have been taken into account in the student's research focus and approach.

Of the questions (between three and six) that the examiners are required to pose to the student in the written response to the written proposal, at least two questions must relate to topics in the broad field of HSE research, and the choice of methodology or methods used in preference to other options. That is, at least one question must relate to the way the student has positioned their topic in the broader field of HSE research, and at least one question must relate to the way the student has positioned their research in the broad conceptual and methodological landscape of HSE research. The response to each questions is expected to be between approximately 350 and 700 words. The student's supervisor is allowed to informally advise the student, but may not write into the student's response. If the student's response is deemed "unsatisfactory" by the two examiners, the student will be required to wait six months before attempting the written component again for their final attempt at the written component.

Oral component of the examination

If the student has received a rating of "satisfactory" for their proposal and responses to the questions and comments of the examiners, they will proceed to the oral component of the examination. The oral component will be chaired by the Associate Director (Graduate Studies) or a designated member of the Graduate Programs Committee (e.g., where the Associate Director [Graduate Studies] is the Primary Supervisor). The Associate Director will also read the proposals. The oral component will also comprise the primary supervisor, co-supervisor where relevant, internal examiner and external examiner. The oral examination will take place in a private session, and in the audiovisual conference room at the Institute of Health Sciences Education or other appropriate room at McGill University, by arrangement. The Chairperson, Primary Supervisor and Co-supervisor will be able to speak but not vote. The success of the examination will be determined by a consensus of the two examiners. In the evident of a conflict the Chairperson will make a determination.

The Associate Director (Graduate Studies) will have received the results of and student responses to the written proposal prior to the oral component ("successful" / "unsuccessful"). The student will orally present a 30-minute summary of the written proposal. This presentation will be followed by a question and answer period of approximately 90 minutes. This means that the oral component of the examination is expected to take approximately two hours in total. The structure and content of the oral presentation part of the oral component of the examination will be expected to broadly follow that of the written proposal, indicated above. In addition, the student will be expected to explicitly convey in their presentation in-depth knowledge of the content of the two mandatory courses for IHSE-enrolled PhD students, by positioning their research topic and approach in relation to these courses: *HSED 702: Advanced Topics in Health Sciences Education: Knowledge, Context & Exchange*, and *HSED: 703: Research Design for Health Sciences Education: Theories and Methodologies*.

Following the student's 30-minute presentation, and the 60-minute free-flowing question and answer session, examination committee members will meet privately for 15 to 30 minutes to discuss all elements of the review and determine the outcome ("satisfactory" or "unsatisfactory"). The candidate will be invited to return to the room to hear the committee's comments and decision.

Examination results will be formalized on the official McGill University Graduate and Postdoctoral Studies Assessment forms. The student must obtain a rating of "meets the requirements" or higher for their written proposal, written answers to examiner's questions, oral defense and oral responses to examiners. If a rating of "below expectations" is given to one or more of these items, depending on the examiners' responses and the oral examination committee's deliberations on the day of the oral portion of the exam, the student may be permitted to re-take the oral component of the examination for items deemed unsatisfactory, in accordance with the overall doctoral policy of McGill University Graduate and Postdoctoral Studies. If the student fails the oral examination subsequently, they will be removed from the program. The Associate Director (Graduate Programs), or a designated member of the Graduate Programs Committee (where the Associate Director (Graduate Programs) is the primary supervisor) will sign to authorize the failure of the examination process, or its successful completion.

APPENDIX F

Letters of Support for the Proposed PhD in HSE

This appendix includes letters of support received thus far – including:

-The Vice-Dean, Education in the Faculty of Medicine,

-The Dean, Faculty of Education,

-The Dean, Faculty of Dentistry,

-The Director and Associate Dean of the Ingram School of Nursing,

-The Director and Associate Dean of the School of Physical and Occupational Therapy,

-The Director and Associate Dean of the School of Communication Sciences and Disorders,

-The Chair, Department of Family Medicine,

-The Chair, Department of Surgery,

-The Assistant Dean, Biomedical Sciences Education,

-The Chair of the Canadian Centre Directors' Group (of Directors of Educational Units),

-The Scientific Director of Réseau-1 Québec,

-An international colleague (from Maastricht University), who offers one of the largest PhD programs in this field.

McGill

Dr. Annette Majnemer

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Dr. Yvonne Steinert
Institute of Health Sciences Education
Lady Meredith House, 2nd floor
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September 24, 2019

Dear Yvonne,

I am writing in strong support of the Institute of Health Sciences Education's intention to establish a PhD program in Health Sciences Education (HSE).

As part of the Faculty of Medicine's strategic plan called "Project Renaissance", I was given the mandate to develop an Education Strategic Plan. As part of this process, a committee called Steering Educational Excellence (SEE) was assembled in order to examine and capture the thematic areas of greatest importance to the educational mission of the Faculty. The SEE committee, following extensive stakeholder engagement and in consultation with the Dean and the Dean's Operations Committee, selected three priority areas to promote and support: (i) learning-centred approaches and student engagement; (ii) interprofessional and interdisciplinary approaches; and (iii) educational research and scholarship. These areas were felt to be of greatest strategic importance to the Faculty of Medicine as a whole, each requiring deliberate and timely new directions and innovation.

I will draw your attention to the third goal of educational research and scholarship, where the creation of an Institute in Health Sciences Education and subsequent establishment of a PhD program would be the vehicle to accomplish and strengthen our position as national and international leaders in educational research in the health sciences.

The establishment of a PhD program in the Institute in Health Sciences Education is clearly a synergistic link to the Faculty's Education Strategic Plan and broader vision of supporting our mandate of educational excellence in the Faculty of Medicine. To this end, I see the Institute of Health Sciences Education as a global leader in the generation of new scientific knowledge in health sciences education through participation in international collaborations of research and practice. The PhD program would provide an essential component of building capacity in health science education research. Of note, there are few PhD programs worldwide that are broadly focused on health professions and biomedical sciences education. This program will therefore greatly enhance the international profile of the Institute, and indeed, of McGill University as a leader in health sciences education scholarship and research.

McGill
Dr. Annette Majnemer
Vice Dean - Education

It is with great enthusiasm that I endorse the creation of a PhD program in the Institute of Health Sciences Education and look forward to supporting this worthwhile endeavour.

Sincerely,

Annette Majnemer

Annette Majnemer, OT, PhD, FCAHS
Vice-Dean, Education
Faculty of Medicine

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October 15, 2019

Dr. Yvonne Steinert
Institute of Health Sciences Education
Faculty of Medicine, McGill University
Lady Meredith House,
1110 Pine Ave West,
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Dear Dr. Steinert:

It is my pleasure to write this letter of support for the establishment of a PhD program in Health Sciences Education in the newly created Institute of Health Sciences Education (IHSE) at McGill.

As Dean of the Faculty of Education, I am aware of the unique relationship with the Faculty of Medicine in the domain of Health Sciences Education. I endorsed the broad objectives of the creation of the Institute of Health Sciences Education (HSE) in the hope that the suggested structure would not only advance HSE in the Faculty of Medicine but would also enrich the graduate programs currently offered in the Faculty of Education. This new PhD would also build on our Masters of Educational Psychology (with a focus on health professions education) and our soon-to-be created joint Certificate in Health Sciences Education. Our Faculty has agreed to welcome candidates from the proposed PhD to benefit from the expertise of our research methodology courses and some of our faculty members (e.g. Prof. Susanne Lajoie) would be pleased to participate in the supervision of the PhD candidates.

We look forward to continued collaboration in the field of Health Sciences Education.

Yours sincerely,

Dilson Rassier, PhD

McGill

CGPS-NP-Ph.D.HealthSciEdu-T_R00

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29 octobre 2019

Dre Yvonne Steinert
Institute of Health Sciences Education
Faculty of Medicine, McGill University
Lady Meredith House,
1110 Pine Ave West,
Montréal, QC, H3A 1A3

Chère Yvonne,

C'est avec grand plaisir que je vous écris dans le but d'exprimer mon soutien pour un programme de troisième cycle en éducation des sciences de la santé offerte par l'Institut d'Éducation en Sciences de la Santé de la Faculté de médecine de McGill.

En tant que doyenne de la Faculté de médecine dentaire, je comprends l'importance de notre partenariat unique avec la Faculté de Médecine concernant nos ressources partagées et les étudiants que nous soutenons. Nos facultés respectives valorisent l'engagement vers l'excellence et l'innovation. À ce titre, l'un des objectifs principaux de la Faculté de médecine dentaire est d'encourager la recherche innovante ainsi que de contribuer à l'amélioration des connaissances et au bien-être de la population à travers la formation de nos étudiants.

Dans ma première lettre de soutien pour la création de l'Institut d'Éducation en Sciences de la Santé, j'ai souligné l'engagement de la Faculté de médecine dentaire en matière de développement et d'amélioration des programmes de recherche et d'enseignement en santé bucco-dentaire. En effet, les chercheurs de notre faculté se penchent sur plusieurs axes de recherche importants liés à la santé bucco-dentaire, tant en lien avec les services cliniques qu'en recherche fondamentale, tout en forgeant de multiples collaborations interdisciplinaires avec l'Université McGill et autres partenaires.

Plusieurs de nos chercheurs ont une réputation internationale, des domaines expertise variés, et contribuent à des avancées scientifiques d'envergure. C'est avec grand plaisir que j'ajoute à notre accord de partenariat l'offre de cours complémentaires aux étudiants du programme de troisième cycle en éducation des sciences de la santé à même notre faculté. Je suis d'autant plus heureuse de souligner le rôle que Mme Mary Ellen Macdonald jouera dans le cadre de ce nouveau programme de doctorat. Mme Macdonald est l'une des membres les plus accomplis de notre faculté.

En terminant, je continue de soutenir la création d'opportunités et la synergie entre la Faculté de médecine dentaire et l'Institut d'Éducation en Sciences de la Santé. J'approuve cette initiative avec grand enthousiasme.

Cordialement,

Dre. Elham Emami

Doyenne de la Faculté de médecine dentaire

McGill | Ingram School of Nursing | École des sciences infirmières Ingram

October 31, 2019

Dr. Yvonne Steinert
Institute of Health Sciences Education
Faculty of Medicine, McGill University
Lady Meredith House,
1110 Pine Ave West,
H3A 1A3

Dear Yvonne,

As Associate Dean and Director of the Ingram School of Nursing, I am writing this letter in support of the establishment of a PhD in the Institute of Health Sciences Education, Faculty of Medicine.

The Ingram School of Nursing is based on three core tenets of academic excellence, research and innovation, and community, all of which are expressed in fostering collaboration with clinical and community partners locally, nationally and globally. There is no doubt of the potential to partner with the Institute of Health Sciences Education in ways that will increase the research opportunities for our faculty members and contribute to the interprofessional dimension of research and practice that takes place as part of the PhD program in the Institute.

With the recent implementation of the Institute of Health Sciences Education, which is an inter-professional and interdisciplinary space for collaboration in Health Sciences Education, we continue to support the initiative with the development of a PhD in Health Sciences Education, which I expect will be critical to the creation of new knowledge, evidence-informed teaching and learning, and knowledge translation in the health sciences. We also continue to welcome the opportunity to provide electives for candidates in the proposed PhD program.

As with the establishment of the Institute, I am convinced that this proposed PhD program is both a practical and innovative move forward. I am pleased to lend my support and the collaboration of our School.

Sincerely,

Anita Gagnon, RN, MPH, PhD
Associate Dean, Faculty of Medicine
Director, Ingram School of Nursing

McGill

Dr. Laurie Snider

Director and Associate Dean
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October 18, 2019

Yvonne Steinert PhD
Director, Institute of Health Sciences Education
Faculty of Medicine, McGill University

Dear Dr Steinert,

I am delighted to write this letter of support for the proposed doctoral program in Health Sciences Education, being developed in the Faculty of Medicine, by the newly founded Institute of Health Sciences Education. There is a pressing need for a doctoral program of study in health sciences education. This is demonstrated by the IHSE's commitment to Best Evidence Medical Education, an important initiative that has the support of both medical and health professions partners, nationally and abroad. This is a wonderful opportunity to align common goals, maximize efficiencies and enable greater opportunities for innovation, growth and development, and discovery.

The School of Physical & Occupational Therapy in the Faculty of Medicine, McGill University, is committed to supporting your efforts, particularly with reference to this strategic educational and academic opportunity. Importantly, we are dedicated to building research capacity within this new alliance and to support interactive activities that will promote knowledge uptake and implementation, ensuring best practice. The proposed doctoral program will enable us to position highly qualified personnel to influence and expand the evidence-informed health professions education agenda at the national and international level.

This worthy proposal will benefit from your leadership, experience, and commitment. I look forward to our ongoing collaborations in the future, particularly in terms of the supervision of doctoral students in this worthwhile program,

Best personal regards,

Laurie M. Snider

Laurie Snider OT, PhD
Director and Associate Dean

McGill

School of
Communication Sciences
and Disorders

École des
sciences de la
communication humaine

SCSD

Dr. Yvonne Steinert
Institute of Health Sciences Education
Faculty of Medicine, McGill University
Lady Meredith House,
1110 ine Ave West,
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Dear Yvonne,

It is my pleasure to write a letter of support for the establishment of a PhD program in the Institute of Health Sciences Education (IHSE), Faculty of Medicine.

As Associate Dean and Director of the School of Communication Sciences and Disorders (SCSD), I strongly encourage this initiative. The SCSD was the first department in Canada to offer a PhD in Communications Sciences and Disorders; this program remains an integral part of the mission and identity of the School to this day. However, our core mission is clinical training, specifically the education of speech-language pathologists. With the transition to a competency-based approach, innovations in health sciences education are essential to the effective implementation of new teaching and assessment practices in our school. The success of a PhD program ensures that there will be well-qualified researchers, scholars and clinician-scientists in Canada to train future generations of scholars in our field, and I am delighted to see that such a program will be developed in Health Sciences Education.

The Institute of Health Sciences Education (IHSE)'s potential role in the dissemination and promotion of innovative health science education scholarship, with the goal of impacting patient care, will have significant consequences. To accomplish your goal, I agree that an increase in research capacity is required; this is best achieved through graduate programs such as a field-specific PhD.

A PhD in Health Sciences Education will result in greater opportunities for scholarship and knowledge dissemination. I enthusiastically endorse this forward-thinking initiative.

Sincerely,

Susan Rvachew

Susan Rvachew, Ph.D., S-LP(C), ASHA Fellow
Director and Associate Dean

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September 26, 2019

Dr. Yvonne Steinert
Institute of Health Sciences Education
Faculty of Medicine, McGill University
Lady Meredith House,
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Dear Yvonne,

I am writing this letter regarding the establishment of a PhD program in the Institute of Health Sciences Education. I am in full support of this initiative, especially as I believe that a PhD program in health sciences education will advance the field, inform more innovative, evidence-informed teaching and learning, and ultimately impact patient care.

As you know, the Department of Family Medicine believes that research in Family Medicine is essential to the achievement of excellence in patient care and education and we have placed a high priority on Family Medicine Educational Research as well. The imperative of research in the field of health sciences education is equally important in order to ensure that independent research and scholarship advances the field of health sciences education, research and practice. Research topics in the field of Family Medicine and Primary Care cross conventional disciplinary boundaries and research traditions. The training programs in the Department of Family Medicine incorporate an interdisciplinary approach with an emphasis on community engagement. The PhD in Health Sciences Education aligns well with our practices.

The Department of Family Medicine is a significant contributor to the Institute of Health Sciences Education (IHSE) through a number of key members (including you as the current director, Peter Nugus and Miriam Boillat) and foresees making further contributions, specifically in the area of international collaborations and graduate education. In many ways, I believe that sharing some of our graduate courses will be mutually beneficial and that our graduate courses will help to enrich the PhD in the IHSE. I also foresee an increase in the synergistic relationship which promotes increased scholarship opportunities for both current faculty and future leaders in the fields of Family Medicine and Health Sciences Education (HSE).

In closing, I am pleased to endorse and support a PhD in the Institute of Health Sciences Education.

Sincerely,

Howard Bergman MD, FCFP, FRCPC, FCAHS

Cc to Dr. Tibor Schuster, PhD Graduate Programs Director
Dr. Isabelle Vedel, Masters Graduate Program Director
Dr. Marion Dove, Associate Chair of Education
Dr. Gillian Bartlett, Associate Chair of Research

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McGill | Faculty of Medicine

GERALD M. FRIED, MD, CM, FRCS(C), FACS, FCAHS
Edward W. Archibald Professor and Chairman
Department of Surgery, McGill University

Surgeon-in-Chief
McGill University Health Centre

McGill University Health Centre

CGPS-NP-Ph.D.HealthSciEdu-T_R00

September 23, 2019

Dr. Yvonne Steinert
Institute of Health Sciences Education
Faculty of Medicine, McGill University
Lady Meredith House,
1110 Pine Ave West, H3A 1A3

Dear Yvonne,

It is my pleasure to write a letter of support for the creation of a PhD program in the Institute of Health Sciences Education. I recently provided my full support of this new Institute with the belief that affiliation with it will give faculty members opportunities to expand their research capacity and share in a culture of scholarship that is deeply reflective and generative.

As you know, the Department of Surgery considers research a core tenet of our mission and one of our foremost responsibilities. Our research programs in Experimental Surgery encompass basic science, clinical investigation, health services studies, global surgery, surgical innovation and surgical education. We are also proud to offer a surgeon-scientist program, funded by our practice plan and a generous endowment by the Fast Foundation, in which our trainees are able to take a leave of absence from their clinical training to enroll in a formal degree program (Masters or PhD) in Experimental Surgery or other related field.

From our correspondence, I understand that a PhD in the Institute of Health Sciences Education at McGill University will be complementary with the mission and programs of the Department of Surgery. I am also convinced of the value of a PhD program in health sciences education, which may benefit clinical trainees, practicing clinicians and educators, and emerging researchers, and has the promise of increasing quality research in this field. I envision synergy with our Surgical Education concentration. With the guidance and expertise of the Institute, this independent research will hopefully have an impact on the training of future health professionals and on patient care.

I firmly believe that the Institute of Health Sciences Education will continue to be champions of health sciences education at McGill, nationally and internationally. With the establishment of the Institute of Health Sciences Education, the ability to house and offer graduate programs in health sciences education will help develop the next generation of researchers and leaders in the field. I offer my full support and endorsement of the proposed PhD program.

Sincerely,

Gerald M. Fried, MD

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Dr. Yvonne Steinert, Ph.D.
Director, Institute of Health Sciences Education
Richard and Sylvia Cruess Chair in Medical Education
Faculty of Medicine, McGill University

September 27th, 2019

Dear Yvonne,

I am writing this letter in support of the creation of a PhD program in the Institute of Health Sciences Education (IHSE).

As the Assistant Dean, Biomedical Science Education in the Faculty of Medicine, my role is to support the implementation of the Faculty's Strategic Education Plan. As a member of the Centre for Medical Education and now the Institute of Health Sciences Education (IHSE), I have been involved in developing translational training for professional, undergraduate, and graduate students, as well as curriculum development in the undergraduate medical program. From this experience, I am happy to endorse both the need and the capacity of the IHSE to offer a PhD in Health Sciences Education.

A PhD in Health Sciences Education would be complementary to the mission and programs offered for graduate training in the biomedical sciences at McGill University. In order to advance best practices in teaching and learning in the health sciences, it is essential to promote research and scholarship. I expect the PhD program to attract international students and serve to local Québec population of students who wish to pursue studies in health sciences education.

I believe that this PhD program will support the goals of the Education Strategic Plan in the Faculty of Medicine and beyond. For this reason, I am pleased to endorse the PhD program offered by the IHSE.

Sincerely,

Terry Hébert
Professor
Department of Pharmacology and Therapeutics
Assistant Dean, Biomedical Science Education,
Faculty of Medicine
McGill University

UNIVERSITY OF CALGARY

CUMMING SCHOOL OF MEDICINE
Department of Community Health Sciences
TRW Building, 3rd Floor
3280 Hospital Drive NW
Calgary, AB CANADA

September 23rd 2019

RE: Proposed PhD program in HSE at McGill

To Whom It May Concern,

I am pleased to provide this letter in support of the development of a PhD program in Health Sciences Education in the Institute of Health Sciences Education in the Faculty of Medicine at McGill. As a field, health sciences education (HSE) has developed significantly over the years as is reflected in the growing number of dedicated journals and conferences, the development of centres and other units focused exclusively on HSE, and the growing number of scholars who are pursuing their entire careers in HSE. The context of HSE research is unique in its interplay of theory and practice, because much of the subject matter of HSE research arises from challenges in, and is invariably connected to, the applied contexts of health care and health education.

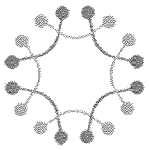
While learners at McGill can currently pursue a PhD through clinical sciences, social sciences, or education, these programs do not align well with the rapidly developing field of health professions education. Indeed, none of Quebec's four medical schools offers a PhD level qualification in this field. As a result, learners seeking advanced training in the field must either compromise their focus by taking a program outside our field, or they must relocate to an institution that offers a suitable program. Neither is ideal, which is why we have a combined MSc and PhD in medical education in Calgary.

Now that McGill has an HSE institute, a next logical step is to set up an advanced graduate program that aligns with the vision and mission both of the institute and the needs of the McGill HSE community at large. Not only will this mean that they will be able to train their own faculty, they can have broader influence both within the university and beyond through graduates of the program taking up leadership and academic positions in other HSE programs and streams. While McGill has been one of the more prominent schools on the national stage in terms of the number and quality of hires into academic HSE positions, other schools and institutions are also seeking well-trained HSE scientists. Physicians who obtain a PhD in HSE can also take on major leadership roles at the institutional, national, and international levels. Moreover, the proposal is that, while coursework will need to be in English, the PhD thesis and supervision can be in French, an opportunity unique to McGill and one that could reasonably see growing participation from other HSE institutions in Quebec.

As the current Chair of the Canadian Centre Directors' Group, as a Centre Director myself, and as someone who holds a number of leadership positions in and around the science of health professions education, the proposed PhD program at the IHSE would be a significant benefit to learners and scholars in McGill and beyond, it would support the mission of the new institute and be a significant investment in its sustainability and growth, and it would be a welcome addition to the national landscape of HSE. In conclusion, I fully support the development of the proposed PhD program at McGill within the IHSE and look forward to its future successes.

Yours,

Dr. Rachel Ellaway
Professor, Community Health Sciences
Director, Office of Health and Medical Education Scholarship
The University of Calgary



Réseau-1 Québec
Réseau de connaissances en services et soins de santé intégrés de première ligne

Longueuil, le 18 septembre 2019

Dre Yvonne Steinert
Directrice, Institut d'éducation en sciences de la santé
Université McGill
1110 Avenue des Pins Ouest
Montréal, Québec H3A1A3
Canada

Objet: Programme de doctorat en éducation en sciences de la santé, offert par l'institut d'éducation en sciences de la santé

Chère Dre Steinert,

Je suis très heureux de fournir une lettre de soutien à votre programme de doctorat qui fournira une formation avancée en éducation en sciences de la santé en tant que directeur de Réseau-1 Québec.

Le Réseau-1 Québec (R1Q) est un réseau de connaissances en services et soins de santé intégrés de première ligne. Son but ultime est d'imbriquer une culture collaborative entre cliniciens-praticiens, chercheurs, patients et gestionnaires dans la production et l'application de connaissances visant l'amélioration des pratiques pour le bénéfice des patients. Le R1Q est fondé sur une infrastructure de cliniques qui sont rattachées à un des quatre réseaux de recherche axée sur les pratiques de la première ligne (RRAPPL) qui couvrent tout le territoire du Québec. Chaque RRAPPL est sous la responsabilité d'un département de médecine de famille et de médecine d'urgence à l'Université Laval, à l'Université McGill, à l'Université de Montréal et à l'Université de Sherbrooke.

J'estime que le programme que vous proposez de développer dans le domaine de la recherche sur l'éducation en sciences de la santé présente un grand intérêt et sera important pour notre réseau. Les soins et les services de santé intégrés en première ligne sont une priorité absolue pour tous les systèmes de santé, y compris au Québec. Ainsi, les attentes sont nombreuses vis-à-vis de la première ligne, qui est le lieu où une grande partie de la recherche en santé trouve son application ultime. Le programme de doctorat proposé dans le domaine de l'éducation en sciences de la santé offre l'occasion d'élargir le champ de la recherche sur les soins primaires et aide nos réseaux à se développer en tant que communautés durables de pratique et d'apprentissage.

Nous prévoyons un rôle pour vos diplômés en tant que leaders de la recherche en santé et en éducation, et en tant que décideurs, leaders professionnels et du secteur. Ceci est un premier

program du genre au Québec. Je suis heureux d'apprendre que le programme sera disponible pour tous les étudiants du Québec. Nous recommanderions volontiers ce programme aux étudiants, aux professionnels et aux responsables des politiques de la santé passionnés par la recherche et fondant leurs décisions et leurs pratiques en matière d'éducation et d'institutions sur des bases factuelles solides.

C'est avec grand plaisir que je soutiens cette initiative et espère rencontrer vos futurs diplômés.

Avec mes salutations les plus distinguées,

Yves Couturier, Ph.D.
Directeur scientifique
Réseau-1 Québec

Réseau-1 **Québec**
Université de Sherbrooke, Campus de Longueuil
150 Place Charles-Le Moyne, bureau 200
Longueuil (Québec) J4K 0A8
Tél.: 450-463-1835, poste 61424
www.reseau1quebec.ca • info@reseau1quebec.ca

Maastricht University

Institute for Education
Faculty of Health, Medicine and Life Sciences

Dr. Yvonne Steinert
Institute of Health Sciences Education
Faculty of Medicine, McGill University
Lady Meredith House,
1110 Pine Ave West,
H3A 1A3

Department of
Educational Development &
Research

Your reference	*Our reference*	*Direct line*	*Maastricht*
	414.B19.056	*+31-43 388 5726*	September 24, 2019

Re: Letter of support

Dear Yvonne,

As a colleague in the field of health sciences education, it is my pleasure to write a letter of support for the establishment of a PhD program in the new Institute of Health Sciences Education.
As Chairman of the Department of Educational Development and Research, Maastricht University, it gives me great pleasure to endorse this initiative. Our Department provides educational support to all degree programs in the Faculty of Health, Medicine and Life Sciences and offers graduate programs in health sciences education to national and international individuals with a commitment and dedication to research and scholarship in the health professions. In particular, advanced educational training programs are offered through the School of Health Professions Education, including the Master's and PhD degrees in Health Professions Education as well as several national and international short courses. Areas of expertise include curriculum development, faculty development, assessment, quality management, and e-learning. The Department also focuses on two major topics of educational research: innovative learning programs and assessment of professional competence.
At Maastricht University (UM), a PhD degree is not just a study but a serious research project that adds new knowledge to a given field. Our research programmes address critical societal challenges and often have a multidisciplinary focus. At Maastricht University, PhD candidates are respected as full-fledged members of our research community. There is a high level of interdisciplinary and inter-institutional cooperation at UM, and PhDs often complete their dissertation alongside their career. From my in-depth knowledge of the IHSE, I know that a PhD program will open the gate to increased possibilities in many substantive areas of advanced training, research and international collaboration.
I have followed and endorsed the recent change from being a Centre for Medical Education to the Institute of Health Sciences Education, and in that process, I was made aware of the context of McGill University and the significant gap in your ability to recruit international graduate students. A PhD program is something that we can say is an essential part of the richness and diversity of the research produced in our institution. Knowing that you have the capacity to meet the criteria of a PhD program, it would only be a logical next step in the evolution of your mandate.

Visiting address
065.76.25.418
Universiteitssingel 60
6229 ER Maastricht

Postal address
P.O. box 616
6200 MD Maastricht
The Netherlands

T +31 43 388 5726

www.maastrichtuniversity.nl
www.maastrichtuniversity.nl/she

Bank account number:

IBAN: NL47 INGB 0657 6254 18
BIC: INGBNL2A

BTW identificatie EU
NL0034.75.268.B01

I am also aware that you have sought consultation throughout your faculty and received unanimous approval for the Institute of Health Sciences Education, and by extension the creation of the PhD program, from your Faculty Council. Surely, the discussions included the number of Maastricht alumni who are current members of the Institute of Health Sciences Education, including Dr. Beth-Ann Cummings, Dr. Stuart Lubarsky, Dr. Farhan Bhanji, Dr. Mylène Dandavino and Dr. Michelle Elizov. It is worth noting that members of the Centre for Medical Education are regularly called upon to provide expertise in their respective fields, and they have had an enormous role in developing and implementing medical education at McGill, regionally, in Canada, and around the world.

It is with great excitement that I conclude this letter of support in the hope that our collaborations will continue and be mutually enriching to our shared value of research excellence.

Sincerely,

Professor Dr Erik Driessen
Chair Department of Educational Development & Research

McGill

New Program/Concentration Proposal Form

APC APPENDIX A [20-APC-04-34]

(2019)

1.0 Degree Title
Please specify the two degrees for concurrent degree programs

Professional Development Certificate

2.0 Administering Faculty or GPS

School of Continuing Studies

1.1 Major (Subject/Discipline) (30-char. max.)

Cloud Computing

Offering Faculty & Department

SCS / Career and Professional Development

1.2 Concentration (Option) (30 char. max.)

3.0 Effective Term of Implementation
(Ex. Sept. 2019 or 201909)
Term

842009

1.3 Complete Program Title (info from boxes 1.0+1.1+1.2+5.2)

Professional Development Certificate in Cloud Computing

4.0 Rationale and Admission Requirements for New Program/Concentration

According to Gartner's forecast, the public cloud services market will almost double through 2022 with companies constantly accelerating adoption of public cloud services. However, there is a significant deficiency of cloud computing expertise amongst current IT workforce. This program aims to help reskill IT professionals whose skills are rapidly declining in relevance due to emerging technologies, and to create a path for companies to increase the capabilities of their IT workforce in cloud computing. Program Admission Requirements – please refer to the additional page at the end of this form.

5.0 Program Information
Indicate an "x" as appropriate

5.1 **Program Type**

- Bachelor's Program
- Master's
- M.Sc.(Applied) Program
- Dual Degree/Concurrent Program
- Certificate
- Diploma
- Graduate Certificate
- Graduate Diploma
- **X** Professional Development Cert
- Ph.D. Program
- Doctorate Program (Other than Ph.D.)
- Self-Funded/Private Program
- Off-Campus Program
- Distance Education Program
- 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
- **X** Continuing Studies (Non-Credit)
- Collegial
- Masters & Grad Dips & Certs
- Doctorate
- Post-Graduate Medicine/Dentistry
- Graduate Qualifying

5.4 **Requires Centrally-Funded Resources**

Yes ___ No _X_

6.0 Total Credits or CEUs (if latter, indicate "CEUs" in box)

33 CEUs

7.0 Consultation with

Related Units	Yes **X**	No
Financial Consult	Yes	No **X**

Attach list of consultations.

8.0 Program Description (Maximum 150 words)

This non-credit professional development certificate program is designed to equip professionals with the industry-relevant knowledge and skills required to manage and secure the software lifecycle in cloud-based environments, and to become fully functional Cloud Solution Architect, Cloud, Site Reliability, DevOps, and Kubernetes specialists.

The program is offered in English and must be completed within 2 years.

9.0 List of proposed new Program/Concentration

If new concentration (option) of existing program, a program layout (list of all courses) of existing program **must** be attached.

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

Professional Development Certificate in Cloud Computing (33 CEUs)

Required Courses (26 CEUs)
YCIT 017 Cloud Computing Fundamentals (6 CEUs)
YCIT 018 Cloud Networking and Security (6 CEUs)
YCIT 019 Cloud Architecture (7 CEUs)
YCIT 020 Advanced Cloud Architecture (7 CEUs)

Complementary Course (7 CEUs)
YCIT 021 DevOps Practices and Tools (7 CEUs)
YCIT 022 Site Reliability Engineering (7 CEUs)

Attach extra page(s) as needed

10.0 Approvals

Routing Sequence	Name	Signature	Meeting Date
Department	Inna Popova, Director, CPD Non-Credit Programs		21 January 2020
Curric/Acad Committee	Dr. Sue Laver, Associate Dean		21 January 2020
Faculty 1	Dr. Hang Lau, Director, CPD Credit Programs		21 January 2020
Faculty 2	Carola Weil. Dean of Continuing Studies		21 January 2020
Faculty 3			
CGPS			
SCTP	Cindy Smith, Secretary to SCTP		March 12, 2020
APC			
Senate			

Submitted by

Name	Lucia Brunetti
Phone	514-398-6152
Email	Lucia.Brunetti@mcgill.ca
Submission Date	10 January 2020

To be completed by ES:

CIP Code

REMINDERS:
*Box 5.4 – Must be completed; see section 6.5.4 within the New Program Guidelines at: https://www.mcgill.ca/sctp/guidelines.
**All new program proposals must be accompanied by a 2-3 page support document.

Program Admission Requirements:

Applicants must hold a minimum of:

- A Bachelor's degree in Computer Science or related field

Or

- McGill SCS Undergraduate Certificate in Computers and IT (30 credits)

Or

- DEC in Computer Science Technology or related field
  And
  Minimum 2 years of professional experience in one of the following fields: System Administration, IT Support, IT Consultant, IT Analyst, IT Architect, Network Specialist, QA Specialist, Database Administrator or similar.

Or

- Secondary School Diploma/ Diplôme d'études secondaires (DES)
  And
  Minimum 5 years of professional experience in one of the following fields: System Administration, IT Support, IT Consultant, IT Analyst, IT Architect, Network Specialist, QA Specialist, Database Administrator or similar.

New Program Proposal Summary
Non-Credit Professional Development Certificate in
CLOUD COMPUTING

Continuing Education Units: 33

PROGRAM ADVISORY GROUP

Name	Job Title	Company
Nicolas Feller	Cloud Customer Engineer	Google, McGill SCS
Patrick Lecuyer	Head of Customer Engineering	Google
Amit Malhotra	SRE and DevOps Manager	Lightspeed HQ
Nabil Beitinjaneh	Faculty Lecturer, Data Programs Coordinator	McGill SCS
Inna Popova-Roche	Director, CPD Non-Credit Programs	McGill SCS
Dr. Hang Lau	Director, CPD Credit Programs	McGill SCS

PROGRAM RATIONALE

This program aims to help upskill or reskill IT professionals whose skills are rapidly declining in relevance due to emerging technologies; and to create a path for companies to increase the capabilities of their IT workforce in cloud computing.

According to Gartner's forecast, the public cloud services market will almost double through 2022 and will become one of the largest in the world. Companies are accelerating adoption of public cloud services because, according to McKinsey, they reduce IT overhead costs by 30 to 40 percent, increase the ability to scale IT infrastructure when needed, provide more sophisticated solutions, such as big data and machine learning, and reduce incidents by 70 percent.

When it comes to the qualified workforce required to support these changes, there is a significant deficiency of cloud computing expertise amongst current IT workforce and, therefore, a need to retrain and upgrade skills. A London School of Economics report outlines that the lack of cloud expertise has a cost of 258 Million USD per year to large enterprise companies alone. According to International Data Corporation's Worldwide CIO Agenda 2019 Predictions, through 2022, the talent pool for emerging technologies will be inadequate to fill at least 30% of global demand.

According to LinkedIn's 2020 Canada Emerging Jobs Report, such jobs as Site Reliability Engineer, DevOps Engineer and Cloud Engineer are among the top 15 emerging jobs in Canada requiring knowledge of cloud technologies.

This market need creates an opportunity for McGill SCS to offer a program, which will help retrain and equip IT workforce with cloud computing expertise.

BENCHMARKING

University/College	Program	Format/Fee
University of Toronto[1]	Certificate in Cloud Computing	In class, 3 courses, 108 hours Fee: CAD $2,307
York University[2]	Certificate in Cloud Computing Strategy (non-technical)	Online, 3 courses, 108 hours Fee: CAD $3,297
MIT[3]	Cloud & DevOps Professional Education Certificate	Online, 8 weeks, 60 hours, 6 CEUs Fee: USD $2,450
Montreal College[4]	Microsoft Cloud Platform	80 hours, cost is not clear
Champlain College[5]	Cloud Computing Architecture	In-class, 40 hours, CAD $775

Courses offered by private training providers:

Technologia[6]

- Better Understanding Cloud Computing

1 Day, Regular Fee: CAD $ 510

- DevOps, Cloud Computing with Linux

3 Days LAB, Regular Fee: CAD $1,435

Global Knowledge[7]

- Multiple courses in-class and online

Duration from ½ day to 3 days, Fee range: CAD $375 - $2, 665

[1] https://learn.utoronto.ca/programs-courses/certificates/cloud-computing

[2] http://continue.yorku.ca/certificates/cloud-computing-strategy/

[3] https://professionalprograms.mit.edu/online-program-cloud-devops-continuous-transformation/

[4] https://www.montrealcollege.ca/certifications/cloud-computing

[5] https://champlainconted.com/courses/aws-academy-cloud-computing-architecture

[6] http://www.technologia.com/en/information-technology/cloud-computing/

[7] https://www.globalknowledge.com/ca-en/training/course-catalog/topics/cloud-computing/

PROGRAM DESCRIPTION

This non-credit professional development certificate program is designed to equip professionals with the industry-relevant knowledge and skills required to manage and secure the software lifecycle in cloud-based environments, and to become fully functional Cloud Solution Architects, Cloud, Kubernetes, Site Reliability or DevOps specialists.

The program is offered in English and must be completed within 2 years.

LEARNING OBJECTIVES:

Upon completion of this program, participants should be able to:

- Manage the software development lifecycle
- Use popular open source tools developed and maintained by HashiCorp and the Cloud Native Computing Foundation
- Maintain container based software and related orchestration tools
- Deploy, monitor and insure reliability of microservices applications
- Design and architect complex cloud based software systems
- Ensure strong security posture in enterprise environments
- Identify and mitigate cybersecurity threats

PROGRAM TOOLS, TECHNOLOGIES and LANGUAGES:

- Public Cloud Platforms: AWS, GCP and Azure
- Kubernetes
- Git
- Istio
- Docker
- Continuous Integration (CI) and Continuous Delivery (CD) tools (Jenkins, Circle CI, Travis CI)
- Infrastructure As Code with Terraform
- Vault

WHO SHOULD ATTEND

Information technology professionals, programmers and developers wishing to upgrade their cloud computing skills to enable them to work with cloud-based environments, as well as those wishing to work towards obtaining a cloud computing certification. Target audience: System Administrators, IT Support specialists, IT Consultants, Integration Engineers, IT Analysts, IT Architects, Network Specialists, QA Engineers, Database Administrators, Junior SRE, Junior DevOps, etc.

Job Profiles:

- Cloud / Solution Architect
- Site Reliability Specialist, Developer or Engineer
- DevOps Engineer, Specialist, Developer or Engineer
- Kubernetes Specialist, Developer or Engineer

PROGRAM ADMISSION REQUIREMENTS

Applicants must hold:

- A Bachelor's degree in Computer Science or related field

Or

- McGill SCS Undergraduate Certificate in Computers and IT (30 credits)

Or

- DEC in Computer Science Technology or related field
  And
  Minimum 2 years of professional experience in one of the following fields: System Administration, IT Support, IT Consultant, IT Analyst, IT Architect, Network Specialist, QA Specialist, Database Administrator or similar.

Or

- Secondary School Diploma / Diplôme d'études secondaires (DES)
  And
  Minimum 5 years of professional experience in one of the following fields: System Administration, IT Support, IT Consultant, IT Analyst, IT Architect, Network Specialist, QA Specialist, Database Administrator or similar.

Recommended Refresher Courses (Optional)
These courses are not part of Admission Requirements and proof of completion is not required.

If you wish to refresh your knowledge prior to joining the program, here is a list of recommended courses:

- Understanding of Linux environments
  https://www.edx.org/school/linuxfoundationx

- Basic abilities in Bash or Powershell Scripting
  https://www.edx.org/school/linuxfoundationx

- Basic understanding of programming
  https://www.coursera.org/learn/learn-to-program

- Understanding of networking concepts
  https://www.coursera.org/learn/computer-networking

PROGRAM STRUCTURE

To allow professionals the flexibility of personalizing their learning by selecting the specialization they prefer to focus on, this program consists of **5 courses: 4 required and 1 complementary course.**

4 Required courses:

1. YCIT 017 Cloud Computing Fundamentals (30 hours)
2. YCIT 018 Cloud Networking and Security (30 hours)
3. YCIT 019 Cloud Architecture (35 hours)
4. YCIT 020 Advanced Cloud Architecture (35 hours)

1 Complementary course from the following:

a/ DevOps specialization

1. YCIT 021 Development Operations (DevOps) Practices and Tools (35 hours)

b/ Site Reliability specialization

2. YCIT 022 Site Reliability Engineering (35 hours)

PROFESSIONAL CERTIFICATIONS

Upon completion of this program, participants should have acquired sufficient knowledge and skills to pursue the following professional certifications if they wish to do so in addition to the program:

Cloud Native Computing Foundation (CNCF)	Certified Kubernetes Administrator (CKA)
Google Cloud Platform (GCP)	Professional Cloud Architect
Amazon Web Services (AWS)	AWS Certified Solutions Architect – Associate
Microsoft Azure	Azure Solutions Architect Expert
CompTIA	Cloud Essentials+
CompTIA	Cloud+

REQUIRED COURSES:

YCIT 017 Cloud Computing Fundamentals

30 hours + min. 30 hours of assignments = 6 CEUs
Pre-requisite courses: N/A

Rationale:
Companies and governments globally are accelerating adoption of public cloud services by moving their IT infrastructure into the cloud. IT professionals require fundamental knowledge and skills in cloud computing to support this transformation and to make technical decisions allowing to build resilient software.

Description:

Value proposition of cloud computing versus traditional computing models; the economics and history of computing in business; terminology associated with modern computing; nuanced differences between IaaS, PaaS and SaaS; containerization versus virtualization; identity, networking, and security best practices.

Topics include:

- Economics and rationale of cloud
- IaaS (Infrastructure as a Service), PaaS (Platform as a Service), Software as a Service (SaaS)
- Containerization versus virtualization
- Serverless computing
- Horizontal scaling
- Trends in computing

YCIT 018 Cloud Networking and Security

30 hours + min. 30 hours of assignments = 6 CEUs
Pre-requisite course: YCIT 017

Rationale:
Enterprises migrating to the cloud often need to configure hybrid or multi-cloud networking environments. In order to navigate these types of environments and make sound technical decisions professionals need both a strong understanding of the fundamental networking principles and of the impact of cloud computing on how these technologies are used. Since networking decisions are strongly tied to cybersecurity requirements, this course will also explore cloud cybersecurity essentials.

Description:
Networking concepts and their application to cloud environments; configuration of hybrid and multi-cloud network connectivity; application of fundamental security principles in networking decisions.

Topics include:

- OSI Model
- IP protocol model
- Internet protocols (HTTP, HTTP/S, DNS, SSH, IPSEC)
- Hybrid connectivity

- Multi-Cloud connectivity
- Security Shared Responsibility Model
- Network and perimeter security.

YCIT 019 Cloud Architecture

35 hours + min. 35 hours of assignments = 7 CEUs
Pre-requisite courses: YCIT 017 & YCIT 018

Rationale:

Containers have taken over virtualization as the de facto way to deploy applications. They allow us to build systems that scale up and scale down. Container based Micro-services are cost effective and easy to manage, deploy and develop. Docker is currently the most popular containerization software, representing 99% of containers in use. A survey from StackRox found that 86% of the IT professionals surveyed are using Kubernetes (an open-source container-orchestration system) to orchestrate their container-based services.

Description:

The power of containerization and its distinction from virtualization; features of the Linux kernel underpinning containerization; how to set up a Docker environment, build containers, and use an orchestration tool, namely, Kubernetes; additional tools for monitoring, sharing, and deploying applications.

Topics include:

- History and Advantages of Kubernetes and Docker
- Docker Concepts
- Kubernetes Concepts
- Linux kernel
- Docker Hub
- Knative

YCIT 020 Advanced Cloud Architecture

35 hours + min. 35 hours of assignments = 7 CEUs
Pre-requisite course: YCIT 019

Rationale:

Containers and cloud-native architectures are complex and require an in-depth understanding of the advanced concepts in order to be successful in the DevOps/SRE roles that this program aims to prepare participants for. Building on the foundational knowledge covered in the Cloud Architecture course, more advanced concepts, such as services meshes will be introduced to prepare participants for complementary specialization courses.

Description:

Advanced cloud-native architecture topics and tools to architect enterprise-scale application deployments. Service meshes, secrets management, routine management, monitoring and troubleshooting of Kubernetes clusters, and tools to manage enterprise-scale production clusters.

Topics include:

- In Depth Kubernetes
- Helm and Istio tools
- Multi Tenancy
- Custom Resources, Controllers, Administration
- Managing Secrets
- Storage options and Volumes
- Advanced topics: Affinity, sidecars, taints, etc.

1 COMPLEMENTARY COURSE from the following:

YCIT 021 DevOps Practices and Tools

35 hours + min. 35 hours of assignments = 7 CEUs
Pre-requisite courses: YCIT 020

Rationale:

Development Operations (DevOps) is a set of practices applied in software development with the goal of improving and shortening the development and deployment cycle of software and providing continuous delivery of resilient software. DevOps specialists employ a large ecosystem of tools used for coding, building, testing, packaging, releasing, configuring and monitoring software systems.

Description:

Introduction to DevOps culture, its benefits; and a variety of popular DevOps tools. Emphasis on the application of principles that allow teams to develop resilient software while reducing time to market. Establishing guardrails to mitigate risks; continuous development workflows.

Topics include:

- DevOps culture
- Managing source code
- Continuous testing
- Packaging micro-services and pre-deployment
- Change management and releasing software
- Infrastructure as code tooling
- Monitoring for performance and user experience

YCIT 022 Site Reliability Engineering (SRE)

35 hours + min. 35 hours of assignments = 7 CEUs
Pre-requisite courses: YCIT 020

Rationale:

Availability of services is a critical business need. Site Reliability (SRE) is the practice of treating IT operations as a software problem by applying prescriptive methods and principles to build and run highly reliable and scalable software systems and to create environments that maintain availability and durability of systems. Site Reliability

professionals oversee highly automated complex software systems, develop scaling and automation features, and perform manual interventions to ensure reliability and resilience of live systems.

Description:
Introduction to the theory of Service Level Objectives and Agreements, a principled way of describing and measuring the desired reliability of a service. Set up and application of these principles in any organization that builds software systems. Site Reliability Engineering (SRE) tools, techniques, and best practices.

Topics include:

- SLO, SLA, SLI
- Error budgets
- Risk management
- Monitoring and Alerting
- On Call
- Post Mortems
- SRE engagement models

Textbook:
Beyer, B., Jones, C., Petoff, J., & Murphy, N. R. (2016). *Site Reliability Engineering: How Google Runs Production Systems*. O'Reilly Media, Inc.:
http://shop.oreilly.com/product/0636920041528.do

McGill

New Program/Concentration Proposal Form

(2019)

1.0 Degree Title
Please specify the two degrees for concurrent degree programs

Graduate Diploma

2.0 Administering Faculty or GPS

SCS

1.1 Major (Subject/Discipline) (30-char. max.)

Legal Translation

Offering Faculty & Department

School of Continuing Studies (SCS) / Translation Studies

1.2 Concentration (Option) (30 char. max.)

3.0 Effective Term of Implementation
(Ex. Sept. 2019 or 201909)
Term

202009

1.3 Complete Program Title (info from boxes 1.0+1.1+1.2+5.2)

Graduate Diploma in Legal Translation

4.0 Rationale and Admission Requirements for New Program/Concentration

Please see 4.0 Rationale on page 4.

5.0 Program Information
Indicate an "x" as appropriate

5.1 **Program Type**

- Bachelor's Program
- Master's
- M.Sc.(Applied) Program
- Dual Degree/Concurrent Program
- Certificate
- Diploma
- Graduate Certificate
- **X** Graduate Diploma
- Professional Development Cert
- Ph.D. Program
- Doctorate Program (Other than Ph.D.)
- Self-Funded/Private Program
- Off-Campus Program
- **X** Distance Education Program
- 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
- **X** Masters & Grad Dips & Certs
- Doctorate
- Post-Graduate Medicine/Dentistry
- Graduate Qualifying

5.4 **Requires Centrally-Funded Resources**

Yes **X** No ___

6.0 Total Credits or CEUs (if latter, indicate "CEUs" in box)

30 credits

7.0 Consultation with

Related Units	**X** Yes	No
Financial Consult	**X** Yes	No

Attach list of consultations.

8.0 Program Description (Maximum 150 words)

The Graduate Diploma in Legal Translation is a 30-credit graduate-level program designed to meet the need for professionally trained legal translators and jurilinguists in Canada in both the public and private sectors, not only in translation, but also in revision, co-writing of legal texts, and consultancy in legal aspects of language in multiple professional settings. Principles and practices encountered in jurilinguistics, as well as legal translation in key sectors in high demand. Computer-aided translation tools are an integral part of the curriculum, as is an internship or an applied research project.

The program can be completed in two years (six continuous semesters – fall/winter/summer). The maximum time for finishing the program is four years. Fall and winter entry options are offered.

9.0 List of proposed new Program/Concentration

If new concentration (option) of existing program, a program layout (list of all courses) of existing program **must** be attached.

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 Legal Translation (30 credits)

Required Courses (16.5 credits)
CCTR 530 Principles of Jurilinguistics (3 credits)
CCTR 535 Computer-Aided Translation and Terminology (3 credits)
CCTR 541 Legal Translation: General (3 credits)
CCTR 543 Glottopolitics and Public Institutions (1.5 credits)
Practicum
CCTR 500 Translation Practicum 1 (3 credits)*
CCTR 600 Translation Practicum 2 (3 credits)*
Applied Research
CCTR 605 Applied Research Project 1 (3 credits)*
CCTR 606 Applied Research Project 2 (3 credits)*
***Choose either CCTR 500 and CCTR 600 or CCTR 605 and CCTR 606.**

Complementary Courses (13.5 credits)

6 credits from Stream 1 or Stream 2:
French Stream (6 credits)
CCTR 553 Legal Translation: Judgments (English to French) (2 credits)
CCTR 555 Legal Translation: Contracts (English to French) (2 credits)
CCTR 557 Legal Translation: Statutes&Regulations (English to French) (2 credits)

-OR-
English Stream 2 (6 credits)
CCTR 554 Legal Translation: Judgments (French to English) (2 credits)
CCTR 556 Legal Translation: Contracts (French to English) (2 credits)
CCTR 558 Legal Translation: Statutes&Regulations (French to English) (2 credits)

1.5 CREDITS from the following:
CCTR 542 Legal Translation: Securities Law (French to English) (1.5 credits)
CCTR 544 (Co)Writing Techniques for Legal Drafters (1.5 credits)
CCTR 545 Legal Translation: Securities Law (English to French) (1.5 credits)

6 credits from the following:
CCTR 601 Independent Studies (3 credits)
CCTR 602 Special Topics in Legal Translation (3 credits)
CPAG 510 Current Issues in Public Sector Management (3 credits)
CPAG 515 Public Regulations and Ethics in the Public Sector (3 credits)
CPAG 520 Leadership and Governance in Public Organizations (3 credits)
Or other 500- or 600-level courses approved by the program adviser.

Attach extra page(s) as needed

10.0 Approvals

Routing Sequence	Name	Signature	Meeting Date
Department	María Sierra Córdoba Serrano		Dec. 3, 2019
Curric/Acad Committee	Audrey Coussy		Dec. 3, 2019
Faculty 1	Interim Associate Dean Sue Laver		Dec. 10, 2019
Faculty 2	Dean Carola Weil		Dec. 10, 2019
Faculty 3			
CGPS			
SCTP	Cindy Smith, Secretary to SCTP		February 20, 2020***
APC			
Senate			

Submitted by

Name	Bryan Jim
Phone	
Email	bryan.jim@mcgill.ca
Submission Date	

To be completed by ES:

CIP Code

REMINDERS:
*Box 5.4 – Must be completed; see section 6.5.4 within the New Program Guidelines at: https://www.mcgill.ca/sctp/guidelines.
**All new program proposals must be accompanied by a 2-3 page support document.

***Delay was awaiting budget assessment and approval for this new program.

4.0. **Rationale**

Despite Canada's legislative and judicial bilingualism, and the significant translation demand that this legal framework generates, the options for specialized university training in legal translation in Canada are very limited (*Final Report: Analytical Survey of Training in Court Interpretation, Court Reporting and Legal Translation*, 2016). Since the Master's in Legal Translation at the University of Ottawa, targeted exclusively to French-speaking jurists, was discontinued in 2014, university education in legal translation has been relegated to a few isolated courses offered by a handful of Canadian universities as part of their general translation curricula. This scarcity of options is even more acute for into-English translation programs, which has not been without sociopolitical consequences for the English-speaking minority in Quebec. The availability of other non-university professional development opportunities is similarly limited (ibid.).

Yet the need for legal translation education and training in Canada is more pressing than ever, given the steady increase in demand in certain key sectors and the looming shortage of qualified professionals on the horizon as their baby boomer predecessors retire from the workplace (ibid.). Without properly trained legal translators, a decline in the quality of legal translation is entirely foreseeable (ibid.). It is also worthy of note that, since senior legal translators are in high demand, there is currently a dearth of opportunities for their junior counterparts in terms of mentoring, coaching and even revision , thus highlighting the importance for universities to provide optimal conditions for what scholars refer to as "deliberate practice."[1]

In order to fill this flagrant training gap, McGill's School of Continuing Studies (SCS) introduced a 15-credit Graduate Certificate in Legal Translation program in fall 2017, the only program fully devoted to legal translation in Canada. After a few revisions, the program was officially launched in fall 2018. (A list of courses currently offered as part of the certificate can be found here: https://www.mcgill.ca/continuingstudies/program/graduate-certificate-gr-cert-legal-translation).

In addition to the full 15-credit program, the Graduate Certificate in Legal Translation was also designed to cater to an audience of working adult learners interested in enrolling in individual courses as special students (provided they pass an entrance exam) to top up their skills in specific subareas of legal translation.

Despite the positive reception by learners, jurilinguistics academics and employers of legal translators and jurilinguists (including the federal government), the main concern, particularly from employers, is that the 15-credit program is too short to guarantee the level of education that is required[2] to truly increase the capacity of the justice system to deliver services in both official languages. The length of the program is particularly problematic given the interdisciplinary nature of the program: Legal translation, a discipline at the crossroads between law and translation, attracts learners with a background in translation, law or other related disciplines, and it may take several courses just to level out differences in their respective bodies of knowledge and experiences.

[1] "Deliberate practice only [sic] occurs only under the following conditions, when (a) there is a well-defined task [which includes domain- specific tasks], (b) the task is of appropriate difficulty for the individual, (c) there is informative feedback, and (d) there are opportunities for repetition and the correction of errors" (Ericsson 1996: 21).

[2] This concern was in fact echoed in the questions asked by Justice Canada in the pre-selection phase of the grant we applied for in December 2018 under the Access to Justice in Both Official Languages Support Fund. We were asked if we would be willing to extend the program to 30 credits.

Based on the feedback received, we applied for and received two grants,[3] which helped us focus on two areas of improvement that have justified the conversion from a Graduate Certificate in Legal Translation to a Graduate Diploma in Legal Translation, namely curriculum enrichment and accessibility. **Note that the Graduate Certificate will be retired once the transition to the Graduate Diploma is complete.**

a) Curriculum enrichment: A short professional development graduate certificate (currently 15 credits) has the benefit of attracting full-time jurists and practitioners with demanding work schedules. However, in order to enhance the academic quality and comprehensiveness of the program, as well as establish partnerships with federal and provincial institutions in need of legal translators and/or jurilinguists, some curricular gaps have to be addressed, hence the need to add new courses.

- **Translation courses**

The new required translation courses focus on three key sectors in demand[4] in legal translation that result from language-related obligations in an officially bilingual and bijural country, as well as language-related obligations for certain provinces and territories. These three key sectors are judgments, contracts and legislative translation (please see rationale for a more detailed explanation of the demand in each of these sectors).

These new courses are offered into English and into French. Students have to choose one stream (into English OR into French) but can take complementary courses from the other stream.

FRENCH STREAM (6 credits)
CCTR 553 Legal Translation: Judgments (English to French) (2 credits)
CCTR 555 Legal Translation: Contracts (English to French) (2 credits)
CCTR 557 Legal Translation: Statutes and Regulations (English to French) (2 credits)
-OR-
ENGLISH STREAM (6 credits)
CCTR 554 Legal Translation: Judgments (French to English) (2 credits)
CCTR 556 Legal Translation: Contracts (French to English) (2 credits)
CCTR 558 Legal Translation: Statutes and Regulations (French to English) (2 credits)

- **Experiential learning component**

CCTR 500 Translation Practicum 1 (3 credits)
CCTR 600 Translation Practicum 2 (3 credits)

A comprehensive experiential learning component is key to any professionally oriented program. It will allow students to apply the competencies acquired in the program in a real setting. It will also make it

[3] *Professional Development for Legal Translators in Canada: A Pan-Canadian Distance-Education Proposal*, under the Access to Justice in Both Official Languages Support Fund, administered by Justice Canada ($329,105), and *Lisibilité comme mesure de protection pour les minorités linguistiques : formation en ligne sur la communication claire et efficace du droit en anglais*, under Entente Canada-Québec relative à l'enseignement dans la langue de la minorité et à l'enseignement des langues secondes ($44,800).

[4] The data from existing industry reports consulted (*Final Report: Analytical Survey of Training in Court Interpretation, Court Reporting and Legal Translation*, 2016; Malatest, R. A & Associates Ltd. *Profile of the Canadian Language Industry*, 2017) have been triangulated with a convenience sample of subject-matter experts that includes Robert Breuer, Louis Fortier, Marie-Hélène Girard, Karine McLaren, Vera Roy, Pierre Saint-Laurent and Arnaud Tellier-Marcil.

possible to forge strong practicum partnerships with federal and provincial governments, jurilinguistic centres and other important stakeholders.

- **Applied Research**

CCTR 605 Applied Research Project 1 (3 credits)
CCTR 606 Applied Research Project 2 (3 credits)

Based on statistics from the current Graduate Certificate in Legal Translation, a significant proportion of students are practitioners who spend their day translating and need an alternative to the Practicum. In fact, some current students have already shown an interest in a research-oriented option and are collaborating on existing projects for the Paul-André Crépeau Centre for Private and Comparative Law, with which the Translation Studies Unit has been working since fall 2019. In close collaboration with the Centre, we hope to use this component of the curriculum to help create a renewed body of applied research and advanced knowledge in a field that has been stagnant in recent years, despite a number of significant contributions and seminal work by scholars in Quebec and the rest of Canada.

- **Complementary courses***

CCTR 601 Independent Studies (3 credits)
CCTR 602 Special Topics in Legal Translation (3 credits)
CPAG 510 Current Issues in Public Sector Management (3 credits)
CPAG 515 Public Regulations and Ethics in the Public Sector (3 credits)
CPAG 520 Leadership and Governance in Public Organizations (3 credits)
*The three, 2-credit courses in the other Stream (into English or into French) can also be taken (6 credits). The Translation Practicum 1 and 2 OR Applied Research Project 1 and 2, whichever pair has not been completed, can also be taken as complementary courses (6 credits).

CCTR 602 Special Topics in Legal Translation (3 credits) is a new complementary course added in order to keep abreast of new industry-related developments and/or discipline-related areas of interest. An empty shell course will allow us to respond to changes as they emerge and modify content as required, without having to permanently include it in the curriculum. Topics could include, but are not limited to, plain legal language, court interpreting, Indigenous law for legal translators, legal terminology, legal hermeneutics and translation.

Additionally, several complementary courses from the Diploma in Public Administration and Governance have been included as electives. Since the public sector (Translation Bureau, Justice Canada, Global Affairs Canada, etc.) is a significant source of employment for legal translators and jurilinguists, and given that some learners will be interested in managerial positions in this sector, the following courses have been added: CPAG 510 Current Issues in Public Sector Management (3 credits), CPAG 515 Public Regulations and Ethics in the Public Sector (3 credits) and CPAG 520 Leadership and Governance in Public Organizations (3 credits).

b) Accessibility: The proposed new program will be offered in an online delivery format combining live synchronous classes, timed assignments and asynchronous, instructor-led activities, with a focus on flipped learning and problem-based learning. By bringing the classroom to the students, SCS aims to increase accessibility and provide legal translation training to bilingual jurists and translators throughout

Canada. Since this is the only program of its kind in Canada, making the program accessible to learners beyond Montreal is of paramount importance.

In conclusion, offering a 30-credit online Graduate Diploma in Legal Translation that provides both the standard of excellence and the flexibility to prepare the next generation of legal translators in Canada will, in the short term, increase the capacity of the justice system to deliver services in both official languages. It will also contribute to maintaining that capacity over the long term. Moreover, the existence of high-quality legal translations into the minority official language (French outside Quebec and English in Quebec) contributes to social inclusion, which, in turn, fosters community cohesion and stability. This level of translation quality is difficult to achieve, and even more difficult to sustain, without a sufficient pool of qualified legal translators. An increase in the quality and availability of legal translations for both minorities will have positive effects in terms of terminology development and standardization of the common law in French and civil law in English and, more generally, will enhance the vitality of and respect for the cultures and identities of the linguistic minority audiences to which the two legal traditions in Canada cater.

4.0. **Admissions criteria**

Legal translation is a blend of two traditionally distinct disciplines (translation and law), so this interdisciplinary nature needs to be taken into consideration in the admission criteria, hence the fact that more than one undergraduate degree is accepted as a prerequisite for admission.

- Applicants must have an undergraduate or graduate degree, or its equivalent, in Translation, Law or a related discipline for which faculty approval rests with the School of Continuing Studies. A minimum cumulative grade point average (CGPA) of 3.0 over 4.0 is required, or, of 3.2 out of 4.0 in the last two years of full-time studies. In addition, applicants must pass a written entrance examination in French and English.

According to data from the Graduate Certificate in Legal Translation, which aligns with trends observed in SCS, 95% of students (most of whom are working professionals) do not take more than two courses per semester; in fact, the average is 1.5 courses per semester. This program is therefore conceived as a part-time program with a maximum of three courses offered every semester, including the summer.

Graduate Diploma Study Path

Fall Year 1	Winter Year 1	Summer Year 1
Principles of Jurilinguistics (3 cr.)	Legal Translation: Contracts (2 cr.)	CAT & T (3 cr.)
Legal Translation: General (3 cr.)	Legal Translation: Judgments (2 cr.)	Legal Translation: Securities Law (1.5 cr.)

Fall Year 2	Winter Year 2	Summer Year 2
Legal Translation: Statutes and Regulations (2 cr.) Co-writing (1.5) Complementary 1 (3 cr.)	Glottopolitics (1.5 cr.) Complementary 2 (3 cr.)	Translation Practicum 1 (3 cr.) and 2 (3 cr.) Applied Research 1 (3 cr.) and 2 (3 cr.)