McMaster University

School of Graduate Studies

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To : Members of Graduate Council

From : Christina Bryce
Assistant Graduate Secretary

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The next meeting of Graduate Council will be held on **Tuesday, October 21st** at **9:30 am in Council Chambers (GH-111)**

Listed below are the agenda items for discussion.

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

A G E N D A

I. Minutes of the meeting of September 16th 2014

II. Business arising

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

IV. Report from the Graduate Associate Deans

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

VI. Report from the Associate Registrar and Graduate Secretary

VII. New Graduate Diploma in UNENE

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

IX. New Ph.D. in Labour Studies

X. Revised Thesis Guidelines

XI. Fall 2014 Graduands (To be distributed)

XII. Other Business

Graduate Council
September 16th, 2014 – 9:30 am
GH 111

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

Regrets: Dr. C. Hayward, Dr. A. Shi, Dr. T. Porter

A G E N D A

I. Minutes of the meeting of May 27th 2014

The minutes of the meeting were approved on a motion from Dr. Hanna, seconded by Dr. Agarwal.

II. Business arising

There was no business arising.

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

Dr. Welch reported that McMaster is in a position of significant and dramatic change with respect to business processes and all administrative systems. The graduate payroll changes are part of this broader shift. The university has been migrating from dozens of individual programs and arrangements for managing all administrative data to one supplier: Peoplesoft.   Along the way various decisions regarding administrative processes and changes required arising from the system transition had to be made and one of them involved the graduate payroll process. Historically there has been a way to arrange the combination of scholarship, TA and tuition, so there was a rough equalization between the amounts paid out – this is no longer the case. The payroll and scholarship modules are separate from each other in the new system. As a result the money that a graduate student gets in a certain month is very dependent on the month in question. In the past, there has been a reconfiguration of the amount students were receiving between a TAship and scholarship to allow the same payment amount in the summer as the school year. For students who only receive a TA in second semester, the new arrangements created dramatic cash-flow drop.

Dr. Welch explained that in the past week, the University has managed to arrange a means in which the worst effect of term-two-only- TA assignment can been alleviated. There may still be some changes made but the basic idea is that student with a TA in term two would be able to get an advance in the amount of $500 (per month) against their term two earnings, in term one. At present, SGS staff are working to determine the list of students who have TAs in term two and who are also receiving scholarship in term one and they will receive an e-card telling them they can receive this advance. The concern remains about how it will work going forward and to that end Dr. Welch noted that he would like to arrange feedback for people making arrangements to implement the system.

A council member asked if research accounts could be used to support the old system of equalization. Dr. Welch replied that theoretically this can be done but it's incredibly manual in the new system and the School of Graduate Studies office does not currently have the capacity.

A council member asked if an emergency fund has been set up for students who don't meet the threshold required for the advance but still need assistance. Dr. Welch responded that there was no emergency fund but that OSAP was an option for OSAP-eligible students.

Dr. Welch proposed a student financial support working group that would not only meet to hear from the Mosaic executive and steering committee but also works with them to suggest ways where the student experience in terms of payroll can be improved.   This working group would help to advise on a long-term plan to alleviate the issues that have arisen. Council members volunteered and Brooke Gordon noted that representation from all faculties would be required.

A council member noted that it would be helpful for international students if more detail regarding their pay profile was included in their offer letter.

Dr. Welch also provided an update on the OCGS process for the upcoming year. The application process has been harmonized between competitions – one set of documentation will be considered for all associated competitions. A council member asked if the OGS recruitment allocation to programs would continue. Brooke noted that they intend to continue and hope to have the allotments out shortly.

IV.   Report from the Graduate Associate Deans

Dr. Ibhawoh reported that the Graduate Council thesis-focused working group had made substantial changes to the thesis guidelines and would be bringing the document to Graduate Council in October. Dr. Agarwal reported that the new Professional Accountancy program had had a very successful first offering with more than 50 students enrolled. He also reported that the Faculty of Business was developing a proposal for an executive MBA program. Dr. Milliken reported that the Faculty of Science was coming to the end of a year-long academic planning exercise and they expect to release the plan in the Fall term. Dr. Thompson noted that the graduate student payroll arrangements have been a major concern in the Faculty of Engineering. He also reported that a proposal for a new graduate diploma from the UNENE program will be coming to Graduate Council next month.

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

Peter Self reported that Graduate Student Welcome Week had been very successful and included 9 events for graduate students. Over 500 new graduate students attended the welcome breakfast. Following breakfast the School of Graduate Studies hosted a resource fair that included 44 groups and services from on and off campus. He also mentioned that as a part of Postdoc Appreciation Week they are holding a tree planting event (Dig with Dean Doug) open to postdocs, graduate students and the community. Peter noted that the deadline for valedictorian applications for Fall Convocation is September 29th.

VI.   Report from the Associate Registrar and Graduate Secretary

Stephanie Baschiera thanked everyone for their support through the busy Ph.D. defence season. She noted that the School of Graduate Studies has engaged a firm to conduct a survey of graduate students to help inform recruitment policies and strategies. She also mentioned that the Institutional Quality Assurance Process is going through a review and renewal.

VII.   Report from the Faculty of Health Sciences Graduate and Curriculum Policy Council

Dr. Steve Hanna reported on behalf of Dr. Cathy Hayward. The item in question is a course evaluation change from the Occupational Therapy program.

-Clinical Behavioural Sciences Diploma move from Undergraduate to Graduate administration

Dr. Hanna reported on behalf of Dr. Hayward. The Clinical Behavioural Science diploma is a program that is very old, from 1968. It is a post-professional program intended for students that already have qualifications and want to get some extra clinical skills. Historically, it has fallen through cracks in administration between graduate and undergraduate. The proposal is to change the administration of the program so it will report up through Graduate Council.

Dr. Hanna moved and Dr. Holloway seconded,

"that Graduate Council approve the realignment of the Clinical Behavioural Sciences Diploma with graduate administration."

The motion was carried.

VIII.   Scholarships Committee of Graduate Council

Dr. Welch noted that there was one change required from the document distributed – Dr. Alan Sills should read Dr. Alison Sills.

Dr. Hanna moved and Dr. Wiesner seconded,

"that Graduate Council approve the 2014-2015 Scholarships Committee of Graduate Council membership with the correction noted."

The motion was **carried**.

IX.   New Scholarship

The Deborah Brown Scholarship in Biomedical Discovery and Commercialization.
Brooke Gordon explained that this scholarship will be jointly administered by graduate and undergraduate. The award will go to an undergraduate student until there are graduate students enrolled in the program.

Dr. Tom Adams moved and Dr. Sue McCracken seconded,

Motion: "that Graduate Council approve the new scholarship as described in the document."

The motion was **carried**.

X.   Other Business

Vivian Lewis mentioned that the library is sponsoring a small travel grant to attend an open access conference in Washington in DC. The graduate student would get a $1500 grant to cover most expenses associated with attendance. More information is available on the library website.

Dr. Doug Welch noted that a Graduate Student Payroll petition had been submitted after the agenda for graduate council was circulated. Council members discussed how the proposed working group on graduate pay would assist with the issues that had arisen and the logistics of setting up a meeting. Dr. Welch noted that he'd spoken with a member of the Mosaic Steering Committee and that feedback was welcome.

Proposal Brief - UNENE Nuclear Engineering Diploma

Request under Protocol for Expedited Approvals

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0. Executive Summary

The University Network of Excellence in Nuclear Engineering (UNENE) currently sponsors a course-based M.Eng. in Nuclear Engineering. The degree is granted by any one of five participating Universities, namely McMaster University, Queen's University, University of Ontario Institute of Technology (UOIT), University of Waterloo and Western University. The UNENE Board of Directors requested UNENE to broaden its offerings through the addition of a diploma option. The diploma will allow students (expected to be largely industry employees) to broaden their knowledge and enhance their core skills within the discipline of an academic environment, and consistent with the appropriate University graduate-level expectations, without the commitment of a full M.Eng. The diploma will effectively replace and augment the existing McMaster Nuclear Technology Diploma (NTD). It will not replace the UNENE M.Eng.

The diploma will be joint with the University of Ontario Institute of Technology (UOIT). The other UNENE Universities have been consulted and have agreed to a McMaster / UOIT joint diploma, as none have plans to do the same.

The diploma option uses the same suite of courses, the same instructors, the same classes (joint) at the same locations and times, the same tests/assignments/exams, is aimed at a similar category of students, and meets the same academic standards as the existing UNENE-sponsored M.Eng. However it will require only four courses, as opposed to the ten required in the M.Eng.

The diploma Learning Outcomes are a subset of those for the M.Eng. At least two of the four courses for the diploma must be selected from the four "core" courses in the UNENE M.Eng. This ensures that the diploma addresses the following Learning Outcomes: Enhanced Problem Solving, Multidisciplinary Knowledge, Safety and Risk Analysis, and Fundamental Knowledge. The remaining courses can be chosen from any of the other UNENE M.Eng. courses, allowing the student to increase his/her knowledge in his/her specialty, or alternatively to broaden his/her knowledge by taking something quite different.

Since the facilities, courses and instructors are common with the M.Eng., the out-of-pocket incremental cost of the diploma is very small. The remuneration to the Professors per course is unchanged, and UNENE will cover the costs of administering the diploma, as it does with the M.Eng. The revenue share per course will be the same as for the M.Eng., namely 50% to the University which hosts the course, 20% to the University in which the student originally registered, and 30% to UNENE to cover the cost of administering the program (the education program is historically revenue-neutral for UNENE).

Based on a conservative estimate of enrollment of 5 people the first year, 10 the second year, and 15 the third year and thereafter, the projected revenues are as follows[1]:

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[1] It is assumed based on historical trends that McMaster will initially enroll slightly more students than UOIT.

Table 1 - Projected Net Revenue

Organization / Year	Year 1	Year 2	Year 3 ++
McMaster University	$10,500	$21,000	$31,500
UOIT	$5,750	$11,500	$17,250
Other UNENE Univ.	$1,250	$2,500	$3,750
UNENE	$7,500	$15,000	$22,500

This brief seeks approval of the diploma option under the McMaster Protocol for Expedited Approvals.

1. Program

This section describes the consistency of the program with the University's mission and academic plans. However some background is first presented to set the context, as the proposal is for a diploma, not a degree.

1.1. Background

1.1.1. Description of UNENE

The University Network of Excellence in Nuclear Engineering (UNENE) is a unique partnership of universities, nuclear power utilities, research organizations and regulatory agencies for the support and development of nuclear education and R&D in Canadian universities. The main purpose of UNENE is to assure a sustainable supply of qualified nuclear engineers and scientists to meet the current and future needs of the Canadian nuclear industry through university education.

UNENE was established as a not-for-profit corporation by the Government of Canada on July 22, 2002. Its main activities are as follows:

- It funds Industrial Research Chairs (IRC) in nuclear-related subjects at 6 Canadian universities (McMaster University, Queen's University, University of Toronto, University of Waterloo, Western University, University of Ontario Institute of Technology). A seventh IRC was funded up to 2012.

- It funds collaborative nuclear R&D (CRD) projects at Canadian universities, currently at Queen's University, University of Guelph, McMaster University, University of Toronto, Western University, University of Ottawa and Royal Military College of Canada. The IRCs and the CRDs are a source of both highly qualified graduate students, and independent and unbiased experts (the professors).

- It coordinates a course-based Master's of Engineering program aimed primarily at people already working in the nuclear industry.

Current members of UNENE are listed in Table 2. Members listed in **bold** are those authorized to grant the UNENE M.Eng.

Table 2 - UNENE Members

Industry & Regulatory	Universities
AMEC NSS Limited	Ecole Polytechnique de Montréal
Atomic Energy of Canada Limited (AECL)	**McMaster University**
Bruce Power (BP)	**Queen's University**
Canadian Nuclear Safety Commission (CNSC)	Royal Military College
Candu Energy Incorporated	University of Guelph
CANDU Owners Group (COG)	University of New Brunswick
Nuclear Waste Management Organization (NWMO)	**University of Ontario Institute of Technology (UOIT)**
Ontario Power Generation (OPG)	University of Saskatchewan
	University of Toronto
	University of Waterloo
	Western University
	University of Windsor

1.1.2. The UNENE M.Eng.

A short description of the UNENE M.Eng. follows, as some of its elements will be shared with the proposed diploma.

The UNENE M.Eng. degree was approved[2] by the Ontario Council of Graduate Studies in 2004. The purpose of the M.Eng. is to upgrade the skills and knowledge of people already working in the nuclear industry. Hence almost all of the students who are enrolled in the M.Eng. are staff working in industry who wish to upgrade their (academic) skills.

The M.Eng. is a course based degree. Students must take 10 courses, or eight courses plus an Engineering Project. Four core courses in key disciplines are compulsory. Three of the non-core

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[2] *Letter, David Leyton Brown to Dr. Fred Hall, transmitting approval by the Executive of the Ontario Council of Graduate Studies, December 6th 2004.*

courses can be from the Business and Management Stream[3] from the Advanced Design and Manufacturing Institute (ADMI) program.

The M.Eng. is delivered on weekends at Durham College, in Whitby (near the Pickering and Darlington nuclear power plants). The course schedule and location are set up expressly to facilitate participation by nuclear industry staff.

The courses span most of the specific science and engineering used in nuclear power[4]:
- UN0501: Nuclear fuel management
- UN0601: Control, instrumentation and electrical systems in CANDU
- UN0602: Nuclear fuel waste management
- UN0603: Project management for nuclear engineering
- UN0701: Engineering risk and reliability
- UN0702: Power plant thermodynamics
- UN0801: **Nuclear plant systems and operations**
- UN0802: **Nuclear reactor analysis (reactor physics)**
- UN0803: **Nuclear reactor safety design**
- UN0804: **Nuclear reactor heat transport system design**
- UN0805: Introduction to operational health physics
- UN0806: Nuclear fuel engineering
- UN0901: Nuclear materials
- UN1001: Reactor chemistry and corrosion

The Engineering Project counts as two courses and each is labelled UNxx00. The courses in **bold** are the core courses and are compulsory for all students. Some, but not all, of the course material, emphasizes specifically the CANDU nuclear reactor characteristics.

1.2. The Diploma

The UNENE Board of Directors has asked UNENE to develop the diploma as a complement to and an alternative to the UNENE M.Eng. The diploma is aimed at industry staff and gives them both the opportunity and the flexibility to augment their knowledge and skills, with the rigour of academic standards, in areas relevant to their work. A four-course diploma meets this requirement. It also gives industry a lower-cost option for more targeted professional development. The intent is not to compete with the M.Eng. (since the M.Eng. will generally appeal to a different level of employees) but to augment it. The diploma offers a high-standard credentialing option to a working individual to help further his/her career – an option that he/she would not previously had easy access to.

The diploma requirement is to complete four courses. These will consist of a minimum of two of the four *core* courses already offered in the UNENE M.Eng., over a three year period (or less), i.e. a minimum of any two of:

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[3] *See:* http://www.admicanada.com/courses/
[4] The course numbering scheme at McMaster is currently being changed.

1. UN 0801 / Nuclear Plant Systems and Operations

2. UN 0802 / Nuclear Reactor Analysis (Physics)

3. UN 0803 / Nuclear Reactor Safety Design

4. UN 0804 / Nuclear Reactor Heat Transport System Design

plus any of the *other core or non-core* courses of the UNENE M. Eng. (excluding the Engineering Project and ADMI courses) so that the total number of courses is four.

1.3. Consistency with University Mission / Academic Plans

This proposal is for a diploma, not a degree. The diploma is not intended to be a gateway to research studies and is not as broad as the UNENE M.Eng. The four diploma courses however are a subset of the M.Eng. courses, including at least two of the four core courses. Therefore the expectations are that the student will gain as much technical knowledge and skill from each diploma course as his/her M.Eng. counterpart, but will not get as much breadth in nuclear engineering disciplines.

The overall Learning Outcome is that "*The UNENE diploma is designed to provide practising engineers the enhanced knowledge, tools, and technology, to augment their professional capabilities in selected disciplines.*"

The University Mission Statement is:

> "At McMaster, our purpose is the discovery, communication, and preservation of knowledge. In our teaching, research, and scholarship, we are committed to creativity, innovation, and excellence. We value integrity, quality, and teamwork in everything we do. We inspire critical thinking, personal growth, and a passion for learning. We serve the social, cultural, and economic needs of our community and our society."

The Leaning Outcome of the diploma clearly is consistent with this mission statement, and in particular its last sentence – having knowledgeable processionals responsible for the overall design, operation, regulation and supporting research[5] of nuclear power plants is clearly of economic and safety benefit to society.

Table 3 compares the diploma learning outcomes to degree-level expectations. This is comparing apples to oranges somewhat, but is included to show the expectations the diploma will and will not meet.

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[5] One of the industry partners in UNENE – Atomic Energy of Canada Limited – does much of the fundamental and applied R&D in support of the CANDU technology.

Table 3 - Comparison of UNENE Diploma to Graduate Degree-Level Expectations

Topic	DLEs for Master's	UNENE Diploma
1. Depth and Breadth of Knowledge	A systematic understanding of knowledge, including, where appropriate, relevant knowledge outside the field and/or discipline, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study, or area of professional practice.	• The student will gain deep knowledge in the four areas he/she chooses to take, at least two of which are core courses. • The courses are given by experts who are either doing related research or working in senior technical positions in industry. • The courses are routinely updated with current events – e.g. Fukushima accident.
2. Knowledge of Methodologies	A conceptual understanding and methodological competence that: a) Enables a working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline; b) Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence; and c) Enables a treatment of complex issues and judgments based on established principles and techniques; and, On the basis of that competence, has shown at least one of the following:	• The core courses cover the fundamentals of nuclear engineering. The student must take a minimum of two of these. • Most courses have assignments or in-line projects which require evidence of critical thinking as well as technical proficiency and (some) originality. • Research is not the purpose of the diploma. • Some courses require mini-project reports and presentations to the class and exercise the student's ability to communicate orally and in writing.

Topic	DLEs for Master's	UNENE Diploma
	a) The development and support of a sustained argument in written form; or b) Originality in the application of knowledge.	
3. Level of Application of Knowledge	Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.	• Research is not the purpose of the diploma. • Some courses incorporate mini-projects which require original work.
4. Professional Capacity/ Autonomy	a) The qualities and transferable skills necessary for employment requiring: i) The exercise of initiative and of personal responsibility and accountability; and ii) Decision-making in complex situations; b) The intellectual independence required for continuing professional development; c) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d) The ability to appreciate the broader implications of applying knowledge to particular contexts.	• The courses are oriented towards students with full-time employment in the nuclear industry and examples are relevant to their work. • Each course requires 40 hours of class time and ~100+ hours of homework/studying. The workload of doing the diploma alongside a full-time job requires self-discipline, time-management, and efficient work habits – skills which are all transferable to the day job. • Academic integrity is emphasized and enforced – see *https://unene.ca/education/academic-policy*. A mini-course has been developed and is given to students whose home institution did not have such a course – see *https://unene.ca/education/courses/academic-integrity-mini-course*. • The core courses (Safety, Operations, Physics, Thermohydraulics) give a broad picture of the effects of one discipline on another. A minimum of two core courses is required so

Topic	DLEs for Master's	UNENE Diploma
		the breadth of knowledge, while less than the M.Eng., will be substantial.
5. Level of Communica- tion Skills	The ability to communicate ideas, issues and conclusions clearly.	• Communication is exercised largely through assignments and exams. For some courses which have mini-projects, students give an in-class presentation as well as a report.
6. Awareness of Limits of Knowledge	Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.	• Some courses give alternative methodologies (e.g. risk assessment, deterministic analyses, defence-in-depth in design, and root cause analyses as different ways of looking at safety). Other courses require an assessment of alternative nuclear plant designs (e.g. comparison of reactor types). Case studies invariably show the complexity of real events. Since four courses are required, this DLE will emphasize those areas the student chooses.

1.4. *Appropriateness of Nomenclature*

The term "diploma" is used in other areas at McMaster for a four-course graduate program – e.g. the McMaster Nuclear Technology Diploma discussed in Section 13. The proposed diploma is consistent with the McMaster "Policy on Certificates and Diplomas" (March 10, 2010), although the policy is aimed more at undergraduate diplomas. In particular:

- The diploma has comparable intellectual rigour to degree program courses since the courses are the same as the M.Eng.

- It evaluates student performance using the same methods as the degree courses, since the students are part of the same class and evaluated the same way.

- The admission requirements are the same as for the M.Eng.

- The instructors are the same as for the M.Eng.

- Student feedback is solicited using the same techniques as have been used in the M.Eng. since its inception (detailed feedback forms given to each student, and analyzed / acted on by

UNENE).

2. Admission Requirements

Admission requirements to the UNENE-sponsored diploma are nominally the same as for the UNENE M.Eng. (B to get in, B- to continue). This is consistent with the existing McMaster diploma. However even for the M.Eng., candidates with less than a B average are not ruled out automatically, but are individually assessed; likewise candidates that meet minimum requirements but show fundamental deficiencies in basic mathematical and engineering skills are not automatically accepted.

Admission requirements to the UOIT diploma are slightly lower than the M.Eng. (B- to get in and continue). Insofar as the diploma is aimed at people who have been in an industry/work environment and who want to upgrade their nuclear knowledge to be more effective, the difference is not considered significant and all candidates between B- and B will be assessed. Relevant work experience in the nuclear industry will also be considered.

2.1. Enrollment

Students will enroll at either McMaster or UOIT – their degree will be granted by the university in which they enroll. However the academic experience will be identical – regardless of where they enroll, the classes, professors, evaluation etc., are the same.

2.2. Transfers

Consistent with University policy, as long as the student does not accept the diploma, credit will be given for all diploma courses taken if a student wishes to transfer to the M.Eng., and vice versa. This permits a student to complete the courses for the diploma and then use all course credits toward the M.Eng., as long as he/she has *not* accepted the diploma. It also allows a student enrolled in the M.Eng. to transfer to the diploma if he/she feels it is a better fit, again assuming he/she has not completed and accepted the M.Eng.

Note that each request for a transfer would be reviewed on a case by case basis; i.e. it is not automatic.

If a student has already completed the diploma and accepted it, and then wishes to transfer the courses to take an M.Eng., the decision would be made consistent with the policies of the University in which he/she enrolled. Other situations which arise from time to time are, based on experience with the UNENE M.Eng., best treated on a case-by-case basis.

3. Structure

3.1. Academic

The courses will be delivered using the UNENE model of four alternate weekends at Durham College in Whitby. Distance education will be offered in all diploma courses, as it currently is for the M.Eng.

The individual diploma courses will be delivered by those Professors from the UNENE Universities, who have the current responsibilities for each UNENE M.Eng. course. The diploma courses will contain the same material and meet the same academic standards as the corresponding UNENE M.Eng. course. Tests, assignments, projects and exams will be the same.

The diploma will be granted by only two universities – McMaster and UOIT – as they are the only ones with an existing diploma program in nuclear engineering. Students will therefore register only with McMaster or UOIT. The diploma will be awarded by the UNENE University in which the student enrolled.

The corresponding UNENE M.Eng. and the diploma classes will be combined – i.e. given at the same time in the same classroom by the same Professor.

3.2. Oversight

The same oversight as the UNENE M.Eng. will be used. There will be two levels of oversight within the UNENE organization (Figure 1), in addition to the normal University oversight described below. The Program Director is responsible for enrolment, logistics, educational quality and effectiveness, instructor selection, course delivery, and liaison work with universities. He is advised by the Educational Advisory Committee (EAC), which consists of representatives from all UNENE Universities and industry. The EAC also controls curriculum matters and approves the course suite. UNENE itself is overseen by a Board of Directors (BoD), consisting of senior University and industry representatives. While the BoD does not delve into the details of the diploma, its experienced members (many at the Dean level at Universities) can provide informal advice on the program. A particular strength is that the beneficiaries of the diploma – the industry members – sit on both committees and can communicate their needs.

Figure 1 - UNENE Governing Structure
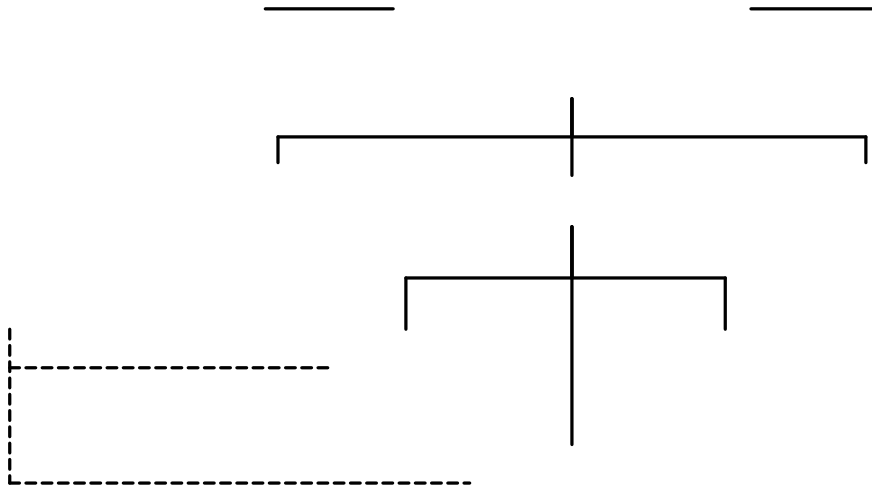
Within McMaster and UOIT, the diploma will be attached to a department – e.g. Engineering Physics at McMaster – whose policies and procedures govern the routine aspects of running the program, and which provides formal approvals where needed. Where necessary, issues / approvals go up the line through the normal university processes – e.g. to the Dean of Engineering or the Chair of Graduate Studies.

Note that although only McMaster and UOIT will register students for the diploma and grant the diploma, the courses are taught by renowned Professors from *all* the UNENE Universities. This is a benefit of putting the diploma and the M.Eng,. students in the same classroom.

A maximum completion time of three years is proposed. The main reason for this relatively relaxed limit is that *all* M.Eng. courses are offered in this three-year period (core courses every two years and non-core courses every three years), so that the student will have the flexibility to take the courses he/she is interested in. The M.Eng. course schedule is shown in Figure 2. Should a student wish to fast-track the diploma, he/she could complete it in one academic year (two courses per term). This schedule is more relaxed than the time most students take to do the **10**-course M.Eng. (typically 2-4 years).

UNENE - Conceptual Course Schedule - 6 year cycle

	Aug	Sep	Oct	Nov	Dec		Jan	Feb	Mar	Apr	May	Jun
2012/13	Operations		Physics				Fuel Mgmt		Chem/Thermodyn*		Materials	
2013/14	HTS design		Safety Design				Waste/decomm.		Risk		Radiation	
2014/15	Operations		Physics				C&I		Fuel Eng'g		Proj. Mgmt	
2015/16	HTS design		Safety Design				Fuel Mgmt		Chem/Thermodyn*		Materials	
2016/17	Operations		Physics				Waste/decomm.		Risk		Radiation	
2017/18	HTS design		Safety Design				C&I		Fuel Eng'g		Proj. Mgmt	

* in parallel

Figure 2 - Course Schedule

4. Program Content

The courses were summarized in Section 1.1.2, since the diploma is a subset of the M.Eng. courses. Each of these courses is an approved graduate course listed in the calendar of one of the UNENE Universities. While the UNENE M.Eng. is intended to cover the entire spectrum of nuclear engineering disciplines, the four-course diploma allows for specialization and flexibility – however the requirement to take at least two core courses ensures that there is a good admixture of underlying knowledge. The same academic standards apply to each diploma course as to the M.Eng. course.

Details of the courses (from which the student must choose four) are as follows:

4.1. Courses for Academic Credit

4.1.1. UN 0501 Nuclear Fuel Management

Topics covered include: Uranium mining and processing for use in nuclear reactors, uranium tails and mass of natural uranium required for enrichment to various levels, reactivity curve of fuel and its importance, the refueling process in CANDU, design and capabilities of the fuelling machine, significance of flux/power shape in reactor, how and why to flatten the flux distribution (adjuster rods, differential fuelling), time-average, snapshot, and core-follow models for CANDU reactors, PWR fuel management. Significant hands-on projects for CANDU reactors, with full-core diffusion codes and models. Carrying out actual core-follow calculations in CANDU and selection of channels for refueling.

4.1.2. UN 0601 / Control, Instrumentation and Electrical Systems

This course covers the basic control, instrumentation and electrical systems commonly found in

CANDU based nuclear power plants. The course starts with an overall view of the dynamics associated with different parts of the plant, i.e. reactor, heat transport systems, moderator, steam generator, turbine, and electrical generator. Based on such knowledge, the control and regulation functions in the above systems are then defined. Different instrumentation and measurement techniques are examined, along with control strategies. The time and frequency domain performance characterizations of control loops are introduced with consideration of actuator and sensor limitations. Different controller design and tuning methods and instrumentation calibration procedures are discussed. Two modes of operation of CANDU plants will be analyzed, i.e. normal mode and alternate mode. Advanced control technologies, such as distributed control systems, Field bus communication protocols are introduced in view of their potential applications in the existing and newly constructed CANDU power plants. The electric systems in the CANDU plant will be examined. The modeling of the dynamics and control devices for the generator will be covered in details. The dynamic interaction between the CANDU power plants and the rest of the electric power grid with other generating facilities and various types of load will be studied.

4.1.3. UN 0602 / Nuclear Fuel Waste Management

Presently, nuclear fuel waste management involves storage in water pools or dry storage containers at reactor sites. If the fuel is then defined as waste, permanent disposal at an appropriate deep geological site would be considered. This course will describe the physical and chemical properties of the fuel and these approaches to storage and disposal. Key features of the fuel include its chemical and physical structure and properties prior to, and after, in-reactor irradiation, the nature and distribution of radionuclides produced in-reactor, and the chemical and physical properties of the Zircaloy fuel cladding before and after in-reactor exposure. The principles behind pool and dry storage will be described including the design of storage containers and the chemical and corrosion processes that could influence their long-term integrity. The possible permanent disposal scenarios developed internationally will be discussed, with a primary emphasis on those potentially applicable in Canada. For this last topic, the design and fabrication of waste containers and the processes that could potentially lead to their failure, the properties of engineered barriers within the geological site, the essential geological features of the chosen site, and the computational modeling approaches used in site performance assessment calculations will be described.

4.1.4. UN 0603 / Project Management for Nuclear Engineers

Project Management is emerging as perhaps the key core competency in engineering in the 21st century industrial workplace. This course in Project Management will prepare nuclear engineers in the application of this discipline in their work. It is an intensive investigation into the major principles of Project Management slanted towards, but not exclusively about, the management of nuclear engineering projects. The course uses the Project Management Institute's PMBOK (Project Management Body of Knowledge) as a skeleton and expands that coverage with relevant examples from nuclear, software and general engineering. Special emphasis will be placed on Risk Management, particularly in the area of safety-critical projects. The graduate will be well-positioned both to apply the knowledge in their area of engineering and to sit the PMI's PMP examination. The course will be taught by a professional engineer holding the PMP certification, using many case

studies from industry and engineering.

4.1.5.   UN 0701 / Engineering Risk and Reliability

This course presents a broad treatment of the subject of engineering decision, risk, and reliability. Emphasis is on (1) the modeling of engineering problems and evaluation of systems performance under conditions of uncertainty; (2) risk-based approach to life-cycle management of engineering systems; (3) systematic development of design criteria, explicitly taking into account the significance of uncertainty; and (4) logical framework for risk assessment and risk-benefit tradeoffs in decision making. The necessary mathematical concepts are developed in the context of engineering problems. The main topics of discussion are: probability theory, statistical data analysis, component and system reliability concepts, time-dependent reliability analysis, computational methods, life-cycle optimization models and risk management in public policy.

4.1.6.   UN 0702 / Power Plant Thermodynamics

-Thermodynamic Cycles: Nuclear versus conventional steam cycles, regenerative feedwater heating, moisture separation and reheating, turbine expansion lines, heat balance diagrams, available energy, cycle efficiency and exergy analysis.
-Nuclear Heat Removal: Heat conduction and convection in fuel rods and heat exchanger tubes, heat transfer in boilers and condensers, boiler influence on heat transport system, boiler swelling and shrinking, boiler level control, condenser performance.
-Steam Turbine Operation: Turbine configuration, impulse and reaction blading, blade velocity diagrams, turbine seals and sealing systems, moisture in turbines, part load operation, back pressure effects, thermal effects and turbine governing

4.1.7.   UN 0801 / Nuclear Plant Systems and Operations

System and overall unit operations relevant to nuclear power plants with emphasis on CANDU; includes all major reactor and process systems with nuclear plant simulator; self-study using interactive CD ROM. Two to three class one day meetings will be scheduled.

4.1.8.   UN 0802 / Nuclear Reactor Analysis

An introduction to nuclear energy and fission energy systems is presented. The energetics of nuclear reactions, interactions of radiation with matter, radioactivity, design and operating principles of fission are presented. Nuclear reactor physics including chain reactions, reactor statics and kinetics, multigroup analysis, core thermalhydraulics and the impact of these topics on reactor design are covered. Special topics such as xenon dynamics, burnup and reactor flux effects on safety are included.

4.1.9.   UN 0803 / Nuclear Reactor Safety Design

Technology and safety analysis underlying nuclear reactor safety. Topics include: Nature of the hazards; concepts of risk; probability tools and techniques; safety criteria; design basis accidents; case studies; safety analysis technology; human error; safety system design; and general safety design

principles.

4.1.10. UN 0804 / Nuclear Reactor Heat Transport System Design

Fundamentals of single-phase and two-phase flow, and heat and mass transfer. Nuclear power plant primary heat transport system design and calculations, including design description and characteristics of main components and systems. Simulation methodology and tools, including development and qualification of selected thermal-hydraulics computer codes. Course also covers experimental techniques, facilities and results that describe important thermal-hydraulics phenomena. Course topics include: development of conservation equations and relevant constitutive correlations, flow patterns and boiling heat transport regimes, critical heat flux and pressure drop calculations, description of most important computer codes, description of relevant experimental facilities and results, safety margins and operational safety issues and methodologies.

4.1.11. UN 0805 / Introduction to Operational Health Physics

An introduction to a number of topics that will be encountered in the practice of health physics. The following topics will be discussed: Dose limitation; dosimetric quantities for individuals and populations; ionizing radiation risks and hazards; ICRP-60; internal doses and the compartment model; derived air concentrations and annual limit on intake; metabolic models for respiratory system and GI tract, radiation safety at nuclear reactors, particle accelerators, irradiators, X-Ray installations and laboratories; pathway analysis; derived release limits; environmental monitoring, sample collection and preparation, and sources of radiation; atmospheric transport; cost-benefit analysis; derivation of limits for surface contamination.

4.1.12. UN 0806 / Nuclear Fuel Engineering

This course covers power reactor fuel design, performance, and safety aspects, and complements other Engineering Physics / UNENE courses on reactor core design, thermohydraulics and reactor safety design. It includes fissile and fertile fuels; burnup effects; fuel production (as well as uranium enrichment and reprocessing of spent fuel), quality assurance and CANDU fuel technical specifications; thermal conductivity; fuel chemistry; fuel restructuring and grain growth; fission product behaviour; fuel defect detection and location; fuel performance in operation; and fuel / fuel channel behaviour in design basis and severe accidents. The course is based on an accredited graduate-level course that has been given several times at Royal Military College (a UNENE member).

4.1.13. UN 0901 / Nuclear Materials

A nuclear reactor presents a unique environment in which materials must perform. In addition to the high temperatures and stresses to which materials are subjected in conventional applications, nuclear materials are subjected to various kinds of radiation which affect their performance, and often this dictates a requirement for a unique property (for example, a low cross section for thermal neutron absorption) that is not relevant in conventional applications. The effects of the radiation may be direct (e.g., the displacement of atoms from their normal positions by fast neutrons or fission fragments), or

indirect (e.g., a more aggressive chemical environment caused by radiolytic decomposition). This course describes materials typically used in nuclear environments, the unique conditions to which they are subjected, the basic physical phenomena that affect their performance and the resulting design criteria for reactor components made from these materials.

4.1.14. UN 1001 / Reactor Chemistry and Corrosion

Corrosion and its costs, corrosion measurement, general materials and environment affects. Types of corrosion: uniform, galvanic, crevice, pitting, intergranular, selective leaching, erosion-corrosion, stress-corrosion, hydrogen effects. Corrosion testing: materials selection. Electrochemical principles: thermodynamics, electrode kinetics, mixed potentials, practical applications. High temperature corrosion. Nuclear plant corrosion, fossil plant corrosion, other industrial environments.

4.2. Courses not for Academic Credit

4.2.1. Refresher Courses

These are not-for-credit weekend courses in four key areas (mathematics, thermodynamics, physics and chemistry) to help prepare for the formal UNENE courses. They are free to UNENE M.Eng. and diploma students, and industry employees.

4.3. Innovation

Unique or creative aspects of the diploma draw from the UNENE M.Eng. and include:
- ❑ Delivery on weekends near the Ontario Power Generation nuclear plants, so that industry employees can attend.
- ❑ Two-way synchronous distance education to allow students at remote sites to participate in the classes. The tool enables "live" audio and video as well as transmitting Professors' presentations. Typically distance education is used by students from Bruce Power, CNSC in Ottawa or AECL in Chalk River. As with the M.Eng. we will require that each remote student appear in person for at least one weekend of each course. Local students are expected to attend all sessions in person.
- ❑ Recording of all classes so that students can catch up on a missed class or review one they attended.
- ❑ Multi-university co-operation so that courses are given by the leaders in their fields, regardless of the University at which they are working, or of the University at which the students have registered.
- ❑ Use of appropriately-qualified industry experts to deliver selected courses. Such experts are typically hired as sessional lecturers or are adjunct professors at a UNENE University.
- ❑ Use of the McMaster Nuclear Reactor (MNR). MNR is the only reactor in Canada with thermal power in the Megawatt range where one can actually see the operating core. One UNENE course (Operational Health Physics) takes the class to visit MNR.
- ❑ One UNENE course (Nuclear Plant Systems and Operations) uses a CANDU reactor simulator which can run on a PC, and much of the course is self-paced using a CD-ROM.

❑ Free optional weekend refresher courses (not for academic credit) ensure students are ready for the "hard" courses. They are also open to industry employees.
❑ The UNENE EAC and the Board of Directors combine the academic and industry perspectives to ensure that the diploma meets everyone's needs.

5. Mode of Delivery

The courses are delivered in classrooms on four alternate weekends at Durham College, in Whitby (near the Pickering and Darlington nuclear plants). As noted above, remote students can attend "live" using synchronous distance education tools; the lectures are also recorded (audio and video of overheads) for later use by all students. Based on experience with the M.Eng., the four alternate weekend model represents the best compromise between learning effectiveness and off-working-hours delivery.

6. Assessment of Teaching and Learning

Like the M.Eng., the diploma is course-based and focused on improving the knowledge of people working in industry – but in specific areas. The following M.Eng. experience applies, as the courses are the same.

Knowledge is assessed via traditional techniques of evaluation. Courses typically cover the limits of knowledge and the traditional means of evaluation are used to reinforce this. Each course professor chooses his own combination of methods of assessment, which typically include assignments, tests, and a final examination. Professors are encouraged to provide very early feedback (through assignments or tests) so a student does not realize at the final exam that he is missing basic concepts. Some courses require students to do an original mini-project.

The UNENE M.Eng. Professors' Workshop on August 28th 2013 proposed wider means of assessment linked to the draft set of Learning Outcomes at the UNENE M.Eng. Program Level. In general the draft Learning Outcomes drive more emphasis on individual and group projects as relevant means of assessment. The diploma will benefit from implementation of the ideas from the Workshop at the course level, and at the program level.

The Workshop identified six major desired learning outcomes for the UNENE M.Eng. The benefits realized for the diploma will be proportionate to the scope. Three of the M.Eng. learning outcomes (Enhanced Problem Solving, Multidisciplinary Knowledge, and Safety and Risk Analysis) are addressed by all four core courses, and since diploma students have to take two (or more) core courses, these learning outcomes are applicable to the diploma. One learning outcome (Fundamental Knowledge) is addressed by three of the four core courses; again, since diploma students have to take two (or more) core courses, this learning outcome applies to the diploma. The remaining learning outcomes for the M.Eng. (Communication / Team Skills / Leadership, and Operation of Power Plants) may or may not be achieved for the diploma, depending on the student's choice of diploma courses. Table 4 below shows the Learning Outcomes which are applicable to the diploma.

The Engineering Project courses (UNxx00) for the M.Eng. have been deleted from the table as they

are not part of the diploma.

Table 4 - Learning Outcomes for the Diploma

Learning Outcome	By the end of the program students will be able to…	Relevant Courses	Relevant Degree-Level Expectation(s)	Means of Assessment[6]
ENHANCED PROBLEM SOLVING	1. Apply their collective knowledge 2. Evaluate the problem and available resources 3. Identify problem solutions 4. Select the optimal one with the given constraints	0803, 0804, 0702, 0801, 0802, 0701	1. Depth and Breadth of Knowledge 2. Knowledge of Methodologies 3. Level of Application of Knowledge 6. Awareness of Limits of Knowledge	Student critique / assessment; Alumni survey (within their job); Course projects; Open-ended assignment / exam questions; Project (stand-lone); Integrated courses (design); Group projects
FUNDAMENTAL KNOWLEDGE	1. Explain (gain/acquire) technical and fundamental knowledge of major nuclear reactor systems and related phenomena 2. Apply this knowledge to real world scenarios	0804, 0802, 0803, 0702, 0901	1. Depth and Breadth of Knowledge 6. Awareness of Limits of Knowledge	Assignment / Project on Operations; Multiple choice / short answer questions
MULTI-DISCIPLINARY	1. Gain multi-disciplinary knowledge 2. Recognize the impact on their own work 3. Apply it to many other engineering disciplines	0701, 0801, 0804, 0802, 0803, 0901, 0602, 0806, 1001	1. Depth and Breadth of Knowledge	Professional experience; Project / report; Group project(s); Design courses; Assignments using multi-disciplinary questions

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[6] These are additional to the traditional means of exams, tests and assignments

Learning Outcome	By the end of the program students will be able to…	Relevant Courses	Relevant Degree-Level Expectation(s)	Means of Assessment[6]
SAFETY AND RISK ANALYSIS	1. Recognize importance of safety philosophy and issues 2. Apply multi-disciplinary knowledge to evaluate impact on systems operation and maintenance 3. Infer / decide interpret safety issues	0803, 0701, 0805, 0801, 0802, 0804, 0801	2. Knowledge of Methodologies 4. Professional Capacity/ Autonomy 6. Awareness of Limits of Knowledge	Post check-out session; Student feedback; Critique of a safety issue (case study) and class discussion; Group / individual project

7. Resources

Since the diploma courses are given in the same location at the same time by the same Professors as the M.Eng,. courses, there is minimal additional demand for human or physical resources unless the diploma registration becomes so large that the class must be split, as discussed in Section 10.1.

There will be an additional administration burden on UNENE to manage the diploma; this is judged to be acceptable. In the past the current UNENE administrator has simultaneously managed the old McMaster diploma.

UNENE does not provide financial support for students, nor can they normally obtain it through the University. However the student's employer will normally pay the tuition fee for each course once the student shows he/she has successfully completed it. Travel to Whitby for remote students (if the employer does not pay for it) is not a financial barrier due to the use of distance education.

8. Quality and Other Indicators

The same faculty that teach the M.Eng. will also teach the diploma, since the courses are the same. The quality of the Professors who teach UNENE M.Eng,. courses was thoroughly described in the M.Eng. IQAP program review (Ref. 1) of 2013 (self-assessment); their résumés, funding levels and research summaries can be supplied on request. As an example, Table 5 below shows the completed and current numbers of thesis supervisions by UNENE Professors, but these are *not* UNENE M.Eng. students – they are research-track students in the Professor's *home* university. They are included to show the depth of instruction.

Table 5 - Graduate Students Supervised

Completed and Current Numbers of Thesis Supervisions by Faculty Member						
	Completed			Current		
Member	*Master's*	*PhD*	*PDF*	*Master's*	*PhD*	*PDF*
Michael Bennett	27	1				
Paul Chan	1	1		5	4	
Robin Chaplin	8	1				
Willy Cook	6	1		2	1	
Mark Daymond	4(3)	4(4)	6(6)	2(3)	4(3)	
Glenn Harvel	8	1		8	3	
Jin Jiang	32	18	6	4	8	4
Derek Lister						
Eleodor Nichita	2			4	3	1
Mahesh Pandey	13	14	6	1	8	3
Nikola Popov		1			1	
Benjamin Rouben				1		
David Shoesmith	4	14	3	5	8	3
Victor G. Snell	*					
David Tucker	5			2		
Zhongwen Yao		(3)	(1)	1	3(1)	

* on one thesis committee
Numbers in brackets (where supplied) represent co-supervision.

9. Consultation Process

There has been extensive consultation on this proposal as well as a number of attempts to launch it:

- ❑ The Board of Directors of UNENE, in particular the utility members, originally requested it as an additional option for them to enhance their staff capabilities. Since the utility members provide the resources for the program (by funding their employees' tuition fees), the support

for the diploma program should be fairly solid.

❑ The Engineering Physics department of McMaster University fully supports a UNENE diploma, as the in-house diploma does not meet industry employee needs and the UNENE diploma seems like a viable alternative. The UNENE Program Director has presented the proposal at two Departmental meetings and received formal endorsement.

❑ Separate meetings have been held with the Associate Dean of Engineering (H. Sheardown) who in turn has kept the Associate Vice-President and Dean of Graduate Studies (A. Sekuler) informed. There was support for the concept from both.

❑ All UNENE Universities have been asked to agree in principle that the diploma will be hosted just by McMaster and UOIT, and have so agreed. UOIT will base its approval case on this one. This model was presented to the UNENE Board of Directors (at which all UNENE Universities are represented) and there was no objection. Section 15 records the request for concurrence from UNENE Universities, and the replies received.

❑ There has been some uncertainty as to how to best to implement the proposal. A few fast-track mechanisms have been tried unsuccessfully – e.g. taking over the McMaster diploma, setting up the UNENE diploma as a minor change from the McMaster NTD etc. Current advice from McMaster and others (including academic members on the UNENE Board of Directors and deans of UNENE members) is to request it as a new program under Expedited Approvals (this process does not require that external reviewers be involved in the approval process and provides for a faster turn-around on decisions by the Quality Council).

❑ The diploma option was described as part of the M.Eng. IQAP review and the internal and external reviewers' opinions on it were solicited (Ref. 2). They commented:

"A number of areas for potential enhancement were discussed as part of the review. The self study document outlined the plan to augment the M.Eng. program with a Diploma. The Diploma would utilize the same courses and delivery format, but would consist of only four courses. After starting in the program, students would have the option of "upgrading" to the M.Eng. if they so desired, or conversely "downgrading" to the Diploma if they were enrolled in the Master's program. This option appeared to the Review Team to be a good approach. It was enthusiastically supported by the students who would like to have this increased flexibility. Several of the students reported that they would have started in the program earlier if the Diploma option had been available at that time, but would have likely transitioned into the Master's program. The Diploma may be a very good way to attract students by providing multiple "entry points." The Review Team endorses the concept of the Diploma."

10. Financial

10.1. Fees, Costs & Administration

1. The course tuition fee for the student will be the same as for the UNENE M.Eng. course - currently $2500 per course plus incidentals. This equivalence has been requested and endorsed

by the UNENE Board of Directors.

2. The diploma does not qualify for BIUs.

3. No additional reimbursement is provided to the instructor of the joint M.Eng./diploma courses, beyond what he/she gets currently from the UNENE M.Eng. course. The teaching of UNENE courses is not part of a core faculty member's regular teaching and work load, and the remuneration is paid by UNENE at rates established by the UNENE Board of Directors. If the joint enrollment becomes too large (e.g. >30), the combined course will be split (delivered twice), as has been done occasionally with the M.Eng. in order to preserve the quality of the learning experience.

4. UNENE will administer the diploma as it does now with the M.Eng., with appropriate liaison with UOIT and McMaster. Academic responsibility remains with the Universities.

5. The income from the diploma course will be split among UOIT, McMaster and UNENE using the same revenue split as with the UNENE M.Eng. courses, as described further in Section 10.2.

10.2. Viability

The current enrollment in the M.Eng. is about 40 students, almost all of whom come from industry. The expected mature enrolment for the diploma is estimated at 15 students, each taking two courses / year on average and therefore finishing the diploma in an average of two years. There is some risk of existing or future students taking the diploma instead of the M.Eng; however since the current M.Eng,. enrollment is effectively determined by industry budget, not by the number of candidates (which routinely exceed the budget), the risk is considered acceptable. Moreover a few M.Eng. students drop out before completion (and so have nothing to show for it); the diploma may allow them to complete a less onerous course of study.

Since the classes, professors, and facilities for the diploma are all common with the M.Eng., the true incremental cost of diploma students is small.

An estimate of the financial aspects of the diploma is attached as Figure 3. A realistic scenario would be 5 students the first year, 10 the second and 15 the third; each student is assumed to take 2 courses per academic year, and hence complete the diploma in 2 years. The split between McMaster and UOIT is an estimate based on past experience with the M.Eng., where McMaster has the majority of the students, but it assumes proportionately more students enroll with UOIT than is currently the case for the M.Eng., since there will be only two institutions to grant the UNENE diploma.

The revenue split per course for the diploma will be the same as for the M.Eng. The tuition fee of $2500 per student per course is split as follows:

- 50% goes to the University which hosts the course (and provides the Professor who delivers the course) – i.e. McMaster, UOIT, Queen's, Western or Waterloo.

- 20% goes to the University in which the student originally registered (in this case, McMaster or UOIT)

- 30% goes to UNENE to cover the cost of administering the program (the program is historically revenue-neutral for UNENE)

Note that UNENE also provides a "floor" which guarantees the Universities will not lose money on any course.

Basic Data	Amount
Tuition fee per student per course	$2,500.00
Hosting Revenue to Hosting University per Course	$1,250.00
Registration Revenue to University, per Student (where Registered)	$500.00
UNENE Revenue per Course per Student	$750.00
Total Expenses per Diploma Student	$0.00

Estimated Enrollment by Year	Diploma Students Registered per Year	Number of Courses Taken per Student per year	Diploma Registrations in Courses Hosted by McMaster	Diploma Registrations in Courses Hosted by UOIT	Diploma Registrations in Courses Hosted by Other University	Number of Registrations via McMaster	Number of Registrations via UOIT	Number of Registrations via Other University
Year 1:	5	2	6	3	1	6	4	0
Total Diploma Fees Received	$25,000.00							
Revenue Redistribution:								
McMaster Revenue per Year from Diploma	$10,500.00							
UOIT Revenue per Year from Diploma	$5,750.00							
Other-University Revenue per Year from Diploma	$1,250.00							
UNENE Revenue per Year from Diploma	$7,500.00							
Year 2:	10	2	12	6	2	12	8	0
Total Diploma Fees Received	$50,000.00							
Revenue Redistribution:								
McMaster Revenue per Year from Diploma	$21,000.00							
UOIT Revenue per Year from Diploma	$11,500.00							
Other-University Revenue per Year from Diploma	$2,500.00							
UNENE Revenue per Year from Diploma	$15,000.00							
Year 3:	15	2	18	9	3	18	12	0
Total Diploma Fees Received	$75,000.00							
Revenue Redistribution:								
McMaster Revenue per Year from Diploma	$31,500.00							
UOIT Revenue per Year from Diploma	$17,250.00							
Other-University Revenue per Year from Diploma	$3,750.00							
UNENE Revenue per Year from Diploma	$22,500.00							

Figure 3 - Financial Assessment

In all cases, the program generates a reasonable revenue to McMaster, UOIT and UNENE with essentially zero additional direct expenses above the M.Eng.

10.3. In Force Target

The target date to have the UNENE diploma in force is the fall of 2015/16. It is desirable to start a pilot with Dean's approval in 2014/15, to get the program off to a good start. Since the utility lead times for budget allocation are long, this means marketing the program to utilities by the fall of 2014.

11. Conclusion

The addition of a diploma option to the existing UNENE M.Eng. meets specific industry needs for staff development, maintains the high academic standard of the M.Eng. courses, and since all teaching and physical resources are shared between the M.Eng. and the diploma, can be delivered in an effective and efficient manner. It provides additional flexibility and opportunity for industry employees who wish to enrich their knowledge in a rigorous manner. It gives them exposure to a broader range of nuclear engineering disciplines, will make them more effective employees, and augments the calibre of individuals currently designing, supporting, analyzing, operating and regulating nuclear power plants. It also provides a revenue stream to McMaster and UOIT with very little downside risk.

12. References

1. "Self-Study of UNENE Master's of Nuclear Engineering", UNENE, November 4, 2013.

2. "Review of The UNENE Master's of Nuclear Engineering": Douglas Boreham, McMaster University (Internal Reviewer); K. L. Peddicord, Texas A&M University (External Reviewer); Helmy Ragheb, Canadian Nuclear Safety Commission (External Reviewer); Report dated December 2, 2013.

13. Appendix 1 – Options Considered

The main text presents the proposal for which approval is being sought. For information, this section describes all the options that were evaluated carefully.

1. UNENE takes over the existing McMaster Nuclear Technology Diploma (NTD). The NTD is a four-course nuclear engineering diploma run out of McMaster University. It has had almost no enrollment in the last few years and is on the verge of being suspended. This option was rejected for the following reasons:

   o It is a major change, and would require a similar approval process as the new UNENE diploma being proposed here – there is no fast-track advantage.

   o Current industry employees – those most likely to enroll in the diploma – would not come if the classes were mostly at McMaster during working hours (as is currently the case – the current NTD is not set up for working students). So the courses would have to be on weekends in Whitby, as with the current M.Eng.

   o In order to support weekend delivery, and to pay the premiums for instructors, room rental etc., UNENE charges a course fee of $2500 for the M.Eng. The existing NTD fee is about half that. If UNENE took over an existing program, it would not be allowed to raise the course fee significantly. There would then be two fee categories for the identical course.

2. UNENE sets up a new diploma through McMaster only, but gives it at Whitby on weekends. This option was rejected for the following reason:

   o UOIT already has a nuclear diploma, albeit offered during the week. There is benefit to cooperating with UOIT rather than competing – i.e. allowing diploma students the flexibility to register at either University and the option of occasionally taking equivalent in-house courses. Note that UOIT is the only UNENE university besides McMaster to offer a "regular" nuclear diploma.

   o A program limited to one University is inconsistent with UNENE's mandate.

3. UNENE sets up a new diploma in cooperation with UOIT, using the M.Eng. model of course delivery. This was the option chosen because:

   o The cooperative model (with five UNENE universities) has worked very well.

   o Sharing classes and resources with the M.Eng., as discussed below, allows the diploma to be delivered efficiently.

14. Appendix 2 – Support from UOIT

The attached emails indicate support from UOIT, who are pursuing a parallel approval process based on this report. The first email is based on an earlier but similar draft of this report. The second email gives the current approval status.

From:
George Bereznai <George.Bereznai@uoit.ca>
Date:
24/02/2014 11:09 AM
To:
Brent Lewis <Brent.Lewis@uoit.ca>, Glenn Harvel <Glenn.Harvel@uoit.ca>, Ed Waller <Ed.Waller@uoit.ca>
CC:
"'Victor Snell (vgssolutions@rogers.com)'" <vgssolutions@rogers.com>, Bob Goldman <Bob.Goldman@uoit.ca>

Hello Brent, Ed and Glenn:

Attached is the proposed UNENE G.Dip. program. I think that it is a well-prepared and thorough document, and reflects the desire of the UNENE Board to have such a program implemented. While there will need to be some minor edits to correctly reflect UOIT's role and terminology, the main issues that I see are:

1. Agreement by OGS in general to support this addition to UOIT's grad diplomas offerings, and that the approval process can proceed as proposed, namely as a joint submission between McMaster and UOIT under the "Protocol for Expedited Approvals".
2. FESNS support as the Faculty that will be responsible for the academic aspects of the program.
3. Any administrative concerns regarding enrolment, cash-flow and the like.

Any other concerns, issues?

With best regards,

George

Content-Disposition: attachment;
 filename="Proposal Brief - UNENE Nuclear Engineering Diploma.pdf"
Content-Transfer-Encoding: base64

-------- Original Message --------
Subject: RE: RE: Draft Agenda
Date: Wed, 16 Apr 2014 10:27:19 -0400
From: Glenn Harvel <Glenn.Harvel@uoit.ca>
To: Dr. V.G. Snell <vgssolutions@rogers.com>
CC: Glenn Harvel <Glenn.Harvel@uoit.ca>

Hello Victor,

Your proposal passed my graduate program committee.

It is ready to go to faculty council and then off to OGS.

Our Dean, George, and OGS all have copies of the proposal.

I have been too busy with other items to even read George's email. At the moment, I do not see any issues here other than time.

When I received your emails, I was not sure exactly what your time frame was or what you wanted. i.e. the first email implied you wanted comments which I did send one.

Can you tell me what your time frame is and what you are trying to achieve at your next meeting on this? i.e. are you wanting us to get this approved or are you still getting general agreement on the proposal?

Regards,

Glenn

15. Appendix 3 – Concurrence from Other UNENE Universities

This section documents agreement from the other UNENE Universities that the diploma be offered only by McMaster and UOIT.

This was the request for confirmation:

Subject:

UNENE Diploma - Confirmation of Universities which will offer it

From:

"Dr. V.G. Snell" <vgssolutions@rogers.com>

Date:

12/02/2013 3:40 PM

To:

"Mascher, Peter" <mascher@mcmaster.ca>, "Surgenor, Brian" <surgenor@me.queensu.ca>, "Allen, Grant" <dgrant.allen@utoronto.ca>, "Bereznai, George" <George.Bereznai@uoit.ca>, Jatin Nathwani <nathwani@uwaterloo.ca>, "Hrymak, Andy" <ahrymak@uwo.ca>, "Koclas, Jean" <jean.koclas@polymtl.ca>, "Bates, Phil" <bates-p@rmc.ca>, "Lister, Derek" <dlister@unb.ca>, "Vannelli, Tony" <vannelli@uoguelph.ca>, "Rangacharyulu, Chary" <chary.r@usask.ca>, "Saif, Mehrdad " <msaif@uwindsor.ca>

CC:

"Shalaby, Basma" <basma.shalaby@rogers.com>, "Rouben, Benjamin" <benjamin.rouben@sympatico.ca>, "Garland, Bill" <garlandw@mcmaster.ca>, "Spekkens, Paul" <paul.spekkens@opg.com>, "Newman, Gary" <gary.newman@brucepower.com>, UNENE <unene@mcmaster.ca>, "LaPierre, Ray" <lapierr@mcmaster.ca>

BCC:

"Lewis, Brent" <blewis1@sympatico.ca>

I am writing to you ("To" list) in your capacity as UNENE Board Members for your respective Universities.

You are no doubt familiar by now with the proposal to create a UNENE Nuclear Diploma in addition to the M.Eng. The attachment gives the latest status, updated to reflect last week's Board meeting.

The proposal is to set up a diploma at only two of the UNENE Universities (McMaster and UOIT) as they are the only ones who have an existing nuclear engineering diploma to piggy-back on. I have not had objections to this so far, but the Board asked me to confirm with each of you, representing your Universities, that you have no issue with this decision - i.e. it is OK that you are not one of the two proposed UNENE diploma Universities.

Please so confirm.

Regards,

Victor

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Dr. V.G. Snell

UNENE Programme Director

Adjunct Professor, Engineering Physics

McMaster University

Email: snellv@mcmaster.ca

Phone: (905) 525-9140 x20168

-and -

President

VGSSolutions

Email: vgssolutions@rogers.com

Phone: (905) 824-6236

==============================

Attachments:

UNENE Nuclear Engineering Diploma - Update Feb 2013.doc 41.5 KB

These were the responses:

15.1. Western

Subject:

Re: UNENE Diploma - Confirmation of Universities which will offer it

From:

"Andrew N. Hrymak" <ahrymak@uwo.ca>

Date:

14/02/2013 2:07 PM

To:

"Dr. V.G. Snell" <vgssolutions@rogers.com>

Dear Victor,

Western wishes McMaster and UOIT colleagues success in offering the UNENE Nuclear Diploma - we do not have plans to do the same.

Regards, Andy.

Andrew Hrymak

Dean, Faculty of Engineering

Western University

Spencer Engineering Bldg, Room 2008

1151 Richmond St N

London, ON Canada N6A 5B9

t. 519-661-2128

15.2. Queen's

Subject:

Re: UNENE Diploma - Confirmation of Universities which will offer it

From:

Brian Surgenor <surgenor@me.queensu.ca>

Date:

13/02/2013 9:33 AM

To:

"Dr. V.G. Snell" <vgssolutions@rogers.com>

Hello Victor:

Queen's has no issue with the decision for McMaster and UOIT to go for the diploma alone.

Thanks for double checking.

Good luck (with the approval process).

Brian

15.3. RMC

Subject:

RE: UNENE Diploma - Confirmation of Universities which will offer it

From:

Phil Bates <bates-p@rmc.ca>

Date:

12/02/2013 7:59 PM

To:

"Dr. V.G. Snell" <vgssolutions@rogers.com>

RMC has no objections.

Phil Bates

15.4. Toronto

Subject:

RE: UNENE Diploma - Confirmation of Universities which will offer it

From:

<allendg@ecf.utoronto.ca>

Date:

12/02/2013 7:46 PM

To:

"Dr. V.G. Snell" <vgssolutions@rogers.com>

Hi Victor

This is fine by me.

Grant Allen

15.5. Saskatoon

Subject:

RE: UNENE Diploma - Confirmation of Universities which will offer it

From:

"Rangacharyulu, Chary" <chary.r@usask.ca>

Date:

12/02/2013 7:38 PM

To:

"Dr. V.G. Snell" <vgssolutions@rogers.com>

Hi Victor,

I have no objection to this proposal.

Regards

Chary

15.6. UNENE Board of Directors

From the minutes of the May 24th 2013 UNENE Board of Directors meeting (at which all UNENE Universities are represented):

"Action 39.2: Victor Snell to communicate with the other UNENE M.Eng. universities to determine whether or not they are interested in participating in Diploma courses.
Status 2013/05/24: Victor indicated that the other universities are happy to have the Diploma restricted to McMaster and UOIT.
Action closed"

McMASTER UNIVERSITY

GRADUATE PROGRAM PROPOSAL BRIEF

FOR THE PROGRAM

Doctor of Philosophy (PhD) in Social Gerontology &
Doctor of Philosophy (PhD) in Health Studies

September 6th, 2014

Document Prepared by
Dr. James Gillett & Dr. Graham Knight & Dr. Gavin Andrews

CONTENTS

1. PROGRAM

1.1   Consistency of the program with the University's mission and academic plans

The proposed PhD. programs in Health Studies and Social Gerontology are designed to accomplish the core elements of McMaster's academic mission, namely the discovery and communication of scholarly knowledge that is relevant to both community and societal needs. This mission lies at the Department of Health, Aging & Society's (HAS) research and educational mandates, as represented by the current undergraduate and Master's programs. The proposed programs will extend these mandates to the doctoral level by applying an interdisciplinary, comparative and critical lens to analysing and understanding health and aging as both social and cultural processes and outcomes. It is the combination of these three perspectives, the ways that they interact with and build on one another, and a focus on both the social structural and cultural dimensions of health and aging that makes the proposed programs distinctive in their respective areas. These three perspectives embody McMaster's commitment to forward-looking critical thinking, scholarly excellence and creativity, reflexive learning, and societal relevance and engagement as represented in the university's Academic Plan, Mission Statement and Forward With Integrity initiative.

Critical, comparative and interdisciplinary perspectives on health and aging are the principal feature of HAS's existing approach to pedagogy and research. Department faculty come from a variety of different disciplinary backgrounds, yet they have created strong, complementary ties to one another as well as other scholars in these areas. This is evident in the activities of three collective research initiatives whose leadership is located in HAS. The first is the Gilbrea Centre for Studies in Aging, one of the leading centres for gerontological research in Canada with a particular focus on three critical areas of study: aging and independence, aging and social inclusion, and aging and mental health. The second initiative is the recently formed Critical Health Research Network (CHRN) that aims to encourage critical, interdisciplinary research and inquiry into health issues and the health care system between scholars in HAS and other areas such as family medicine, anthropology, geography and nursing. The final initiative is the Collaboratory for Research on Urban Neighbourhoods, Community Health and Housing (CRUNCHH), a network of researchers from different disciplinary backgrounds concerned with health issues at the local community level. The three initiatives demonstrate the strong relationship HAS faculty have with community partners, their high level of research commitment and productivity, and diversity in terms of theoretical and methodological perspectives. All three initiatives will provide a unique opportunity for doctoral students to access valuable research related resources, experience and knowledge.

The combination of critical, comparative, and interdisciplinary perspectives on health and aging as both cultural and social structural processes and outcomes also marks the distinctiveness of the proposed doctoral programs in comparison with other similar programs in Ontario and Canada as a whole. Related programs, such as the University of Ottawa's PhD. in Population Health, the University of Toronto's PhD in Health Policy, Management and Evaluation, or the PhD. in Health Studies and Gerontology at the University of Waterloo, tend to be concentrated on a specific, substantive aspect of health and/or aging such as population dynamics, service delivery and management, or public policy. The proposed programs in Health Studies and Social Gerontology differ from these programs in that they allow students to develop and pursue broader research interests that may include interests and approaches outside the typical focus on public

health, demography and service management that these other programs entail. At the same time, the structure of the programs is designed to ensure that those interests are developed in a rigorous, scholarly manner that enable students to recognize, analyse and understand relationships and processes that cut across different substantive topics. The current graduate curriculum in HAS already comprises these core principles of critical inquiry, interdisciplinarity, comparative analysis, and concern with the cultural and social determinants and consequences of health and aging. Courses such as Health, Aging and the Media, Health and Aging in a Global and International Context, and the Socio-Cultural Aspects of Health and Aging allow students to understand how, for example, social inequalities not only determine the structure of health and aging as objective social outcomes (as reflected in rates of illness or life expectancy) but also function as social processes that entail lived experience, social reflexivity and agency resulting in alternative, competing and even conflicting definitions, evaluations and experiences of well-being, effective health care, and active or productive aging.

The PhD in Health Studies and the PhD in Social Gerontology are distinctive programs at McMaster University. While the study of aging is taken up in programs in the social sciences and more broadly in the health sciences, social gerontology is a discipline in itself and not represented fully in any other academic unit at McMaster. Students who complete the PhD in social gerontology will acquire expertise specifically in gerontology with a specific emphasis on an interdisciplinary social science perspective on aging and the condition of later age. The theoretical and methodological expertise and skills in the program will be anchored within social gerontology.

Similarly, Health Studies though less established than Social Gerontology is a discipline in its own right. And while the study of health, illness and health care is a topic area that McMaster is well known for locally and internationally, health studies as an interdisciplinary area of inquiry in the social sciences is only taken up in the Department of Health Aging and Society at McMaster. Students completing the PhD in Health Studies will have theoretical and methodological expertise in integrating knowledge and critical approaches to research from a broad range of disciplines in the social sciences. This makes the program distinct from the study of health from a specific discipline in the social sciences. The critical, interdisciplinary and social scientific perspective of the programs sets it apart from PhD programs at McMaster that address health. In the case of the PhD programs like the Health Policy PhD, which does incorporate the social sciences directly, the emphasis in the Health Studies PhD is much broader and not directly concerned with the policy dimensions of health and health care.

Among social gerontology programs and health studies programs in Ontario and across Canada, the programs at McMaster are distinctive. The critical and interdisciplinary social scientific approach sets the programs at McMaster apart from others in the province and other provinces.

Interdisciplinarity stems from the way that the Department integrates concepts, theoretical perspectives, and methodologies from different disciplines across the social sciences. This interdisciplinary approach allows research and teaching to be open-ended, creative, interdependent and concerned with the ethical and practical impact of scholarly knowledge, while at the same time cognizant of the need for analytical and methodological rigour. Interdisciplinary research and pedagogy is conducive to a comparative focus inasmuch as it draws from and relates together different perspectives and approaches to shared intellectual problems. This comparative focus is empirical as

well as theoretical and methodological: analysing and understanding health and aging in an international as well as local community context. The importance of context is also central to the critical perspective that the proposed programs will encourage and develop. A critical perspective derives from both the holistic and constructionist traditions of social scientific scholarship. It focuses research and teaching on the ways that health and aging are always embedded in a broader social context where meanings, norms, expectations, resources and opportunities or life-chances are not only structured unevenly, but also subject to contention and change.

Finally, by treating health and aging as cultural as well as social processes and outcomes the programs foregrounds the ways that the study of health and aging are determined by how they are defined and experienced. Both programs begin with the assumption that health and aging are not natural, static phenomena but processes and outcomes that are constantly under revision in terms of what they mean, how they are valued and evaluated, how they are experienced in terms of fears and aspirations, and how they are subject to calculations of risk and benefit. Accounting for and understanding not only the objective but also subjective determinants and consequences of health and aging are central to the goals of both programs, and contribute to their comparative distinctiveness.

The proposed PhD programs will build on the Department's highly successful MA program. It will give students with an MA in health studies, social gerontology or closely allied areas the opportunity to extend and deepen their learning and training in research and pedagogy, and specialize in topics related to health and/or aging at an advanced level. The creation of two doctoral programs is partly a reflection of HAS's current organizational structure. At the same time, the rationale for making them separate is based chiefly on intellectual considerations. Although Social Gerontology and Health Studies are closely related, overlapping areas of research and study, there is significant enough difference--empirically, theoretically and methodologically--that the development of two distinct PhD programs is justified. Social Gerontology extends beyond simply the health related aspects of aging and includes topics such as the political economy of retirement, political, cultural and social participation among seniors, changing family structures and responsibilities, housing, technological change and mobility. Similarly, Health Studies, which address the social determinants and consequences health, illness and well-being such as socio-economic inequality, social capital, social inclusion/exclusion and access to information, pertain to the entire life cycle, not simply the later years. The proposal to develop separate doctoral programs in Social Gerontology and Health Studies not only reflects the structure of faculty interests and expertise in HAS, but also allows students to undertake research on substantive topics that are exclusive to their chosen area of study.

The need for and potential of both programs is underscored by contemporary social changes. Demographic change, particularly the aging of the post-war "baby boom," is transforming the age structure of Canada and other developed societies. In 2010 about 14% of Canadians were over 65; by the mid 2030s the number is expected to be about 25%. This transformation has important implications for a broad range of social issues, values and practices that are not primarily about health and health care per se. These range, for example, from labour market participation to patterns of consumption to electoral politics to social advocacy to the allocation of care-giving responsibilities and inter-generational relations. At the same time, the current demographic transition clearly has significant implications for the provision and nature of health care. In Ontario, health care spending far outstrips other areas of public service such as education, justice and law enforcement, and social welfare, and in 2009 about 45% of this spending was on those

over 65. An aging population presents an added challenge to the cost, organization and content of health care provision.

It is likely, however, that the social determinants and consequences of health, illness and well-being will not only become increasingly salient from the perspective of political and economic interests, but also do so in ways that are not limited exclusively to seniors. The health care challenge of aging populations raises issues such as the allocation of material resources, medicalization and alternative therapies, the relationship between prevention and curing, and life-style and consumption practices that are relevant across the life-cycle. To address these issues modern societies need to observe and learn from one another in terms of best practices in the development and implementation of health care strategy and policy. This learning process can only be effective if it is based on rigorous comparative research informed by a critical, interdisciplinary approach that can generate innovative ways of thinking about problems and conceptualizing solutions. The PhD programs in Social Gerontology and Health Studies will address this need by enabling students to develop a highly specialized foundation of skills and knowledge essential to productive research and education, community relevance and engagement, and a comparative international perspective in the study of health and aging.

1.2   The clarity and appropriateness of the program's requirements and associated learning outcomes in meeting

The proposed programs will foster a comparative, critical and interdisciplinary perspective through a strong emphasis on the linkages between theory and methodology as key to the development of a creative, autonomous and rigorous approach to research, teaching and scholarship. The required theory course is designed to provide students not only with a comparative overview of central perspectives germane to both Social Gerontology and Health Studies, but also with an understanding of how theory is critical to the development of pertinent, practicable research questions and the underlying assumptions that inform these.

Both programs share required theory and methodology courses designed to provide students with the basis for undertaking the kind of substantial original research expected of the doctoral dissertation and beyond. The theory course will enable students to understand the similarities and differences between the two areas with respect to analytical interests, focus, assumptions and goals. The course will encourage students to think about the ways that theoretical ideas are comparable and transferable between the two areas; how different perspectives can be used as a means of critical self-reflection; and how innovative thinking arises from the interaction and combination of ideas that may have different disciplinary origins. Theory will be addressed not as an end in itself but as a component in the much broader processes of generating, testing and communicating new knowledge, and developing intellectual creativity, autonomy and rigour.

The coursework for both programs also requires extensive engagement with comparative research methodologies. The aim of the methodology courses (also shared by students in both programs) is not only to equip students with practical,

technical skills, but also to enable them to think critically about the advantages and drawbacks of different research methods, and how to make informed decisions about the appropriateness—ethical as well as practical—of different techniques for gathering, codifying and analysing research data. Understanding how different types of data can be combined in complementary ways to provide a more informed and nuanced picture of the research topic is critical to the development of advanced research competence. This competence also entails understanding how to interpret and evaluate research findings in light of policy as well as theoretical and analytical relevance.

The depth and breadth of students' knowledge, analytical ability and intellectual judgment will be assessed by means of a comprehensive area exam as well as coursework. The comprehensive area exam will be organized in terms of a reading list that students will compile in consultation with their supervisory committee. In each program the area exam will test the student's knowledge and understanding of both the area as a whole and the scholarly research relevant to the particular field of specialization in which her/his dissertation falls.

Table One (below) summarizes the ways in which both programs meet McMaster's Graduate Level Degree Expectations for doctoral degrees.

Table One:

Summary of How the Doctoral Programs in Social Gerontology and Health Meet
McMaster's Graduate Degree Level Expectations

	DOCTORAL DEGREE IN SOCIAL GERONTOLOGY *This degree extends the skills associated with the Master's degree and is awarded to students who have demonstrated:*	DOCTORAL DEGREE IN HEALTH STUDIES *This degree extends the skills associated with the Master's degree and is awarded to students who have demonstrated:*
Depth & Breadth of Knowledge	A broad and in-depth knowledge of the major perspectives, approaches and research literature in social gerontology and social studies of aging; an ability to think and reason critically, reflexively and creatively about that knowledge; and an ability to think in an innovative way about aging as a social process that is shaped by and has an impact on other social processes.	A broad and in-depth knowledge of the major perspectives, approaches and research literature in social studies of health; an ability to think and reason critically, reflexively and creatively about that knowledge; and an ability to think in an innovative way about health, illness and well-being as both socially determined and determining.
Research & Scholarship	An ability to design and conduct original research that expands upon existing knowledge and understanding in an innovative and rigorous way, and meets the criteria for peer reviewed scholarly publication. This requires competence in: (i) synthetic as well as analytical thinking about aging that can contribute to the advancement of knowledge	An ability to design and conduct original research that expands upon existing knowledge and understanding in an innovative and rigorous way, and meets the criteria for peer reviewed scholarly publication. This requires competence in: (i) synthetic as well as analytical thinking about health, illness and well-being that can contribute to the advancement of knowledge through

	through understanding how concepts are bound up with particular perspectives, yet can be re-articulated to produce new insights and lines of thinking. (ii) an appreciation of the ethical issues that arise in the study of aging as both a process and condition that can be problematic from a social as well as research point of view. Key concepts in social gerontology such as 'active aging' have a normative dimension that must be recognized and interrogated as part of the research process. (iii) understanding the complex interrelationship between aging and other social processes and conditions, such as access to material resources and support and the dynamics of social inclusion/exclusion, that forms a broader context in which research problems are situated. (iv) thinking in an interdisciplinary, comparative and critical way about the formulation of research questions and hypotheses, and development of a theoretical framework and methodological approach.	understanding how concepts are bound up with particular perspectives, yet can be re-articulated to produce new insights and lines of thinking. (ii) an appreciation of the ethical issues that arise in the study of health, illness and well-being as processes and conditions that can be problematic from a social as well as research point of view. Health, illness and well-being are normative as well as cognitive concepts whose implications must be recognized and accounted for in the research process. (iii) understanding the complex interrelationship between health, illness and well-being and other social processes, such as the distribution of resources or politicization of and contention over social issues and problems, that forms the broader context in which research problems are situated. (iv) thinking in an interdisciplinary, comparative and critical way about the formulation of research questions and hypotheses, and development of a theoretical framework and methodological approach.
Level of the Application of Knowledge	(i) a critical, reflexive understanding of the practical relevance of research in social gerontology, and the challenges of translating and applying advanced scholarly knowledge can in social advocacy, policy	(i) a critical, reflexive understanding of the practical relevance of research in the social dimensions of health, illness and well-being, and the challenges of translating and applying advanced scholarly

	formation and service delivery as well as in an academic setting. (ii) the competence to develop and deliver courses on social gerontology and social studies of aging at the undergraduate and graduate levels. (iii) the ability to supervise advanced undergraduate and graduate research, and contribute to the broader scholarly and scientific communities as a reviewer of: - research submitted for publication - scholarly research grant proposals - research project proposals - research outcomes	knowledge in social advocacy, policy formation and service delivery as well as in an academic setting. (ii) the competence to develop and deliver courses on social studies of health, illness and well-being at the undergraduate and graduate levels. (iii) the ability to supervise advanced undergraduate and graduate research, and contribute to the broader scholarly and scientific communities as a reviewer of: - research submitted for publication - scholarly research grant proposals - research project proposals - research outcomes
Professional Capacity/Autonomy	The ability to: (i) design, implement and manage large scale scholarly/scientific research on an individual and collaborative basis. (ii) demonstrate intellectual leadership in the critique of existing research paradigms that is constructive and suggestive of innovative ways of thinking about and addressing research problems and knowledge development. (iii) contribute to the broader research community as a reviewer, mentor and critic.	The ability to: (i) design, implement and manage large scale scholarly/scientific research on an individual and collaborative basis. (ii) demonstrate intellectual leadership in the critique of existing research paradigms that is constructive and suggestive of innovative ways of thinking about and addressing research problems and knowledge development. (iii) contribute to the broader research community as a reviewer, mentor and critic.

	(iv) act as a knowledge broker who can translate scholarly research in ways that contribute concretely to policy formation, social advocacy, and service delivery and management in the field of aging.	(iv) act as a knowledge broker who can translate scholarly research in ways that contribute concretely to policy formation, social advocacy, and service delivery and management in the field of health, illness and well-being.
Level of Communication Skills	The ability to convey complex ideas, arguments and analyses in a clear, intelligible and cogent manner inside and outside an academic setting, to academic and non-academic audiences.	The ability to convey complex ideas, arguments and analyses in a clear, intelligible and cogent manner inside and outside an academic setting, to academic and non-academic audiences.
Awareness of Limits of Knowledge	The ability to recognize and take account of the assumptions that underlie all forms of knowledge as well as the partial nature of any perspective on which knowledge is based.	The ability to recognize and take account of the assumptions that underlie all forms of knowledge as well as the partial nature of any perspective on which knowledge is based.

1.3 Degree nomenclature

Doctor of Philosophy in Sociology Gerontology
Doctor of Philosophy in Health Studies

2. ADMISSION REQUIREMENTS

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

In accordance with the School of Graduate Studies Calendar, students entering the PhD. program in Health Studies or Social Gerontology will normally be expected to have successfully completed a Master's degree in the respective areas. Applications from prospective students with a completed Master's degree in closely related areas in Social Sciences, Life Sciences and Humanities, will also be considered, particularly when the applicant has demonstrated a clear interest in the areas to which they are applying (e.g. relevant Master's level courses, thesis or major research paper). Some graduate level familiarity with and competence in the areas of either Health Studies or Social Gerontology is necessary to provide a foundation on which the primary goal of the PhD programs, viz. a comprehensive and informed awareness of relevant issues and facility in advanced level research, analysis and communication, can be built.

To be eligible for admission to both programs, applicants will require a minimum average

grade of B+ at the Master's level.

Admission to the programs will be on a full-time basis only.

http://digitalcommons.mcmaster.ca/sgs_cal/18/

Admission to the programs will be on a full-time basis only.

3. STRUCTURE

3.1   Administrative, governance, and communication processes

Primary responsibility for administration, governance and communication in both programs will reside with the Department of HAS' Graduate Committee and its Chair. The HAS Graduate Committee will normally comprise permanent faculty in the Department, although allowance will be made to draw on the expertise and advice of Associate Faculty when circumstances dictate. The Graduate Committee will consist of 5 members, including two graduate student representatives, at least one of whom should be at the doctoral level.

Any changes to program requirements, procedures, guidelines or expectations will be formulated by the Departmental Graduate Committee and brought to the Department faculty for discussion and approval.

The Chair of the Graduate Committee will be responsible for communicating any changes in requirements, procedures, guidelines or expectations to the graduate students.

The Graduate Committee will also be responsible for assessing and ruling on any disputes or grievances regarding program requirements, &c. that fall within the Department's sphere of administrative responsibility. The Graduate Committee will also decide any request by students for a change of principal supervisor.

On entry into the program each student will be assigned an academic supervisor based on her/his original statement of interest. In addition to taking primary responsibility for overseeing the student's dissertation research, the supervisor's role includes providing information about the program structure, course contents, comprehensive exam requirements and other topics relevant to the student's successful progress through the program. A full supervisory committee of at least three faculty members will finalized by the end the student's third term in the program. The principal supervisor and at least one other member should be full-time members of the permanent HAS faculty. This committee will supervise both the dissertation research and comprehensive exam.

3.2   Program's structure and regulations

The program structure follows a conventional sequence for the PhD in Social Sciences: completion of coursework in the first year; completion of the comprehensive area exam together with the dissertation proposal and research ethics approval by the end of the fifth term; gathering, processing and analysis of data for the dissertation research in terms six, seven and eight; interpretation of findings and writing of the dissertation in the final four terms. This sequence allows for the building and refinement of skills necessary to undertake rigorous, innovative, original research that meets the criteria of scholarly

excellence.

Students will have available the option of a 'sandwich' dissertation format as an alternative to the conventional, thematically integrated research project. As suggested in McMaster's Guide for the Preparation of Master's and Doctoral Theses (sections 1.3, 5.0), the sandwich format is particularly apposite for students who have already begun to publish or prepare research material for publication that is relevant to their dissertation topic.

Final decision about the dissertation format must be made in agreement with the principal supervisor.

HAS faculty will meet on an annual basis shortly after the end of the Winter Term to discuss and assess the progress of every full- and part-time student in the PhD programs. This meeting will serve as a source of collective information and advice sharing about each student's progress in the program(s).

Faculty involved in teaching graduate courses will also meet on an annual basis before the beginning of the Fall Term to share information with their colleagues about learning objectives, contents and pedagogical methods. Faculty will be encouraged to share 'best practices' information among themselves.

3.3   Rationale for program length

Students will normally spend four years or 12 terms enrolled full-time in the program(s). The first five terms in the program(s) are designed to provide a solid grounding in theoretical, analytical and methodological knowledge and skills to enable students to undertake research of sufficient scope and depth to meet the expectations of a doctoral dissertation. The remaining seven terms will be devoted solely to the dissertation itself. This allows up to three terms for research data gathering and analysis, and four terms in which the student can complete interpretation of the findings and write the dissertation itself.

The program is structured so that the dissertation is the paramount outcome; students will be encouraged to think in terms of their dissertation research on entry into the program(s). The required theory and methodology courses are structured with the dissertation research in mind—deriving and conceptualizing a research problem, developing research questions or hypotheses, determining the appropriate kind(s) of data, selecting methods of gathering and analysis, &c. The comprehensive area exam and dissertation proposal are designed to ensure breadth and depth of relevant knowledge and the tailoring of this into a viable research project (including the successful granting of research ethics approval from the MREB when necessary).

4. PROGRAM CONTENT

4.1   Curriculum

The curriculum for both programs reflects the interdisciplinary character of the two areas as well as their close relationship to one another. The curricula for both programs reflects this in all three components, viz. coursework, comprehensives and dissertation.

a. Coursework: Students in both programs will take in common a 3 unit theory course (HLTH AGE 701: Social Science Perspectives on Health & Aging) and two 3 unit methodology and methods courses. The current methods course, HLTH AGE 702: Research Methods and Design in Studies of Health and Aging, will be revised and redefined as Quantitative Research Methods in Studies of Health and Aging. A new course, HLTH AGE 714: Qualitative and Historical Methods in Studies of Health and Aging, will be created to fulfil the second methodology requirement. Both required methods courses will entail instruction on the tools and techniques of data gathering, such as questionnaire design and interviewing, as well as data analysis (statistical analysis and various forms of discourse analysis).

In addition to these, students in the Health Studies program will take a new 3 unit course, HLTH AGE 715: Critical Perspectives in Health Studies, that addresses salient issues such as the impact of social inequality on the distribution of health, access to health care, and the construction of health problems and solutions. Students in the Social Gerontology program will take HLTH AGE 713: Critical Perspectives on Aging that addresses critical issues such as the impact of retirement, aging-related social policy and advocacy, social factors that facilitate 'active' aging, how these factors are institutionally shaped and how their impact is socially experienced and mediated.

For the remaining 6 units of mandatory coursework students may take another scheduled graduate course in HAS, in another department at McMaster, or in another accredited doctoral program in Ontario (under the Ontario Visiting Graduate Student Plan). Students may also undertake an independent study or reading course with a faculty member who is participating in the doctoral program.

Students entering either doctoral program who have already taken the required theory, methods and critical perspectives courses, or their graduate level equivalent at another university, can apply for exemption. Exemptions can be used to reduce the overall number of course credits the student must take. All students, however, are required to take a minimum of 9 units of coursework.

In addition to the above courses taken for credit, all doctoral students will be required to participate in a non-credit research and professional development seminar (one term in length). Participation in the seminar will normally take place at the beginning of the second year in program (Term IV) while students are preparing for the comprehensive exam and dissertation proposal. The seminar will act as a forum in which students can acquire and share practical skills and knowledge relevant to the research enterprise, such as scholarship, proposal, grant and report writing, research reviewing, the preparation of conference papers and articles for publication in scholarly journals, research networking, and the preparation of application letters and the c.v.

See Appendix A for a current listing of graduate courses in HAS. Course outlines can be found at

https://www.healthagingandsociety.mcmaster.ca/graduate-program/course-outlines

b. Comprehensive area exam and dissertation proposal: completion and assessment of the area comprehensive exam and dissertation proposal will normally take place in Terms 4 and 5 of the program. Students will take a comprehensive exam in their area of concentration (Social Gerontology or Health Studies). This exam will normally consist of

a two-week take-home exam based on a reading list compiled by the student and her/his supervisor and other supervisory committee members. The exam will entail written answers (with specified length limits) to three questions, one of which will address the particular research interest of the student. The purpose of the exam is to ensure that the student has a sufficient grasp of the relevant scholarly literature in her/his area of research interest and that s/he is able to synthesize and communicate this literature in a critically insightful way. The comprehensive exam will also have an oral component (defence of the written answers) and will be assessed by the supervisory committee.

The dissertation proposal serves to identify a viable project of research whose topic and focus is situated effectively in the relevant scholarly literature. The proposal should outline and explain the project's theoretical perspective and relevance, key research questions, hypotheses or argument, and the appropriate methodology for addressing these. Students will present and defend their proposal in a open forum to which other members and associate members of HAS (including graduate students) are invited. Assessment of the proposal will be determined by the student's supervisory committee.

The sequencing of the comprehensive area exam and dissertation proposal will be determined by the supervisory committee in consultation with the student.

Both the comprehensive area exam and dissertation proposal should normally be completed and assessed by the end of the fifth term.

c. Dissertation: The dissertation will normally consist of a focused piece of original empirical research that students are expected to situate in the relevant scholarly literature. This literature should serve as the reference point for deriving, conceptualizing and justifying the central research questions or hypotheses that the research seeks to address, and for interpreting the significance of the principal findings and drawing conclusions from them.

4.2   Curriculum and program innovations

The programs incorporate a number of innovations with respect to coursework, comprehensive exams, and opportunities for students to participate in research initiatives and networks, and receive financial support for research expenses.

A major innovation that these programs entail is the sharing of core theory and methodology courses, as well as the social services and policy course, as the basis for establishing a critical, comparative, and interdisciplinary approach to the study of health and aging. In other words, students in the two programs will share an understanding of the point of departure for research and knowledge formation (theory and methodology) and their main point of destination (policy development and social service). The aim of the two programs sharing core courses is to foster a comparative, interdisciplinary and critical perspective that highlights the intellectual benefits of collaboration and knowledge transfer across areas of research.

The rationale for sharing compulsory theory, methodology and policy courses is twofold. Firstly, it reflects the relationship between the two areas organizationally and intellectually. Several HAS faculty teach and conduct research in both areas, and it is highly likely that some prospective doctoral students will also have research interests that overlap aging and health. Secondly, the program has a responsibility to train students who

will work in non-academic as well as academic careers. The majority of doctoral students no longer pursue academic careers, and the required shared courses will be structured to nurture analytical, methodological and substantive skills and knowledge that will also allow students to compete successfully in non-academic labour markets. Students graduating from the programs will be equipped to pursue careers not only in academia but also the public, private and non-profit/voluntary sectors. All three sectors provide a variety of career opportunities for researchers, programme strategists, knowledge brokers and policy analysts trained and experienced in the kinds of intellectual skills that the programs emphasize. The tertiary non-profit/voluntary sector is particularly relevant for those with advanced training in areas such as Health Studies and Social Gerontology. There are over one hundred and sixty thousand organizations in this sector in Canada, almost half of which operate in areas germane to health and aging including sports and recreation, social services, development and housing, health, and education and research.

See Appendix G for a profile of recent labour market outcomes for doctoral students in Canada and employment growth projections for relevant occupational fields.

The comprehensive area exam is designed to fulfil the two core functions of scholarship, teaching and research. The exam will not only equip students with a sufficiently broad knowledge and understanding to be able to teach in the area, but also enable them to focus their preparation in a way that dovetails with their dissertation proposal and ultimately the dissertation itself. The supervisory committee, in consultation with the student, will determine if the comprehensive area exam and dissertation proposal are complete in sequence or concurrently. Either way, the aim is to link the two closely in order to sustain intellectual momentum as the student shifts from a broader interest in the area as a whole to a narrower focus on the dissertation research.

Students in both programs will have the opportunity to participate in existing institutional or networking initiatives led by HAS faculty. Students in the Social Gerontology program will be able to affiliate with the Gilbrea Centre for Studies in Aging, one of the leading centres for gerontological research in Canada. Students in Health Studies will be able to participate in.two established research networks: the Collaboratory for Research on Urban Neighbourhoods, Community Health and Housing (CRUNCHH) and the Critical Health Research Network (CHRN) that connect health scholars at McMaster and elsewhere. All three provide an opportunity for students to reap tangible benefits in terms of access to research networking and funding, guest lectures and seminars, research workshops, and other events, resources and opportunities relevant to their professional development.

HAS will also provide limited financial and other material support for expenses that students incur as a result of undertaking their research, for example data gathering costs such as travel and recording equipment and transcribing software for interviewing, and data exploration costs such as software for qualitative and quantitative data analysis. A fund to help cover these costs will be established using the resources that the Department has accumulated from Spring and Summer session teaching. Where possible HAS will purchase equipment and software that can be shared and re-used on an continuing basis.

4.3   Research requirements

Both programs are structured to result in a dissertation that will normally comprise a piece of original empirical research. This is the primary goal. As explained above, the other components of the program(s), viz. coursework and comprehensive exams, are structured

to support development of the dissertation research.

4.4   Verification of course requirements

All graduate courses in HAS, including the reading course and independent study course, are listed at the 700 level and accessible only to graduate students.

5. MODE OF DELIVERY

5.1   Learning outcomes and appropriateness of mode of delivery

Students in both programs will normally be required to complete 18 units of coursework, by the end of their first year. [Exemptions from coursework will be granted if students have already completed the required theory, methods and critical perspectives courses, or their equivalent at the graduate level. All students must nonetheless complete a minimum of 9 units of graduate coursework.] The principal teaching format is the graduate seminar where students are required to complete weekly reading assignments and engage in focused discussion of issues that arise from the readings. At the beginning of each course instructors will provide students with a course outline that specifies the material and topics to be covered, specific learning objectives and outcomes, expectations regarding student contributions (written and oral), and the methods of evaluation. All coursework will entail written work on the students' part for assessment by the instructor such as a final essay, project and/or exam. At the instructor's discretion, students may also be required to submit written work over the course of the seminar. Supplementary teaching and learning methods, such as online information distribution and discussion forums, may also be used. Weekly seminar discussions remain the most effective way of nurturing a critical, comparative and interdisciplinary perspective on key issues and topics. By allowing for discursive interaction, the seminar format enables students to teach and learn from one another as well as the course instructor, who serves more as a moderator, guide and commentator than information delivery agent. Because of its interactive, open-ended format, the seminar provides the best environment to enhance the critical conceptual and analytical abilities that students need in order to undertake advanced research that makes an original, innovative contribution to scholarly knowledge.

While students will prepare for the comprehensive exams on a more individualized basis, they will be encouraged to form informal discussion groups among themselves as well as consult with their supervisory committee throughout the process. Students will be encouraged to develop a collaborative culture among themselves (face-to-face and online) with respect to both intellectual discussion and learning materials. A model for this already exists among current graduate students affiliated with the Gilbrea Centre who are using social media to share relevant information from diverse sources. Students will also have an opportunity to affiliate with the CRUNCH and the CHRN to experience and learn about the dynamics of collaborative research.

6. ASSESSMENT OF TEACHING AND LEARNING

6.1   Appropriateness of instruction and assessment methods

The first year of both programs consists of coursework that is intended to extend and enhance both the breadth and depth of students' scholarly knowledge, capacity for critical analysis and reflexive learning, and facility at conceptualizing and implementing original

research (the tripartite relationship between theory, the existing research literature, and methodology). Methods of assessment will be at the discretion of individual instructors, but will draw from the established repertoire that includes term papers, short commentary papers, research related exercises (in the methodology course, for example), seminar presentations, and contributions to seminar discussions.

The comprehensive area exam, to be completed normally in the second year of the program(s), is structured to assess breadth and depth of knowledge and understanding of the relevant area, ability to compare and synthesize different perspectives and interpretations, and skill at communicating knowledge and critical thinking in a clear, creative and stimulating way. The dissertation proposal assesses the student's ability to derive and develop a viable research project from a critical engagement with the scholarship in her/his area.

The dissertation research, in years three and four, is primarily a test of the students' ability to undertake original research. Although the research is done under supervision, the intended outcome is to produce scholars capable of working autonomously. Assessment culminates in an oral exam in which the student is required to defend his/her work, particularly in light of critical questioning from an external expert who has been arm's length from the supervisory process.

6.2   Documenting and demonstrating student performance

Monitoring and assessment of students' progress through the programs is continuous. At each stage of the program (courses, comprehensive exams and dissertation) students will consult with faculty about their work and receive feedback and advice. Performance in coursework and comprehensive exams will be graded; the dissertation will be judged on a pass/fail basis on completion of the oral defence.

In accordance with School of Graduate Studies requirements, students will meet formally with their adviser/supervisor and supervisory committee members at least twice per academic year to discuss and assess their progress in the program to date.

A special meeting of departmental faculty will be held once a year to conduct an overview of the progress of all students in the programs. The results of this meeting will be documented for future reference. This will allow faculty to keep abreast of any problems that may arise, share advice about best practices to resolve these, and develop an overall picture of how students are faring. This will allow the Department to refine program structure when necessary in order to improve the quality of student performance and the achievement of program goals.

7. RESOURCES FOR ALL PROGRAMS

At the undergraduate level HAS currently administers three programs: an Honours Bachelor of Arts (4 years) in Gerontology; an Honours Bachelor of Arts (4 years) in Health Studies; and a Bachelor of Arts (3 years) in Health, Aging & Society.

See http://www.healthagingandsociety.mcmaster.ca/undergraduate-program for details.
At the graduate level HAS currently administers one degree program, the Master of Arts in Health and Aging that can be completed through a combination of either coursework and a major research paper (1 year) or coursework and a thesis (2 years).

See http://www.healthagingandsociety.mcmaster.ca/graduate-program for details.

7.1   Existing administrative and financial resources

Administrative resources will have to be enhanced with the introduction of the two doctoral programs. HAS currently has two full-time administrative staff. A third full-time staff member is required to ensure successful administration of all the Department's graduate programs. The Department has received assurances from the Office of the Dean of Social Sciences that this requirement will be met.

7.2   Faculty teaching resources

HAS currently has a complement of 9.5 full-time equivalent tenured and tenure-stream faculty (some faculty members are cross-appointed with other units), two teaching track professors, one contractually limited (CLA) faculty member, and sessional instructors whose number varies by term. All the tenured and tenure stream faculty participate in both undergraduate and graduate teaching. The teaching professors, CLA faculty and sessional instructors participate in undergraduate teaching only.

Table Two (below) lists all core and associate graduate faculty eligible to participate in the proposed programs in Social Gerontology and Health. See Appendix B for a list of faculty in Health Aging and Society.

Table Two:

Core and Associate Graduate Faculty in Health Aging and Society

N.B.:   The intent of this Table is to establish the strength and the degree of involvement of the faculty complement participating in each field of the graduate program and whose CVs are provided in Volume II of the Brief. This is an important element in the assessment of program quality.

Faculty Members by Field (Department of Health, Aging & Society)					
					Fields
Faculty Name & Rank	**M/F**	**Home Unit**	**Supervisory Privileges**	**Social Gerontology**	**Health Studies**
Category 3					
Professor					
Andrews, G.	M	Health, Aging & Society	Full	X	X
Denton, M.	F	Sociology	Full	X	
Associate Professor					
Campbell, L.	F	Sociology	Full	X	X
Dunn, J.	M	Health, Aging & Society	Full		X

Gillett, J.	M	Sociology	Full	X	X
Grenier, A.	F	Health, Aging & Society	Full	X	X
Grignon, M.	M	Economics	Full	X	X
Sinding, C.	F	Social Work	Full		X
Assistant Professor					
Gabel, C.	F	Health, Aging & Society	Full	X	X
Kapiriri, L.	F	Health, Aging & Society	Full		X
Premji, S.	F	Labour Studies	Full		X

Category 1: tenured or tenure-track core faculty members whose graduate involvement is exclusively in the graduate program under review. For this purpose the master's and doctoral streams of a program are considered as a single program. Membership in the graduate program, not the home unit, is the defining issue.

Category 2: non-tenure-track core faculty members whose graduate involvement is exclusively in the graduate program under review.

Category 3: tenured or tenure-track core faculty members who are involved in teaching and/or supervision in other graduate program(s) in addition to being a core member of the graduate program under review.

Category 4: non-tenure track core faculty members who are involved in teaching and/or supervision in other graduate program(s) in addition to being a core member of the graduate program under review.

Category 5: other core faculty: this category may include emeritus professors with supervisory privileges and persons appointed from government laboratories or industry as adjunct professors. Please explain who would fall into this category at your institution.

Category 6: non-core faculty who participate in the teaching of graduate courses.

HAS aims to increase full-time enrolment in both programs incrementally. If the programs are implemented in the 2015-16 academic year, the initial intake will consist of a total of 6 students, growing to 8 students p.a. in 2016-17 and 2017-18 and 10 students in 2018-19. The annual intake will remain at this number from this point, resulting in a steady state total of 40 students enrolled full-time in the programs from 2021-22 onward.

In order to achieve this objective, HAS will require additional teaching resources equivalent to at least one full-time permanent faculty member in the second year of the program This additional resource will take the form of a tenure track full appointment(s) to HAS. The additional appointment(s) will be necessary to ensure that HAS can successfully meet the extra demand for faculty involvement in the teaching and supervision of doctoral students and sustain the standards of scholarly excellence that the programs entail.

7.3   Evidence of resource adequacy

The Department of Health Aging and Society has in place resources for graduate students in the form of office space, computers, software, and travel funds. Faculty members regularly employ graduate students through their research grants. There are sufficient

library funds (see attached report) and technical assistance.

8. RESOURCES FOR GRADUATE PROGRAMS

8.1   Faculty research expertise

HAS faculty have a consistently strong record of scholarly research activity, funding from major external research bodies, and publishing in leading academic journals and with highly reputable academic presses. This record of research accomplishment includes work undertaken on both an individual and collective basis or joint basis with other researchers inside and outside the Department. HAS faculty are currently principal or co-investigators on research and other scholarly projects funded at a total of over $30 million.

Table Two: Summary of HAS Faculty Publications* Since 2008

Books Authored: 4
Books Edited: 7
Articles in Peer-reviewed Scholarly Journals: 147
Chapters in Scholarly Books: 46
Contributions to Scholarly Encyclopaedias: 10

* All figures include single and joint authorship/editorship

The faculty have established extensive research network ties in their respective areas of specialization that will be a valuable asset for integrating doctoral students into a productive research culture.

Although the two areas of Social Gerontology and Health Studies are closely related, faculty research expertise spans a broad range of current topics. At the conceptual level, the research of the HAS faculty addresses critical issues such as social equity and social inclusion/exclusion in the social organization and social experience of health and aging. The focus of research ranges from local communities to international comparisons and addresses the ways in which social differences in terms of ethnicity, aboriginality, migration, gender, socio-economic status, community structure and disability shape both the experience of aging and illness and the organization of caregiving and other forms of social response and support. Particular research topics include the relationship between housing, neighbourhood and health; access to and knowledge of alternative and complementary medicine; management of chronic illness such as HIV/AIDS; the geography of primary health care; informal and institutional forms of caregiving; involuntary retirement; occupational health; the practices of professional caregivers; the economics of health and aging; ethical responsibility and health; and the narrative experience of illness and aging.

8.2   Financial assistance for students

Consistent with policies at McMaster University, each incoming graduate student will be guaranteed **a minimum** of 17,500.00 from a combination of teach assistantship and graduate scholarship. Additional funding will be provided by faculty through research grant funding. Faculty members in the Department of Health Aging and Society have active programs of research and will be able to offer incoming students additional funds in the form of stipends or research assistantship that will enable the Department to make

competitive offers to incoming students. Faculty members also have funding through agencies like the Canadian Institutes for Health Research (CIHR) which will make incoming PhD students competitive for external scholarship awards. The Department also is affiliated with research centers and networks like the Gibrea Center for Studies in Aging, the McMaster Critical Health Research Network, the Collaboratory for Research on Urban Neighbourhoods, Community Health and Housing (CRUNCH), Arts Centered, Community Engaged, Social Sciences (ACCESS) and the McMaster Institute of Environment and Health. There are funding opportunities available to PhD students through the centers and institutes affiliated with the Department. Additional funds will also be provided by the Department to incoming PhD students.

8.3   Faculty research programs

Permanent faculty in HAS have an excellent track record of sustained research output. Much of this is funded by external granting sources. The Department's close association with one research centre (the Gilbrea Centre) and two research networks (the CHRN and the CRUNCH) provide an opportunity for students to participate in and receive funding support from the collaborative research programs these involve.

Since 2008 research publications by HAS include refereed articles in scholarly journals and conference proceedings, book chapters, single- and co-authored scholarly books, single- and co-edited books, technical reports, and entries in scholarly encyclopaedias. Faculty members maintain active research programs and have been successful in competing for research funding from Canadian and international granting agencies such as CIHR, NIHR, CFI, SSHRC, and FQRSC.

The success of HAS faculty in attracting external research grants enhances the Department's ability to fund doctoral students through Research Assistantships as well as Teaching Assistantships. .

See Appendix C for a detailed list of recent research publications by HAS faculty.

See Appendix E for a list of external funding from HAS faculty over the last five years.

8.4   Distribution of faculty supervisory loads

Currently faculty members are either fully in the Department of Health Aging and Society or hold joint positions in other units. Consideration in the distribution of graduate students will take this distinction into account. The principal supervisor will normally be a full-time tenured faculty member in HAS. This decision will be made in consultation with the graduate committee during the process of acceptance into the program.

Once the program is underway, the Graduate Committee will take account of the current distribution of supervisory loads, as well as faculty members' areas of research expertise and interest, when making decisions about offers of admission for the upcoming academic year. The Committee will strive to keep supervisory loads as evenly balanced as possible, and ensure that students' research interests are matched to faculty expertise.

8.5   Faculty experience in graduate supervision

Supervisory experience in HAS is chiefly at the Masters level. Faculty teaching in the area

of Social Gerontology have completed supervision of 18 Masters students, and are currently supervising 7 additional students. Faculty teaching in the area of Health Studies have completed supervision of 23 Masters students, and are currently supervising 6 additional students. Faculty teaching in both areas have completed supervision of 20 Masters students, and are currently supervising 4 additional students. As there is no coursework only option for the Masters degree in HAS, all students undertake an extended research project, either a major research paper or thesis.

Two cross-appointed faculty teaching in Social Gerontology have completed supervision at the doctoral level (2 PhDs). In addition, HAS faculty are currently members of 15 doctoral supervisory committees. Two faculty members have also supervised post-doctoral fellowships.

See Appendix F for a table listing supervisory experience among HAS faculty.

9. QUALITY AND OTHER INDICATORS

9.1   Evidence of quality of the faculty

For evidence of quality of the faculty see prior sections 7 and 8.

9.2   Program structure and faculty research

The program structure of the PhD is designed so that graduate students have the provision to pursue their own research interests in conjunction with the research interest of faculty members in the department.

10. CONSULTATION PROCESS

10.1   Consultation process

The consultation process in preparation for this brief began in 2012 with a retreat devoted to planning and conceptualizing how a PhD program could be developed in the Department of Health Aging and Society. Since that time, discussions continued among faculty members, graduate students, undergraduate students and staff on its structure and organization. In 2013 a second retreat was held to refine and articulate the two programs, one in health studies and a second in social gerontology. In 2013 and 2014 the Department of Health Aging and Society underwent a program review of the undergraduate and sgraduate program. In this review, a consideration was made of the development of the two PhD programs including consultations with graduate and undergraduate students.

Once a draft of the PhD proposal brief was complete, it was circulated to faculty and staff for comments. A draft was also circulated to academic units at McMaster that were involved in or potentially affected by the programs. Meetings were held between directors and Chairs of those units to discuss both potential forms of collaboration resulting from the program and also potential areas of overlap or duplications. Chairs and directors of other academic units were asked to indicate their support for the program and their responses are included in Appendix D

Appendix A

Current Listing of Graduate Courses in the Department of Health, Aging & Society
Sample Course Outlines

HLTH AGE 701: Social Science Perspectives on Health & Aging This course is an introduction to current theoretical perspectives in health studies and social gerontology used in research on health and aging in the social sciences.

HLTH AGE 702: Research Methods & Design in Studies of Health & Aging This course explores the interdisciplinary methods and design used in conducting social science research on health and aging.

HLTH AGE 703: Social Systems, Services and Policy: Critical Perspectives This course examines the intersections between institutional structures, organizational systems, policy formation and implementation as they relate to the fields of health studies and social gerontology.

HLTH AGE 704: Special Topics in Aging This course explores current theoretical and/or substantive topics in social gerontology.

HLTH AGE 705: Special Topics in Health This course explores current theoretical and/or substantive topics in critical health studies.

HLTH AGE 706: Independent Study This course is for independent research or study supervised by a faculty member. Students will determine with their faculty supervisor a mutually agreeable topic. Supervisor and student will set specific learning objectives, how they will be achieved, and how they will be evaluated. Students must produce a piece of scholarly written work that will be evaluated and graded by the supervisor.

HLTH AGE 707: Reading Course
This course allows students to meet their own specific learning objectives in aging or health studies. Students will work under the guidance of a faculty member to read, evaluate, and critically analyze relevant literature in the topic area that they have selected. Supervisor and student will set specific learning objectives, how they will be achieved, and how they will be evaluated. Students must produce a piece of scholarly written work that will be evaluated and graded by the supervisor.

HLTH AGE 708: Health and Aging in a Global and International Context This course examines the institutions and the players that address health and aging related issues on a global and international level in the fields of health studies and social gerontology.
HLTH AGE 709: Socio-Cultural Aspects of Health and Aging This course explores the socio-cultural study of health and aging in the fields of health studies and social gerontology such as: consumerism; embodiment; activism and advocacy; beliefs about health; aging and healing; health and the arts; and technology and health and aging.

HLTH AGE 710: Health, Aging and the Media This course critically explores approaches to studying the media and media representations in the fields of gerontology and health studies.

HLTH AGE 711: The Health Care System and the Older Person This course provides an interdisciplinary analysis of priority issues relating to the health care system and the older person in the field of critical and social gerontology.

HLTH AGE 712: Globalization and Health This course examines the impacts of globalization processes on various aspects of health in different social, economic and cultural settings.

HLTH AGE 713: Critical Perspectives on Aging This course draws on perspectives in critical gerontology to explore issues related to the political, social, and cultural aspects of aging.

Appendix B

Faculty in Health Aging and Society by Department and Degree Program

Faculty in Health Aging and Society

Gavin Andrews, Professor,	(1.0)	Health Aging and Society
Jim Dunn, Associate Professor	(1.0)	Health Aging and Society
Lydia Kapriri, Associate Professor	(1.0)	Health Aging and Society
Amanda Grenier, Associate Professor	(1.0)	Health Aging and Society
Chelsea Gabel, Assistant Professor	(1.0)	Health Aging and Society
James Gillett, Associate Professor	(0.5)	Health Aging and Society/Sociology
Christina Sinding, Associate Professor	(0.5)	Health Aging and Society/Social Work
Margaret Denton, Professor	(0.6)	Health Aging and Society/Sociology
Lori Campbell, Associate Professor	(0.5)	Health Aging and Society/Sociology
Michel Grignon, Associate Professor	(0.5)	Health Aging and Society/Economics
Stephanie Premji, Assistant Profess	(0.4)	Health Aging and Society/Labour Studie
Randy Jackson, Assistant Professor	(0.5)	Health Aging and Society/Social Work

8.5 FTE

Faculty in Health Aging and Society by Academic Field

Social Gerontology

Gavin Andrews, Professor,	(1.0)	Health Aging and Society
Jim Dunn, Associate Professor	(1.0)	Health Aging and Society
Amanda Grenier, Associate Professor	(1.0)	Health Aging and Society
James Gillett, Associate Professor	(0.5)	Health Aging and Society/Sociology
Margaret Denton, Professor	(0.6)	Health Aging and Society/Sociology
Lori Campbell, Associate Professor	(0.5)	Health Aging and Society/Sociology
Michel Grignon, Associate Professor	(0.5)	Health Aging and Society/Economics

5.1 FTE

Health Studies

Gavin Andrews, Professor,	(1.0)	Health Aging and Society
Jim Dunn, Associate Professor	(1.0)	Health Aging and Society
Lydia Kapriri, Associate Professor	(1.0)	Health Aging and Society
Chelsea Gabel, Assistant Professor	(1.0)	Health Aging and Society
James Gillett, Associate Professor	(0.5)	Health Aging and Society/Sociology
Christina Sinding, Associate Professor	(0.5)	Health Aging and Society/Social Work
Michel Grignon, Associate Professor	(0.5)	Health Aging and Society/Economics
Stephanie Premji, Assistant Profess	(0.4)	Health Aging and Society/Labour Studie
Randy Jackson, Assistant Professor	(0.5)	Health Aging and Society/Social Work

6.4 FTE

Scholarly Publications by HAS Faculty, 2008-Present

Single- and Co-Authored Scholarly Books

Novak, M., Campbell, L., & Northcott, H. (forthcoming). Aging and Society: A Canadian Perspective: 7th edition. Scarborough Ontario: Nelson Publishing. (Expected date of publication: 2013/14).

Novak, M., & Campbell, L. (2010). Aging and Society: A Canadian Perspective: 6th edition. Scarborough, Ontario: Nelson Publishing.

Gillett, J. (2011). A Grassroots History of the HIV/AIDS Epidemic in North America. Spokane: Marquette Books.

Grenier, A. (2012). Transitions and the lifecourse: Contested models of 'growing old'. Bristol: Policy Press (Ageing and the Lifecourse Series).

Single- and Co-Edited Scholarly Books

Andrews, G. J., Kingsbury, P. & Kearns, R. A. (eds.) (2014). Soundscapes of and Wellbeing in Popular Music. Ashgate, London.

Adams, J., Andrews, G. J., Barnes, J., Broom, A. & Magin, P. (eds.) (2012). Traditional, Complementary and Integrative Medicine: An International Reader. London. Palgrave MacMillan.

Crooks, V. & Andrews, G. J. (eds.) (2009). Primary Health Care: People, Practice, Place. Ashgate.

Sahoo, A. K., Rajan, I. & Andrews, G. J. (eds.) (2008). Sociology of Ageing: A Reader, New Delhi: Rawat Publication.

O'Campo, P. J. & Dunn, J. R. (eds.) (2012). Rethinking Social Epidemiology: Towards a Science of Change. New York: Springer.

Baars, J., Dohmen, J., Grenier, A. & Phillipson, C. (eds.) (2013) Ageing, meaning and social structure: Connecting critical and humanistic gerontology. Bristol: Policy Press.

Charpentier, M., Guberman, N., Billette, V., Lavoie, J.-P., Grenier, A., & Olazabal, I. (eds.) (2010). Vieillir au pluriel. Perspectives sociales. Quebec: Presses Universitaires du Québec.

Articles in Peer Reviewed Scholarly Journals

Price, S., McGillis Hall, L., Lalonde, M., Andrews, G. J., Harris, A. & McDonald Rencz, S. (2013). Factors that influence career decisions in Canada's nurses Canadian Journal of Nursing Leadership. 26: 61-69.

Lalonde, M., McGillis Hall, L., Price, S., Andrews, G. J., Harris, A. & McDonald Rencz, S.

(2013). Support and access for nursing continuing education in Canadian work environments Canadian Journal of Nursing Leadership. 26: 51-60.

Andrews, G. J., McGillis Hall, L., Price, S., Lalonde, M., Harris, A. & McDonald Rencz, S. (2013). Mapping Nurse Mobility with GIS: Career Movements from Two Canadian Provinces mobility Canadian Journal of Nursing Leadership. 26: 41-49.

Harris, A., McGillis Hall, L., Peterson, J., Price, S., Lalonde, M., Andrews, G. J. & McDonald Rencz, S. (2013). LPN perspectives on factors that affect nurse mobility in Canada Canadian Journal of Nursing Leadership. 26: 70-78.

McGillis Hall, J., Peterson, J., Price, S., Andrews, G. J., Lalonde, M., Johnson, S., Harris, A. & McDonald Rencz, S. (2013). I was never recruited: challenges in cross-Canada nurse mobility Canadian Journal of Nursing Leadership. 26: 29-40.

Andrews, G. J., Evans, J. & McAllister, S. (2013). 'Creating the right therapy vibe': relational performance in holistic medicine. Social Science and Medicine. 83: 99-109.

Isaranuwatchai, W., Guerriere, D. N., Andrews, G. J. & Coyte, P. C. (2013). Two years post-Tsunami in Thailand: who still needs assistance? International Health (in press).

Andrews, G. J., Evans, J. & Wiles, J. (2013). Re-spacing and re-placing gerontology: relationality and affect Ageing and Society (in press).

Andrews, G. J. & Shaw, D. (2012). Place visualization: conventional or unconventional practice? Complementary Therapies in Clinical Practice. 18(1): 43-48.

Andrews, G. J., Hall, E., Evans, B. & Colls, R. (2012). Moving beyond walkability: on the potential of health geography. Social Science & Medicine. 75(11): 1925-1932.

Cortinois, A. A., Glazier, R. H., Caidi, N., Andrews, G. J., Herbert-Copley, M. & Jadad, A. (2012). Toronto's 2-1-1 Healthcare Services for Immigrant Populations American Journal of Preventive Medicine. 43: 475-482.

Andrews, G. J., Evans, J., Dunn, J. & Masuda, J. (2012). Arguments in health geography: on sub-disciplinary progress, observation, translation Geography Compass. 6(6): 351-383.

Rycroft-Malone, J., Wilkinson, J. E., Burton, C. R., Andrews, G. J., Ariss, S., Baker, R., Dopson, S., Graham, I., Harvey, G., Martin, G., McCormack, B. G., Staniszewska, S., & Thompson. C. (2011). Implementing health research through academic and clinical partnerships: a realistic evaluation of the Collaborations for Leadership in Applied Health Research and Care (CLAHRC). Implementation Science. 6: 74.

Bender, A., Peter, E., Wynn, F., Andrews. G. J. & Pringle, D. (2011). Welcome intrusions: an interpretive phenomenological study of TB nurses' relational work. International Journal of Nursing Studies. 48(11): 1409-1419.

Liaschenko, L., Peden-McAlpine, C. & Andrews G. J. (2011). Institutional geographies in dying: nurses actions and observations on dying spaces inside and outside intensive care units. Health and Place. 17(3): 814-821.

Andrews, G. J. (2011). "I had to go to the hospital and it was freaking me out": needle phobic encounter space. Health and Place. 17(4): 875-84.

Andrews, G. J,, Kearns, R. A., Kingsbury, P. & Carr, E. (2011). Cool aid? Health and place in the work of Bono and U2 Health and Place. 17: 185-194.

Andrews, G. J. & Elliott, S. (2011). Health geography in Steel City: selected research from the XIII International Symposium in Medical Geography, Hamilton, Ontario Social Science and Medicine. 72(3).

Bender, A., Andrews, G. J. & Peter, E. (2010). Displacement and Tuberculosis: recognition in nursing care. Health and Place. 16(6): 1069-1076.

Andrews, G. J. & Shaw, D. (2010). "So we started talking about a beach in Barbados": Visualization practices and needle phobia. Social Science and Medicine. 71: 1804-1810.

Andrews, G. J. & Crooks, V. (2010). Geographies of primary health care. Aporia. 2(2): 7-16.

Andrews, G. J. (2009). Global climate change: a framework for nursing action. Aporia. 1: 22-29.

Andrews, G. J., Denton, M., Campbell, L. & McGilton K (2009). Gerontology in Canada: history, challenges, research Ageing International. 34(3): 136-153.

Andrews, G. J., Milligan, C., Phillips, D. R. & Skinner, M. (2009). Geographical gerontology: mapping a disciplinary intersection. Geography Compass. 3(5): 1641-1659.

Andrews, G. J. & Curtis, S. (2009). Selected research from the XII International Symposium in Medical Geography, Bonn Germany. Social Science and Medicine. 68(4): 591-592.

Skinner, M. & Andrews, G. J. (2009). On the disciplinary intersections of geographical and gerontology. Trent University Centre for Health Studies. Showcase 13-1.

Andrews, G. J. & Evans, J. (2008). Understanding the reproduction of health care: towards geographies in health care work. Progress in Human Geography. 32(6): 759-780.

Lehoux, P., Poland, B., Daudelin, G., Holmes, D. & Andrews, G. J. (2008). Emplacement and displacement of health technologies: making satellite and mobile dialysis units closer to patients. Science, Technology and Human Values. 33(3): 364-392.

Andrews G. J. & Shaw, D. (2008). Clinical geography: nursing practice and the (re)making of institutional space. Journal of Nursing Management. 16: 463-473.

deWitt, L., Campbell, L. D., Ploeg, Kemp, C., & Rosenthal, C. (2013). "You're saying something by giving things to them": Communication and family Inheritance. European Journal of Ageing. 10(3): 181-189.

Campbell, L.D. (2010). Men who care: Exploring the male experience in filial caregiving. Canadian Journal on Aging SEDAP Special Issue "Caring for an Aging Population." 29(1): 1-12.

Carroll, M. & Campbell, L. D. (2008). Who now reads Parsons and Bales?: Casting a critical eye on the "gendered styles of caregiving" literature, Journal of Aging Studies. 22: 24-31.

Andrews, G., Campbell, L. D., Denton, M., & McGilton, K. (2009). Gerontology in Canada:

History, Challenges, Research. Special Issue on Global Ageing, in Ageing International. Published online 26 November 2009.

Denton, M., Plenderleith, J. & Chowhan (2013). Health and Disability as Determinants for Involuntary Retirement of People with Disabilities. Canadian Journal on Aging. 32: 1-15.

Denton, M., Plenderleith, J. & Chowhan, J. (2012). Impact of Retirement Type on Income for People with Disabilities. Disability and Society. 1-15.

Brazil, K., Ploeg, J., Denton, M. (2012). Identifying Research Priorities in Long-Term Care Homes. Journal of the American Medical Directors Association. Journal of the American Medical Directors Association. 13(1): 84.e1-84.e4

Tindale, J., Denton, M., Ploeg, J., Hutchison, B., Brazil, K., Akhtar-Danesh, N., Plenderleith, J. M. Social Determinants of Older Adults' Awareness of Community Support Services in Hamilton Ontario. Health and Social Care in the Community. Health and Social Care in the Community. 19(6): 1365-2524.

Zeytinoglu, I., Denton, M., & Plenderleith. (2011). Flexible Employment and Nurses' Intention to Leave the Profession: The Role for Support at Work. Health Policy. 99: 149-157.

Denton, M., Plenderleith, J., & Chowhan, J. (2010). The Effect of Age and Age of Onset on Involuntary Retirement for People with Disabilities in Canada in Issues of Ageing International Perspectives and Disability, NGO Committee on Ageing, New York.

Denton, M., Zeytinoglu, I. U. (Guest Editors) (2010). Special Issue from the Social and Economic Dimensions of an Aging Population Project (SEDAP) Editorial. Caring for an Aging Population,: Context, Practice & Policy. Canadian Journal on Aging. 29(1): 1-11.

Denton, M., Ploeg, J., Tindale, J., Hutchison, B., Brazil, K., Akhtar Danesh, N.,Lillie, J., Plenderleith, J. M. (2009). Would Older Adults Turn to Community Support Services for Help to Maintain their Independence?. Journal of Applied Gerontology. 29(5): 554-578.

Ploeg, J., Denton, M. Tindale, J., Hutchison, B., Brazil, K., Akhtar-Danesh, N., Lillie, J., Plenderleith, J. M. (2009). Older Adults' Awareness of Community Health and Support Services for Dementia Care. Canadian Journal on Aging. 28(4): 350-370.

Andrews,G., Campbell, L., Denton, M. & McGilton, C. (2009). Gerontology in Canada: History, Challenges, Research. Aging International 34: 136-153.

Zeytinoglu, I., Denton, M., Davies, S., Millen Plenderleith, J. (2009). Office Home Care Workers' Occupational Health: Associations with Workplace Flexibility and Worker Insecurity. Healthcare Policy. 4(4): 108-32.

Zeytinoglu, I., Denton, M., Davies, S., Millen Plenderleith, J. (2009). Office Home Care Workers' Casualized Employment, Job Satisfaction and Turnover Intention: Home Care Workers in Ontario, Canada, Health Policy. 91: 258-268.

Denton, M., Ploeg, J., Tindale, J., Hutchison, B., Brazil, K. Akhtar-Danesh, N., Quinlan, M., Lillie, J., Millen, J., & Boos, (2008). Where Would You Turn for Help? Older Adults' Awareness of Community Support Services. Canadian Journal on Aging. 27(4): 359-370.

Blythe, J. Baumann, A., Zeytinoglu, I., Denton, M. Akhtar-Danesh, N., Davies, S., & Kolotylo, C. (2008). Nursing generations in the contemporary workplace. Public Personnel Management. 37(2): 137-160.

Weyman, J.T., Dunn, J.R., Gutmann, C., Sivanand, B., Bursey, G., Mowat, D.L. (2013). Planning health-promoting development: creation and assessment of an evidence-based index in the Region of Peel, Canada. Environment & Planning B: Planning & Design, 40(4): 707–722.

Dunn, J.R., van der Meulen, E., O'Campo, P. and Muntaner, C. (2013). Improving health equity through theory-informed evaluations: A look at housing first strategies, cross-sectoral health programs, and prostitution policy. Evaluation & Program Planning, 36: 184–190.

Matheson, F.I., Dunn, J.R., Smith, K.L., Moineddin, R. and Glazier, R. (2012). Development of the Canadian Marginalization Index: A new tool for the study of health inequality. Canadian Journal of Public Health,103(Suppl. 2): S12-S16.

Dunn, J.R. (2012). Levels of influence in the built environment on the promotion of healthy child development. Healthcare Quarterly, 15(4): 32-37.

Dunn, J. R. with Rourke, S.B., et al. (2012). Social determinants of health associated with hepatitis C co-infection among people living with HIV: Results from the Positive Spaces, Healthy Places study. Open Medicine, 5(3).

Dunn, J.R. (2012). 'Socially-mixed' public housing redevelopment as a de-stigmatization strategy: A theoretical approach and empirical strategy. DuBois Review, 9(1): 87-105.

Matheson, F.I., White, H.L., Moineddin, R., Dunn, J.R., Glazier, R.H. (2012). Drinking in context: the influence of gender and neighbourhood deprivation on alcohol consumption. Journal of Epidemiology & Community Health, 66: e4.

Hwang, S.W., Gogosis, E., Chambers, C., Dunn, J.R., Hoch, J.S., Aubry, T. (2011). Health status, quality of life, residential stability, substance use, and health care utilization among adults Applying to a supportive housing program. Journal of Urban Health, 88(6): 1076-1090.

White H.L., Matheson F.I., Moineddin R., Dunn J.R., Glazier R.H. (2011). Neighbourhood deprivation and regional inequalities in self-reported health among Canadians: Are we equally at risk? Health & Place, 17(1): 361-369.

Matheson, F.I., LaFreniere, M.C., White, H.L., Moineddin, R., Dunn, J.R., Glazier, R.H. (2011). Influence of neighborhood deprivation, gender and ethno-racial origin on smoking behavior of Canadian youth. Preventive Medicine, 52(5): 376-80.

Monette, L., Rourke, S.B., Gibson, K., Bekele, T.M., Tucker, R.A., Greene, S., Sobota, M., Koornstra, J., Byers, S., Marks, E., Bacon, J., Watson, J.R. Hwang, S.W., Ahluwalia, A., Dunn, J.R., Guenter, D., Hambly, K., Bhuiyan, S., and the Positive Spaces, Healthy Places Team. (2011). Inequalities in determinants of health among aboriginal and caucasian persons living with HIV/AIDS in Ontario: Results from the positive spaces, healthy places study. Canadian Journal of Public Health, 102(3): 215-219.

Greene, S., Tucker, R.A., Rourke, S.B., Monette, L., Koornstra, J., Sobota, M., Byers, S., Hwang,

S.W., Dunn, J.R., Guenter, D., Ahluwalia, A. and Watson, J.R. (2010). "Under My Umbrella": The housing experiences of HIV positive parents who live with and care for their children in Ontario. Archives of Womens Mental Health, 13: 223–232.

Dunn, J.R. (2010). Health behavior vs the stress of low socioeconomic status and health outcomes. Journal of the American Medical Association, 303: 1199-1200.

Greene, S., Tucker, R., Rourke, S.B., Monette, L., Koornstra, J., Sobota, M., Byers, S., Hwang, S., Dunn, J., Guenter, D., Ahluwalia, A., Watson, J. (2010). Under My Umbrella: The housing experience of HIV positive parents who live with and care for their children in Ontario. Archive of Womens Mental Health, 13: 223-232.

White H.L., Matheson F.I., Moineddin R., Dunn J.R., Glazier R.H. (2010). Neighbourhood chronic stress and gender inequalities in hypertension among Canadian adults: a multilevel analysis. Journal of Epidemiolology & Community Health, 64(8): 705-713.

Schaefer-McDaniel, N., Dunn, J.R., Minian, N., & Katz, D. (2010). Rethinking measurement of neighborhood in the context of health research. Social Science & Medicine., 71: 651-6.

Parsons, J.A., Singh, G., Scott, A.N., Nisenbaum, R., Balasubramaniam, P., Jabbar, A., Zaidi, Q., Sheppard, A., Ramsay, J., O'Campo, P. and Dunn, J.R. (2010). Standardized observation of neighbourhood disorder: does it work in Canada? International Journal of Health Geographics, 2010, 9(6).

Hwang, S.W., Wilkins, R., Tjepkema, M., O'Campo, P. and Dunn, J.R. (2009). Mortality among residents of shelters, rooming houses, and hostels in Canada: 11-year follow-up study. British Medical Journal, 26: 339: b4036.

Bryant, T., Leaver, C. and Dunn, J.R. (2009). Unmet healthcare need, gender, and health inequalities in Canada. Health Policy, 91(1): 24-32.

Maggi, S., Ostry, A., Tansey, J., Dunn, J.R., Hershler, R., Chen, L., Hertzman, C. (2008). Paternal psychosocial work conditions and mental health outcomes: A case-control study BMC Public Health, 8: 104.

Southern, D.A., Lewis, S., Maxwell, C.J., Dunn, J.R., Noseworthy, T.W., Corbett, G., Thomas, K. and Ghali, W. (2008). Sampling 'hard-to-reach' populations in health research: Yield from a study targeting Americans living in Canada. BMC Health Services & Outcomes Research Methodology, 8: 57.

Bush, K.R., Henderson, E.A., Dunn, J.R., Read, R.R. and Singh, A. (2008). Mapping the core: Chlamydia and gonorrhea infections in Calgary, Alberta. Sexually Transmitted Diseases, 35(3): 291-297.

Kyle, T. and Dunn, J.R. (2008). Effects of housing circumstances on health, quality of life and health care use for people with severe mental illness: A review. Health & Social Care in the Community, 16(1): 1-15.

Skinner, M.W., Rosenberg, M.W., Lovell, S.A., Dunn, J.R., Everitt, J.C., Hanlon, N., and Rathwell, T.A. (2008). Services for seniors in small-town Canada: the paradox of community. Canadian Journal of Nursing Research, 40(1): 81-101.

Gilbert, M. & Gillett, J. (2012). "Equine Athletes and Interspecies Sport". International Review for the Sociology of Sport. 46, (4): 1-12.

Guenter, D., Gillett, J., Cain, R., Pawluch, D. & Travers, R. (2010). "What Do People Living With HIV/AIDS Expect From Their Physicians? Professional Expertise and the Doctor-Patient Relationship." Journal of the International Association of Physicians in AIDS Care. 9 (November/December): 341-345.

Burns, V., Lavoie, J.P., Sussman, T., Grenier, A., & Rothwell, D. (2013). Vivre invisibles et exclues, les personnes âgées itinérantes. Frontières.

Raymond, E., & Grenier, A. (2013). The rhetoric of participation in policy discourse: Toward a new form of exclusion for seniors with disabilities. Canadian Journal on Aging/La Revue canadienne du vieillissement. 32(2) : 117-129.

Carpentier, N., & Grenier, A. (2012). Successful linkage between formal and informal care systems: the mobilization of outside help by caregivers of persons with Alzheimer's disease. Qualitative Health Research. 22(10): 1330-44.

Raymond, E., & Grenier, A. (2012). Vieillissement actif et aînés handicapés au Québec: Duo du possible ou mirage? Les Politiques Sociales. no. 1-2: 113-125.
Grenier, A., & Wong, T. (2010). The process of health and social service reform in Quebec as experienced on the frontline. Canadian Social Work Review. 27(1): 41-61.

Carpentier, N., Bernard, P., Grenier, A., & Guberman, N. (2010). Using the life course perspective to study the entry into the illness trajectory: The perspective of caregivers of people with Alzheimer's disease. Social Science & Medicine. 70(10): 1501-1508.

Grenier,A., & Guberman, N. (2009). Creating and sustaining disadvantage: The relevance of a social exclusion framework. Health and Social Care in the Community. 17(2): 116-124.

Grenier, A. (2008). Recognizing and responding to loss and 'rupture' in older women's accounts. Journal of Social Work Practice: Psychotherapeutic Approaches in Health, Welfare and the Community. 22(2): 195-209.

Roham, M., Anait R., Gabrielyan, N., Arche, P., Grignon, M. & Spencer, B. G. (forthcoming). The impact of technological intensity of service provision on physician expenditures: an exploratory investigation. Health Economics.

Longo, C., Grignon, M., (2012). The value of fixed reimbursement insurance against cancer related losses: Simulations to investigate state dependent utility." Global Business and Economics Review. 14(4): 322-337.

Grignon, M. (2012). A Democratic Responsiveness Approach to Real Reform: An Exploration of Health Care Systems' Resilience Journal of Health Politics,Policy and Law. 37(4): 665-676.

Grignon, M. (2011). Financement public ou privé de la dépense de soins: un bilan des connaissances, Journal d'Economie Médicale. 29(3).

Grignon, M. (2010). Le financement du système de santé et le partage obligatoirevolontaire, Revue Française des Affaires Sociales. 4: 53-73.

Grignon M., Spencer B.G., Wang L. (2010). Is There an Age Pattern in the Treatment of AMI? Evidence from Ontario, Canadian Journal on Aging/Revue canadienne du vieillissement. 29 (03): 317-332.

Grignon M., Hurley J., Wang L., Allin S. (2010). Inequity in a market-based health system: Evidence from Canada's dental sector, forthcoming Health Policy, DOI: available online June 23, 2010.

Allin, S., Grignon, M., Le Grand J. (2010). Subjective Unmet Need and Utilization of Health Care services in Canada: What are the Equity Implications? Social Science and Medicine. 70(3): 465-472.

Grignon, M. (2009). An empirical investigation of heterogeneity in time preferences and smoking behaviours, Journal of Socio-Economics. 38: 739-751.

Grignon, M. (2009). Pourquoi les systèmes de santé sont ils organisés différemment? Revue Economique. 60: 545-558.

Grignon, M. (2008). Le système de santé au Canada, Revue Française des Affaires Sociales 62(4): 67-87.

Jusot, F., Grignon, M., Dourgnon, P. (2008). "Access to psycho-social resources and health: exploratory findings from a survey of the French population", Health Economics Policy and Law. 3: 365-391.

Grignon, M., Jusot, F. Commentaire sur G. Menvielle et al. (2008). Evolution temporelle des inégalités sociales de mortalité en France entre 1968 et 1996. Etude en fonction du niveau d'études par cause de décès. Revue d'Epidémiologie et de Santé Publique. 55: 97-105.

Grignon, M. (2008). The role of education in health system performance, Economics of Education Review. 27: 299-307.

Cain, R., Jackson, R., Prentice, T., Collins, E., Mill, J., Barlow, K. (2013). The Experience of HIV Diagnosis Among Aboriginal People Living With HIV/AIDS and Depression. Qualitative Health Research. 23 (6): 815-824.

Mill, J.E., Wong, T., Archibald, C., Sommerfeldt, S., Worthington, C., Jackson, R., Prentice, T., Myers, T. (2012). AIDS is Something Scary: Canadian Aboriginal Youth and HIV Testing. Pimatisiwin. 9 (2): 277-299.

Prentice, T., Mill, J., Archibald, C., Sommerfeldt, S., Worthington, C., Jackson, R., Wong, T. (2011). Aboriginal Youth Experiences of Accessing HIV Care and Treatment. Journal of HIV/AIDS and Social Services. 10 (4): 395-413.

Cain, R., Jackson, R., Prentice, T., Mill, J., Collins, E., Barlow, K. (2011). Depression among Aboriginal People Living with HIV in Canada. Canadian Journal of Community Mental Health. 30(1): 105-120.

Mill, J., Edwards, N., Jackson, R., MacLean, L., Chaw-Kant, J. (2011). Stigmatization as a Social Control Mechanism for Persons Living with HIV and AIDS. Qualitative Health Research. 21(5):

1469-1483.

Worthington, C., Jackson, R., Mill, J., Prentice, T., Myers, T., Sommerfeldt, S. (2010). HIV Testing Experiences of Aboriginal Youth in Canada: Service Implication. AIDS Care. 22(10): 1269-1276.

Mill, J. Edwards, N., Jackson, R., Austin, W., MacLean, L, Reintjes. (2009). Accessing Health Services While Living with HIV: Intersections of Stigma. Canadian Journal of Nursing Research. 41(3): 168-185.

Ricci, C., Flicker, S., Jalon, O., Jackson, R. & Smilie-Adiarkwa, C. (2009). HIV Prevention with Aboriginal Youth: A Global Scoping Review. In F. Handy & M. Bunch (eds.). Sense & Sustainability: Interdisciplinary Research in Environmental Studies. Toronto, Ontario: York University. (Note: Reprint of an article appearing in the Canadian Journal of Aboriginal Community-Based HIV/AIDS Research. 2).

Masching, R., Archibald, L. & Jackson, R. (2009). Capacity-Building as a Component of Aboriginal Community-Based Research. Canadian Journal of Aboriginal Community-Based HIV/AIDS Research. 2: 5-24.

Barlow, K., Loppie, C., Jackson, R., Akan, M., MacLean, L., & Reimer, G. (2008). Cultural Competent Service Provision Issues Experienced by Aboriginal People Living with HIV/AIDS. Pimatisiwin. 6(2): 155-180.

Mill, J., Jackson, R., Worthington, C., Archibald, C., Wong, T., Myers, T., Prentice, T. & Sommerfeldt, S. (2008). HIV Testing and Care in Canadian Aboriginal Youth: A Community-Based Mixed Methods Study. BMC Infectious Diseases. 8: 132.

Kapiriri, L. (2012). Priority Setting in Low Income Countries: The Roles and Legitimacy of Development Assistance Partners Public Health Ethics. 5: 67-80.

Kapiriri, L., Lavery, J., Singer, P. A., Mshinda, H., Babiuk, L. & Daar, A. S. (2011). The case for conducting first-in-human (phase 0 and phase 1) clinical trials in low and middle income countries. BMC Public Health. 11: 811.

Rudan, I., Kapiriri, L, Tomlinson, M., Balliet, M., Cohen, B., et al. (2010). Evidence-Based Priority Setting for Health Care and Research: Tools to Support Policy in Maternal, Neonatal, and Child Health in Africa. PLoS Med. 7(7): e1000308. doi:10.1371/journal.pmed.1000308.

Kapiriri, L. & Martin, D. K. (2010). Successful Priority Setting in Low and Middle Income Countries: A Framework for Evaluation. Health Care Anal. 18(2): 129-147.

Kapiriri, L., Sofaer, ., Atuyambe, L. M., Otolok-Tanga, E. & Norheim, O. F. (2009). Criteria used for selecting patients for antiretroviral therapy in Uganda: A qualitative study. Journal of AIDS and HIV Research. 1(2): 034-043.

Kapiriri, L., Randal, G. & Martin,D. K. (2009). Health Care Rationing and Professional Autonomy: The Case of Cardiac Care in Ontario" The Open Health Services and Policy Journal. 2: 34-41(8).

Valdebenito, C., Kapiriri, L. & Martin, D. K. (2009). Hospital priority setting in a mixed public/

private system: A case study of a Chilean hospital. Acta Bioethica. 15(2): 193-201.

Gordon, H., Kapiriri, L. & Martin D. K. (2009) Priority setting in an acute care hospital in Argentina: a qualitative case study. Acta Bioethica. 15(2): 184-192.

Kapiriri, L., Norheim, O. F. & Martin, D. K. (2009). Fairness and accountability for reasonableness. Do the views of priority setting decision makers differ across health systems and levels of decision making? Social Science & Medicine. 68(4): 766-73.

Youngkong. S., Kapiriri. L. & Baltussen, R. (2009). Setting priorities for health interventions in developing countries: a review of empirical studies. Tropical Medicine & International Health. 14(8): 930-9.

Sofaer, N., Kapiriri, L., Atuyambe, L. M., Otolok-Tanga, E. & Norheim, O. F. (2009). Is the selection of patients for anti-retroviral treatment in Uganda fair? A qualitative study. Health Policy. 91(1): 33-42.

Kapiriri, L. et al. [Toronto Joint Centre for Bioethics Pandemic Ethics Working Group] (2008). The duty to care in a pandemic. American Journal of Bioethics. 8(8): 31-3.

Rudan, I., Chopra, M., Kapiriri, L., Gibson, J., Lansang, M. A., Carneiro, I., Ameratunga, S., Tsai, A. C., Chan, K. Y., Tomlinson, M., Hess, S. Y., Campbell, H., Arifeen, S. E. & Black, R. E., [on behalf of Child Health Nutrition Research Initiative (CHNRI)] Setting Priorities in Global Child Health Research Investments: Universal Challenges and Conceptual Framework. Croatian Medical Journal. 49(3): 307–317.

Rudan, I., Gibson, J. L., Ameratunga, S., El Arifeen, S., Bhutta, Z. A., Black, M., Black, R. E., Brown, K. H., Campbell, H., Carneiro, I., Chan, K. Y., Chandramohan, D., Chopra, M., Cousens, S., Darmstadt, G. L., Meeks Gardner, J., Hess, S. Y., Hyder, A. A., Kapiriri, L., Kosek, M., Lanata, C. F., Lansang, M. A., Lawn, J., Tomlinson, M., Tsai, A. C. & Webster, J. Child Health and Nutrition Research Initiative Setting priorities in global child health research investments: guidelines for implementation of CHNRI method. Croatian Medical Journal. 49(6): 720-33.

Makundi, E., Kapiriri, L. & Norheim, O. F. (2008). Combining evidence and values in priority setting: testing the balance sheet method in a low-income country. BMC Health Services Research. 7(1): 152.

Premji, S. & Smith, P. (2013). Education-to-job mismatch and the risk of work injury. Injury Prevention. 19(2): 106-111.

Premji, S. & Etowa J. (2012). Workforce utilization of visible and linguistic minorities in Canadian nursing. Journal of Nursing Management. Published online.

Hanley, J., Premji, S., Messing, K., Lippel, K. (2010). Action research for the health and safety of domestic workers in Montreal: using numbers to tell stories and effect change. New Solutions. 20: 421-439.

Premji, S. & Krause, N. (2010). Disparities by ethnicity, language and immigrant status in occupational health experiences among Las Vegas hotel room cleaners. American Journal of

Industrial Medicine. 53: 960-975.

Premji, S. Duguay, P. Messing, K. & Lippel, K. (2010). Are immigrants, ethnic and linguistic minorities over-represented in jobs with a high level of compensated risk? Results from a Montréal, Canada study using census and workers' compensation data. American Journal of Industrial Medicine. 53: 875-885.

Premji, S., Lippel, K. & Messing, K. (2008). "On travaille à la seconde!" Rémunération à la pièce et santé et sécurité du travail dans une perspective qui tient compte de l'ethnicité et du genre ("We work by the second!" Piecework remuneration and occupational health and safety from an ethnicity- and gender-sensitive perspective). PISTES, 10(1) http://www.pistes.uqam.ca/v10n1/articles/v10n1a2en.htm.

Premji, S., Messing, K. & Lippel, K. (2008). Would a "one-handed" scientist lack rigor? How scientists discuss the work-relatedness of musculoskeletal disorders in formal and informal communications. American Journal of Industrial Medicine. 51(3): 173-185.

Messing, K., Premji, S. & Lippel, K. (2008). But "two-handed" scientists are using only one hand now". (Letter) American Journal of Industrial Medicine. 51(10): 797-798.

Premji, S., Messing, K. & Lippel, K. (2008). Broken English, broken bones? Mechanisms linking language proficiency and occupational health in a Montreal garment factory. International Journal of Health Services. 38(1): 1-19.

Sinding, C., Watt, L., Miller, P., Silliker, J., Lawson, L., Kislinsky, C., et al. (2013). Stigmas and silos: Social workers' accounts of care for people with serious mental illness and cancer. Social Work in Mental Health. 11(3): 288-309.

Miller, P., Sinding, C., McGillicuddy, P., Gould, J., Fitzpatrick-Lewis, D., Learn, L., et al. (online 2013). Disparities in Cancer Care: Perspectives from the Front Line. Palliative and Supportive Care.

Sinding, C., Warren, R., & Paton, C. (online 2012). Social work and the arts: Images at the intersection. Qualitative Social Work.

Hunt, M. R., Schwartz, L., Sinding, C., & Elit, L. (online 2012). The Ethics of Engaged Presence: A Framework for Health Professionals in Humanitarian Assistance and Development Work. Developing World Bioethics.

Hunt, M. R., Sinding, C., & Schwartz, L. (2012). Tragic choices in humanitarian health work. Journal of Clinical Ethics. 23(4): 338-344.

Sinding, C., Aronson, J., McGillicuddy, P., & Rochon Ford, A. (2011). The right to be involved: Contexts and contradictions. Canadian Social Work Review. 28(1): 69-88.

Sinding, C., Miller, P., Hudak, P., Keller-Olaman, S., & Sussman, J. (2012). Of time and troubles: patient involvement and the production of health care disparities. Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine. 16(4): 400-417.

Sinding, C., Schwartz, L., & Hunt, M. (2011). Staging ethics: the promise and perils of research-based performance. Canadian Theatre Review. 146: 32-37.

Sinding, C., Hudak, P., Wiernikowski, J., Aronson, J., Miller, P., Gould, J., et al. (2010). "I like to be an informed person but…" Negotiating responsibility for treatment decisions in cancer care. Social Science & Medicine. 71(6): 1094-1101.

Sinding, C. (2010). Using Institutional Ethnography to understand the production of health care disparities. Qualitative Health Research. 20(12): 1656-1663.

Schwartz, L., Sinding, C., Hunt, M., Elit, L., Redwood-Campbell, L., Adelson, N., et al. (2010). Ethics in humanitarian aid work: Learning from the narratives of humanitarian health workers. American Journal of Bioethics. 1(3): 45-54.

Sinding, C., Schwartz, L., Hunt, M., Redwood-Campbell, L., Elit, L., & Ranford, J. (2010). "Playing God because you have to": Health professionals' narratives of rationing care in humanitarian and development work. Public Health Ethics. 3(2): 147-156.

Sinding, C., Barnoff, L., McGillicuddy, P., Grassau, P., & Odette, F. (2010). Aiming for better than "nobody flinched": Notes on heterosexism in cancer care. Canadian Woman Studies. 28(2-3): 89-93.

Sinding, C., & Wiernikowski, J. (2010). "One of my better operations": Older women and cancer. Canadian Woman Studies. 28(2-3): 82-86.

Sinding, C., & Wiernikowski, J. (2009). Treatment decision making and its discontents. Social Work in Health Care. 48(6): 614-634.

Gould, J., Sinding, C., Mitchell, T. L., Gustafson, D., Peng, I., McGillicuddy, P., et al. (2009). "Below their notice": Exploring Women's Subjective Experiences of Cancer System Exclusion. Journal of Cancer Education. 24(4): 308-314.

Sinding, C., & Wiernikowski, J. (2008). Disruption foreclosed: Older women's cancer narratives. Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine. 12(3): 389-411.

Chapters in Scholarly Books

Willison, K. D., Lindsay, S., Taylor, M., Schoreder, H. & Andrews, G. J. (2013). CIM, aging and chronic illness: towards an inter-professional approach in primary health care. In J. Adams, P. Magin & A. Broom (eds.) Primary Care and Complementary and Integrative Medicine: Research and Practice. London: Imperial College Press.

Andrews, G. J., Segrott, J., Lui, C. W. & Adams, J. (2012). The geography of complementary and alternative medicine. In J. Adams, G. J. Andrews, J. Barnes, A. Broom & P. Magin (eds.) Traditional, Complementary and Integrative Medicine: An International Reader. London: Palgrave MacMillan.

Andrews, G. J., Adams, J., Segrott, J. & Lui, C. W. (2012). The profile of complementary and alternative medicine users and reasons for complementary and alternative medicine use. In J. Adams, G. J. Andrews, J. Barnes, A. Broom & P. Magin (eds.) Traditional, Complementary and Integrative Medicine: An International Reader. London: Palgrave MacMillan.

Adams, J., Andrews, G. J., Barnes, J., Broom, A. & Magin, P. (2012). Introduction to Traditional, Complementary and Integrative Medicine. In J. Adams, G. J. Andrews, J. Barnes, A. Broom & P. Magin (eds.) Traditional, Complementary and Integrative Medicine: An International Reader. London: Palgrave MacMillan.

Andrews G J, Adams J and Segrott J (2011). Médecine complémentaire et alternative: production et consummation. In S. Flueret (ed.) Santé et géographie : Nouveaux regards Economica Anthropos.

Andrews, G. J., Adams, J. & Segrott, J. (2010). Complementary and alternative medicine (CAM): production and consumption. In T. Brown, S. McLafferty & G. Moon (eds.) A Companion to Health and Medical Geography. Oxford: Blackwell.

Lapum, J., Chen, S., Peterson, J., Leung, D. & Andrews, G. J. (2009). The Place of Nursing in Primary Health Care. In V. Crooks & G. J. Andrews (eds.) Primary Health Care: People, Practice, Place. Ashgate.

Crooks, V. & Andrews, G. J. (2009). Geographies of Primary Health Care: A Summary and Agenda. In V. Crooks & G. J. Andrews (eds.) Primary Health Care: People, Practice, Place. Ashgate.

Crooks, V. & Andrews, G. J. (2009). Thinking geographically about primary health care. In V. Crooks & G. J. Andrews (eds.) Primary Health Care: People, Practice, Place. Ashgate.

Andrews, G. J. & Crooks, V. (2009). Geographical perspectives on health care: ideas, disciplines, progress. In V. Crooks & G. J. Andrews (eds.) Primary Health Care: People, Practice, Place. Ashgate.

Kearns, R. & Andrews, G. J. (2009). Geographies of wellbeing. In S. J. Smith, R. Pain, S. A. Marston & J. P. P. Jones III (eds.) The SAGE handbook of social geographies. SAGE Publications Limited.

Andrews, G. J., Sahoo, A. K. & Rajan, I. (2008). Introduction - Ageing: The Sociological Perspective. In A. K. Sahoo, I. Rajan & G. J. Andrews (eds.) Sociology of Ageing: A Reader, New Delhi: Rawat Publication.

Campbell, L. D. & Carroll, M. (2010). Aging in Canadian Families Today. In D. Cheal (ed.), Canadian Families Today: New Perspectives, 2nd Edition. Don Mills, Ontario: Oxford University Press.

Denton, M. A., Plenderleith, J. & Chowhan, J. (2010). The Effect of Age and Age of Onset on Involuntary Retirement for People with Disabilities in Canada. In Issues of Ageing International Perspectives and Disability. New York: NGO Committee on Ageing.

Dunn, J. R. (2013). Security, meaning, and the home: conceptualizing multi-scalar resilience in a neo-liberal era. In P. A. Hall & M. Lamont (eds.). Social Resilience in the Neo-Liberal Era. Cambridge: Cambridge University Press.

O'Campo, P.J. & Dunn, J.R. (2012). Introduction. In P. J. O'Campo & J. R. Dunn (eds.). Rethinking Social Epidemiology: Towards a Science of Change. New York: Springer, pp. 1-19.

Dunn, J. R. (2012). "Explanation," Philosophy and Theory in Health Inequalities Research: Towards a Critical Realist Approach. In P. J. O'Campo & J. R. Dunn (eds.) Rethinking Social Epidemiology: Towards a Science of Change. New York: Springer, pp. 23-42.

Shankardass, K. & Dunn, J. R. (2012). How Goes The Neighbourhood? Rethinking Neighbourhoods and Health Research in Social Epidemiology. In: P. J. O'Campo & J. R. Dunn (eds.) Rethinking Social Epidemiology: Towards a Science of Change. New York: Springer, pp. 137-156.

Sridharan, S., Dunn, J. R. & Nakaima, A. (2012). Addressing Health Equities in Social Epidemiology: Learning from Evaluation(s). In: P. J. O'Campo & J. R. Dunn (eds.) Rethinking Social Epidemiology: Towards a Science of Change. New York: Springer, pp. 247-266.

Dunn, J.R. and O'Campo, P. (2012). Conclusions. In P. J. O'Campo & J. R. Dunn (eds.) Rethinking Social Epidemiology: Towards a Science of Change. New York: Springer, pp. 327-334.

Dunn, J. R., Creatore, M., Peterson, E., Weyman, J., Bursey, G., Loppe, J., Sivanand, B., Glazier, R., & Mowat, D. (2011). A practical tool for health impact assessment in urban planning. In Population Health Intervention Research Casebook. Canadian Institutes of Health Research, Institute of Population and Public Health and Canadian Institute for Health Information, Canadian Population Health Initiative.

Dunn, J. R., Schaefer-McDaniel, N. & Ramsay, J. (2009). Neighborhood chaos and children's development: Questions and contradictions. In G. W. Evans & T. Wachs (eds.) Chaos and Its Influence on Children's Development: An Ecological Perspective. APA Press.

Ferguson, K. T., Kim, P., Dunn, J. R., and Evans, G. W. (2009). An ecological model of urban child health. In N. Freudenberg, S. Klitzman & S. Saegert (eds.) Urban Health and Society: Interdisciplinary Approaches to Research and Practice. Wiley/Jossey-Bass, pp. 64-82.

Dunn, J. R. & Ross, N.A. (2009). 'Public goods', metropolitan inequality and population health in comparative perspective: Policy & theory. In S. Babones (ed.) The New Public Health of Social Inequality: Pathways and Evidence. Bristol: Policy Press, pp. 169-184.

Gilbert, M. & Gillett, J. (2013). Women in Equestrian Polo: Cultural Capital and Sport Trajectories. In M. Adelman & J. Knijik (eds.) Gender and Equestrian Sport, New York: Springer, pp. 111-125.

Grenier, A. & Phillipson, C. (2013). Rethinking agency in late life: structural and interpretive approaches. In J. Baars, J. Dohmen, A. Grenier & C. Phillipson (eds.), Ageing, meaning and social structure: Connecting critical and humanistic gerontology. Bristol: Policy Press, pp. 55-79.

Grenier, A. & Brotman, S. (2010). Les multiples vieillissements et leurs représentations. Vieillir au pluriel. Perspectives sociales. Quebec: Presses Universitaires du Québec, pp. 38-47.

Grenier, A. & Ferrer, I. (2010). Âge, vieillesse, vieillissement: Définitions controversées de l'âge. Vieillir au pluriel. Perspectives sociales. Quebec: Presses Universitaires du Québec, pp. 48-71.

Carpentier, N., Guberman, N., Bernard, P., Groleau, D., Grenier, A., Kergoat, M.-J. & Guarino, E. (2010). Reconnaissance et respect. Vers un meilleur arrimage entre intervenants et proches

aidants. Vieillir au pluriel. Perspectives sociales. Quebec: Presses Universitaires du Québec, pp. 357-368.

Charpentier, M., Guberman, N., Billette, V., Lavoie, J.P., Grenier, A. & Olazabal, I. (2010). Pour une gérontologie sociale du XXIe siècle. Vieillir au pluriel. Perspectives sociales. Quebec: Presses Universitaires du Québec, pp. 8-11.

Grenier, A. (2009). Les femmes âgées et la fragilité: La résistance face aux pratiques de soins de santé et de services sociaux. Dans M. Charpentier & A. Quéniart (eds.), Femmes, vieillissement et société: Regards pluridisciplinaires. Montréal: Éditions du Remue-ménage, pp. 249-269.

Grenier, A. (2009). Aboriginal social work education in Canada: Learning from student feedback. In I. Thompson Cooper & G. Stacey Moore (eds.) Walking in the good way: Ioterihwakwarihshion tsi ihse – Aboriginal social work education. Toronto: Canadian Scholars Press, pp. 93-107.

Grignon, M., Owusu, Y., & Sweetman, A. (date?). The International Migration of Health Professionals. In K. F. Zimmerman & A. F. Constant (eds.) International Handbook on the Economics of Migration. Cheltenham UK: Edward Elgar, pp. 75-97.

Grignon, M. (forthcoming). Protection Sociale, Dictionnaires des Inégalités. In A. Bihr & R. Pfefferkorn (eds.). Paris: Armand Collin.

Grignon, M. (2009). La régulation par la concurrence entre assureurs. In P-L .Bras, G. de Pouvourville & D. Tabuteau (eds.) Traité d'économie et de gestion de la santé. Paris: Editions des sciences politiques et Editions de la Santé, pp. 209-214.

Gnam, W., Grignon, M., Dolinschi, R. (2008). Adjusting for time preference and addressing uncertainty. In E. Tompa, A. Culyer & R. Dolinschi (eds.) Economic Evaluation of Workplace Interventions for Health and Safety: Developing Good Practice. Oxford: Oxford University Press, Chapter 12.

Gahagan, J., Ricci, C., Jackson, R., Prentice, T., Mill, J. and Adam, B. (2013). Advancing Our Knowledge: Finding a Meta-Ethnographic Synthesis. In J. Gahagan (ed.) HIV Prevention and Women in Canada. Toronto, Ontario: Canadian Scholars' Press, pp. 49-84.

Peltier, D., Jackson, R. Prentice, T., Masching, R., Monette, L., Fong, M., Shore, K. (2013). When Women Pick Up Their Bundles: HIV Prevention and Related Service Needs of Aboriginal Women in Canada. In J. Gahagan (ed.) HIV Prevention and Women in Canada. Toronto, Ontario: Canadian Scholars' Press, pp. 85-103.

Lakhani, A., Oliver, V., Yee, J., Jackson, R. Flicker, S. (2010). "Keep the Fire Burning Brightly": Aboriginal Youth Using Hip Hop to Decolonize a Chilly Climate. In L. A. Sandberg and T. Sandberg (eds.) Climate Change-Who's Carrying the Burden? Ottawa, Ontario: Canadian Centre for Policy Alternatives, pp. 205-216.

Ricci, C., Flicker, S., Jalon, O., Jackson, R. & Smilie-Adiarkwa, C. (2009). HIV Prevention with Aboriginal Youth: A Global Scoping Review. In F. Handy & M. Bunch (eds.) Sense & Sustainability: Interdisciplinary Research in Environmental Studies. Toronto, Ontario: York University. (Note: Reprint of an article appearing in the Canadian Journal of Aboriginal Community-Based HIV/AIDS Research. Vol. 2).

Martin, D. K. & Kapiriri, L. (2007). Improving priority setting in low and middle income countries: Interdisciplinary bioethics in action. In F. Lolas, D. K. Martin & A. Quezada (eds.) Estudios de Bioetica Social 1: Prioridades end Salud y Salud Intercultural. Santiago, Chile: Centro Interdisciplinario de Estudios en Bioetica, Universidad de Chile, pp. 49-66.

Sinding, C. (2009). 'Nurses can't do it. They have a hundred and ten patients': Health professionals' working conditions and the experiences of informal caregivers. In J. Nelson, J. Gould & S. Keller-Olaman (eds.) Cancer on the Margins: Method and Meaning in Participatory Research. Toronto: University of Toronto Press, pp. 102-118.

Sinding, C., Gould, J., & Gray, R. (2009). Making a difference with research. In J. Nelson, J. Gould & S. Keller-Olaman (eds.) Cancer on the Margins: Method and Meaning in Participatory Research. Toronto: University of Toronto Press, pp. 235-251.

Sinding, C., Barnoff, L., Grassau, P., Odette, F., & McGillicuddy, P. (2009). The stories we tell: Processes and politics of representation. In J. Nelson, J. Gould & S. Keller-Olaman (eds.) Cancer on the Margins: Method and Meaning in Participatory Research. Toronto: University of Toronto Press, pp. 121-137.

Gould, J., Sinding, C., Mitchell, T., & Fitch, M. (2009). Listening for echoes: How social location matters in women's experiences of cancer care. In J. Nelson, J. Gould & S. Keller-Olaman (eds.) Cancer on the Margins: Method and Meaning in Participatory Research. Toronto: University of Toronto Press, pp. 75-101.

Sinding, C., Gray, R., & Nisker, J. (2008). Ethical issues and issues of ethics. In J. G. Knowles & A. L. Cole (eds.) Handbook of the arts in qualitative research. Thousand Oaks: Sage Publications, pp. 459-468.

Contributions to Scholarly Encyclopedias

Andrews, G. J. (2014). Health Geography. In T. Brown et al (eds.) Blackwell Encyclopedia of Health, Illness, Behavior, and Society (in press).

Andrews, G. J. & Skinner, M. (2014). Geography of Aging, older people. In J. Wright (ed.) International Encyclopedia of Social and Behavioral Sciences. Elsevier (in press).

Andrews, G. J. (2009). Complementary and Alternative Medicine. In The International Encyclopedia of Human Geography Elsevier, Oxford.

Andrews, G. J. (2009). Ageing and Health. In R. Kitchin & N. Thrift (eds.) The International Encyclopedia of Human Geography Elsevier, Oxford.

Andrews, G. J. (2008). Place and space in qualitative research. In The SAGE Encyclopedia of Qualitative Research Methods.

Andrews G J (2008) Ethnograph. In The SAGE Encyclopedia of Qualitative Research Methods.

Andrews G J (2008) Checklists. In The SAGE Encyclopedia of Qualitative Research Methods.

Andrews G J (2008) Historiography. In The SAGE Encyclopedia of Qualitative Research

Methods.

Dunn, J. R. (2009). Neighbourhoods, housing and health. In: R. Kitchen & N. Thrift (eds.) International Encyclopedia of Human Geography, Vol. 5. Oxford: Elsevier. pp. 201-206.

Grignon, M. (forthcoming). Access and health insurance. In A. J. Culyer (ed.) Encyclopedia of Health Insurance. Amsterdam: Elsevier.

Appendix D
Support from Academic Units at McMaster

Sociology

Roy Cain   6:46 AM (3 hours ago)
to James

Hi James,
I've taken a look at the proposal, as has Sociology's grad chair, Tina Fetner, We are pleased to endorse the proposed PhD programs in the Department of Health, Aging & Society. All the best with the approval process,
Roy

Roy Cain, PhD
Acting Chair, Department of Sociology &
Professor, School of Social Work
McMaster University (KTH-628)
905-525-9140 ext. 24480 (department)/ext. 23614 (direct line)

English and Cultural Studies

Peter Walmsley   May 2 (3 days ago)
to James

Dear James
On behalf of the Department of English and Cultural Studies, I am happy to endorse your proposed PhD programs and have no objections or concerns with its going forward.
best, Peter

Economics

Jeremiah Hurley   May 1 (4 days ago)
to James

James:

As Chair of economics, I support this going forward.

Jerry

Social Work

Jane Aronson   May 2 (3 days ago)
to James

Dear James,
Thanks for this and the earlier opportunity to see and discuss how
your PhD program proposal has taken shape.
It looks exciting and will open up a space for graduate work in
intriguing and much-needed areas. From the vantage point of the
School of Social Work, I'm happy to endorse it.
best wishes with the next steps,
Jane

...

Religious Studies

Chair Religious Studies <relsch@mcmaster.ca>   May 2 (3 days ago)
to James

Dear James,

Thank you for sharing the proposal for two new PhD programs in Health Studies and
Gerontology. I'm happy to endorse these proposals. There do not seem to be any
programmatic issues that would be a concern to Religious Studies. I think the proposed
programs will greatly enhance graduate education in the Faculty of Social Sciences and will
offer wonderful opportunities for students. We wish you well with the process.

Please let me know if there's anything else I can do to assist with the approval of these
programs.

Best wishes,

James

James A. Benn
Chair
Department of Religious Studies, McMaster University
University Hall, Room 105, Hamilton, Ontario, L8S 4K1, CANADA
Phone: 905 525 9140, ext 24210/ 24734 (Chair's office)
Fax: 905 525 8161
URL: http://jamesabenn.ca/
[please use relsch@mcmaster.ca for all departmental business]

Labour Studies

Robert Storey   10:29 AM (3 hours ago)
to James

James:

   Thank you for your message regarding your proposed PhD programs in Health Studies and Gerontology. On behalf of the School of Labour Studies, I extend our support for your proposals. We are certain that both programs will prove to be successful - both for Health, Aging and Society and McMaster University as a whole.

   Robert.

Anthropology

Petra Rethmann   4:37 AM (5 hours ago)
to James

Hi James,

sorry for replying so late! With this message I am letting you know that I endorse the PhD in Health, Aging, and Society, and that I have no objections with it going forward.

Best wishes,

Petra

...

Political Science

Ahmed Shafiqul Huque   10:30 AM (3 hours ago)
to James

Dear James

The document looks good. I have no objection to it. Best wishes,

shafiq

****
Ahmed Shafiqul Huque, PhD
Professor & Chair
Department of Political Science
McMaster University

...

PhD in Health Policy

Schwartz, Lisa   9:05 AM (4 hours ago)

to James

Dear James,

Thanks for sharing this briefing on the proposed Doctor of Philosophy (PhD) in Social Gerontology & Doctor of Philosophy (PhD) in Health Studies. Your proposal describes a well developed and exciting program that fills gaps on significant areas of research and study at McMaster and across Canada.

I strongly endorse the program and feel it will provide opportunities for co-development with the interdisciplinary PhD in Health Policy. Just looking at our admissions process this past year, I noted strong candidates for a program such as the one HAS will offer for students who are looking for more theory driven social and empirical study. The learning environment for Health Policy will be enriched by collaboration and cross engagement, but will also permit distinct scholarly perspectives in each program.

I wish you much success going forward and look forward to collaboration across our programs.

Please feel free to contact me for further comment.

Thanks,

History

Pamela Swett   May 1

to James

James,

On behalf of History, I have no objections to your proposal.

Pamela Swett, chair

...

Kinesiology

Martin Gibala   Jun 4 (1 day ago)

to James

Dear Dr. Gillett,

Thank you for sending me the draft brief of the proposal for consideration, which I have shared with several other faculty members. I apologize for the delay in following up with you.

All of the feedback that I received was extremely positive, and supportive of this initiative. The proposal was identified as being comprehensive, with the necessary faculty complement is place to support a strong program. I would imagine that Kinesiology faculty who have related health interests could be involved at least as committee members, if not formal supervisors.

Good luck with this initiative.

Best wishes,
Martin

...

Geography

Clinical Epidemiology and Biostatistics

TABLE 2

- This table is intended to show the amount of funding available to support faculty research and potentially available to support students' work, either through the provision of stipends or materials for the conduct of the research. For this reason, grants for travel and publication awarded to faculty should not be included in this table (they may be included in the appropriate place in individual CVs or in a separate table). Major equipment grants, which provide important resources for the work of faculty and students, should also be listed separately.

Operating Research Funding by Source and Year*				
	Source			
Year [1]	**Granting Councils [2]**	**Other Peer Adjudicated [3]**	**Contracts**	**Others** ** [4]
2013-14	813,473		40,000	242,000
2012-13	1,542,686			246,148
2011-12	533,140			239,650
2010-11	564,930			229,500
2009-10	687,952			45,000
2008-09	183,592			
Totals	4,325,773		40,000	1,002,298

*Research Funding amounts as PI and co-PI only
**"Others" category includes funding from foundations/corporations as well as University allocated grants

[1] Year may be academic year or calendar year, as appropriate for the institution [specify].
[2] <u>Do not</u> include equipment grants, conference grants, or grants allocated by the university such as SSHRC minor grants in this column.
[3] Explain source and type in footnote.
[4] University allocated grants (such as SSHRC minor grants).

Thesis Supervision (Department of Health, Aging & Society)							
Faculty Name & Rank	Master's*		Doctoral		Post-Doctoral Fellows		Faculty Area: Social Gerontology (SG) / Health Studies (HS)
Category	In Progress	Completed	In Progress	Completed	In Progress	Completed	
Professor							
Andrews, G.	1	7		(2)			SG / HS
Denton, M.	2	6 (13)	(2)	(1)			SG
Associate Professor							
Campbell, L.	(2)	1 (4)	(1)				SG
Dunn, J.	2	5 (9)	(3)		1	1 (7)	HS
Gillett, J.	(1)	6 (8)	(3)				SG / HS
Grenier, A.	2	2 (24)	(1)	(2)			SG
Grignon, M.	1	2 (7)	(4)	(2)			SG / HS
Sinding, C.	2	3 (17)	(3)			(1)	HS
Assistant Professor							
Gabel, C.	1						HS
Kapiriri, L.	1	3					HS
Premji, S.		(2)					HS
Professor Emeritus							
Knight, G. *(Adjunct Professor)*		(13)	(2)	(13)		(2)	SG / HS

* Includes 1-year Master's: Major Research Paper

If desired, columns (or an additional table) may be added to reflect the supervision of major research papers at the master's level. Do not include supervisory committee activity in this table.
1.   Faculty members should be listed under the categories specified in the footnotes to Table 1.
2.   Faculty members who are involved in more than one graduate program should list the number of students supervised in the program under review and, in parentheses, the total number of students supervised in all graduate programs. (e.g., Ffff is currently supervising 1 Master's student in the program under review and 5 in total.)

Appendix G:

Labour Market Profile and Projections

1. Labour Market Profile of Doctoral Graduates

This section summarizes pertinent findings from to Statistics Canada reports:

L. Desjardins & D. King. (2011) *Expectations and Labour Market Outcomes of Doctoral Graduates at Canadian Universities*. Statistics Canada Research paper, Culture, Tourism and the Centre for Educational Statistics, Catalogue No. 81-595-M – No. 089.

L. Desjardins. (2012) *Profile and Labour Market Outcomes of Doctoral Graduates from Ontario Universities*. Statistics Canada Research Paper, Culture, Tourism and the Centre for Educational Statistics, Catalogue N. 81-595-M – No. 098.

Like other OECD countries, Canada has experienced a growth in the number of doctoral graduate since the late 1990s. Although the overall rate of growth lagged behind the OECD average, it picked up in the mid to late 2000s. Between 2003 and 2008 the rate for doctoral graduation grew by 40% to 5,400.

About a fifth of those who graduated in 2005 with doctoral degrees in Canada had moved outside Canada within two years, mostly to the U.S., primarily for work related reasons. This reflects the growing international labour market for highly skilled professionals who tend to be geographically mobile. Just over half of those who had moved expected, nonetheless, to return at some point to Canada.

In 2005 almost a fifth (19%) of graduating PhDs were in psychology and social sciences, and almost two-thirds (64%) of these were women. Psychology and social sciences were one field in which median earnings for females outstripped those for males. Doctorates from Ontario universities in this field also carried a particularly significant income premium compared to other fields besides life sciences. For Canada as a whole 5% of PhDs in psychology and social sciences were unemployed two years after graduation and another 15% self-employed, though the latter figure dropped to 10% for those with doctorates from Ontario universities.

In terms of the locus of employment, the vast majority of doctoral graduates work in the public sector, with few outside engineering and computer science finding employment in the private sector. [Neither study looked specifically at employment in the tertiary or non-profit sector.] The overall majority (57%) worked in the educational sector, with another 13% in health and social services and 7% in public administration. In the case of doctorates in psychology and social sciences, 28% were employed in the health and social services sector and 9% in public administration, although the former figure dropped to 20% for PhDs from Ontario universities.

In terms of the issue of whether those with doctorates are over-qualified for the work they do, the studies found that a fifth of those in the field of psychology and social sciences thought they were over-qualified for their work, and 30% had higher credentials than those required to carry out the work. These numbers dropped, however, for those with PhDs from Ontario universities to 15% and 22% respectively. These figures suggest that a strong majority of PhDs in psychology and social sciences were appropriately qualified for the work they did.

2. Labour Market Projections

The table below outlines projected growth in occupational areas relevant to doctoral graduates in social gerontology and health studies.

Employment Projections in Relevant Fields, 2014-2020

Occupation	2014	2020	% change
Managers in health, education & social services	114,208	121,310	+ 6.2
Managers in public administration	34,643	35,994	+ 3.9
Human resources specialists	212,616	235,588	+ 10.8
University professors	96,767	97,561	+ 0.8
College & vocational instructors	105,810	111,294	+ 5.2
Policy, program, research & consultant specialists	218,104	238,551	+ 9.4
Community & social service workers	437,373	476,340	+ 8.9
Journalism, PR, other communications	136,803	146,055	+ 6.8

Source: Employment and Social Development Canada, *Canadian Occupational Projection System, 2010-2020*. Available at http://www23.hrsdc.gc.ca/.4cc.5p.1t.3ondatas.2arch@-eng.jsp. Downloaded June 20, 2014

These figures suggest that the traditional area of employment for PhDs, namely university teaching and research, is projected to grow less rapidly than other relevant areas of employment between 2014 and 2020. At the same time, other areas such as management positions in health, education and social services, human resource specialists, instruction in other tertiary level educational services, policy, program,

research and consultant specialists, community and social service workers, and communications specialists are projected to grow significantly.

These projections support the aim of HAS's proposed PhD programs in Social Gerontology Health Studies that students will be qualified to work outside as well as inside the educational sector. The areas projected to experience the highest growth in the latter part of the decade (and probably beyond) also comprise professional career opportunities in the voluntary, non-profit as well as broader public sectors in particular.

September 12, 2014

Draft PhD in Labour Studies

1. PROGRAM

      1.1   Consistency of program with University's mission and academic plan

Enhancing the connections between McMaster and the community

We will acknowledge, and seek to integrate in all our work and in ways appropriate to our specific fields, an obligation to serve the greater good of our community—locally, nationally, and globally. (Patrick Deane (2011), Forward With Integrity: A Letter To The McMaster Community)

McMaster's School of Labour Studies has established a reputation as the preeminent Labour Studies Program in Canada, and one of the leading programs in North America.[1] McMaster University has the only graduate program in Labour Studies in Canada (there are now eight undergraduate degrees and numerous college programs). Currently, those teaching and researching in Labour Studies in Canada, the UK and the US have degrees from allied disciplines. This proposed PhD in Labour Studies will fill an obvious gap in this growing academic discipline, namely, a doctorate that engages closely and critically with the issues of work and labour in contemporary and historical relief. This will be of obvious benefit to the discipline of labour studies and the academy, but also to policy, labour and community organizations that employ labour researchers and analysts.

A PhD in Labour Studies will take this expanding discipline to the next level of excellence in graduate education and broader scholarship, by developing a new generation of scholars highly honed, trained and prepared to contribute to research leadership in the academy, the community, policy arenas and organizations representing working people. This exciting field is bound to continue to grow given

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[1] Begun in 1976 with the establishment of the McMaster Hamilton and District Labour Council Labour Studies Certificate Program, the three year B.A and four-year Honours programs were introduced in 1981 and 1987 respectively. Labour Studies continued to expand when in 1997 the Provost declared Work and Society a strategic area. This laid the foundations for Labour Studies to offer a M.A. in Work and Society, beginning in 1999. Ours is the only such M.A. in Canada, and one of the very few in North America. Also in the late 1990s, Labour Studies added two other labour studies certificates to its curriculum, a joint certificate with the local community college (The McMaster-Mohawk Labour Studies Certificate) and in 1998 a labour studies certificate in partnership with the CAW now UNIFOR (UNIFOR-McMaster Labour Studies Certificate). Together, these three pillars of education – the non-degree certificates, our undergraduate degree programs and our graduate degree – constitute the foundation of Labour Studies.

its importance and wide interest to almost everyone who is working in a paid or unpaid capacity in this society. As the first and only PhD in Labour Studies in Canada, McMaster University and Ontario will demonstrate their leadership to supporting rigorous scholarly pursuit with a commitment to not only study the world of work and labour, but to engage with and improve it.

McMaster has identified three priorities that will focus our efforts over the next three years and beyond (Strategic Mandate Agreement, 2013):
> 1. Strengthening the excellence of our research and our graduate education and training, while seeking opportunities to integrate research more purposefully into our academic mission;
> 2. Developing a distinctive, personalized, engaging and sustainable student experience; and
> 3. Enhancing the connections between McMaster and the communities we serve, locally, provincially, nationally and around the globe.

McMaster's SMA report (2014-2017) identifies the following strengths and areas for growth:
Areas of Institutional Strength include:
1.Medical Education and Research
2.Health and Society
3.Engineering and Sustainability
4.Science and Discovery
5.Digital Economy
6.Materials and Manufacturing
7.Business and Economics
8.Policy and Ethics in a Globalized World
9.Human Behaviour, Culture, and Society
10.The Arts and Creative Expression
Program areas for growth include:
1.Health Sciences and the broad determinants of health
2.Fostering robust societies
3.Business and Economics
4.Science and Engineering
5.Communications and Culture

This proposed PhD fits closely with strength areas 2, 5, 6, 7, 8, and 9, and all three growth areas.

President Deane's priorities, as listed in his 2011 statement *Forward With Integrity* , dovetail closely with these strategic mandates. He identified the need for a "multidisciplinary perspective" and the obligation of our university to "serve the greater food of our community-locally, nationally and globally." The proposed PhD in Labour Studies will engage the three strategic mandates listed above and President Deane's priorities by extending opportunities for students to pursue labour studies debates within a larger frame of social justice and equity, including

foci such as: work organization, labour process; globalization; workplace health and safety and the environment; race; indigeneity and ethnicity in contemporary and historical perspective; and the dynamics of gender and other aspects of identity in work and unions.

PhD students will be ready to undertake academic employment as well as research jobs, senior administrative and leadership positions in a range of public, private and non-profit organizations with a focus on work and social justice. Students will develop leadership and high level skill in community-engaged research and critical theory, and be able to engage constructively in public policy debates. In short, graduates from this proposed PhD will be well equipped to become influential people in a rapidly evolving landscape.

The degree learning outcomes expected from the program include:

1. A critical understanding of the issues related to labour studies and the changing nature of work and employment (Depth and breadth of knowledge).

2. An ability to engage in critical and applied research with the potential to inform and shape policy decisions and innovative practices that will advance social justice (Research and scholarship).

3. Competence in applying existing knowledge to new questions and problems generated by the transition from the post-war social contract to an economy where the labour market is in transition, where employment relationships are less standardized and where the knowledge sector is increasingly important (Application of knowledge).

4. Skills needed to assume positions of leadership including an ability to think creatively and to apply acquired knowledge to complex problems. An understanding of the ethical implications of research activity and the development of the skills needed to function effectively in a professional environment. (Professional capacity/autonomy).

5. Ability to communicate using traditional forms of communication and an understanding of the potential of online and social media as forms of communication (Communication skills).

6. A critical understanding that the work students do fits within existing knowledge (as limited as that may or may not be), extends existing knowledge and requires continued generation of new research questions and projects (Awareness of limits of knowledge).

Exemplifying McMaster's strategic strength in interdisciplinary research and education, Labour Studies is a wholly inter-disciplinary field of study. The proposed program intends to offer courses by active researchers working in the field from a broad array of disciplinary backgrounds and to draw on this diversity of perspectives to foster critical thinking related to labour markets, work and workplaces and community. Labour Studies has developed mature relationships with agencies involved in research on work and workplaces, with policy units and with labour organizations. We will leverage these relationships to expose our students to critical issues as they develop and to the potential for community-engaged research.

It is anticipated that students graduating with the proposed PhD in Labour Studies will find employment in Labour Studies and Industrial Relations Departments in Canada, Australia, New Zealand, the US and UK, as well as in Interdisciplinary Departments across Canada (such as OISE, Health and Aging Studies, Adult Education, Gender and Women's Studies, Policy and Immigration Studies) and in departments that hire beyond their discipline such as Social Work, Human Resources, and Business. Students will also find employment with governments, unions, non-profit organizations and progressive human resource departments. As the only PhD in Labour Studies in Canada, armed with the specificities of studies focusing closely on the challenges facing working people and workplaces, graduates will fill a unique niche and pressing gap in universities, colleges, government agencies and Ministries, labour organizations, policy bodies, think tanks and community organizations engaged with the issues of work and working people.

1.1.1 The need for such a program

The PhD in Labour Studies will be unique within Canada and globally. Our national and international scan confirms that there are no equivalent programs in Canada or North America whose focus is Labour Studies and the world of work. Several Canadian schools offer undergraduate degrees in Labour Studies including, Brock, York, Windsor, Laurentian, Athabasca, Manitoba and Simon Fraser, but none have graduate programs. The closest similar program worldwide is an Economic Sociology and Labour Studies PhD at the University of Milan, Italy.

Several schools offer programs in Industrial Relations and Human Resource Management. For example, in Canada, the University of Toronto offers a PhD in Industrial Relations and Human Resources, York offers a PhD in Human Resource Management, and the University of Laval offers a PhD in Industrial Relations (in French). Several US universities offer PhDs in the field of human resources and industrial relations including Cornell, Georgia State, Michigan State, MIT, Princeton, Rutgers, Temple, University of Illinois, and University of Minnesota. Reflecting their subject areas, these programs are much more specific and narrow focused than the proposed PhD in Labour Studies and none are housed in the Social Sciences. As a Social Science program, the proposed PhD in Labour Studies would distinguish itself

from IR and HR PhDs by focusing on a much wider range of issues and a more critical and community-engaged approach than those associated with the management of labour at work.

Our scan of other PhD programs also confirms that we fill a gap at McMaster University as we will not be taking students from other programs and there are no deleterious overlaps with other programs. The only overlaps will be ones of mutual benefit and cooperation between departments and schools (please see Appendix Five).

We propose to accept 3-4 students per year (including full- and part-time).

From 1999 - 2103, 24 graduates from the MA in Work and Society have gone on to start PhDs at other universities. Many have indicated they would have completed their PhDs in Labour Studies at McMaster had we offered such a program. We derive out intake numbers from these numbers though, similar to our MA degree, we anticipate interest from across Canada and internationally, which will add to our pool of potential students.

In September of 2012 we surveyed past graduates of our MA in Work and Society. Forty-two students responded to our survey and over two-thirds indicated they would be interested in a PhD in Labour Studies at McMaster if we were to offer one. A second question asking if they would have considered a PhD in Labour Studies had we offered when the year they completed their MA showed even stronger support.

Where will our students go?

We are aware that while some of our students will take up careers in academia, others, the majority, will see their PhD studies as a pathway to employment in both the public, non-profit and private sectors primarily as researchers, policy makers, administrators, organizers and educators.

We expect, and we will endeavor to highlight, that students in our program will also be suited and prepared for this range of possible employment opportunities. We will do this by encouraging students to learn and use research methods that would be useful outside a university setting and through our graduate seminar which will introduce students to how to succeed within the university, but also how to succeed outside and in particular how to fund projects, how to access online data that is the basis of reports and policy analysis outside the university and how to engage professionally with policy analysts and the growing number of non-university researchers.

Indeed, with regard to many of our part-time students, it is expected that they will use their PhD studies to enhance their current employment.

1.**2**   **Clarity and appropriateness of program requirements and learning outcomes in meeting University's Degree Level Expectations** (SEE ALSO PROGRAM LEARNING OBJECTIVES CHART, APPENDIX TWO)

The PhD in Labour Studies will prepare students for the critical appraisal of work, working people and their organizations, and how labour market policies and institutions shape the experience of work and employment. It will provide students with opportunities to learn about advanced research methods, theory, public policy and a variety of issues relevant to labour studies.

We want our students to learn about the historical and ongoing importance of work in everyone's lives – whether or not they are working for wages/salaries or their work is unpaid – as work is central to the creation and sustainability of individuals, communities and societies.

Work is central to our identity – gives our lives meaning. By the same token work and a lack of work can seriously undermine our sense of self and our efficacy in society

Because of these critical elements of working in contemporary societies, we expect our students to interpret the various and varied worlds of work and to change them. They will obtain a deep understanding of the institutional structures that shape the world of work and employment how labour markets and other policies can change the experience of workers.

Courses (equivalent to one session or a half course each)

As we stated above, Labour Studies is by its very nature, interdisciplinary, hence , in our advanced theory course, we will draw on ideas and concepts that have longstanding histories in the sociology of work and organizations, political economy (work and the state), labour market economics (segmented labour markets) and history (the evolution of trade unionism). We will equally draw on contemporary contributions from a variety of sub-disciplines advancing themes such as: how labour and capital mobility influence labour power (labour geography), the reconfigurations of global social reproduction (feminist political economy), the role that systemic discrimination plays in structuring labour markets and limiting trade union membership (critical antiracist scholarship).

In our methods course we will work with our students to develop a comprehensive knowledge of critical and community engaged research methods as well as other research tools that will be useful in both academic and non-academic settings– at the same time, this course will expose students to an array of research methods and tools they will need to pursue their doctoral dissertations. Given the wide array of

potential research methods applicable in an interdisciplinary program, we will make efforts to customize the material covered in this course to suit the research needs of our changing student body.

Our graduate seminar will provide students with the skills needed to successfully navigate life as a graduate student and a foundation for applying their skills in academic and non-academic contexts including how to apply for grants and ethical research models. Given the importance of non-academic employment to many of our graduates, the seminar will offer guidance on professional conduct in non-academic settings. We also see this course as a forum where students will receive guidance in completing their comprehensive exam requirement.

Our students will complete their course work by taking a subject graduate course currently offered as part of the MA in Work and Society or graduate courses offered by another social science discipline. Where appropriate, students will be free to take courses from other faculties. It is expected that all such courses will be chosen by students in areas that add to their substantive knowledge in areas pertaining to their dissertation topics

Summary of Degree Level Expectations for the Ph.D in Labour Studies
(SEE ALSO PROGRAM LEARNING OBJECTIVES CHART, APPENDIX Two)

1. Depth and breadth of knowledge	Students will have a thorough understanding of the factors shaping the world of work and the experiences of workers in an advanced market economy. This will include an understanding of both the factors shaping the organization of work, the institutions which shape workers experience of work and policies and legislation related to work in a market economy.
2. Research and scholarship	Students will be asked to design a unique research project that explores some aspect of work and workers ' experiences. Where appropriate, they will be asked to include community partners as one component of their research. This is expected to be an original contribution to the debate over work in a market economy.
3. Level of application of knowledge	Through course work and thesis research students will operate at an advanced level and will develop both academic and professional skills.

4. Professional capacity/autonomy	While we intend to mentor all of our students, to a large extent they will work on their own in self-directed research projects. They will gain skills that will allow them to operate effectively in both a team environment, but also in an environment where they will be responsible for directing research activity. We will stress the importance of research ethics in the design and implementation of all research projects.
5. Level of communications skills	Students will be given an opportunity to present findings orally as well as produce written work to fulfill their degree requirements.
6. Awareness of limits of knowledge	Students will be expected to engage the existing research and as a result come to appreciate both the limits of their knowledge, as well as the gaps in our understanding of how workers experience work and employment in a market economy.

1.3 Appropriateness of degree nomenclature

Students completing this course of study will be awarded a Ph.D in Labour Studies. This is an increasingly well recognized field of study with 8 undergraduate programs in Canada (McMaster, Windsor, York, Brock, Laurentian, Athabasca, Manitoba, Simon Fraser).

2. ADMISSION REQUIREMENTS

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

We aim to attract a broad spectrum of highly qualified applicants including candidates who have recently completed Masters degrees, and those who have considerable work experience (for example in the labour movement or in public policy). For this reason we propose a set of admission criteria that fosters this diversity and attends to these two groups. The admission criteria will therefore include work and political experience in addition to academic criteria.

Since the proposed Labour Studies PhD is an interdisciplinary degree, we will consider all applicants who have a Masters of Arts degree in any relevant academic discipline in Social Science or Humanities including but not limited to Sociology, Social Work, Geography, Anthropology, Political Science, Economics, Gender Studies, Peace Studies, Environmental Studies or International Studies. In some cases, however, where a candidate may have an academic background that is outside of these areas, we will selectively accept candidates who on the basis of a combination of work and or political experience and an academic degree at an equivalent level (for example an MSc or MBA), are deemed to have developed a high level of critical thinking skills and knowledge about work and labour.

2.1.1 Admission requirements (summary)

- Masters degree or equivalent in any discipline with a minimum B+ average grade from an accredited university.
- Critical thinking skills (evidenced by letters of reference, academic discipline and/or relevant experience).
- Writing skills (evidenced by satisfactory grades or by relevant experience such as report writing).
- Three letters of reference, normally at least two of which are from former university professors.
- For international applicants, an official statement of English language test results.

2.2   Alternative requirements for admission into the program

In cases where candidates do not have a B+ average from a Masters Program at an accredited university, they may be admitted if they meet the following criteria:

- They have a minimum of five years of work experience in an area relevant to labour.
- They have demonstrated strong writing and critical thinking skills.
- They write a 2500 word essay on the topic that they would like to pursue in the PhD Program. This will be evaluated by a committee of Labour Studies faculty.

Note: Candidates who have not graduated from a relevant Masters Program at an accredited university, may be extended a conditional offer and required to take additional MA courses in Work and Society at McMaster University, as determined appropriate by their supervisory committee.

2.3   Admission requirement for students who have completed an MA in Work and society.

Students from our own MA in Work and Society will be required to complete three graduate level courses beyond the courses they completed during their MA studies. If they complete either the theory or methods Ph.D requirements as part of the MA, they will need to complete 3 other course to fulfill the Ph.D requirements.

3. STRUCTURE

3.1   Administrative, governance and communication processes

The Program will be administered by the Graduate Program Chair with the assistance of the graduate administrator and a Graduate Program Committee. The Graduate Program Chair will be the chair of the Graduate Program Committee. The Graduate Program Chair will be responsible for the overall governance of the Program. The Graduate Program Chair will report to both the Director of the School of Labour Studies and to the Dean of Social Sciences.

The graduate committee will make decisions on admissions and oversee the decisions of supervisory committees and examination committees on examination papers and dissertation defenses. Students may appeal decisions using the procedures outlined by Graduate Studies, McMaster University.

Upon entering the program, students will be assigned a temporary supervisor. Not later than six months following the student's arrival, a supervisory committee for each student will be appointed by Graduate Committee on the recommendation of the student and a willing thesis supervisor drawn from the faculty. The individual progress of each student will be monitored by a supervisory committee. The supervisory committee will be composed of three tenured faculty (2 from Labour Studies and normally one external to Labour Studies at McMaster University).

Composition of the Committee is to be approved by the Graduate Committee. The functions of the supervisory committee are as follows:

(a) To meet with the student at least once a year to ensure that the student is making satisfactory progress towards the timely completion of the degree and provide written feedback.

(b) To provide advice to the student in his/her preparation for the comprehensive exam

After the student has completed his/her comprehensive exam the Graduate Committee will review, and if necessary, reconstitute the supervisory committee to reflect the specific dissertation interests of the student. If more than one individual is from outside the Department or university, the committee will have to be expanded beyond three members.

The function of the supervisory committee with regard to the dissertation will be:

(a) To guide the student in developing a thesis proposal and to make arrangements for a Departmental seminar at which the student provides a detailed outline of the proposal. The Supervisory Committee, in conjunction with the Chair of the Graduate Committee and one other member of the core faculty must approve the thesis proposal.

(b) To meet formally every academic year to assess the student's progress. The Supervisory Committee will inform the student of their conclusions. In all cases, meetings must be concluded no later than August 31st. If progress is deemed unsatisfactory, written notice will be issued. If the committee considers the lack of progress particularly serious, the student will be required to withdraw from the program.

(c) To respond to drafts of the thesis or portions of the thesis within a reasonable period of time.

(d) To arrange for the completed thesis to be submitted to the Dean of Graduate Studies in accordance with the guidelines provided by the School of Graduate Studies.

If a student feels he/she is receiving unsatisfactory supervision, he/she should consult the Department Chair or the Chair of the Graduate Committee.

3.2 Appropriateness of program's structure and regulations to meet specified program learning outcomes and Degree Level Expectations

We propose that students who are working full time on the PhD will normally complete the Program in 4 years. Students will complete a total of three credit courses (the equivalent of one term courses), one required non-credit course, a 60 page (15,000 word) comprehensive exam in the form of a critical review of the literature review related to their proposed dissertation topic and answering questions set by the student with the support and approval of the supervisory committee, as well as a dissertation proposal and a final dissertation. Fewer courses are thought to move students more quickly onto their own research and publications, which will provide a comparative advantage in the labour market.

There are four required courses, three of which are core courses and one of which is a non-credit seminar (described in more detail below):

- A methods course: The methods requirement can be fulfilled by taking the proposed methods course we will offer (Critical Community Engaged Research Methods) or some other graduate level methods course offered by another department or program.

- An advanced theory course (Advanced Labour Studies Theory)

- A required, non-credit graduate seminar (Doctoral Seminar).

- An additional graduate level (700) course at McMaster (which could include any of the MA in Work and Society subject courses) or a graduate course (700 level) in excess of previous degree requirements at another accredited university.

Depending on students' background and their admissions status (See section 2.2) students may be required to take additional Masters level courses from Work and Society in addition to the above. To facilitate distance learning and support the participation of part-time students, one of the core courses will be offered in a condensed format in the Spring Session of each year on a rotating basis.

After finishing their course work, normally at the beginning of the second year of the Program, students will write a comprehensive exam related to their research interests. The student will develop a proposal including a reading list in consultation with his/her supervisor and this proposal will be approved by the student's supervisory committee. The length of the paper will be limited to 60 pages (15,000 words) plus references. The paper will be evaluated on a Pass/Fail basis by the supervisory committee. Students unsuccessful at this stage will be offered a second chance to complete this requirement. If still unsuccessful this will be deemed a failure to meet one of the requirements of the PhD and will normally require that the student exit the Program.

Following the completion of the comprehensive exam requirement, students will write and defend their dissertation proposal outlining their research question, methodology and how their project will contribute to academic knowledge. In addition to completing a written proposal, students will defend their proposal orally to their supervisory committee. This defense will be open to other faculty members and former and current Ph.D students. Once approved by the committee it will be circulated to all faculty in Labour Studies for comment.

The PhD dissertation in Labour Studies will be evaluated by the dissertation committee in accordance with Graduate Studies regulations.

The proposed Program structure will allow students to achieve the PLO and DLEs.

3.3   Rationale for program length

The normal length of the PhD of 4 years provides adequate time for students to complete required courses, the comprehensive exam, and dissertation requirements. The first year devoted to courses will enable students to hone their written and oral communication skills as well as their critical thinking skills. In the second year, students will increase their depth of knowledge in the field of Labour Studies and in their area of focus through writing a comprehensive exam and writing a dissertation proposal. Through the second half of the 2nd year to the fourth year students will develop, execute, write and defend a research project. The last two years will be devoted to developing the dissertation topic.

For students pursuing the dissertation on a part-time basis this timeline will vary depending on circumstances. Normally, the PhD will be completed within 6 years. Students will be expected to complete their course work and their comprehensive exam in the first three years, and their dissertation by the end of their sixth year. It is anticipated that most part-time students will spend at least one full year in course during the development of their dissertation, but this will not be a requirement.

4. PROGRAM CONTENT

4.1 How curriculum addresses the current state of the discipline or area of study. PLEASE REFER TO THE TABLE IN 1.2 which demonstrates how the content aligns with DLEs and PLOs.

The degree will have a single field. This reflects demand from current and past students seeking doctoral studies as well as researchers and activists in the field.

Content of courses:

Consultations have taken place with the Chairs and Directors of the Social Sciences at McMaster to solicit feedback and ensure no conflicts or deleterious overlaps in programs exist.

i) Advanced Labour Studies Theory

In this seminar, students will deepen their knowledge of select thinkers in classical and contemporary labour studies theory. Class time will be divided between the work of key theorists in the areas of labour process theory, the sociology of work and labour markets and that of theorists who challenge or extend these conceptualizations. The focus on contemporary labour studies theory will examine how labour studies theory is evolving in new directions. In particular, we will focus on how labour studies theory has been influenced by different social movements and sub-disciplines so as to integrate theoretical insights from feminist, anti-racist, geographical, anti-colonial and disability rights perspectives. In keeping with the interdisciplinary nature of Labour Studies, the specific choice of readings and areas of focus will be dependent on the instructor. This course will be open to Ph.D students from other programs and to MA in Work and Society students.

ii) Critical and Community Engaged Research Methods

This course aims to foster students' capacity to undertake, use and communicate critical, community-engaged research and participatory action research. Initially, introducing students to epistemological and ontological debates in critical and community-engaged research, the course will also provide students with research methods and tools to pursue their doctoral dissertation. They will also acquire

research skills that will be of use to students working in a non-academic research setting after graduation. The course will be tailored to the unique needs of each entering cohort in keeping with the multi-disciplinary nature of Labour Studies. The course will maintain a focus on the challenges and possibilities of research for social justice, and the ways that injustice and marginality can be embedded in research content and process. This course will be open to Ph.D students from other programs. During discussions with Chris Sinding and Stephanie Baker Collins in Social Work, it was agreed that there was potential to develop this course in a way that would make it attractive to Social Work Ph.D students. Similar discussions were held with Andrew Gilbert in Anthropology who indicated this course might be attractive to some students in their social Anthropology stream.

iii) Optional course

Students will have a range of options for completing this course. This could be subject course currently offered as part of the MA in Work and society, an additional methods course, a graduate course offered by another program, or a reading course with LS faculty.

iv) Doctoral Seminar

This is meant to be a graduate student tools course to help new students learn how to be graduate students and researchers. It will also provide a forum where students will develop the skills to complete their critical literature review. Students will learn basic research skills including how to go about doing a dissertation as well as skills that will be useful after graduation from our program. We are mindful that not all of our graduates will end up in academic departments and many will find employment in private and not-for profit research units or serve in leadership roles. Topics to be covered include grant writing (SSHRC, CIHR & OGS); library skills and resources; managing relations with supervisors, committees and other graduate students; publishing; ethics; research skills. We also see this as a forum where graduate students can present their research proposals and where we would expect students to present a work in progress seminar once they have completed their field work and while they are in the process of writing up results. This seminar, in addition to others provided in the school will prepare students for careers within and outside of traditional academic appointments. This is a pass/fail course. This course will be open to Ph.D students from other programs. Preliminary discussions with James Gillett from the School of Health Aging and Society indicated that this was potentially a course some of their students might want to take as part of their new Ph.D.

Comprehensives

We will have a comprehensive exam requirement. We will ask students to work with their supervisor and their supervisory committee to design a project that involves a critical engagement with a literature that corresponds to their intended

research field. We see this as a paper of about 15,000 words 60 pages. Students will be given three months to complete this assignment. It will be evaluated by the supervisory committee on a pass fail basis.

4.2 Unique curriculum or program innovations or creative components

We propose two options for the PhD. The first option will permit students to enroll in a full-time degree program. The second will permit those working or with other responsibilities to complete course work on a part-time basis, normally for up to three years, before completing their comprehensive exams and dissertation. By offering a part-time option we anticipate opening Ph.D level studies to a new cohort of mature students, likely already employed in the field, who will benefit professionally from advanced study. These students may receive tuition or other support from their employers to pursue the PhD and are unlikely to be able to take on full-time studies. However, the doctoral level research and expanded leadership capacities we anticipate providing through this degree will be a valuable contribution to their workplaces and future career advancement.

We will encourage our students to engage in community based research where appropriate and through this build a life-long link between our students and those who they will study.

4.3 Nature and suitability of major research requirements

The program of study is structured to lead to a research dissertation which will comprise an original piece of research. This is the primary goal. The other components of the program including course work, doctoral seminar and comprehensive exam are structured to support the development of the dissertation research.

4.4 Appropriateness of the courses for graduate level degrees

The PhD will consist of three half courses for credit, plus a non-credit, required doctoral seminar. This is in keeping with the University's policy on the minimum number of courses and methods of evaluation through written and oral assignments related to individual courses, a comprehensive exam and a written dissertation.

5. MODE OF DELIVERY

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

The proposed PhD includes full- and part-time options. The proposed PhD will include four required courses in Labour Studies (Advanced Labour Studies Theory, Community-Engaged Research and a compulsory non-credit Doctoral Seminar) as well as the opportunity to take an elective outside the school and/or a reading course tailor-made for students' interests. To facilitate the involvement of part-time students, two courses (Theory and Methods) will be offered in alternate years in an intensive 5 week course starting in late April, while the Doctoral Seminar will be provided in a classroom setting with electronic conferencing capacity in order to include those on- and off-site.

6. ASSESSMENT OF TEACHING AND LEARNING (To see how these relate to DLE and PLOs please see the Table in 1.2)

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

Our students will be evaluated in a variety of ways – some traditional, some more innovative

Courses:

- Our courses will ask students to engage course materials through class participation, formal presentations, and final papers.

- These courses will be designed to initiate an interchange between the ideas and experiences brought to our classrooms by the students and longstanding, yet ever-dynamic concepts and ideas to be found within sociology, political science, economics, geography, social work and history.

- We expect to learn from our students even as we teach them how to navigate the waters of critical social, economic and political theory.

- Course evaluation will encompass standard methods such as participation, essays, presentations, etc., but, again, given the expected diverse range of students, e.g. trade union, NGO and social movement researchers as well as students who have taken a more traditional pathway to PhD studies, these assessment tools will be deployed in ways designed to plumb the intellectual talents and experiences of our students.

Comprehensives:

- Students in our PhD Program will be expected to complete a comprehensive exam that incorporates both the major theoretical writings and the substantive research pertinent to their chosen dissertation research.

- Moreover, the comprehensive exam is intended to instill confidence in students that they have a firm command of the subject matter in this field such that they could, if they desired, teach a course in this area.

Dissertation:

- The signal point of a PhD dissertation is that it make an original contribution to knowledge.

- We want our students to make those contributions to the field of Labour Studies and to this end LS faculty will take as a prime responsibility guiding our students through their PhD studies to ensure that such personal, societal, and School of Labour Studies, goals are achieved.

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

Monitoring and assessment of student progress will be continuous. At each stage of their progress, including course work, proposal, comprehensive exam and dissertation, students will be evaluated by faculty. Course work will be graded, while the graduate seminar, comprehensive literature review and dissertation will be on a pass/fail basis.

The graduate committee will meet once a year to assess the overall progress of students in the program.

7. RESOURCES FOR ALL PROGRAMS

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

The PhD in Labour Studies will draw on the staff currently appointed to the School of Labour Studies.

In recognition of the increased administrative resources required to effectively mount this program, particularly given that administrators are often a primary connection for those enrolled in distance education courses. We estimate that we will need at least two additional days of administrative support per week. The Dean

of Social Sciences has agreed to provide .4 FTE once the program is approved and the first intake of students is ready to begin their studies.

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

Labour Studies currently has 4.8 FTE faculty appointments and all will be involved in the PhD program. All core faculty have tenure or tenure-track appointments. Labour Studies also has the active support of 13 associate members and 2 adjunct appointments, some of whom sit on MA committees, participate in the LS seminar series and consult with students.   Additional details related to the existing faculty are available in Appendix One.

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

All faculty are research active, publish above the norm and have experienced success in research funding including SSHRC, CURA and WSIB. We employ a significant number of our MA and undergraduate students on these grants. The School currently makes use of research grant money to attract and train MA students in every aspect of the research endeavor and would expect to do the same with PhD students.

The faculty also collaborate extensively as co-investigators on larger grants held at universities such as McMaster, York, University of Toronto, Lakehead, Memorial, Laval, McGill and University of Montreal and internationally (University of Strathclyde, RMIT University, and University of Adelaide). Faculty are associated with or leading MCRI, IOF, and CURA projects. We have occasion to make these external funds available to students as well.

See Appendix One for a list of core faculty in the School of Labour Studies.

Library

The School of Labour Studies will continue to collaborate with the library system at McMaster to ensure the availability of appropriate journals, books, data sets, and other materials relating to the needs of doctoral students. We have not identified needed new resources in this area.

See Appendix Two for the library report related to this program.

8. RESOURCES FOR GRADUATE PROGRAMS

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

Our most recent OCGS Evaluation recommended two additional appointments (Equivalent to 1.2FTE appointments) (note: LS faculty are fractional appointments and all are jointly-appointed to another department) in order to undertake a PhD program. The Dean has agreed to two additional .6 FTE appointments conditional on the program's success in recruiting students. The first of these appointments should be made the year students begin entering the program and the second appointment to be made one year later as we admit the second cohort of students.

8.2 Plans to provide the necessary financial support for students

TAs will be provided for all students accepted into the proposed PhD, in the form of new resources. We would encourage students in their fourth year of study to serve as TAs in the new Foundations course being proposed in the Faculty of Social Sciences.

Scholarship funding will be provided to all students accepted into the PhD at at least the university minimum provided to students in other McMaster Social Sciences doctoral programs.

Students will be encouraged to apply for all available scholarship opportunities. Where possible and appropriate they will also be hired as research assistants on faculty research grants.

8.3 Evidence that faculty research supervisors have ongoing funding, space and relevant research infrastructure to support students in program

As mentioned above, Labour Studies faculty have a strong record of scholarly research activity, funding from major external bodies, and publishing in leading journals and with highly reputable academic presses. This includes research done on an individual basis and work done collectively with other university researchers and with researchers in unions, non-profit research units and community agencies. See Appendix II for a list of recent research grants awarded to faculty in the School of Labour Studies and publications in the last five years.

8.4 Supervisory load distribution and qualifications

Students will initially be assigned an interim supervisor and will be required to confirm a supervisor by the end of their second term in the program. The principal supervisor will normally be a full-time tenured faculty member in the School of Labour Studies. This decision will be made in consultation with the student's academic advisor (who is assigned by the Graduate Committee on entry into the program) as well as the prospective supervisor.

Once the program is underway, the Graduate Committee will take account of the current distribution of supervisory loads as well as faculty members' areas of research expertise and interest when making decisions about offers of admission for the upcoming academic year. The Committee will strive to keep supervisory loads as evenly balanced as possible, and ensure that students' research interests are matched to faculty expertise.

8.5 Evidence of prior experience in graduate teaching and research supervision for faculty

Faculty have extensive experience supervising Master's students in the Work and Society MA. All Labour Studies faculty have either supervised PhD students in their home departments in the Faculty of Social Sciences, served on PhD supervisory committees at McMaster, served on PhD supervisory committees at other universities, or served as external examiners for PhD exams and other universities.

9. CONSULTATION PROCESS

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

The proposal was developed after extensive consultation with all tenured and tenure stream faculty in the School of Labour Studies. The draft proposal was the subject of a School retreat held in December of 2013.

In December of 2012 we did an online survey of past graduates from our MA. Sixty seven per cent of respondents answered affirmatively to the question of whether they would be interested in a PhD in Labour Studies at McMaster. We also explored whether students were interested in full-time or part-time studies and interest in alternative course delivery formats. The majority of respondents indicated an interest in a full-time PhD, but there was also significant interest in a part-time option.

Our survey data show 63% of respondents expressed an interest in full-time studies, with 15.2% expressing an interest in options for intensive and Skype conference courses.

A draft was also circulated to academic units at McMaster that were involved in or potentially affected by the programs. Meetings were held between directors and Chairs of those units to discuss both potential forms of collaboration resulting from the program and also potential areas of overlap or duplications. Chairs and directors of other academic units were asked to indicate their support for the program and their responses are included in Appendix

Appendix One: Core Faculty School of Labour Studies

Faculty Name	Current Rank	Joined Labour Studies	PhD Awarded
Donna Baines	Professor	July 1, 1999	University of Toronto, 1998
Wayne Lewchuk	Professor	July 1, 1982	University of Cambridge, 1982
Suzanne Mills	Assistant Professor	July 1, 2009	University of Saskatchewan, 2007
Stephanie Premji	Assistant Professor	January 2011	Université du Québec à Montréal, 2008
Robert Storey	Associate Professor	July 1, 1982	University of Toronto, 1981
Donald Wells	Professor	July 1, 1989	University of Toronto 1985
Charlotte Yates	Professor	July 1, 1993	Carleton University 1988

Appendix II: Research grants and publications last five years.

Faculty Name	Granting Agency	Role	Amount	Period
Donna Baines	SSHRC Major Collaborative Research Initiatives	Co-Invest	$2,500,000	2010-2017
	SSHRC	Co-Invest	1,000,000	2010-2015
	SSHRC	PI	56,147	2009-2013
	SSHRC Major Collaborative Research Initiatives	Co-Invest	20,000	2009-2010
	McMaster University, Arts Res. Board	PI	2,575	2013-2014
Wayne Lewchuk	SSHRC-Automotive Partner Council	Co-Invest	2,100,000	2012-2017
	WSIB RAC	Co-Invest	59,876	2011-12
	SSHRC CURA	PI	1,000,000	2010-16
	SSHRC-Standard Research Grant	PI	110,000	2009-15
	SSHRC -CURA	PI	18,500	2009
Suzanne Mills	Ontario Human Capital Research and Innovation Fund	PI	28,460	2013
	SSHRC	PI	117,722	2011
	SSHRC Major Collaborative Res. Initiatives	Co-Invest	2,500,000	2010
	ReSDA subgrant	Co-Invest	49,700	2013

	SSHRC Res. Develop.	PI	73,949	2009
	McMaster Arts Res. Board	PI	6,178	2010
	Memorial University Innovation Fund	PI	2,500	2008
Stephanie Premji	SSHRC Partnership Grant	Co-Invest	2,760,000	2013-2020
	SSHRC Partnership Grant	Co-Invest	2,500,000	2012-2019
	SSHRC-CURA	Co-Invest	1,000,000	2009-2014
	SSHRC	Collaborator	150,000	2008-2011
	McMaster SEED	Co-Invest	47,000	2013-2015
	McMaster Arts Board Research Grant	O	6,972	2011
	McMaster Arts Board Conference Grant	O	1,114	2011
	Labour Studies Res. Grant	O	2,400	2011
Robert Storey	SSHRC	Co-Invest	997,322	2008-2011
Donald Wells	SSHRC	Co-Invest	1,000,000	2009-2014
	SSHRC	Co-Invest	2,500,000	2008-2014
	Special Res. Iniative MCRI	PI	3,000	2008
	SSHRC	Co-Invest	2,500,000	2003-2008
Charlotte Yates	SSHRC-Automotive Partner Council	PI	2,100,000	2012-2017
	HEQCO	PI	18,875	2012-2013
	HEQCO	PI	11,990	2012-2013
	SSHRC-CURA	Co-Invest	1,000,000	2009-2014
	SSHRC-MCRI CRIMT	Co-Invest	2,500,000	2008-2015
	SSHRC	PI	127,068	2007-2010
	SSHRC-Networks of Centres of Excellence (NCE)	PI	500,000	2005-2009
	SSHRC-MCRI	Co-Invest	2,500,000	2003-2008
	SSHRC-NCE	Co-Invest	900,000	2003-2008

Scholarly Publications by Labour Studies Faculty, 2008-Present

Single- and Co-Authored Scholarly Books

Baines, Donna. (Ed.) (2011). *Doing Anti-Oppressive Practice. Building Transformative, Politicized Social Work.* Second Edition. Halifax: Fernwood Books.
Lewchuk, Wayne, with Marlea Clarke and Alice de Wolff. *Working Without Commitments: Precarious Employment and Health,* McGill Queen's University Press, 2011.

Yates, Charlotte with Gregor Murray, eds**.** Concepts for Union Renewal (Routledge, 2014).

Yates, Charlotte with Belinda Leach and Holly Gibbs. Negotiating Risk, Seeking Security, Eroding Solidarity: Life with Manufacturing Work in Two Border Regions (Halifax: Fernwood Publishers, 2012). 144 pages.

Single- and Co-Edited Scholarly Books

Baines, D. (2011) ed. Unions: A Vehicle for Anti-Oppressive Resistance. In Baines, Donna. (Ed.) (2011). *Doing Anti-Oppressive Practice. Building Transformative, Politicized Social Work.* Second Edition. (pp. 265-277). Halifax: Fernwood Books.

Chapters in Scholarly Books
Baines, D. (2013) Social Justice Social Work Struggles in Canada**:** Poverty, Neoliberalism and Symbolic Resistance. In Lavalette, M. (ed) *Critical Debates in Social Work*. London: Palgrave. Pp.

Baines, D. (2013) Unions in the Nonprofit Social Services Sector: Gendered Resistance. In Ross, S. and Savage, L. (eds.) *Politics of Public Sector Unions*. Halifax: Fernwood. Pp.

Baines, D. (2013) Resistance In and Outside the Workplace: Ethical Practice and Managerialism in the Voluntary Sector. In Carey, M. (ed.) *Practical Social Work Ethics: Complex Dilemmas within Applied Social Care.* (pp. 227-244) London: Ashgate.
Baines, D. (2013) Women's Occupational Health in Social Services. In Miles, A. (ed). Globalizing World. Equality, Development, Peace and Diversity. (pp. 147-159) Toronto: Ianna Press.

Baines, D. (2011) Unions: A Vehicle for Anti-Oppressive Resistance. In: Baines, Donna. (Ed.) (2011). *Doing Anti-Oppressive Practice. Building Transformative, Politicized Social Work.* Second Edition. (pp. 265-277). Halifax: Fernwood Books.

Baines, D. (2011). Labour Processes Under Marketisation: A Canadian Perspective. In Cunningham, I. and P. James (eds.) *Voluntary Organisations and Public Service Delivery.* (pp. 168-184) London: Routledge.

Baines, D. and Freeman, B. (2011). Work, Care, Resistance and Mothering: An Indigenous Perspective. In Krull, C. and J. Sempruch (Eds.).*A Life in Balance. Reopening the Family-Work Debate.* (pp. 67-80). Vancouver: University of British Columbia Press.

Lewchuk, Wayne. "The limits and possibilities of the structures and procedures for health and safety regulation in Ontario Canada", David Walters and Theo Nichols

(eds.), *Safety or Profit? International Studies in Governance, and the Work Environment*, 2013. (Baywood Publishing), pp. 157-80.

Lewchuk, **Wayne** Marlea Clarke & Alice de Wolff, Precarious Employment and Occupational Health and Safety in Ontario, in John Peters (ed.), Boom, Bust and Crisis: Labour, Corporate Power and Politics in Canada, Fernwood Publishing, Halifax, 2012, pp. 163-77.

Lewchuk, Wayne, Marlea Clarke & Alice de Wolff, "Precarious Employment and the Internal Responsibility System: Some Canadian Experiences", in *Workplace Health and Safety: International Perspectives on Worker Representation*. David Walters (ed.) Palgrave Macmillan 2009.

Lewchuk, Wayne & **Don Wells** "Workplace Cohesion and the Fragmentation of Society: The Magna Model in Canada," in, *Solidarity First: Canadian Workers and Social Cohesion*, edited by Robert O'Brien. (UBC Press), pp. 63-85, 2008.

Mills, S.E. & McCreary, T. 2012. Social unionism, partnership and conflict: union engagement with Aboriginal peoples in Canada. In: Ross, S. & Savage, L. (eds.) Rethinking the Politics of Labour in Canada. Black Point, Nova Scotia & Winnipeg, Manitoba, Fernwood, pp. 116-131.

Storey, Robert, "Pessimism of the Intellect, Optimism of the Will: Engaging with the "Testimony' of Injured Workers," Stephen High, ed., *Beyond Testimony and Trauma: Oral History in the Aftermath of Mass Violence.* University of British Columbia Press. 2014.

Storey, Robert (2009). "Don't Work Too Hard: Health and Safety and Workers' Compensation in Canada." In Singh Solaria and Harley Dickenson, eds., *Health Illness and Health Care in Canada, 4th Edition,* Nelson, Toronto, 388-
Wells, Donald. "The Worker Rights Consortium" in Darryl Reed, Peter Utting, and Ananya Mukherjee-Reed, eds. Business, Regulation and Non-State Actors London: Routledge, 2012, pp. 239-252.

Wells, Donald. "Local Worker Struggles in the Global South: reconsidering Northern impacts on international labour standards" in Marcus Taylor ed. Renewing International Labour Studies Routledge, 2010 (ISBN 978-0-415-59385-4).

Wells, Donald. "Workplace Cohesion and the Fragmentation of Solidarity" (with Wayne Lewchuk) in Robert O'Brien ed. Solidarity First: Canadian Workers and Social Cohesion Vancouver; UBC Press, 2008, pp. 63-85.

Yates, Charlotte with Amanda Coles, "Unions and the Equity Agenda under Conservative politics" in Larry Savage and Stephanie Ross, eds. The Politics of Labour in Canada (Fernwood Press, 2012).

Yates, Charlotte. "Unionism in Canada: Plus Ca Change, Plus C'est La Meme Chose" in Craig Phelan, ed., Trade Unionism since 1945, Vol2 (Oxford, Bern; Peter Lang Publishers, 2009), pp. 277-309.

Yates, Charlotte with Belinda Leach, "Gendering the Concept of Social Cohesion through an understanding of women and work", in Robert O'Brien, ed., Solidarity First: Canadian Workers and Social Cohesion (UBC Press, 2008), pp.21-37.

Yates, Charlotte. "Hugging the Middle: Labour Politics in Canada" in Miriam Smith (ed) The Politics of Contestation: Organized Interests and Social Movements in Canadian Politics (Toronto: Broadview Press, 2008).

Articles in Peer Reviewed Scholarly Journals
Baines, D., Charlesworth, S., Cunningham, I. (2013) Fragmented Outcomes: International Comparisons of Gender, Managerialism and Union Strategies in the Nonprofit Sector. *Journal of Industrial Relations.* DOI: http://jir.sagepub.com/content/early/2013/08/28/0022185613498664

Baines, D. and Ian Cunningham. (2013). Using Comparative Perspective Rapid Ethnography in International Case Studies: Strengths and Challenges. *Qualitative Social Work.* 13, 1: 73-88.

Baines, D., Charlesworth, S., Cunningham, I. and Dassinger, J. (2012) Self-monitoring, self-blaming, self-sacrificing workers: Gendered managerialism in the non-profit sector. *Women's Studies International Forum.* 35, 5, September–October: 362–371.

Baines, D. and I. Cunningham. (2011). White Knuckle Care Work: Working on the Edge with the Most Excluded. *Work, Employment and Society.* 25(4): 760-776.

Baines, D. and I. Cunningham. (2011). Introduction: Employment Implications of the Outsourcing of Public Services to Voluntary, Not-for-Profit Organisations. *International Journal of Public Sector Management.* 24 (7): 636- 640.
Baines, D. (2011). "It Was Just Too Hard to Come Back": Unintended Policy Impacts on Work-Family Balance in the Australian and Canadian Nonprofit Social Services. *Community, Work and Family.* 14, 2: 233-254.

Baines, D. (2011). Resistance as Emotional Labour: The Australian and Canadian Nonprofit Social Services. *Industrial Relations Journal.* 42(2) March: 139-156.

Baines, D., Cunningham, I., and H. Fraser. (2011). Constrained by Managerialism: Caring as Participation in the Voluntary Social Services. *Economic and Industrial Democracy.* May, 32, 2: 329-352.

Baines, D. (2010) 'If We Don't Get Back to Where We Were Before ': Working in the Restructured NonProfit Social Services. *British Journal of Social Work.* April, 40, 3:928-945.

Baines, D. (2010) Gender Mainstreaming in a Development Project: Intersectionality in a Post-Colonial Un-doing. *Gender, Work and Organization*. 17.2: 119-149. Lead Article. Translated into Vietnamese by the *Journal Donation Project,* The New School for Social Research, New York, New York (June, 2010).

Baines, D. (2010) Neoliberal Restructuring/Activism, Participation and Social Unionism in the Nonprofit Social Services. *Nonprofit and Voluntary Sector Quarterly.* 39,1:10-28. Lead Article. Originally published on-line in December 2008.
Baines, D. (2010) 'In a Different Way': Social Unionism in the Nonprofit Social Services, An Australian-Canadian Comparison. *Journal of Labor Studies.* 35,4: 480-502. Published originally as early access on-line.
Baines, D., McKenzie Davis, J. and M. Saini (2009) "Wages, Working Conditions, and Restructuring in Ontario's Social Work Profession". *Canadian Social Work Review*. 26, 1: 59-72.
Baines, D. (2008) Labour Studies, Social Unionism and Engaged Academics: Strategies and Struggles in Canada. *Labour & Industry.* 19 (1/2) August-December: 107-119.

Baines, D. (2008) Race, Resistance and Restructuring: Emerging Skills in the New Social Services. *Social Work.* 53, 2: 123-132.

Lewchuk, Wayne. Has There Been a She-covery? The Financial Crisis of 2008 and its Impact on the Ontario Labour Market, *Relations Industrielles/Industrial Relations*, 2013, 61:1, pp. 25-45.

Lewchuk, Wayne. The Limits of Voice: Who is afraid of their health and safety rights? *Osgoode Law Journal*, 2013, 50:4, pp. 789-812.

Stephanie Premji & Wayne Lewchuk Racialized and gendered disparities in occupational exposures among Chinese and white workers in Toronto, *Ethnicity and Health*, 2013.

Lewchuk, Wayne, Marlea Clarke & Alice de Wolff, *Work* "Working Without Commitments: Precarious Employment and Health", *Work Employment and Society* 22.3 - September 2008

Mills, S.E. & Sweeney, B. 2013. Employment Relations in the Neo-Staples Resource Economy: IBAs and Aboriginal Governance in Canada's Nickel Mining Industry. Studies in Political Economy, Spring 91: 7-33.

Mills, S.E. & McCreary, 2013. Negotiating neoliberal empowerment: Aboriginal people, educational restructuring, and academic labour in the north of British Columbia, Canada. Antipode. Early view DOI: 10.1111/anti.12008 1-20.

Mills, S.E. 2012. Restructuring in the forest sector and the re-shaping of women's work identities. The Canadian Geographer. 56(1): 39-57.

Mills, S.E. 2011. White and Aboriginal women workers' perceptions of diversity management practices in a multinational forest company. Labour/Le Travail 67: 45-76.
Mills, S.E. 2011. Beyond the blue and green: the need to consider Aboriginal peoples relationships to resource development in labour-environment campaigns. Labour Studies Journal. 36(1): 104-121.

Mills, S.E. & Clarke, L. 2009 "We will go side by side with you." Labour union engagement with Aboriginal peoples in Canada. Geoforum 40(6): 991-1001.

Premji, S. & Smith, P. (2013). Education-to-job mismatch and the risk of work injury. *Injury Prevention.* 19(2):106-111.

Premji, S. Etowa J. 2014. Workforce utilization of visible and linguistic minorities in Canadian nursing. *Journal of Nursing Management.* 22(1): 80-88.

Hanley, J., **Premji, S.,** Messing, K., Lippel, K. (2010). Action research for the health and safety of domestic workers in Montreal: using numbers to tell stories and effect change. *New Solutions.* 20:421-439.

Premji, S. & Krause, N. (2010). Disparities by ethnicity, language and immigrant status in occupational health experiences among Las Vegas hotel room cleaners. *American Journal of Industrial Medicine.* 53:960-975.

Premji, S., Duguay, P., Messing, K. & Lippel, K. (2010). Are immigrants, ethnic and linguistic minorities over-represented in jobs with a high level of compensated risk? Results from a Montréal, Canada study using census and workers' compensation data. *American Journal of Industrial Medicine.* 53:875-885.

Premji, S., Messing, K. & Lippel, K. (2008). Would a "one-handed" scientist lack rigor? How scientists discuss the work-relatedness of musculoskeletal disorders in formal and informal communications. *American Journal of Industrial Medicine.* 51(3):173-185.

Messing, K., **Premji, S**. & Lippel, K. (2008). But "two-handed" scientists are using only one hand now". (Letter) *American Journal of Industrial Medicine.* 51(10):797-798.

Premji, S., Messing, K. & Lippel, K. (2008). Broken English, broken bones? Mechanisms linking language proficiency and occupational health in a Montréal garment factory. *International Journal of Health Services*. 38(1):1-19.

Premji, S., Lippel, K. & Messing, K. (2008). "On travaille à la seconde!" Rémunération à la pièce et santé et sécurité du travail dans une perspective qui tient compte de l'ethnicité et du genre ("We work by the second!" Piecework remuneration and occupational health and safety from an ethnicity- and gender-sensitive perspective). *PISTES*, 10(1) http://www.pistes.uqam.ca/v10n1/articles/v10n1a2en.htm

Storey, Robert (2009). "From Invisibility to Equality? Women Workers' and the Gendering of Workers' Compensation in Ontario, 1900-2005." Labour/Le Travail, 64: 75-106.

Storey, Robert (2009). " 'They have all been faithful workers': Injured Workers, Truth, and the Workers' Compensation System in Ontario, 1970-2008." Journal of Canadian Studies, 43, 1:154-185.

Wells, Donald. "Local Worker Struggles in the Global South: Reconsidering Northern Impacts on International Labour Standards" Third World Quarterly 30:3, (April 2009) 567-579.

Amanda Coles and **Charlotte Yates**, "Party on, or party's over? Organized Labour and Canadian Politics", in M. Smith, ed. The Politics of Contestation: Organized Interests and Social Movements in Canadian Politics (Toronto: Broadview Press, 2nd edition forthcoming 2014).

Yates, Charlotte and Urvashi Soni-Sinha. 2013. 'Dirty Work?' Gender, Race and the Union in Industrial Cleaning", Gender Work and Organization, 20 (November): 737-751.

Yates, Charlotte. 2011. "Organizing Women in the Spaces between Home, Work and Community", Relations Industrielles/Industrial Relations (Laval) Vol. 66 (4):585-603.

Yates, Charlotte. "Understanding Caring, Organizing Women: how framing a problem shapes union strategy", Transfer: European Review of Labour and Research 16 (Aug, 2010): 399-410.

Yates, Charlotte with Christian Dufour, Gregor Murray and David Peetz, "Rethinking Collective Representation: Introduction" Transfer: European Review of Labour and Research 16 (Aug, 2010): 291-97.

Yates, Charlotte. "In Defence of the Right to Strike", UNB Law Journal, Vol. LIX (2009): 128-37.

Contracted government or policy institute reports

Lewchuk, Wayne, et.al. It's More Than Poverty: Employment Precarity and Household Wellbeing, PEPSO report available at www.pepso.ca, 2013.

Lewchuk, Wayne. "It is not your father's (or your mother's) labour market: Evidence Synthesis of the Health Impact of Precarious Employment and Unemployment". (prepared for Public Health Agency of Canada, pp 1-101.) 2010.

Lewchuk, Wayne & Bill Pochiluk. Competing Without a Net: The Future of the Canadian Automobile Industry, report prepared for the Council for Automotive Human Resources, 2008, Toronto: 1-252.

Storey, Robert. "My pension stops on my 65th birthday and my brain injury goes away:" Interim Report from the Reconvened Meredith Sittings. Presented at: Presented at: "No 'Half Measures': Workers' Compensation 100 Years After Sir William Meredith." Osgoode Hall/Ontario Federation of Labour, Toronto, October 31 – November 2, 2013.

Storey, Robert. "Sir William Meredith and Merit/Experience Rating: A Contradiction in Terms? Submitted to Workplace Safety and Insurance Board Funding Review. (Chair, Dr. Harry Arthurs) (April16, 2011, Hamilton, Ontario)

Wells, Donald. Impacts of Canada's Seasonal Agricultural Workers Program on the Family Cohesion of Migrant Workers from Mexico, Submission to Olivier De Schutter, UN Special Rapporteur on the Right to Food Mission to Canada, Toronto ON, 9 May 2012.

Appendix Two: Program Learning Outcomes

Appendix Three: LIBRARY RESOURCES TO SUPPORT THE PROPOSED NEW GRADUATE PROGRAM DOCTOR OF PHILOSOPHY IN LABOUR STUDIES APRIL 2014

The University Library has evaluated our collection to support the current and potential information needs of students and faculty for the proposed Doctor of Philosophy in Labour Studies.

As noted in the School's proposal, this program will be interdisciplinary in nature, with core faculty holding cross-appointments in other Social Science departments and programs at McMaster, and students able to elect courses and research topics that cross departmental lines. The Library provides resources in a variety of formats to support existing doctoral programs in a range of Social Science disciplines that will be relevant to students in the Labour Studies PhD program, including Sociology, Social Work, Political Science, Economics, and Anthropology, masters-level programs in Health and Aging and Gender Studies, as well as both master's and doctoral programs in the DeGroote School of Business. Finally, resources provided by McMaster's separately-administered Health Sciences Library may be relevant to some students, depending upon their research topics. This being the case, we believe that the resources available provide sufficient scholarly support for the initial teaching and research needs of this program. The Library welcomes input from the School regarding needed information resources and priority of acquisition within the established budget for Labour Studies.

If new courses and research areas are identified as additions to the program, they may require resources not currently available in the Library's collections and subscriptions. It will be important for the program to involve the Library early in any discussion of these changes or areas of growth.

LIBRARY RESOURCES

Collection Development
Library materials are obtained in a variety of ways, including firm and standing orders, monograph approval plans (in some areas), print or online subscriptions, consortial e-journal and e-book packages, and user-driven acquisition. Each department nominates a Faculty Library Representative from among their faculty. The function of the Library Representative is to serve as a communications link between the department and the Library, to assist us in making decisions about the value to students and faculty of new or existing electronic resources or serial subscriptions, and to recommend monograph titles for acquisition by the Library. As such, the Library Representative has an important role in shaping the Library's collection development.

Monographs

McMaster University Library's holdings currently total more than two million volumes, with nearly 1.9 million distinct titles. The total annual expenditure on individual monograph acquisitions (i.e., those not purchased in large e-book packages) by the University Library in all formats is approximately $700,000. Print books, print journals, and reference resources for students in the School of Labour Studies' graduate programs are housed primarily in Mills Memorial Library. Additionally, the Library has purchased or subscribed to more than 600,000 e-books and makes additional e-book titles available through a user-driven "on demand" process.

Serials & Electronic Resources
The Library has purchased or maintains subscriptions to a range of electronic resources, including research databases, full text journals, monographs, numeric data and government publications. In addition, the Library identifies and provides access to select freely available material such as open access journals.
McMaster University Library participates in national (i.e., Canadian Research Knowledge Network) and regional (i.e., Ontario Council of University Libraries) consortium licenses for access to full-text electronic resources and whenever possible registers for campus-wide electronic access instead of print subscriptions. All full-text journals are accessible through the library's online catalogue (http://library.mcmaster.ca/catalogue) and through the e-journals portal at http://sfx.scholarsportal.info/mcmaster/a-z. The Library has embedded linking technology (SFX) into research databases, which allows users to link directly from the databases to full-text e-journal subscriptions or to our catalogue.
McMaster University students, faculty and staff may access electronic research databases and full-text electronic books and journals from on-or off-campus via the Library's proxy server.

Currently the McMaster community has access to over 800,000 electronic resources, including approximately 86,000 electronic journals and 678,000 e-books. The major e-book, conference proceeding, standards, and online journal suites which may be helpful to graduate students in the School of Labour Studies are:

• BestCase
• BusinessWorks / LegalWorks (CCH Canadian)
• Canadian Public Policy Collection
• Conference Board of Canada e-Library
• Economist Intelligence Unit
• Factiva
• First Resort (Lancaster House)
• Infomart
• Journals @ Scholars Portal
• JSTOR
• LexisNexis Academic
• OECD iLibrary
• ProQuest Business Collection

• Project Muse
• Negotech
Reference Resources
Selective list of indexes, abstracts, and online reference resources:
*   America, History and Life
*   Canadian Research Index
*   CANSIM
*   CPI.Q -Canadian Periodicals Index
*   EconLit
*   IBSS (International Bibliography of the Social Sciences)
*   PAIS International
*   Social Sciences Abstracts
*   Social Sciences Citation Index
*   Sociological Abstracts
*   Worldwide Political Science Abstracts

Rare and Primary Source Materials

The Library's William Ready Division of Archives and Research Collections (http://library.mcmaster.ca/archives/) is home to more than 100,000 monograph volumes, among them more than 37,000 volumes published before 1800, and to an extensive collection of archives totaling more than 4,000 linear meters.

Archival holdings to be found in the Division include a range of labour-oriented collections. Union records, such as the Service Employees International Union (20 meters), Hamilton chapters of the Canadian Union of Public Employees (30 meters), and a variety of Hamilton locals of specific trade unions provide significant resources for faculty and graduate research. A full list of the Division's holdings of union records is included as Appendix B.

Other archives with connections to labour include the archive of the Hamilton and District Labour Council (22 meters), the Canadian railway labour negotiation collection (76 cm), and the personal archives of both Harry J. Waisglass (4 meters) and Mark Krakowsk (2 meters).

The Division's holdings of union and labour archives have not to date been heavily used by researchers. Good opportunities exist for students in the Labour Studies doctoral program to mine these collections in support of their research programs and to produce new scholarship.

Other collection strengths of the Ready Division include Canadian history and politics; Canadian literature and publishing; Canadian business history and advertising; Peace and War, with a particular emphasis on World War I, the Holocaust and Second World War resistance movements; and British philosopher and peace activist Bertrand Russell.

INFORMATION RESOURCES EXPENDITURES

The Library's total Information Resources budget for fiscal year 2012/13 was $7.5 million. The annual expenditure figures for the acquisition of library materials for the School of Labour Studies over the past five fiscal years are listed in Appendix A. It is important to note that many of our serials subscriptions are now online and are paid from a centralized Library electronic resources budget, which in part accounts for the declining figures in serials expenditures at the department level. In addition to those expenditures specific to the School of Labour Studies, the Library now spends in excess of $4.6 million annually on electronic resources, many of which are multi-disciplinary.

Overall Library acquisitions expenditures have increased somewhat in the past five years. Significant pressure remains on the Library's Information Resources budget, due chiefly to the annual inflation of serials and e-resource subscriptions. Ontario's introduction of the Harmonized Sales Tax beginning in 2010 has also increased our costs. The Library's memberships in national and regional consortia have reduced some costs and enabled access to many more resources than the budget funds would normally permit.

LIBRARY FACILITIES AND SERVICES

The libraries of the University Library system are open approximately 97 hours per week during the term with extended hours during examination periods. The Learning Commons at Mills Library is open until 2:00 AM five days per week (Sunday-Thursday) during the term to provide late-night study space. Both the Mills Learning Commons and the Thode Science and Engineering Library provide later hours on Fridays (until 10:00PM) during the term and are open 24/7 during exam periods. Combined, the library systems offer 3,200 public seats, 23 group study rooms, and 191 public computer stations. The library system includes two instructional spaces: the Wong Electronic Classroom in Mills Library and the ThInK Space in Thode Library, both of which can accommodate groups of up to 43 people. Videoconferencing and presentation facilities are available in the Connection Centre (43 seats), also located in Mills Library. Wireless network service is available throughout the libraries.

In January 2014 the University Library opened a dedicated graduate study room in Mills Library. The Graduate Reading Room is available to any currently registered graduate student or post-doctoral fellow as a space for reading or other quiet work, and is accessible during Mills Library's opening hours. Further information is available at http://library.mcmaster.ca/news/22570.

Library Catalogue

Monographs, journals, and many other Library resources in both print and electronic formats are catalogued. Print resources are generally shelved by call number using the Library of Congress Classification system. The online catalogue (http://library.mcmaster.ca/catalogue) provides access to all collections of the libraries at McMaster [Mills Memorial Library, H.G. Thode Library of Science & Engineering, Innis Library (Business), and the Health Sciences Library]. Most items circulate, with the exception of print journals, some government publications, and special collections and reference materials.

Information about all library materials, hours, services, the online catalogue, and access to electronic products is provided through the Library's website at http://library.mcmaster.ca.

Research/Reference Help

Library staff provide research help (reference assistance) both in person at service desks in each library and remotely by telephone and e-mail. Research help is also available via chat using "Ask a Librarian," a consortial service provided by ten Ontario university libraries, facilitated by the Ontario Council of University Libraries (http://ocul.on.ca/node/2121). A dedicated librarian position, the Research and Advanced Studies Librarian, provides library instruction and more advanced reference consultations for McMaster graduate students, working in collaboration with other librarians and library staff. The library provides access to bibliographic management software (RefWorks) for all faculty, staff, and students.

Interlibrary Loan & Reciprocal Borrowing

For items not available in McMaster's libraries, students can use RACER (http://library.mcmaster.ca/borrow/ill), OCUL's web-based interlibrary loan system, to borrow books, theses, government publications or copies of journal articles from libraries within Canada and elsewhere.

Reciprocal agreements with various library consortia allow McMaster faculty, staff, and students to borrow in person from other university libraries in Canada. McMaster faculty may also obtain borrowing privileges at many major university libraries in the United States (http://www.oclc.org/membership/advisorycommittees/profile8.htm).

Library Outreach

McMaster University students, faculty, and staff are encouraged to keep abreast of new services and developments in the Library by reading our News & Events blog (http://library.mcmaster.ca/news) or by subscribing to one of many library RSS feeds.

Members of the Faculty of Social Sciences also participate in the University Library Advisory Council (http://library.mcmaster.ca/content/university-library-advisory-committee-ulac-0). The Council is an important aspect of both keeping the McMaster community abreast of developments in the Library and of incorporating community input into the Library's planning processes.

Appendix 3-A

SCHOOL OF LABOUR STUDIES					
MONOGRAPH / SERIALS EXPENDITURES					
FY 08/09 - 12/13					
FISCAL YEAR	MONOGRAPH EXPENDITURES	# OF MONOGRAPHS PURCHASED	SERIALS EXPENDITURES	TOTAL	ELECTRONIC RESOURCES (Library Expenditures)
08/09	$5,575	137	$672	$6,247	$4,225,372
09/10	$5,471	97	$256	$5,728	$4,162,408
10/11	n/a	n/a	$652	$1,136	$4,400,473
11/12	$1,025	14	$306	$1,331	$4,644,168
12/13	$3,338	39	$595	$3,933	$5,360,886
Notes:	FY12/13 - Additional one-time purchases of electronic resources increased the Library's expenditures in this area				
	Beginning FY11/12 - # of monograph purchases reflects titles rather than volumes (i.e., a multi-volume work is counted as one title) and does not include microfiche or microfilm				
	FY10/11 - Tested a different budget model that did not provide separate department-level monograph funds				
	Beginning FY10/11 - Short Term Loans are not included in the Monograph Expenditures				
	FY08/09 & 09/10 - Short Term Loans are included in the Monograph expenditures				

Appendix Four

The acquisition of labour union records has been a focal point of the William Ready Division of Archives and Research Collections over a period of some years, such that the Division now holds the archives of 54 different union offices, as listed below. The total volume of these holdings has not been tabulated, but the largest single collection is that of USWA District Office 6, which amounts to 150 metres or nearly 500 boxes.

- Aluminum, Brick and Glassworkers International Union
- Amalgamated Transit Workers. Local 107 (Hamilton, Ont.)
- Bricklayers and Masons Union. Local 1 (Hamilton, Ont.)
- Canadian Union of Public Employees
  - Area Office (Hamilton, Ont.)
  - Local 5 (Hamilton, Ont.)
  - Local 37 (Hamilton, Ont.)
  - Local 167 (Hamilton, Ont.)
  - Local 794 (Hamilton, Ont.)
  - Local 2151 (Hamilton, Ont.)
  - Local 5167 (Hamilton, Ont.)
- Hamilton and District Labour Council
- International Association of Machinists. Local 414. (Hamilton, Ont.)
- International Brotherhood of Electrical Workers. Local 105 (Hamilton, Ont.)
- International Pressman's and Assistants Union. Local 176 (Hamilton, Ont.)
- International Union of Electrical, Radio and Machine Workers. Canadian District.
- International Union of Painters and Allied Trades.
  - Local 205 (Hamilton, Ont.)
  - Local 1795 (Hamilton, Ont.)
  - Local 1824 (Hamilton, Ont.)
- Iron Molders' Union of North America.
  - Local 26 (Hamilton, Ont.)
  - Local 28 (Hamilton, Ont.)
- Millwrights Union. Machine Movers and Erectors. Local 1916. (Hamilton, Ont.)
- National Committee for Independent Canadian Unions
- Retail, Wholesale and Department Store Union. Local 1000 (Toronto, Ont.) & 1002 (Windsor, Ont.)
- Service Employees International Union
- Toronto Typographical Workers Union
- United Electrical Radio and Machine Workers
- United Electrical, Radio and Machine Workers. Local 504/550 (Hamilton, Ont.)
- United Brotherhood of Maintenance of Way Employees and Railway Shop Laborers
- United Glass and Ceramic Workers of North America
- United Mine Workers of America. Local 13083 (Hamilton, Ont.)
- United Packinghouse Workers of America

- United Rubber, Cork, Linoleum and Plastic Workers of America. Local 113 (Hamilton, Ont.)
- United Steelworkers of America.
  - o District 6 (Toronto, Ont.)
  - o Local 1005 (Hamilton, Ont.)
  - o Local 1005 Bill Burniston (Hamilton, Ont.)
  - o Local 1005 Thomas McClure (Hamilton, Ont.)
  - o Local 2537 (Hamilton, Ont.)
  - o Local 2868 (Hamilton, Ont.)
  - o Local 2940 (Hamilton, Ont.)
  - o Local 2950 (Hamilton, Ont.)
  - o Local 3250 (Hamilton, Ont.)
  - o Local 3692 (Hamilton, Ont.)
  - o Local 3696 (Hamilton, Ont.)
  - o Local 4166 (Hamilton, Ont.)
  - o Local 4213 (Hamilton, Ont.)
  - o Local 5328 (Hamilton, Ont.)
  - o Local 5955 (Welland, Ont.)
  - o Local 6203 (Hamilton, Ont.)
  - o Local 6979 (Hamilton, Ont.)
  - o Local 7062 (Hamilton, Ont.)
  - o Local 8095 (Toronto, Ont.)
  - o Local 8179 (Hamilton, Ont.)
  - o Local 8483 (Hamilton, Ont.)
- o Local 8995 (Simcoe, Ont.)

Program Learning Outcomes (PLOs)		Program Requirements	
By the end of the program, students graduating with a Ph.D. will ...	PhD Degree Level Expectations (DLEs)	Teaching Activities & Learning Opportunities	Assessments and Evidence
1. Develop a critical understanding of the issues related to labour studies and the changing nature of work and employment.	1. Depth and breadth of knowledge	1. Exposure to literature from a broad variety of perspective through all aspects of the course requirements (Advanced Labour Studies Theory, Community-Engaged Research and a compulsory non-credit Doctoral Seminar and either an elective outside the school and/or a reading course tailor-made for students' interests) and comprehensives (a comprehensive literature review that incorporates both the major theoretical writings and the substantive research pertinent to their chosen dissertation research) and the research associated with their dissertation. Written and oral feedback will be provided to students at all these steps.	1. Completion of course requirements, comprehensives and a dissertation. Participation in conferences and the life of the university, community and learned societies/conferences. Engagement, at all points in the degree, with interdisciplinary perspectives, intersections and debates.
2. Develop an ability to engage in critical and applied research with the potential to inform and shape policy decisions and innovative practices that will advance social justice.	2. Research and Scholarship	2. Supervision and mentorship will be provided to develop the skills necessary to successfully complete a dissertation. This will be provided through the doctoral seminar (non-credit), the supervisory committee and other formal and informal opportunities to work with faculty on research projects and the life of the school. Students will defend their dissertation proposal and dissertation. Findings and research papers will be presented at conferences and written up for publication.	2. Completion of comprehensives and a dissertation. Knowledge mobilization through appropriate venues and mechanisms such as conferences, peer reviewed articles and community presentations.

3. Develop competence in applying existing knowledge to new questions and problems generated by the transition from the post-war social contract to an economy where the labour market is in transition, where employment relationships are less standardized and where the knowledge sector is increasingly important.	3. Application of Knowledge	3. Course requirements are all at the doctoral level (Advanced Labour Studies Theory, Community-Engaged Research and a compulsory non-credit Doctoral Seminar). The dissertation will meet or exceed university standards, Participation at conferences and academic presentations will provide exposure to peer reviewed content and state-of-the-art scholarship.	3. Completion of course work and dissertation. Knowledge mobilization through appropriate venues and mechanisms such as conferences, peer reviewed articles and community presentations. Engagement with interdisciplinary literature, debates, intersections and emerging trends.
4. Develop skills needed to assume positions of leadership including an ability to think creatively and to apply acquired knowledge to complex problems. An understanding of the ethical implications of research activity and the development of the skills needed to function effectively in a professional environment.	4. Professional capacity/autonomy	4. Supervision and mentorship will be provided throughout the degree, particularly around comprehensives and the dissertation. The non-credit doctoral seminar is aimed at providing students with the skills needed to be a successful academic and/ researcher including writing and administering grants, doing conference presentations, writing up findings, writing for peer reviewed and public audiences, building networks and collegial relationships and developing and sustaining research agendas.	4. Completion of the non-credit doctoral seminar. Participation in the life of the school, conferences, the community and ethical practices. Successful completion of degree requirements.Verbal and written feedback will be provided on all formal course work, the comprehensive, proposals, the dissertation defense, conference papers, journal articles, technical reports, etc. Engagement with interdisciplinary debates, presentation opportunities and conferences.
5. Develop ability to communicate using traditional forms of communication and an understanding of the potential of online and social media as forms of communication.	5. Communication	5. Faculty mentorship and teaching will provide written and verbal feedback on communication skills and afford opportunities for further development of these skills through class presentations, conference presentations, community presentations, the non-credit doctoral seminar, the defense of the dissertation proposal and dissertation.	5. Participation in the life of the school, conferences, the community and ethical practices. Completion of all degree requirements. Asessemtn and feedback will be provided on students' ability to orally communicate their findings/research/projects to both a public audience at community presentations and events, as well as to academic audiences during their courses, comprehensive exams, proposals, defense of their dissertation, and internal and external conference presentations. Written communication skills will be assessed through course papers, assignments, proposals, the comprehensive, the dissertation, technical papers, conference papers and drafts of journal articles.

6. Develop a critical understanding that the work students do fits within existing knowledge (as limited as that may or may not be), extends existing knowledge and requires continued generation of new research questions and projects.	6. Awareness of limits of knowledge	6. Course requirements, the comprehensive and dissertation will continually engage with these dynamics. Opportunities and faculty mentorship around conference and community presentations will provide opportunities to see these tensions in action.	6. Ongoing research questions and projects. Attention in all written and oral work to what we already know and what remains to be explored. Awareness of what interdisciplinarity can contribute to new and existing research questions as well as the limits inherent in even interdisciplinary and multidisciplinary knowledge and the need to keep questioning and researching.

GUIDE FOR THE PREPARATION OF MASTER'S AND DOCTORAL THESES

McMaster University

SCHOOL OF GRADUATE STUDIES HAMILTON, ONTARIO

MAY 2014

TABLE OF CONTENTS

1.0   GENERAL REQUIREMENTS

1.1   Introduction

A Ph.D. student may prepare and defend either a **standard thesis** (see sections 1.2 and 2.0) or a **"sandwich" thesis** (see sections 1.3 and 5.0**)** at oral examination (also known as the 'thesis defense'). Normally, a Master's student may submit only a standard thesis (see sections 2.0 and 5.2). Each department or program offering graduate work is wholly responsible for setting up oral examinations for Master's candidates (see Sections 6.1 and 6.2). The School of Graduate Studies is wholly responsible for arranging all Ph.D. oral examinations (see Sections 6.3, 6.4, and Appendix 1). **If after reading the material in the guide, you have any questions, please do not hesitate to contact the Thesis Coordinator in the School of Graduate Studies at extension 23680, Email:** *gthesis@mcmaster.ca.*

1.2   Criteria for Acceptance of Master's and Standard Ph.D. Theses for Thesis Defense

A thesis is a coherent document that provides a complete and systematic account of the research work accomplished by the writer. The criteria for acceptance are listed in detail later in this guide, but in general, the requirements are summarized as follows:

(a)   Before submitting for defense, the text and accompanying illustrative material or multimedia must be clear and error- free and, where written using Canadian English and grammar; the student is advised to use a spell and/or grammar checker. The text of the Ph.D. thesis must not exceed 300 pages double spaced; normally, a Master's thesis must not exceed 200 pages double spaced, but further information about a Master's thesis will be supplied by the student's department or Graduate Program.

(b)   Normally, only an electronic version of the thesis is acceptable for submission for thesis defense. The word-processing program, format or multimedia used by the student will be one that is mutually agreed between the student and the supervisory committee. The arrangement and numbering of each page must be within the specified margins (see section 2.2). However, it may be necessary to distribute a printed copy of the thesis to accommodate the wishes of an internal or external examiner who prefers to read a hard copy. **Consequently, the student should be prepared to supply a printed copy (or copies) of the thesis to the Thesis Coordinator at the School of Graduate Studies before the defense (see Appendix 1).**

(c)   After a successful defense and after the corrections have been made and approved, the student is responsible for making sure that the final electronic thesis is correctly prepared (i.e. page numbering of the preliminary pages, order of sections, chapters, etc.) before converting the document to a pdf file or approved multimedia format and then uploading the file to 'Digital Commons'.

1.3   Criteria for Acceptance of a Sandwich Ph.D. Thesis (Containing Previously Published/Prepared Material) for Defense

It is increasingly common in many disciplines to present for defense a Ph.D. thesis which consists in part of previously published peer-reviewed scholarly works (or submitted for peer review). If some of the research undertaken expressly for the degree has been previously published or prepared for publication as one or more journal articles, or parts of books, then electronic files of these published, 'in press' or 'submitted for publication' items may be included *verbatim* within the thesis; the thesis is then termed a 'sandwich' thesis. **In addition to the criteria in 1.2, certain important conditions need to be followed when preparing a sandwich Ph.D. thesis:**

(a)   There must be a written introduction preceding the published (or 'in press' or submitted) article or articles which thoroughly sets the context for the entire thesis, and draws out the overall objectives and implications of the work. If the introduction itself includes a co-authored article or chapter, then the independent contributions of the student to that article or chapter must be outlined in the preface of the thesis. It is understood that the introduction is critical to evaluating the student's contribution to the thesis separate from co-authors.

(b)   For all co-authored articles that are part of the body of thesis, the contribution of the student **to each of the** articles must also be outlined in the preface to the thesis. The aim of this procedure is to ensure that only co-authored papers to which the student has made a significant original contribution are included in the thesis. The author of the thesis shall normally be the main contributor to these co-authored articles.

(c)   It is permissible to include electronic articles as they appear in an on-line journal (or by photocopying them for a hardcopy version of the thesis); however, the Associate Vice-President and Dean of Graduate Studies, on a recommendation from the examining committee, may require that the published articles be reproduced as the final word processing file submitted for publication and in a form described in section 2.2. Illegible captions due to small fonts, miniaturized figures or tables, and irregular margins are among the reasons for insisting on incorporating the word processing file rather than reproducing the electronic reprint into the electronic thesis.

(d)   If copies of previously published material are presented in the thesis, the material must indicate the names and order of the co-authors exactly as published. The name of the journal and other publication information (date, volume, pages and so forth) must also be included. All of the required information must be presented at the beginning of the chapter or section of the thesis that reproduces the previously published material. The objective of this requirement and of requirements (b) and (c) is to assure examiners that there has been full disclosure of collaborative activity.

More details of the requirements for writing a sandwich Ph.D. thesis are described in section 5.0.

2.0   PREPARATION OF THE MASTER'S AND STANDARD PH.D. THESIS

2.1   The Electronic Thesis for Oral Defense

The **Master's thesis** which has been prepared for defense will be e-mailed by the student as an electronic file to those members of the supervisory committee who will act as examiners and to the Chair of the defense. The Master's student can obtain information about their thesis defense (i.e. the date, time, and venue; the names of the examiners) from the Graduate Coordinator or Graduate Administrator in the department or Graduate Program in which they are registered.

The **Ph.D. thesis** for defense will be e-mailed by the student to **all** supervisory committee members prior to initiating the thesis defense system (see Appendix 1). In addition, the Ph.D. student should be prepared to deliver a **print copy** (or copies) of the thesis to the Thesis Coordinator who will be responsible for distributing it to an internal or an external examiner if they require a hard copy. **The text of the hardcopy version must be the same as that of the electronic thesis**, and must be printed on regular quality 8½" x 11" printer paper and back-printed to save paper.

When the thesis has been successfully defended and required changes have been made to the text, the student may wish to print one or more copies of the final version for binding at their own expense. Alternatively, the student may be able to e-mail their final thesis to the binding company. Up-to-date Information about thesis binding is available either from the Thesis Coordinator (gthesis@mcmaster.ca) or from the SGS website (www.mcmaster.ca/graduate)

2.2   The Text of the Thesis

2.2.1   General

The thesis must be typed in either 10 or 12 point font. There are two types of fonts: proportional and fixed (typewriter style) and different space values for each character in a proportional font. Arial and Times New Roman are examples of proportional fonts. If you are using a proportional font for your thesis you must use a 12-point font. A fixed font has the same value for each character, and an example of this is Courier. If a fixed font is used, the smallest you can use is 10 point (10 characters per inch). **The student is encouraged to select a font that is easy for the examiner to read.**

The text may be single or double spaced; footnotes and long quotations should be single spaced. Word processors such as WordPerfect, LaTeX and MSWORD are automatically set to create footnotes in the correct format. The entire thesis must be in the same typeface and font, and, for hardcopies, care should be taken to ensure an even black copy is produced.

It is recommended that a laser printer be used for hardcopies. If an ink-jet printer is used, be sure to use paper that is specifically designed for this kind of printer, to avoid smudging and to achieve good print quality.

The student is urged to find a text processing program which includes unusual symbols or characters should they be necessary. Characters that are not readily available (e.g. unique symbols) may need to be created in an electronic format which can be readily downloadable from a pdf file by future readers.

2.2.2 Margins and Indentations

For students who wish to send a copy (or copies) of their finally-approved thesis for binding, the following should be noted. To ensure sufficient space on the page for binding, the TOP and LEFT margins should be 3.8 cm, and the RIGHT and BOTTOM margins should be 2.5 cm. If the thesis is to be back printed, both LEFT and RIGHT margins should be 3.8 cm. These margins also apply to all illustrative material, including diagrams, maps, photographs, charts, tables, and computer printouts.

2.2.3 Header

All pages of the thesis, beginning with the Introductory chapter (or Chapter 1), must have header information containing the degree program, the author's name, McMaster University and the department, e.g.

Ph.D. Thesis - J. Smith; McMaster University - Mechanical Engineering.

The word processing program should automatically insert headers at the top of each page. The purpose of the header information is to provide identification if people subsequently print or photocopy sections of the thesis.

2.2.4 Pagination

All pages are to be numbered EXCEPT the half title page, which is disregarded in the pagination, and the title page, on which the number (i) is implied but not written. The remaining pages of the preliminaries should be numbered with lower-case Roman numerals (ii, iii, iv, etc.) placed in the centre at the bottom of the page, approximately 2 cm from the bottom edge of the paper. Page numbers should be in a consistent location on each page.

All pages of the thesis, beginning with the Introduction or Chapter 1, must be numbered with Arabic numerals (1, 2, 3 and so on). This includes pages with tables, illustrations, diagrams, bibliographies and appendices.

2.2.5 Preparing and Sending the Electronic Thesis for Binding

After a successful defense and required changes have been made and approved by the supervisor, the student will upload a pdf version of the final thesis to MacSphere. Inevitably, the student will also want some copies of the final thesis printed and bound. To this end, students are encouraged to e-mail the same pdf file to the binding company to ensure that electronic and printed versions are the same. Details of selected companies who are organized to print and bind the thesis are listed on the School of Graduate Studies website (www.mcmaster.ca/graduate) or advice may be provided by the Thesis Coordinator. The student when ordering copies of the bound thesis will be expected to pay all costs for binding and delivery. Delivery of copies of the bound thesis will be arranged by the student; **the bound thesis must not be delivered to the School of Graduate Studies**.

2.2.6 Non Text Format and Multimedia

Maps, diagrams, figures and tables may be drawn or prepared using a black font colour. The finished drawing should be scanned into an electronic format which can be incorporated into the text of the thesis using the word-processing program. Similarly, photographs should be scanned or converted into an electronic format which is suitable for including in the word-processing program.

For examiners who prefer to read the thesis as a hard copy, illustrations must be dark enough to reproduce well, and have standard margins on all sides. Pages wider than 8.5" x 11" should be photo-reduced provided the material is still readable. Drawings for a hardcopy of the thesis may be photocopies of high quality. Photographs should be originals, not photocopies. Students should consult McMaster Printing Services for page-reduction advice. *Oversized pages* (charts, graphs, maps, tables, etc.) should be carefully folded into the hardcopy thesis and should not extend the full width of the standard page.

Abbreviations and symbols must be those that are generally accepted in the field of study, must be defined in a list of Abbreviations and Symbols at the start of the thesis (see section 3.1.h below), and must be used consistently throughout the thesis.

3.0   SEQUENCE OF PARTS OF THE THESIS

A standard graduate thesis consists of the following parts, and is arranged in this order:

3.1   The Preliminary Pages

The following preliminary pages will precede the main text: The Half Title Page; Title Page; Descriptive Note (page ii); Abstract; Acknowledgements; Table of Contents; List of Illustrations, Charts, Diagrams; List of Tables; List of Abbreviations and Symbols, Declaration of Academic Achievement. Preliminary pages from (c) onwards will be numbered using Roman numerals.

(a) *Half Title Page:* The purpose of the half title page is to indicate to the binder what words should be put on the spine of the bound volume to serve as a significant label. The length should not exceed sixty (60) characters (including Spaces). This page must **not** be numbered. **See Example 1 on p. 10 for the required format.**

(b) *Title Page:* All text on the title page must be centred between the margins. The top and left margins should be 3.8 cm (1.5 inches) and the right and bottom margins should be 2.5 cm (1.0 inch). The copyright line should be placed as the last line of the page. This page must not be numbered. **See Example 2 on p. 11 for the required format.**

(c) *Descriptive Note:* This page simply lists degree and year; department; university name and location; full title in lower case; full name of author followed by degrees previously conferred; supervisor; and number of pages, counted separately for the preliminary pages and the text. This page must be numbered 'ii'. **See Example 3 on page 12 for the required format.**

(d) *Lay Abstract:* A lay abstract of not more 150 words must be included explaining the key goals and contributions of the thesis in lay terms that is accessible to the general public.

(e) *Abstract:*   An abstract of not more than 300 words must be included and will indicate the major emphasis of the thesis, new discoveries, and its contribution to knowledge. The style of abstract varies somewhat from discipline to discipline; the student should follow an appropriate style. This page must be numbered 'iii'.

(f) *Multimedia Abstract:* (Audio, video, animation) Students may include a 3 minute audio or video clip describing their thesis, which will be linked to their thesis on MacSphere. Such multimedia abstracts must be approved by the supervisory committee.
This is not a requirement and is at the discretion of the student.

(g) *Acknowledgements:* An expression of thanks for assistance given by the supervisor of research and by others should be either set forth on a separate page or incorporated into the Preface (if there is one). These and all subsequent preliminary pages listed under (f), (g) and (h) must be numbered in lower case Roman numerals, i.e. 'iv', 'v', 'vi' etc.

(h) *Table of Contents:* Must include the titles of all section or chapter headings and subheadings with their respective page numbers and must be numbered in lower case Roman numerals continuous after (e).

(i) *Lists of Figures and Tables* with their respective titles and page numbers; must be numbered in lower case Roman numerals continuous after (f).

(j) *List of all Abbreviations and Symbols* with their appropriate definitions; must be numbered in lower case Roman numerals continuous after (g).

(k) *Declaration of Academic Achievement:* The student will declare his/her research contribution and, as appropriate, those of colleagues or other contributors to the contents of the thesis.

NOTE: The Preliminary pages described above will also precede the main text of a 'sandwich' thesis

3.2   Text, References and Footnotes

The text of the standard graduate thesis consists of the 'Introduction' section or chapter, followed by several well-defined sections or chapters which contain the research results, finishing with a Conclusion and

Discussion section or chapter, or a summary statement of the results of the investigation.

The List of References section (or bibliography) follows the text, and this section is followed by any appendices. **See Example 4 on p. 13 for the recommended format of the bibliography for different disciplines.**

Regarding the style of writing, it is common practice to adopt the style (e.g. phraseology, nomenclature, abbreviations) practiced within the field of study. For more advice, the student may wish to be advised by the guidelines presented in <u>A Manual for Writers of Term Papers, Theses and Dissertations</u> (Kate L. Turabian, 8th edition, published 2013). These guidelines provide alternative formats to accommodate the practice in different disciplines but, once chosen, the format must be adhered to consistently.

Footnotes should be numbered (as necessary) and placed at the foot of the page or, with less convenience to the reader, at the end of the chapter or section, or at the end of the thesis. If footnotes are collected in one place, their location must be shown in the table of contents by title and page. Most word processors, by default, place footnotes at the end of each page and assign them consecutive numbers (see Turabian, Ch. 13, Section 13.17).

Students should contact their department to ascertain any departmental specifications for the preparation of a master's thesis.

4.0   CITATIONS AND REFERENCES

4.1   Citing Published Articles within the Text

In the basic and applied sciences, referencing within the text must follow a **consistent system** which **normally** gives the surname of the author(s) followed by the year of publication (see Turabian, Chapter 10). The <u>Thesis Writer's Handbook</u> by Miller & Taylor (1987) may also be consulted for instructions and examples of MLA and APA document styles (also see the section on Electronic References below).

Note: Citing Master's and PhD theses written by others fall into this category. Theses are publications that are available (either via the internet or through interlibrary loans, or through Library and Archives Canada) and should be cited as publications.

4.2   Citing Unpublished Articles by the Student within the Text

In respect of articles not yet published in the literature, the term *"to be published"* is <u>not</u> to be used, since a more precise term is desirable both for bibliographic accuracy and for information as to the status of the material. Either of the following wordings must be used, as appropriate:

   (a) *Accepted for publication in the [Name of Journal].* (If the issue in which the article will appear is known, it should be cited.) If the issue is not known, the date of acceptance should be stated immediately after the word accepted.

   (b) *Submitted [Date] to [Name of Journal].*

<u>Note</u>: The author of a thesis could alternatively treat an item in section 4.2 (b) as a 'private communication' (see section 4.3), but if there seems good cause to suppose the submitted article will be accepted, it may be of more value to mention the likely journal of publication.

4.3   Citing Other Unpublished Information or Articles within the Text

This category includes anything other than published accepted or submitted items. It could include material that is in draft prior to submission, internal reports that are not available through the internet or in standard reference library lists, and personal letters and oral communications. In the case of a letter or a report, a reference could read e.g.:

   Private Communication from Dr. John Doe: Dept. of Gastronomy, McMaster University, Report No. 10/70.

the pagination of the thesis; see item 5.10 below), or **an electronic version of the published work** (e.g. the MSWORD document) that complements the first (Introductory) and last (Discussion and Summary) chapters of the sandwich thesis in respect of font type and size, margins, and overall style.

5.6   In addition to the written text, which may include diagrams, figures and tables, the student may also include film or sound files with the electronic thesis. It will be the student's responsibility to ensure that all electronic files supplied to an external examiner are in formats that the examiner may access easily. In the event an internal or an external examiner prefers to assess a hard-copy of the thesis, the student will provide **a print copy (or copies) of the sandwich thesis (including a CD, DVD, or USB Key as appropriate)** to the Thesis Coordinator prior to the thesis defense. The text of the printed version of the thesis must be the same as that of the submitted electronic copy.

5.7   Written permission to include copyright material in a Ph.D. thesis must be obtained by the student from the copyright holder. **This permission must also include a grant of an irrevocable, non-exclusive license to McMaster University and to Library and Archives Canada to reproduce the material as part of the thesis.** While these licenses should normally be obtained at no cost, any payment which might be required by the rights holder is the exclusive responsibility of the student. If the scholarly work has been published in an academic journal, copyright will normally have been assigned to the publisher of the journal. If the material has been published in another format (e.g. as part of a book, or as a technical report, etc.) the copyright may not have been assigned to the publisher, but rather licensed by the author(s) for a specific purpose. The exact status of the rights attaching to the material must be determined. If the material has been co-authored, the status of the rights of each co-author in the work must be determined. The candidate must secure from any co-author of a published work a written waiver of all rights in favour of McMaster University and Library and Archives Canada so as to permit publication of the thesis. In addition, written permission must be obtained from any co-author who retains copyright or the person to whom the co-author has assigned copyright, by way of a grant of an irrevocable non-exclusive license to McMaster University and to Library and Archives Canada, to reproduce material generated by the co-author as part of the thesis. The thesis should indicate that scholarly works have been printed either "with permission" or "under license" (either by a statement in the preface or on the first page of each article). **Electronic copies of the letters of permission or licenses should be submitted to the School of Graduate Studies prior to the defense. <u>See Appendix 3 for an example of a Letter of Permission.</u>**

5.8   For unpublished work (e.g., a paper that has been submitted for publication in a peer-reviewed journal but not yet published), a statement concerning the status of any dealing or contemplated dealing with the copyright or the auspices under which the work was prepared must be on the first page of the separately prepared, unpublished work. If copyright has already been legally assigned, written permission, as described in item 5.7 above, must be obtained.

5.9   For each published scholarly work, a complete citation, including first and last page number in the journal publication (or the Digital Object Identifier (doi) number) and recognition of the copyright holder must be written on the first page of the chapter.

5.10   The previously published or prepared scholarly works must be assigned page numbers that are sequential within the thesis. To avoid confusion, it is essential to remove the original journal page numbers; this information will be included in the citation given on the first page of the chapter.

5.11   Journal articles typically contain many more words per page than a page of a thesis. Such articles must be prorated to assess their acceptability within the maximum-allowed 300-page length of the thesis.

5.12   A list of references is included in most journal articles or manuscripts that are included in a sandwich thesis. References should remain self-contained within each article, as they appear in the original published document. Frequently, this may appear as a serial number, often a superscript incorporated appropriately within the text, which relates to a non-alphabetic bibliography at the end of the article (or chapter; see for example Turabian 10.33). It is acceptable that, because journal articles from more than one journal may be included, more the one referencing styles will also be included within the sandwich thesis. References for the new material in the thesis, e.g. the first and last chapters, should be listed in the main reference list at the end of the thesis as in the standard thesis (see section 3.2). A reference in one or more of the reproduced articles or manuscripts should only be included in the main reference list if it is also cited in the new material.

Finally, after a successful defense and all changes and corrections have been completed to the satisfaction of the supervisor (or examination committee as necessary), the student will upload the sandwich Ph.D. thesis

(including all associated approved files) as a pdf file to 'MacSphere' as described for the standard thesis (see section 6.4).

6.0   SUBMISSION OF THE THESIS: BEFORE AND AFTER THE DEFENSE

6.1   Submission of a **Master's** Thesis **prior to** Defense

To meet the requirements for a Master's degree, the thesis must be submitted by the student to the graduate administrator of the department (or Graduate Program) prior to the defense, either in an electronic form (e.g. by e-mail or a memory stick) which is preferred by the examiners or, if preferred, as a hardcopy no later than the date specified in the 'Sessional Dates' section of the School of Graduate Studies Calendar for the degree to be recognized at the appropriate convocation.

6.2   Submission of a Completed **Master's** Thesis a**fter** a Successful Defense

After a successful defense, the Chair of the examination committee will inform the student in general terms of the changes to the thesis which are required by the examiners. Usually, the supervisor will be asked by the Chair of the examination committee to supervise these changes. In addition, the Chair of the examination committee will give to the student a form [entitled: 'Final Thesis Submission Sheet'] which will be initialed by the Chair to indicate whether the examination committee have decided that minor or major changes are required to the thesis. This form will be given to the student to hand to the supervisor when all changes have been made. The form must be signed by the supervisor if the changes are minor (or by all of the examiners if major changes are required) when all changes have been approved. When the supervisor has signed the form, the student will prepare a pdf version and upload the final thesis to 'MacSphere', **and either send (by internal mail) or take the signed form to the Thesis Coordinator. It is the student's responsibility to ensure that all pages of the final thesis are complete and placed correctly before uploading to MacSphere.**

The student is advised to submit their final thesis after defense no later than the date specified in the 'Sessional Dates' given in the School of Graduate Studies Calendar for the appropriate convocation.

6.3   Submission of a **Ph.D.** Thesis **prior to** Defense

Having e-mailed a copy of the thesis to each member of the supervisory committee, the student will access the 'Thesis Support' portal in the School of Graduate Studies website and follow the instructions provided (see APPENDIX 1 for details, and follow steps 1-4). The student, in consultation with the supervisor and supervisory committee members, will also provide the Thesis Coordinator with a preferred date(s) for the defense. The Thesis Coordinator will then e-mail the supervisor and all supervisory committee members to ask them to (i) approve the date for defense and (ii) approve the written thesis as defensible; the supervisor and all supervisory committee members will reply appropriately to the Thesis Coordinator. When the thesis has been approved by the supervisory committee as worthy of defense, the Thesis Coordinator will arrange the selection of an external examiner (from a list of prospective examiners supplied by the student's supervisor), and the date and time of the Oral Defense. If the external examiner is able to evaluate the written thesis but is unable to attend the thesis defense, the Thesis Coordinator will seek to find (through an e-mail list to all faculty members) an internal examiner from the university community.

When all of the examiners have been determined by the Thesis Coordinator, they will be notified of the date, time and place of the thesis defense. Furthermore, the external examiner and internal examiner (as necessary) will be sent an electronic copy of the thesis. If an internal or external examiner prefers to evaluate a hard copy of the thesis, **the student must be prepared to provide the Thesis Coordinator with a printed copy (or copies) of the thesis**. The text of the printed version of the thesis must be the same as that of the submitted electronic copy. If an external examiner requests a printed copy of the thesis, the Thesis Coordinator will supply it to the examiner.

6.4   Submission of a Completed Ph.D. Thesis **after** a Successful Defense

After a successful Oral Defense, the examination committee may ask for changes to the written thesis. The Chair of the examination committee will give to the student a form [entitled: 'Final Thesis Submission Sheet'] which will be initialed by the Chair to indicate whether the examination committee have decided that the changes, collectively, are of a <u>major</u> or a <u>minor</u> nature (a decision which is made by the examination committee).

If the changes are deemed to be <u>minor,</u> then the Chair will ask only the supervisor to oversee the changes by the student. There will be no requirement for the revised thesis to be sent to all supervisory committee members for further comment.

If the changes are deemed to be <u>major</u>, the Chair will ask the supervisor and appropriate members of the supervisory committee to supervise the student in making these changes; when suitable changes have been made, the revised thesis will be sent (in electronic format) to all examiners for further appraisal. The members of the examination committee, in consultation with the examination Chair, will then decide whether the revised thesis is 'approved' or if it requires further alteration and scrutiny. It is conceivable that the student may be called by the examination committee for a formal re-examination and re-defense of the written thesis.

When the student's supervisor (or the examination committee) is satisfied that all changes have been made correctly, the supervisor will complete and sign the "Final Thesis Submission Form". The student will then send the signed form by internal mail (or deliver personally) to the Thesis Coordinator. Finally, the student will convert the final thesis to a pdf file; **it is the student's responsibility to ensure that all pages are complete and correctly numbered AFTER converting the final thesis to a pdf file and before uploading to MacSphere.** The student must also ensure that all components that are included in the thesis, e.g. sound or video files, are readily accessible to future readers after uploading to MacSphere. Having registered with Digital Commons and after the thesis has been uploaded, the student will automatically receive an e-mail invitation from the Associate Vice-President and Dean of Graduate Studies to complete the on-line 'Ph.D. Student's Exit Survey'.

After the final thesis has been uploaded to MacSphere but **before** its official publication, the Thesis Coordinator will access the thesis over the next 5 - 7 days to check the information given by the student to MacSphere, and check the essential details on the Preliminary pages of the thesis. If the Thesis Coordinator is satisfied that the essential information is correct, only then will the thesis be officially published. An e-mail giving the official date of publication of the thesis will automatically be sent to the student.

The student is encouraged to upload the final thesis after defense no later than the date specified in the Sessional Dates contained in the School of Graduate Studies Calendar for the appropriate convocation.

6.5   <u>Binding Copies of the Final Master's or Ph.D. Thesis</u>

As of May 1, 2011, McMaster University no longer requires that a graduate student provide the university library or the student's department, school, or graduate program with suitably bound copies of their printed thesis. Furthermore, Library and Archives Canada will no longer require an unbound copy but will access the student's thesis directly via MacSphere. Nevertheless, after a successful defense and after all the corrections and changes have been approved by the supervisor, the student will probably want to have copies of their Master's or Ph.D. thesis bound for personal reasons or for presentation, for example, to their supervisor or even to the department. Either the Thesis Coordinator or the School of Graduate Studies website will give advice on reputable companies and their costs for thesis binding. It is the student's responsibility to ensure that the electronic thesis sent to the bindery (or print copies sent for binding) is **the same version** as that uploaded to MacSphere. The student will be expected to pay for all copying and binding costs including any charges for delivering copies of the bound thesis to the student's address. The student should **not** instruct the bindery to deliver copies of the bound copies of the thesis to the School of Graduate Studies at McMaster University.

<u>**Example 1: Half-Title Page**</u>

GOVERNOR JOHN WENTWORTH

(Note: All Capital Letters)

The length should not exceed 60 character spaces, including spaces between words.

THE CHARACTER AND ADMINISTRATION OF GOVERNOR JOHN WENTWORTH

(Note: All Capital Letters)

By KATHLEEN STOKES, B.A.

(Note: All Capital Letters) (All previous degrees should be listed)

A Thesis Submitted to the School of Graduate Studies in Partial Fulfilment of the Requirements for

the Degree Master of Arts

McMaster University © Copyright by Kathleen Stokes, June 1992

Example 3: Descriptive Note

McMaster University MASTER OF ARTS (1992) Hamilton, Ontario(History)

TITLE: The Character and Administration of Governor John Wentworth AUTHOR: Kathleen Stokes, B.A. (McMaster University) SUPERVISOR: Professor H.E. Duckworth NUMBER OF PAGES: vii, 212

(To follow the title page and to be numbered ii)

Example 4

BIBLIOGRAPHY

Achtert, Walter S., and Joseph Gibaldi. *The MLA Style Manual.* New York: Modern Language Association of America, 1985.

American Mathematical Society. *A Manual for Authors of Mathematical Papers.* 8th ed. Providence, R.I.: American Mathematical Society, 1990.

American Psychological Association. *Publication Manual of the American Psychological Association.* 6th ed. Washington, D.C.: American Psychological Association, 2009.

Becker, Howard S. *Writing for Social Scientists: How to Start and Finish Your Thesis, Book, or Article.* Chicago: University of Chicago Press, 2nd Edition, 2007.

Council of Biology Editors Style Manual Committee. *Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers.* 6th ed. New York: Cambridge University Press, 1994.

Day, Robert A. *How to Write and Publish a Scientific Paper.* 5th ed. Phoenix, Arizona: Oryx Press, 1998.

Dodd, Janet S., ed. *The ACS Style Guide: A Manual for Authors and Editors.* Washington, D.C.: American Chemical Society, 2nd Edition, 1997

Gibaldi, Joseph. *MLA Handbook for Writers of Research Papers.* 7th ed. New York: Modern Language Association of America, 2009.

Kirkman, John. *Good Style: Writing for Science and Technology.* New York: Chapman and Hall, 2nd Edition, 2006.

APPENDIX 1

STEPS FOR THE SUBMISSION, EXTERNAL EXAMINATION, AND DEFENSE OF A Ph.D. THESIS

STEP 1: Student Initiates the Ph.D. Thesis Defense Process Online

The link to initiate a thesis defense through the **Thesis Defense System** is available on the School of Graduate Studies website (*graduate.mcmaster.com).* Once the defense is initiated, the supervisor will be contacted by e-mail through the Thesis Defense System to submit nominations for an external examiner. The names of the potential examiners nominated by the supervisor must **not** be revealed to the student. **The selection of an external examiner is the responsibility of the Associate Vice-President and Dean of Graduate Studies.** All nominees must be at 'arm's length' from all members of the supervisory committee and the student. To maintain this distance, all communication with the external examiner must originate only from the School of Graduate Studies, and **not** from the supervisor or members of the supervisory committee.

As it takes time to contact a proposed External Examiner and to receive word of his or her acceptance, this completed electronic form must be submitted by the supervisor **at least 4-6 weeks** before the student moves to Step 2.

STEP 2: Propose a Date and Time for Ph.D. Thesis Defense

The student will be prompted via email to submit a date and time for their thesis defense. The student is expected to have conferred with the supervisory committee members regarding suitable dates before submitting the thesis online via the **Thesis Defense System**. Once the student has submitted the thesis, the members of the supervisory committee will be prompted via email to (a) agree on the time and date for defense, and (b) agree that the thesis is ready for defense. **ONE hard copy of the thesis should be submitted by the student to the Thesis Coordinator at the School of Graduate Studies <u>six to eight weeks in advance</u> of the expected date for oral defense.** A majority of the Supervisory Committee must approve the thesis before it can be sent out for external examination. This means that if two out of the three members approve the thesis and the 3rd member does not approve, the thesis can still be sent to the external examiner for review. However, if the student has a four-member supervisory committee and only two members approve, the thesis cannot be sent for external examination.

A **300-page limit** on the **text** is imposed on all Ph.D. theses [i.e. <u>excluding</u> the Preliminary pages (see Section 3.1), bibliography and any appendices]. In cases where students and their supervisors believe that the thesis topic requires substantially greater length than 300 pages, written approval from the appropriate Associate Dean of Graduate Studies must be obtained before the external examiner is contacted. Potential external examiners must be informed of the exceptional length of a thesis in advance.

The thesis (whether an electronic or hardcopy version) will not be sent to the External Examiner until it has been approved for submission and defense by the Supervisory Committee.

STEP 3: The Defense

In addition to three members of the supervisory committee (one of which will be the supervisor) who will act as examiners and assuming that the external examiner is unable to attend the thesis defense, the Thesis Coordinator in the School of Graduate Studies will search for and recruit one internal external examiner from the faculty within McMaster University who is available to attend the defense. In addition, a Chair of the examination committee will be selected by the Thesis Coordinator; the Chair is not expected to be an expert in the topic of the defense, but is expected to facilitate a fair and orderly examination process.

If the external examiner's report on the thesis is favourable and they give their approval that the defense should proceed, the date and time of the thesis defense is then confirmed by the Thesis Coordinator who will send out a notice of the examination to the examination committee, the student and the relevant department or program. The Thesis Coordinator will then select a Chair. If the external examiner wishes to attend the thesis defense, there will be no search for an internal external examiner. If the external examiner's report is negative, the examination will be postponed until the external examiner's concerns have been addressed (or alternative

arrangements have been agreed) by the supervisory committee and the student in consultation with the Associate Vice-President and Dean of Graduate Studies.

<u>STEP 4: After the Defense</u>

The Chair of the examination committee will discuss in general terms with the student the examiners' conclusions and desired changes to the thesis (i.e. whether 'minor' or 'major' in nature), and give the student a form, 'Final Thesis Submission Sheet'; this form will be initialed appropriately by the Chair. When the student has completed the changes and corrections indicated by the examination committee and the supervisor (or supervisory committee) has approved these changes, the supervisor (or supervisory committee) will sign the form to indicate completion. The student will either bring or send (by internal mail) the signed form to the Thesis Coordinator, and submit an electronic file (as a pdf) of the finally approved thesis to MacSphere (see Section 6.4).

APPENDIX 2

PROCEDURES AND INSTRUCTIONS FOR THE EXAMINATION OF Ph.D. THESES

1.   Purpose of the Examination (or Thesis Defense)

The examination will be chaired by a senior professor or professor emeritus of the University who will be recruited by the Thesis Coordinator; the Chair's role is to ensure that the examination proceeds in a fair and orderly manner and is completed within a reasonable time (three hours maximum). The Chair will not question the candidate, will make no judgment on the candidate's performance and will have no vote.

It is the examiners' task to determine whether the student has met the University's thesis requirement, that each doctoral candidate present and successfully defend a thesis that embodies the results of original research and mature scholarship. The examiners represent Graduate Council and through it the Senate of the University, and are therefore responsible for the standard of the Ph.D. degree in this University.

The oral thesis defense at McMaster University is an examination of a Ph.D. candidate's ability to defend publicly their written work. Therefore, questions having to do with the detailed content or the general argument of the thesis are relevant, as are questions regarding the relationship between the content of the thesis and the body of knowledge to which it contributes. (The more general judgment of the candidate's proficiency in their discipline and particular area of specialization are presumed to have been made at the time of the comprehensive examination.)

The committee of examiners, both of the written thesis and of the oral defense, will not likely all be expert in the candidate's specialty, or even in his or her discipline. It is the particular responsibility of the external examiner(s) and the supervisory committee to ensure that the thesis does indeed present an original and significant contribution to knowledge. The examiners may reasonably be expected to exercise their judgment of the written thesis and the oral defense as members of the University faculty, keeping in mind the standards of excellence expected by the University of its Ph.D. graduates.

The examiners are expected to judge whether the student's thesis and defense are satisfactory or unsatisfactory. The examiners have previously read and reported on the written thesis and they must now give their final judgments on the oral defense of it and on the written thesis in light of the defense. Examiners are expected to exercise their judgments on both of these matters. Only in exceptional circumstances may they abstain.

2.   Ph.D. Oral Examination Procedure

(a) When the candidate arrives, the Chair will introduce those committee members not known by the candidate.

(b) The Chair should explain to those present the composition of the examining committee.

(c) The Chair will confer with the examination committee **in the absence of the student and audience members** to determine if anyone has misgivings or any doubt about the worth of the thesis, and to determine the order of questioning.

(d) When the Chair invites the candidate and audience members to return to the examination room, the Chair will ask the student to present an oral statement about his/her thesis of approximately 15 minutes duration (in no case more than 20 minutes). **The student should stress the main points of the contribution to knowledge and the principal technical difficulties either of an experimental or theoretical nature which he or she has overcome. A summary of the thesis is neither necessary nor desirable.** The Chair should remind the candidate that notes or other aids may be used **but the statement may not be read from a prepared script.**

(e) **Individual examiners will question the candidate according to the order established by the Chair. <u>All members of the examining committee are expected to put questions to the candidate</u>. Issues that have been raised by members of the supervisory committee in the course of composition of the thesis may nevertheless be profitably brought up now, when the candidate will have to respond in the presence of others.**

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(f) If present, the external examiner should be given full opportunity to question the candidate. If the external examiner is not present, it is the Chair's responsibility to see that questions raised in the external examiner's report are put to the candidate by some member of the examining committee, preferably the supervisor.

(g) **Candidates who are unwilling or unable to respond to questions should be cautioned by the Chair that such an action may cause the examination to be adjourned, or in extreme cases, could lead to failure when the examination committee are asked to judge on the success or failure of the defense (see item (k) below).**

(h) When the examiners have completed their questions, the Chair will invite members of the audience to ask questions or make comments.

(i) When there are no further questions, the Chair should ask the candidate and audience members to withdraw from the room.

(j) In the event that the external examiner is not present, the Chair and committee will decide whether the examiner's report is to be read or summarized before the vote is taken.

(k) After a discussion of the examination, the Chair will ask for a judgment on each of the two questions, the acceptance or rejection of the written document and the success or failure of the defense. If there are two or more negative or abstaining votes on either question, with at least one of these votes being from a member of the supervisory committee, adjournment is mandatory and a reconvened oral defense must be held at a later date. The candidate should be told as clearly as possible what they must do to improve either or both the written thesis and their defense of it.

If the oral defense is reconvened, no new examining committee members will be added, except for necessary replacements, to expedite the timing of the reconvened examination. It is the duty of the examiners to attend the reconvened examination. The reconvened examination is the candidate's final opportunity to defend the thesis satisfactorily. No subsequent defense may be held, and there is no appeal of the final decision.

(l) In the event that the written thesis is approved conditionally, the Chair is responsible for ensuring that (1) the candidate is advised of the conditions in writing, (2) the candidate receives and understands the form, 'Final Thesis Submission Sheet', which will be used to confirm that the conditions have been met, and (3) the supervisor is also aware of this form.

(m) Following the committee's decision, the Chair will secure the initialed votes of each examiner and then will complete and sign the 'Examination Committee Report'.

(n) The Chair will then go to the candidate, inform them of the committee's decision(s), and bring them into the examination room for any congratulations or discussion appropriate to the examiner's decision. An unattributed copy of the external examiner's report will be given to the candidate. In cases where the external examiner is not present, a successful candidate may be informed of the identity of the external examiner, providing that the external examiner has permitted this identification to be made.

(o) It is the responsibility of the Chair to inform the candidate that the corrected electronic thesis (when finally approved by the supervisor) must be uploaded by the candidate as a pdf file to MacSphere, and to invite the candidate to sign the necessary forms to give the University permission to publish the thesis electronically (or to temporarily withhold as the case may be), and Library and Archives Canada permission to access the thesis for their archives. The Chair will then return the examination file containing the signed Examination Committee Report and permission forms to the Thesis Coordinator in the School of Graduate Studies.

(p) The examination then will be formally adjourned. Normally, examination of a PhD candidate will take about two hours and in no case should take more than three hours.

(q) If the student has failed or if the oral defense is to be reconvened, the Chair of the examining committee should discuss the situation as soon as possible with the Associate Vice-President and Dean of Graduate Studies.

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Appendix 3

SUGGESTED FORM OF A PERMISSION REQUEST LETTER

[Department letterhead stationery (preferred) or return address] [Date] [Name and Address of copyright holder]

Dear ,

I am completing a [Ph.D. or M.Sc., or M.A., etc.] thesis at McMaster University entitled [………………….….]. I would like your permission to reprint in full the following journal article in my thesis:

[Complete citation of the article]

Please note that I am [a co-author/the author] of this work.

I am also requesting that you grant irrevocable, nonexclusive license to McMaster University [and to the National Library of Canada] to reproduce this material as a part of the thesis. Proper acknowledgement of your copyright of the reprinted material will be given in the thesis.

If these arrangements meet with your approval, please sign where indicated below and return this letter to me in the enclosed envelope. Thank you very much.

Sincerely,

[Name and Signature]

(*Licence to the National Library is to be requested only for Ph.D. theses*)

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE

[Type Name of Company]

Authorized by: Title:

Date:

Signature:

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