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April 21, 2011

To : Graduate Council Members

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From: Medy Espiritu

Assistant Secretary and SynApps System Administrator

The next meeting of Graduate Council will be held on **Wednesday**, **April 27**, **2011** at **1:30 p.m.** in the **Council Chambers**, **Gilmour Hall 111**.

Listed below are the agenda items for discussion.

Please email *espiritu@mcmaster.ca* or call extension 24204 if you are unable to attend the meeting.

AGENDA

- I. Minutes of the meeting of March 23, 2011 (not available)
- II. Presentation: French Consulate Delegation
- III. Report from the Associate Vice-President and Dean of Graduate Studies
- IV. Report from the Associate Deans of Graduate Studies
- V. 2011 Spring Graduands (to be circulated)
 - Faculty of Business
 - Faculty of Engineering
 - Faculty of Health Sciences
 - Faculty of Humanities
 - Faculty of Science
 - Faculty of Social Sciences

<u>MOTION</u>: "that Graduate Council approve the list of the 2011 Spring Graduands with amendments/corrections to be made as necessary by the Associate Graduate Registrar."

- VI. McMaster's Institutional Quality Assurance Process (IQAP)
- VII. Thesis Guidelines
- VIII. English for Academic Purposes
- IX. New Graduate Scholarship
 - The Dr. Erwin Regoeczi Prize in Pathology and Molecular Medicine
- X. Report from the Faculty of Business Graduate Curriculum and Policy Committee
- XI. Report from the Faculty of Engineering Graduate Curriculum and Policy Committee
- XII. Report from the Faculty of Health Sciences Graduate Policy and Curriculum Council
- XIII. Report from the Joint Faculties of Humanities and Social Sciences Graduate Curriculum and Policy Committee
- XIV. Report from the Faculty of Science Graduate Curriculum, Policy, Admissions and Study Committee
- XV. Proposed change in Graduate Calendar copy for SGS#101
- XVI. Other Business

POLICY ON ACADEMIC PROGRAM REVIEWS

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1. PREAMBLE

The first stated goal of McMaster's strategic plan, *Refining Directions*, is "to provide an innovative and stimulating learning environment where students can prepare themselves to excel in life." Although many factors contribute towards the learning environment, the academic program in which each student is enrolled plays a major part.

McMaster University is widely recognized for innovation in teaching and learning and for the quality of its programs. Nevertheless, knowledge of our disciplines and the scholarship of teaching and learning are constantly evolving. It is clear that our reputation can only be maintained and improved if we, as academics and educators, critically review what we do and seek the opinion and advice from colleagues at McMaster and at other institutions.

Although the primary objective for these reviews is the improvement of our academic programs, the processes that we adopt should be designed to also meet our responsibility to the government on quality assurance: Every publicly assisted Ontario university that grants degrees and diplomas is responsible for ensuring the quality of all of its programs of study, including modes of delivering programs and those academic and student services that affect the quality of the respective programs under review, whether or not the program is eligible for government funding.

The process by which institutions meet this accountability to the government is outlined in the Quality Assurance Framework (QAF), developed by the Ontario Council of Academic Vice-Presidents (OCAV) and approved by Executive Heads in April 2010. Institutions' compliance with the QAF is monitored by the Ontario Universities Council on Quality Assurance, also known as the Quality Council, which is responsible to OCAV and the Council of Ontario Universities (COU).

As part of the recently approved Quality Assurance Framework, McMaster was required to develop an Institutional Quality Assurance Process (IQAP), which is contained within this Policy. The guiding principles used for developing McMaster's IQAP were:

- curriculum development and improvement is an ongoing, iterative process that is normally initiated, developed and controlled at the departmental level;
- McMaster's IQAP incorporates input from all principal stakeholders; and, McMaster's IQAP should be designed primarily to help improve programs and shape them to have characteristics that are most valued at our University, while also meeting the responsibility for quality assurance.

Thus, the goal of McMaster's IQAP is to facilitate the development and continued improvement of our undergraduate and graduate academic programs, and to ensure that McMaster continues to lead internationally in its reputation for innovation in teaching and learning and for the quality of its programs. McMaster's IQAP is intended to complement existing mechanisms for critical assessment and enhancement, including departmental reviews and accreditation reviews. The uniqueness of each program at McMaster will emerge in the IQAP self-study.

The IQAP is subject to approval by the Quality Council when it is initiated and thereafter, when it is revised. The Quality Council will audit the University on an 8 year cycle under the terms outlined in the Quality Assurance Framework.

2. CONTACT

The authority responsible for the IQAP is the Associate Vice-President (Academic). The authorities responsible for its application will be the Associate Vice-President (Academic) for undergraduate programs and the Associate Vice-President and Dean of Graduate Studies for graduate programs. When undergraduate and graduate programs are reviewed concurrently, the Associate Vice-President (Academic) and the Associate Vice-President and Dean of Graduate Studies will be jointly responsible for its application.

The person responsible for all contact between the University and the Quality Council is the Associate Vice-President (Academic).

Throughout this Policy, the Chair refers to the head of the academic unit (usually a Department, sometimes a School or an interdisciplinary group) that is proposing a new program or is responsible for an existing program, although we recognize that the official title of such person varies across programs and Faculties. Similarly, the Dean refers to the head of the Faculty or equivalent responsible for the program, again recognizing that the official title may vary.

In the case of joint academic programs (e.g., a combined honours program or a collaborative program with another educational institution), the relevant Chair and Dean shall be those at McMaster University who have the administrative responsibility for the program.

3. PURPOSE

This Policy on Academic Program Reviews is meant to guide the development of new undergraduate and graduate programs (including for-credit graduate diploma programs), and to aid in the ongoing improvement of existing programs. It has been designed also to meet the University's responsibility of ensuring the quality of such programs. It applies to all undergraduate and graduate programs offered at McMaster University, as well as programs offered in collaboration with other institutions that lead to McMaster University degrees or graduate diplomas.

Under this Policy, undergraduate and graduate program reviews may be conducted concurrently or in conjunction with other internal and accreditation reviews, but may also be done independently. The decision on whether to combine the reviews rests with the Chair responsible for the program.

4. DEFINITION OF NEW PROGRAMS AND MAJOR MODIFICATIONS

For the purposes of quality assurance, a program will be considered <u>new</u> when it is brand-new: that is to say, the program has substantially different program requirements and substantially different learning outcomes from those of any existing approved programs offered at McMaster.

Although not new, a program that has been offered at McMaster University without funding from the Ministry of Training, Colleges and Universities (MTCU) and for which a request for funding is to be made, will follow the procedures for new programs that are outlined in Section 5.

Revisions to an existing program will be classified as either a minor or a major modification to the program. In both cases, the program will continue to be subject to a cyclical program review as outlined in Section 7. Major modifications must be reported annually to the Quality Council, as outlined in Section 7.4.

For undergraduate programs, a major modification will be one in which more than 30% of the program requirements are being changed from one academic year to the next. Such changes could include, for example, new bridging options for college diploma graduates, changes to the students' laboratory experience, introduction or deletion of theses or capstone projects, or the introduction or deletion of experiential opportunities. For graduate programs, a major modification will be one in which more than 50% of the program requirements (including requirements such as courses, major exams, and research) are being changed from one year to the next. If these conditions do not apply, the modifications will not be considered to be major. Nevertheless, in some situations, significant changes to the faculty engaged in delivering the program or to the essential resources available might warrant classification of the changes as a major modification to the program.

In situations where disagreement exists on whether a proposal constitutes a minor modification, a major modification, or a new program, the determination will be made by McMaster University's Quality Assurance Committee.

5. NEW GRADUATE AND UNDERGRADUATE PROGRAMS

The steps required for the approval of any new program include:

5.1. Broad consultation in the development of a draft proposal brief

The Chair, in consultation with the Dean, is responsible for ensuring that there is broad consultation. Such consultation is especially important when proposing interdisciplinary programs as those initiators of the proposed plan may not know all the disciplines or individual faculty members who might potentially be interested, or have expertise. It will also be essential to have appropriate discussions with other institutions when the proposed programs are to be offered in collaboration with those institutions.

An initial meeting involving the Chair(s), the Dean(s) and the Associate Vice-President (Academic) or, in the case of graduate programs, the Associate Vice-President and Dean of Graduate Studies, will take place at which time the Dean(s) will be responsible for providing information showing that:

- the program is consistent with McMaster's principles and priorities and existing strengths of the University;
- the program is of high academic quality;
- there is convincing evidence of student demand and societal need for the

- program; and,
- sufficient financial support, infrastructure, and human resources can be made
 available to initiate and support the program either within the Faculty budget or
 based on the program being a full revenue generating program. Details of the
 program structure and course content are not needed for this meeting, but a
 brief written overview should be provided to the attendees of the meeting in
 advance.

5.2. Consultation with affected parties

Whenever faculty members from several departments are involved in a proposal, these proponents should discuss the proposal with their respective Dean(s) and Chair(s). Similarly, if there is a proposal to cross-list a course, or to recommend or require students in the new program to take existing courses, the teaching Department(s) should be consulted and agreement obtained, in writing, from the appropriate Chair/Dean, especially in the case where the course is provided through another Faculty. Approvals of the relevant Curriculum Committees should also be sought.

Discussions should be held with central support units such as, but not limited to, the Library, the Registrar, University Technology Services and the Centre for Leadership in Learning, as well as with Faculty-based support units, to assess the impact of the introduction of the new program. Input also should be sought from relevant groups of students for whom there is a potential impact of the proposal.

A proposal for a new interdisciplinary program should be presented to any related Faculty/Program to ensure that there is widespread awareness of the program and of its potential impact. If a new interdisciplinary program utilizes or cross-lists one or several new courses from other Departments, the Department(s) offering the course(s), rather than the new interdisciplinary group, must submit those courses for approval. Prior written agreement also must be obtained from Chairs of participating Departments for graduate supervision and other resources required for interdisciplinary programs. Departments must be given adequate time to consider these requests. Faculties must include the proposed administrative and governance structures in interdisciplinary program proposals.

5.3. Program proposal brief

The Chair is responsible for the preparation of a Program Proposal Brief that addresses the following criteria:

5.3.1. Program objectives

- 5.3.1.a. Consistency of the program with the University's mission and academic plans.
- 5.3.1.b. Clarity and appropriateness of the program's requirements and associated learning outcomes in meeting the University's Undergraduate Degree Level Expectations (UDLEs) or Graduate Degree Level Expectations (GDLEs), as outlined in Appendix A.

5.3.1.c. Appropriateness of degree nomenclature.

5.3.2. Admission requirements

- 5.3.2.a. Appropriateness of the program's admission requirements for the learning outcomes established for completion of the program.
- 5.3.2.b. Alternative requirements, if any, for admission into the program, such as minimum grade point average, additional languages or portfolios, along with how the program recognizes prior work or learning experience.

5.3.3. Structure

- 5.3.3.a. Appropriateness of the administrative, governance, and communication processes proposed in support of the program.
- 5.3.3.b. Appropriateness of the program's structure and regulations to meet specified program learning outcomes and Degree Level Expectations.
- 5.3.3.c. For graduate programs, a clear rationale for program length that ensures that the program requirements can be reasonably completed within the proposed time period.

5.3.4. Program content

- 5.3.4.a. Ways in which the curriculum addresses the current state of the discipline or area of study.
- 5.3.4.b. Identification of any unique curriculum or program innovations or creative components.
- 5.3.4.c. For research-focused graduate programs, clear indication of the nature and suitability of the major research requirements for degree completion.
- 5.3.4.d. For graduate programs, verification that the courses included meet university requirements in terms of the minimum number of courses required, the level of courses required, and the appropriate inclusion of other required elements appropriate for the degree level (e.g., transfer exams, comprehensive exams). At least two thirds of the course requirements must be at the graduate level.

5.3.5. Mode of delivery

Appropriateness of the proposed mode(s) of delivery to meet the intended Program Learning Outcomes and Degree Level Expectations and availability of the necessary physical resources.

5.3.6. Assessment of teaching and learning

- 5.3.6.a. Appropriateness of the proposed methods for the instruction and assessment of student achievement of the intended Program Learning Outcomes. The Program Learning Outcomes must meet the University's Degree Level Expectations.
- 5.3.6.b. Completeness of plans for documenting and demonstrating the level of performance of students, consistent with the University's statement of its Degree Level Expectations.

5.3.7. Resources for all programs

- 5.3.7.a. Adequacy of the administrative unit's planned utilization of existing human, physical and financial resources, and any institutional commitment to supplement those resources, to support the program.
- 5.3.7.b. Participation of a sufficient number and quality of faculty who are competent to teach and/or supervise in the program.
- 5.3.7.c. Evidence that there are adequate resources to sustain the quality of scholarship produced by undergraduate students as well as graduate students' scholarship and research activities, including library support, information technology support, and laboratory access.

5.3.8. Resources for graduate programs only

- 5.3.8.a. Evidence that full-time tenured/tenure-track/CAWAR faculty have the recent research and/or professional/clinical expertise needed to sustain the program, promote innovation, foster an appropriate intellectual climate, and provide excellent supervision of students in academic and research components of the program.
- 5.3.8.b. Where appropriate to the program, evidence that financial assistance for students will be sufficient to ensure adequate quality and numbers of students.
- 5.3.8.c. For programs with a research component, evidence that faculty research supervisors have current and ongoing research programs and funding, and space and relevant research infrastructure appropriate to support students' research in the program.
- 5.3.8.d. Evidence of how supervisory loads will be distributed, and the qualifications and appointment status of faculty who will provide instruction and supervision.
- 5.3.8.e. Evidence of prior experience in graduate teaching and research supervision for faculty participating in the program.

5.3.9. Resources for undergraduate programs only

5.3.9.a. Evidence of plans for adequate numbers of faculty and staff to achieve the

goals of the program;

- 5.3.9.b. Evidence of plans to provide the necessary resources in step with the implementation of the program;
- 5.3.9.c. Planned/anticipated class sizes;
- 5.3.9.d. Provision of supervision of experiential learning opportunities (if required); and,
- 5.3.9.e. Role of adjunct and sessional faculty.
- 5.3.10. Quality and other indicators
 - 5.3.10.a. Definition and use of indicators that provide evidence of quality of the faculty (e.g., qualifications, research, innovation and scholarly record; appropriateness of collective faculty expertise to contribute substantively to the proposed program).
 - 5.3.10.b. Evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience.
- 5.3.11. Description of the consultation process undertaken during the development of the proposal

5.4. External reviewers

The Associate Vice-President (Academic) or, in the case of graduate programs, the Associate Vice-President and Dean of Graduate Studies, in consultation with the Dean will select a team of reviewers to assess the proposal. The review team shall consist of at least one external reviewer for new undergraduate programs and two external reviewers for new graduate programs.

External reviews of new graduate programs must incorporate an on-site visit. External reviews of new undergraduate program proposals will normally be conducted on-site, but may be conducted by desk audit, video-conference or an equivalent method if the external reviewer is satisfied that the off-site option is acceptable. Exceptions will be determined by the Associate Vice-President (Academic), in consultation with the Dean, prior to the commencement of the review.

External members of the review team shall normally be individuals who are in the same discipline as the program under review (or across disciplines for interdisciplinary programs) and who are distinguished senior academics of broad experience, with an established commitment to higher education. They must have an impartial, arms-length relationship to the program. They will be selected from a list of at least four suggested individuals submitted by the Department for undergraduate programs under review, or six for graduate programs. The list shall include, for each proposed external reviewer:

name;

- rank and position;
- institution or company and current address, telephone and fax numbers, e-mail address, and URL if available:
- professional (including administrative) experience or expertise relevant to the Program under review;
- details of any previous or current affiliation with the University, and any association with individual members of the Program under review (e.g., co-author, previous student/supervisor, close relationship); and,
- for graduate programs, a description of research expertise, and a partial listing of recent scholarly publications.

The Program Proposal Brief, the McMaster Guide to Program Reviews and other materials specific to the review will be provided to all members of the review team no less than two weeks prior to their visit.

5.5. Reviewers' report

Excepting when contrary circumstances apply, the reviewers will normally provide, within 4 weeks of the review, a joint report that appraises the standards and quality of the proposed program, and addresses the criteria set out in Section 5.3, including the associated faculty and material resources. Reviewers also will be invited to acknowledge any clearly innovative aspects of the proposed program, together with recommendations on any essential or otherwise desirable modifications to the program.

5.6. Internal response

Responses to the reviewers' report from both the Chair and the Dean, or their delegates, should be prepared and attached to the reviewers' report.

5.7. Institutional approval

In addition to the completion of the external review, approval of new program proposals by the following University bodies, normally in the order listed below, is required:

- the Department(s) to ensure that the new program meets the stated objectives within the context of the discipline;
- the Faculty Curriculum Committee(s) to ensure that the new program adds sufficient value to the programs already offered in the Faculty;
- the Faculty(ies) (or Faculty Council(s) if the Faculty By-Laws allow it to act on behalf of the Faculty) to ensure that the program is consistent with the Faculty's strategic plans and that the necessary resources are available if these are to be provided from within the Faculty's envelope;
- for Undergraduate programs, the Undergraduate Council Curriculum Committee
 to assess the impact of the new program on students enrolled in other Faculties;
- Undergraduate Council or Graduate Council to provide a venue for a broad discussion on the new program by elected faculty and student members with specific knowledge of and expertise in undergraduate or graduate programming,

and ensure that the program is consistent with University-wide goals and criteria specifically related to undergraduate or graduate programming;

- University Planning Committee to ensure the financial viability of the new program and evaluate the need for additional resources if these are to be provided from outside the Faculty envelope; and,
- Senate to ensure that the program is consistent with the University's general strategic plans with respect to academic programs.

These bodies should consider the criteria outlined in Section 5.3 when evaluating the proposal.

Normally, approvals by all of the above University bodies will take place before the external review. However, in cases where the external reviewers recommend significant changes to the program proposal, it may have to return to these bodies for re-assessment.

In addition:

- The University Budget Committee must approve any request for additional funding outside the Faculty envelope including new one-time or base budget funding. This would be done during the normal budget cycle. Typically budget submissions are received in March and decisions communicated in June after the budget has the Board of Governors' approval.
- The University Student Fees Committee must approve all fees and the administration of them if the fees are different than the normal tuition charged in a Faculty and/or if supplementary fees are being proposed. The Fees Committee must approve all fees for revenue generating programs.

Special considerations, such as collaboration agreements or non-standard distribution and full revenue generating programs should refer to the Academic Revenue Generating Activity Policy (http://www.mcmaster.ca/policy/AdminAcad/AcademicRevenueActivityPolicy.pdf) and other relevant University policies as may apply.

If any one of the bodies requires changes to the proposal, those changes may have to be subsequently provided to the other approving bodies for approval, depending on the nature of the changes.

Chairs of Departments named in the proposal should be informed by the University Secretariat of the schedule for presentations to Undergraduate Council, University Planning Committee and Senate, and of the decisions of these bodies with regard to the new program proposal. The School of Graduate Studies should inform Chairs of the schedule of presentations to Graduate Council, and of the decisions of this body with regards to the new program proposal.

5.8. Quality Council Secretariat

Once all approvals outlined in Section 5.7 are obtained, the institution will submit the Proposal Brief, together with the Reviewers' Report and the internal response to the Report, to the Quality Council Secretariat. The submission template will require information on whether or not the proposed program will be a cost-recovery program. The same standards and protocols apply regardless of the source of funding.

5.9. Announcement of new programs

Following its submission to the Quality Council, the University may announce its intention to offer the program, provided that clear indication is given that approval by the Quality Council is pending, and that no offers of admission will be made until the program has been approved by the Quality Council.

5.10. Approved new programs

After a new program is approved to commence by the Quality Council, the University may seek Provincial funding for the program, which must begin within thirty-six months of the date of approval; otherwise, the approval will lapse.

The first cyclical review for any new program must be conducted no more than eight years after the date of the program's initial enrolment.

Between eighteen and twenty-four months after onset of the program, the Chair will provide the Dean and Associate Vice-President (Academic) or, in the case of graduate programs, the Associate Vice-President and Dean of Graduate studies, with a brief update on progress in the program, addressing any concerns from the initial program review, and highlighting any unanticipated changes in curriculum, resources, enrollment, funding mechanisms, or governance structure. If, after consultation with the Dean, the Associate Vice-President (Academic) or, in the case of graduate programs, the Associate Vice-President and Dean of Graduate studies, deems it appropriate, an informal internal assessment of the program may be undertaken, including interviews with current faculty, students, and staff, to determine if a more complete, early cyclical review is warranted.

6. EXPEDITED APPROVALS OF NEW PROGRAMS

The Protocol for Expedited Approvals applies when one or more of the following applies:

- an institution requests endorsement of the Quality Council to declare a new Field or to revise Fields in a graduate program (note: there is no requirement to declare fields in either master's or doctoral programs);
- there is a proposal for a new collaborative program;
- there are proposals for new for-credit graduate diplomas; or,
- there are major modifications to existing programs, and the University requests approval.

The Expedited Approvals process requires all the approvals listed in Section 5.7 and the submission to the Quality Council of a Proposal Brief of the proposed program change/new program and the rationale for it. It 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.

6.1. Proposal brief

The Proposal Brief will describe the new program or the significant changes being proposed (including, as appropriate, reference to Program Learning Outcomes, Degree Level Expectations, faculty and resource implications), provide a brief account of the rationale for the changes, and address the evaluation criteria.

6.2. Institutional identification of major modifications to existing programs

Existing programs can be expected to routinely undergo revisions with the aim of quality enhancement. This includes, for example, the introduction or deletion of courses, major exam structures, change in emphases, options, minors, or mode of delivery. The revisions must be submitted through the normal curriculum approval process outlined in Section 5.7 (excluding the University Planning Committee, unless there are significant resource implications). These revisions will be assessed during the course of the next cyclical review of the program.

There may be, however, situations where the changes to the program are of such significance that a more immediate review is desirable. This situation may occur, for example, where:

- the program's revisions meet the definition of a major modification, as defined in Section 4:
- the fundamental objectives of the program change; or,
- there are significant changes to the faculty engaged in delivering the program and/or to the essential physical resources,

In such cases, the Department, the Faculty, Undergraduate Council or Graduate Council may, if it deems it advisable after consultation with the relevant Dean(s) and Associate Vice-President (Academic) and/or Associate Vice-President and Dean of Graduate Studies, initiate a program review and request that the Quality Council review the major modification proposal. Normally, such review will occur through an Expedited Approval Process.

7. CYCLICAL PROGRAM REVIEWS

All academic programs are to be reviewed on an eight-year cycle. Combined programs do not require review if their constituting programs are reviewed separately. Emphases, Options and Minors do not require review. The list of programs that require review, and the schedule of such reviews, will be maintained by the Associate Vice-President (Academic).

Departments can choose to review undergraduate and graduate programs jointly or separately. If the reviews are done jointly, there can be additional subsections within the report to address different situations that apply to each program. Program reviews can also be done jointly with accreditation reviews, at the discretion of the Chair, in consultation with the Dean (see Section 7.5).

The review consists of the following five steps:

7.1. Self-study: Internal program perspective

The Chair is responsible for preparing a self-study document that is broad-based, reflective, forward-looking and inclusive of critical analysis. It should identify any

pertinent information that it deems appropriate for inclusion. The self-study must address and document the consistency of the program's learning outcomes with the University's mission and Degree Level Expectations, and how its graduates achieve those outcomes:

The self-study should include criteria and quality indicators including:

7.1.1. Objectives

- 7.1.1.a. Program is consistent with the University's mission and academic plans.
- 7.1.1.b. Program requirements and learning outcomes are clear, appropriate and align with the University's statement of the undergraduate and/or graduate Degree Level Expectations.

7.1.2. Admission requirements

Admission requirements are appropriately aligned with the learning outcomes established for completion of the program.

7.1.3. Curriculum

- 7.1.3.a. How the curriculum reflects the current state of the discipline or area of study.
- 7.1.3.b. Evidence of any significant innovation or creativity in the content and/or delivery of the program relative to other such programs.
- 7.1.3.c. How the mode(s) of delivery are appropriate and effective at meeting the program's identified learning outcomes.

7.1.4. Teaching and assessment

- 7.1.4.a. Methods for assessing student achievement of the defined learning Outcomes and Degree Level Expectations are appropriate and effective.
- 7.1.4.b. Appropriateness and effectiveness of the means of assessment, especially in the students' final year of the program, in clearly demonstrating achievement of the program learning objectives and the University's statement of Degree Level Expectations.

7.1.5. Resources

Appropriateness and effectiveness of the academic unit's use of existing human, physical and financial resources in delivering and maintaining the quality of its program(s), in relation to the University's priorities for and constraints on funding, space, and faculty allocation.

7.1.6. Quality indicators

Information on the quality of the program under review. Standard quality indicators, outlined in the McMaster Guide to Program Reviews, will be provided to Chairs by central resources and departments. Chairs will be expected to provide context and commentary on the data provided to them. When possible and appropriate, Chairs will also refer to applicable professional standards.

7.1.7. Quality enhancement

Initiatives that have been undertaken to enhance the teaching, learning and/or research environments thus, the quality of the program, and how these will be sustained.

7.1.8. Additional graduate program criteria

- 7.1.8.a. Evidence that students' time-to-completion is both monitored and managed in relation to the program's defined length and program requirements.
- 7.1.8.b. Quality and availability of graduate supervision.
- 7.1.8.c. Definition and application of indicators that provide evidence of faculty, student and program quality, for example:
 - 7.1.8.c.i. Faculty: funding, honours and awards, and commitment to student mentoring;
 - 7.1.8.c.ii. Students: grade-level for admission, scholarly output, success rates in provincial and national scholarships, competitions, awards;
 - 7.1.8.c.iii. Program: evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience, and commitment to development of professional and transferable skills; evidence of sufficient and regular graduate level course offerings to ensure that students will be able to meet university requirements in terms of the minimum number of courses required, the level of courses required, and the timely completion of other required elements appropriate for the degree level (e.g., transfer exams, comprehensive exams).
- 7.1.9. Evidence that a consultative and inclusive system of governance has been used on an ongoing basis to assess the program and implement changes as appropriate.
- 7.1.10. Concerns and recommendations raised in previous reviews;
- 7.1.11. Areas identified through the conduct of the self-study as requiring improvement;
- 7.1.12. Areas that hold promise for enhancement;

- 7.1.13. Academic services that directly contribute to the academic quality of each program under review;
- 7.1.14. Participation of program faculty, staff, and students in the self-study and how their views were obtained and taken into account.
- 7.1.15. The input of others deemed to be relevant and useful, such as graduates of the program, representatives of industry, the professions, practical training programs, and employers may also be included.

It is the Chair's responsibility to review and approve the self-study report to ensure that it meets the above criteria.

7.2. External evaluation: External perspective

The Associate Vice-President (Academic) or, in the case of graduate programs, the Associate Vice-President and Dean of Graduate Studies, in consultation with the Dean, will select a team of reviewers to evaluate the program. The review team shall consist of at least one external reviewer for undergraduate programs and two external reviewers for either graduate programs or for concurrent reviews of undergraduate and graduate programs. The team will also include one internal reviewer selected by the Associate Vice-President (Academic) or, in the case of graduate programs, the Associate Vice-President and Dean of Graduate Studies, in consultation with the Dean. Additional members may be added to the team if appropriate, such as when evaluating professional programs.

External members of the review team normally shall be individuals in the same discipline as the Program under review (or across disciplines for interdisciplinary programs) who are distinguished senior academics of broad experience, with an established commitment to higher education. They must have an impartial, armslength relationship to the Program. They will be selected from a list of at least four suggested individuals submitted by the Program/Department under review, or six for graduate programs or combined undergraduate/graduate program reviews. The list shall include, for each proposed external reviewer:

- name;
- rank and position;
- institution or company and current address, telephone and fax numbers, and email address, and URL if available;
- professional (including administrative) experience or expertise relevant to the Program under review;
- details of any previous or current affiliation with the University, and any association with individual members of the Program under review (e.g., co-author, previous student/supervisor, close relationship); and,
- for graduate program or combined reviews, a description of research expertise, and a partial listing of recent scholarly publications.

The Self-Study, the McMaster Guide to Program Reviews and other materials specific to the current review will be provided to all members of the Review

Committee no less than two weeks prior to their visit. When appropriate, the results of the previous accreditation review also will be made available to the Review Committee to provide them with the views of the relevant professional association(s). The Guide describes the review process and the roles and obligations of the Review Committee, which include:

- to identify and comment on the program's notably strong and creative attributes:
- to describe the program's respective strengths, areas for improvement, and opportunities for enhancement;
- to recommend specific steps to be taken to improve the program, distinguishing between those the program can itself take with existing resources and those that require external action;
- to recognize the University's autonomy to determine priorities for funding, space, and faculty allocation; and,
- to respect the confidentiality required for all aspects of the review process.

It is required that all reviewers visit at the same time, normally for two days. As appropriate, the review team shall meet with the following:

- Chair or Director;
- Full-time faculty members (in groups);
- Part-time faculty members (in groups);
- Program students (units should encourage a broad cross section of students to participate in a meeting with the review team);
- Associate Dean:
- Dean:
- for graduate programs, the Associate Vice-President and Dean of Graduate Studies;
- for undergraduate programs, the Associate Vice-President (Academic); and,
- Provost and Vice-President (Academic), if available.

The review team will submit to the Office of the Associate Vice-President (Academic) a joint report, including an Executive Summary, for the program(s) under review, normally within four weeks of the visit. The report will normally be written primarily by the external reviewer(s), with input from the internal reviewer. The Review Committee's report should address the substance of both the self-study report and the evaluation criteria set out in Section 5.3. The intent of these reports is to be formative and constructive. The reports are intended to provide counsel rather than prescriptive courses of action. The Office of the Associate Vice-President (Academic) will circulate the report to the appropriate Chairs and Deans and, in the case of graduate programs, to the Associate Vice-President and Dean of Graduate Studies.

The Chair shall be responsible for preparing the Program's response to the report and submitting it to the Dean.

The Dean's response to the reviewers' report and to the Chair's response constitutes the Implementation Plan and should include any changes in organization, policy or governance that would be necessary to meet the recommendations, a discussion of the ways in which proposed changes deal with problems identified in the review, whether additional resources can be allocated to enhance the quality of the program, and a proposed timeline for the implementation of proposed changes. The Dean will be responsible for reviewing the recommendations and for providing resources necessary for those that will be implemented.

7.3. Institutional perspective and report

The program self-study, the program review report and the Implementation Plan will be submitted to McMaster University's Quality Assurance Committee, a joint committee of Undergraduate and Graduate Councils. The program self-study and the review report will be treated as confidential. The Quality Assurance Committee will assess the documents and will submit a Final Assessment Report to Undergraduate Council or Graduate Council that:

- identifies significant strengths of the program;
- addresses the appropriateness of resources for the success of the program;
- identifies opportunities for program improvement and enhancement;
- identifies and prioritizes the recommendations;
- provides an Executive Summary, exclusive of any confidential information and suitable for public dissemination;
- includes the Implementation Plan;
- may include a confidential section (e.g., where personnel issues may be addressed);
- may include additional recommendations or comments. Recommendations could include, for example, requiring a detailed 18-month report that will describe progress towards addressing major concerns or scheduling an additional cyclical review sooner than specified by the normal 8-year cycle.

Undergraduate Council or Graduate Council will receive the Final Assessment Report from the Quality Assurance Committee in open session (confidential sections, if any, will be discussed in closed session) and will consider whether it will add its own recommendations or comments. These will be communicated to the Chair, the Dean and the Associate Vice-President (Academic) or, in the case of graduate programs, to the Associate Vice-President and Dean of Graduate Studies.

The report from Undergraduate Council or Graduate Council, along with any recommendations or comments, will be presented to the University Planning Committee, which will consider whether it will make additional recommendations or comments. These will be communicated to the Chair, the Dean and the Associate Vice-President (Academic) or, in the case of graduate programs, to the Associate Vice-President and Dean of Graduate Studies.

Eighteen months after receiving the report from Undergraduate Council or Graduate Council, the Dean will meet with the Chair for an update on the program. The Dean will submit to Undergraduate Council or Graduate Council a report summarizing the status of any actions in the Implementation Plan that have been taken or are being taken. This report, along with any recommendations or comments from Undergraduate Council or Graduate Council, will be presented to the University Planning Committee, which will consider whether it will make additional recommendations or comments. These will be communicated to the Dean and the

Associate Vice-President (Academic) or, in the case of graduate programs, to the Associate Vice-President and Dean of Graduate Studies.

7.4. Reporting requirements

Once per year, the Associate Vice-President (Academic) will submit a report of major modifications to existing programs, as defined in Section 4, and will submit the report to the Quality Council, along with the Final Assessment Reports for all program reviews completed in that year.

Once per year, the Chair of the Quality Assurance Committee will present an Annual Report, consisting of a compilation of the Final Assessment Reports, to an open session of Senate (confidential sections, if any, will be discussed in closed session). The Deans will be invited to answer any questions that arise.

The Executive Summaries and the Implementation Plans of the Final Assessment Reports will be posted on the Vice-President Academic section of the University's website and copies of this information will be provided to the Quality Council and to the University's Board of Governors.

7.5. Use of accreditation and other external reviews in the Institutional Quality Assurance Process

Programs that periodically undergo accreditation reviews may use the associated documentation as a partial substitute for the self-study. The Associate Vice-President (Academic) or, in the case of graduate programs, the Associate Vice-President and Dean of Graduate Studies, in consultation with the Dean, will review the accreditation requirements to determine their suitability and identify any components of the cyclical review that are missing. An addendum to the accreditation documentation, containing any revised or missing components, will be prepared and appended to the accreditation documentation. A record of substitutions or additions, and the grounds on which they were made, will be eligible for audit by the Quality Council. The remaining steps in the cyclical review will then take place. When requested by the Dean and permitted by the accreditation authorities, the cyclical visit by the external reviewers may be performed at the same time or by the same people as the accreditation review, or it may be used to assess quality assurance issues not covered by the accreditation review.

APPENDIX A

McMASTER UNIVERSITY'S STATEMENT ON DEGREE LEVEL EXPECTATIONS

A McMaster education should enable students to develop sets of life and learning skills that promote a continuing ability and desire to learn, and a set of technical and professional skills that permit a range of career choices. Degree level expectations elaborate the intellectual and creative development of students and the acquisition of relevant skills that are usually widely, yet implicitly, understood.

McMaster University has adopted the following Undergraduate Degree Level Expectations (UDLEs) or Graduate Degree Level Expections (GDLEs) that were developed by the Ontario Council of Academic Vice-Presidents and endorsed by the Council of Ontario Universities in December 2005. These degree level expectations are to be viewed as a minimum threshold for all degree programs at McMaster.

UNDERGRADUATE

1. Depth and breadth of knowledge	Baccalaureate/bachelor's degree This degree is awarded to students who have demonstrated the following: a) General knowledge and understanding of many key concepts, methodologies,	Baccalaureate/bachelor's degree: honours This degree is awarded to students who have demonstrated the following: a) Developed knowledge and critical understanding of the key concepts, methodologies, current
	theoretical approaches and assumptions in a discipline	advances, theoretical approaches and assumptions in a discipline overall, as well as in a specialized area of a discipline
	b) Broad understanding of some of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines	b) Developed understanding of many of the major fields in a discipline, including, where appropriate, from an interdisciplinary perspective, and how the fields may intersect with fields in related disciplines
	c) Ability to gather, review, evaluate and interpret information relevant to one or more of the major fields in a discipline	c) Developed ability to: i) gather, review, evaluate and interpret information; and
		ii) compare the merits of alternate hypotheses or creative options, relevant to one or more of the major fields in a discipline
	d) Some detailed knowledge in an	d) Developed, detailed knowledge

	area of the discipline	of and experience in research in an area of the discipline
	e) Critical thinking and analytical skills inside and outside the discipline	e) Developed critical thinking and analytical skills inside and outside the discipline
	f) Ability to apply learning from one or more areas outside the discipline	f) Ability to apply learning from one or more areas outside the discipline
2. Knowledge of methodologies	An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:	An understanding of methods of enquiry or creative activity, or both, in their primary area of study that enables the student to:
	a) evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques; and	a) evaluate the appropriateness of different approaches to solving problems using well established ideas and techniques;
	b) devise and sustain arguments or solve problems using these methods.	b) devise and sustain arguments or solve problems using these methods; and
		c) describe and comment upon particular aspects of current research or equivalent advanced scholarship.
3. Application of knowledge	The ability to review, present, and interpret quantitative and qualitative information to:	The ability to review, present and critically evaluate qualitative and quantitative information to:
	a) develop lines of argument;	a) develop lines of argument;
	b) make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study; and	b) make sound judgments in accordance with the major theories, concepts and methods of the subject(s) of study;
		c) apply underlying concepts, principles, and techniques of analysis, both within and outside the discipline;
		d) where appropriate use this knowledge in the creative process; and
	The ability to use a basic range of established techniques to:	The ability to use a range of established techniques to:

	I
a) analyze information;	a) initiate and undertake critical evaluation of arguments, assumptions, abstract concepts and information;
b) evaluate the appropriateness of different approaches to solving problems related to their area(s) of study;	b) propose solutions;
c) propose solutions; and	c) frame appropriate questions for the purpose of solving a problem;
d) make use of scholarly reviews and primary sources.	d) solve a problem or create a new work; and
	e) to make critical use of scholarly reviews and primary sources.
The ability to communicate accurately and reliably, orally and in writing to a range of audiences.	The ability to communicate information, arguments, and analyses accurately and reliably, orally and in writing to a range of audiences.
An understanding of the limits to their own knowledge and how this might influence their analyses and interpretations.	An understanding of the limits to their own knowledge and ability, and an appreciation of the uncertainty, ambiguity and limits to knowledge and how this might influence analyses and interpretations.
Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:	Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring:
a) the exercise of personal responsibility and decision-making;	a) the exercise of initiative, personal responsibility and accountability in both personal and group contexts;
b) working effectively with others;	b) working effectively with others;
c) the ability to identify and address their own learning needs in changing circumstances and to select an appropriate program of further study; and	c) decision-making in complex contexts;
	b) evaluate the appropriateness of different approaches to solving problems related to their area(s) of study; c) propose solutions; and d) make use of scholarly reviews and primary sources. The ability to communicate accurately and reliably, orally and in writing to a range of audiences. An understanding of the limits to their own knowledge and how this might influence their analyses and interpretations. Qualities and transferable skills necessary for further study, employment, community involvement and other activities requiring: a) the exercise of personal responsibility and decision-making; b) working effectively with others; c) the ability to identify and address their own learning needs in changing circumstances and to select an appropriate program of

d) behaviour consistent with academic integrity and social responsibility.	d) the ability to manage their own learning in changing circumstances, both within and outside the discipline and to select
	an appropriate program of further study;e) and behaviour consistent with
	academic integrity and social responsibility.

GRADUATE

	Master's degree	Doctoral degree
	This degree is awarded to	This degree extends the skills
	students who have demonstrated	associated with the Master's
	the following:	degree and is awarded to
	3	students who have demonstrated
		the following:
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	A thorough understanding of a substantial body of knowledge that is at the forefront of their academic discipline or area of professional practice including, where appropriate, relevant knowledge outside the field
	which is at, or informed by, the	and/or discipline.
	forefront of their academic	
	discipline, field of study, or area	
2. Research and	of professional practice;	
	A conceptual understanding and	
scholarship	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;	a) The ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline, and to adjust the research design or methodology in the light of unforeseen problems;
	b) Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence; and	b) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and
	c) Enables a treatment of complex	c) The ability to produce original

	issues and judgments based on established principles and techniques; and, On the basis of that competence, has shown at least one of the following: a) The development and support of a sustained argument in written form; or b) Originality in the application of	research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.
	knowledge.	m)
3. Level of application of	Competence in the research process by applying an existing	The capacity to:
knowledge	body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting.	a) Undertake pure and/or applied research at an advanced level; and
	G The state of the	b) Contribute to the development of academic or professional skills, techniques, tools, practices, ideas, theories, approaches, and/or materials.
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 	a) The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations;
	ii) Decision-making in complex situations;	
	b) The intellectual independence required for continuing professional development;	b) The intellectual independence to be academically and professionally engaged and current;
	c) The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and	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.	d) The ability to evaluate the broader implications of applying

		knowledge to particular contexts.
5. Level of communications	The ability to communicate ideas, issues and conclusions clearly,	The ability to communicate complex and/or ambiguous
skills	orally and in writing, to a range of	ideas, issues and conclusions
	audiences.	clearly and effectively, orally and
		in writing, to a range of
		audiences.
6. Awareness of	Cognizance of the complexity of	An appreciation of the limitations
limits of	knowledge and of the potential	of one's own work and discipline,
knowledge	contributions of other	of the complexity of knowledge,
	interpretations, methods, and	and of the potential
	disciplines.	contributions of other
		interpretations, methods, and
		disciplines.

GUIDE FOR THE PREPARATION OF MASTER'S AND DOCTORAL THESES



SCHOOL OF GRADUATE STUDIES HAMILTON, ONTARIO

MARCH 2011

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1.0 GENERAL REQUIREMENTS

1.1 Introduction

A Doctoral 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'). A Master's student may submit only a standard thesis (see section 2.0). 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*.

Starting on May 1, 2011, all candidates for Master's or Doctoral degrees who have successfully completed their oral examinations and who have made all required revisions must file an **electronic version** of their final thesis to 'Digital Commons' (<digitalcommons.mcmaster.ca>) and forward the "Final Thesis Submission Form", which was previously signed by the Chair of their examination committee and later by the supervisor, to the Thesis Coordinator at the School of Graduate Studies.

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 must be <u>clear and error-free and written using Canadian English and grammar;</u> the student is advised to use a spell and/or grammar checker. The entire text of the Ph.D. thesis must not exceed 300 pages; normally, a Master's thesis must not exceed 200 pages 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 or format 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 external examiner who prefers to read a hard copy. For this purpose, the student must bring ONE printed copy 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 and then uploading the pdf file to 'Digital Commons'.

1.3 <u>Criteria for Accepting a Sandwich Ph.D. Thesis (Containing Previously Published/Prepared Material) for defense</u>

It is increasingly common in many disciplines to present for defense a Ph.D. thesis which consists in part of previously published (or submitted) articles. 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.
- (b) If there are multiple authors of the separate articles, there must be a preface to the thesis that documents clearly the student's contribution to each of the papers, and the student's contribution to the originality of the work, thereby clarifying in what way this work becomes the student's thesis.
- (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 the 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 his/her 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 he/she is 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 will prepare **one print copy** of the thesis and deliver this to the Thesis Coordinator who will be responsible for distributing it to an external examiner if he/she requires a hard copy. **The hardcopy version must be the same version as 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 <u>fixed</u> 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). <u>The student is encouraged to select a font that is easy for the examiner to read.</u>

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 <u>specifically designed</u> 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 <u>back printed</u>, 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 <u>Header</u>

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 Digital Commons. 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 <u>Illustrative Material</u>

Maps, diagrams, Figures and Tables may be drawn or prepared using a black font colour. Colours should not be used on graphs or maps that are to be reproduced in black and white, since the distinction between shades of grey may be lost. 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.

2.2.7 Abbreviations and Symbols

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.

- (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. 13 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. 14 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 15 for the required format.
- (d) 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'.
- (e) 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.
- (f) 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).
- (g) Lists of Figures and Tables with their respective titles and page numbers; must be numbered in lower case Roman numerals continuous after (f).
- (h) List of all Abbreviations and Symbols with their appropriate definitions; must be numbered in lower case Roman numerals continuous after (g).

NOTE: The preliminary pages described above will also precede the main text of a 'sandwich' thesis

3.2 <u>Text, References and Footnotes</u>

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. 16 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, 7th edition, published 2007). 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 <u>Citing Published Articles within the Text</u>

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].

Note: 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.

4.4 Electronic References

The following are recommended website links which provide information on how to cite electronic references:

Columbia Style Guide: http://www.columbia.edu/cu/cup/cgos/idx basic.html

APA Style Guide: http://www.apastyle.org/elecsource.html

http://www.apastyle.org/electext.html

MLA Style Guide: http://www.tsufl.edu/library/5/mla.htm

University of Alberta Library: http://www.library.ualberta.ca/guides/citation/

5.0 PREPARATION OF THE "SANDWICH" Ph.D. THESIS

Some of the research undertaken by the student expressly for the Ph.D. degree may have previously been published or prepared as one or more journal articles, or chapters of books; these items may be included within the Ph.D. thesis subject to the following regulations and to obtaining permission from the supervisory committee. A thesis consisting of journal articles, whether previously published, submitted, or prepared for publication but not yet submitted, is often referred to as a <u>"sandwich" thesis</u>. A <u>minimum of three published or submitted but not yet published journal articles must be included within the sandwich thesis; normally, at least one of these must be published or 'in press' at the time the thesis is submitted for defense. The following points pertain specifically to the sandwich thesis:</u>

- 5.1 The sandwich thesis must be a coherent presentation of the candidate's research work which includes an introductory chapter (normally 'Chapter 1') that outlines the general theme and the objectives, and a final chapter of conclusions that draws out the overall implications of the research. The introductory and concluding chapters need to be substantial in content, depth and length, not paper thin. In addition to setting the overall context, and identifying how the several papers relate to each other, it would be valuable if the introduction could also warn a reader of any overlap in the article chapters, such as in the literature reviews or the methods section of each article. Likewise, the concluding chapter should show clearly how the preceding chapters form a coherent substantial body of work and how significantly this body of work advances our knowledge. The different chapters (or sections) which include the published or prepared articles must contribute to the general theme of the thesis. Repetition of material that appears in more than one journal article (e.g., introduction, background, methodology) should be avoided. The author of the thesis shall normally be the main contributor to these published or prepared articles.
- 5.2 A sandwich thesis may be the choice of document for a doctoral student who has researched a topic for 4-6 years. In contrast, a Master's student who has undertaken a research topic for a relatively short time (1-2 years) must write a standard thesis rather than a sandwich thesis.
- 5.3 The Preliminary pages (see section 3.1) for the sandwich thesis are similar to those of a standard thesis. However, the Preliminary pages of a sandwich thesis must include a preface that clearly documents the student's (and the other authors') contributions to each multi-authored work and when the work was conducted. The student must justify why his/her original contributions should be included in the main body of the thesis.
- 5.4 There must be a written introduction preceding each published (or 'in press', or submitted) article which sets the context and draws out the overall implications of the work. The metaphor, 'sandwich thesis' implies that the 'meat' is in each of the articles, but it is also important that there is 'bread' to hold the sandwich together.
- 5.5 For any chapter of the sandwich thesis that includes a **published article**, the student may choose to either incorporate **an electronic version of the published reprint** (with pages renumbered to fit in with the pagination of the thesis; see item 5.10 below), or **an electronic version of the published article** (e.g. 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 external examiner prefers to assess a hard-copy of the thesis, the student will submit one print copy of the sandwich thesis (including a CD or DVD as appropriate) to the Thesis Coordinator prior to the thesis defense.
- 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 material 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 coauthor 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 coauthor who retains copyright or the person to whom the coauthor 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 articles 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. See Appendix 3 for an example of a letter of Permission.
- **5.8** For unpublished work (e.g., a paper that has been submitted for publication 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 article, 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 articles 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 'Digital Commons' 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 After 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 'Digital Commons', 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 Digital Commons.

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 **Doctoral** 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. In addition, the student must provide the Thesis Coordinator with ONE printed copy of the thesis. If an external examiner requests a hard copy of the thesis, the Thesis Coordinator will supply it to the examiner.

6.4 <u>Submission of a Completed Doctoral Thesis After a Successful Defense</u>

After a successful Oral Defense, the examination committee will invariably 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 and upload it to 'Digital Commons'; it is the student's responsibility to ensure that all pages of the final thesis are complete and correctly placed before converting to pdf and uploading. Automatically, the student will receive an e-mail invitation from the Associate Vice-President and Dean of Graduate Studies to complete the Ph.D. student's Exit Survey.

After the student has uploaded the final thesis to Digital Commons but before its official publication, the Thesis Coordinator will access the thesis and check the information given by the student to Digital Commons, and check the essential details on the Preliminary pages of the thesis at some time over the next 5 - 7 days. If the Thesis Coordinator is satisfied that the essential information is correct, only then the thesis 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 Binding Copies of the Final Master's or Doctoral Thesis

As of May 1, 2011, McMaster University will no longer require 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 Digital Commons. 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 Digital Commons. 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; bound copies of the thesis must not be delivered to the School of Graduate Studies.

Example 1: Half-Title Page

GOVERNOR JOHN WENTWORTH

(Note: All Capital Letters)

The length should not exceed 60 character spaces, including spaces between words.

Example 2: Title Page

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

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- 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.
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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 email through the Thesis Defense System to submit nominations for an external examiner. The names of the potential examiners nominated by the supervisor must <u>not</u> 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 six to eight weeks in advance 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 he or she gives 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.

STEP 4: After the Defense

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 Digital Commons (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 his or her 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 his or her 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 simple 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</u> members of the examining committee are expected to put questions to the candidate. 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.

- (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 he or she must do to improve either or both the written thesis and his/her 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.

- (I) 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 him or her of the committee's decision(s), and bring him or her 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) The examination then will be formally adjourned. Normally, examination of the candidate will take about two hours, and in no case should take more than three hours.
- (p) It is the responsibility of the Chair to return the examination file and the signed Examination Committee Report to the Thesis Coordinator in the School of Graduate Studies, to inform the candidate that the corrected electronic thesis (when finally approved by the supervisor) must be uploaded as a pdf file to Digital Commons, and to ensure that the candidate signs the necessary forms authorizing the University and Library and Archives Canada to circulate (or to temporarily withhold as the case may be) circulation of the thesis.
- (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.

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 [
[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:



SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING COURSES

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:																
. This form must be completed for <u>ALL</u> course changes. All sections of this form <u>must</u> be completed.																
	electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator															
	(Email: espiritu@mcmaster.ca).															
3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.																
DEPARTMENT/PRO	GRAM	Scho	ool of Graduate S	Studies	3											
COURSE TITLE		Engl	English as a Second Language Training													
COURSE NUMBER	301		COURSE CREDIT													
COURSE NUMBER	301		FULL COURSE	ULL COURSE () HALF COURSE (x) QUARTER (MODULE) (
INSTRUCTOR(S)	Mohawk College Faculty															
PREREQUISITE(S) Admission into a graduate program																
NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)																
V	то ве О гг 2011	-	Was the Proposed Course Offered on Dean's Approval? NO If Yes, Provide the Date:													
WILL THE COURSE BE <u>Cross-listed</u> with Another Department? NO If Yes, Attach to this Form Any Relevant Correspondence with the Other Department(s). Note: Cross-listing of courses requires approval from <u>each</u> department and faculty concerned.																
CHANGE IN COURSE TITLE		VIDE THE CURREN	CURRENT COURSE TITLE:													
CHANGE IN COURS DESCRIPTION		600-LEVEL COURSE (Undergraduate course for graduate credit) Please see #4 on page 2 of this form														
CHANGE TO FULL O	OURSE		CHANG	CHANGE TO HALF COURSE CHANGE TO QUARTER COURSE												
COURSE CANCELLATION		DE TH	E REASON FOR CO	DURSE	CANCEL	LATION:										
	EXPLAIN:															

BRIEF DESCRIPTION FOR CALENDAR - Provide a brief description (maximum 6 lines) to be included in the Graduate Calendar.

Course Proposal - SGS 301 – English for Academic Purposes

OTHER

This is a mandatory course for all students within participating programs at McMaster University who have gained admission to a program, but have not yet satisfied the English proficiency requirement. This course is assigned at the time of admission and is only available to students admitted to approved partnership programs. Course duration ranges from four to 16 months, dependent on the capabilities of the individual student. This intensive course is intended to provide international students who speak English as a second language with the opportunity to develop their language skills to a university level. The focus is to develop necessary skills in the areas of research, writing, reporting, reading and oral communication, to help them succeed in the university environment. Independent learning, critical thinking, synthesizing information and problem-solving skills are key components, with a further focus on the complex issues of culture and integration into differing academic and professional environments.

CONTENT/RATIONALE - Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.

2. SGS 301 consists of a series of courses that allows candidates to progressively master English language concepts including listening, speaking, reading and writing in order to achieve the minimum standard of 6.5 IELTS (International English Language Testing System) required by the many programs at McMaster University.

1.	STATEMENT OF PURPOSE (How does the course fit into the department's program?)
Mar	ny applicants to McMaster have the discipline knowledge for a program but may be lacking the required English language skills.
2.	EXPECTED ENROLMENT:
Abo	out 10 initially. Steady state should be about 30.
3.	DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL (i.e., lectures, seminars):
see	Appendix A
	DESCRIBE IN DETAIL THE METHOD OF EVALUATION: (For 600-level course, indicate the Extra Work to be required of duate students, i.e., exams, essays, etc.)
	dents take exams to move through the various levels of ESL. When a student successfully completes level 500 AND achieves a imum of 550 on TOEFL (administered by Mohawk College) a PASS will be awarded in this course.
5.	TO PREVENT OVERLAP, IS A COURSE IN THE SAME OR A RELATED AREA OFFERED IN ANOTHER DEPARTMENT? IF YES, PLEASE ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S).
NC	
6.	IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?
PLE	EASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:
Nar	ne: S. Baschiera Email: baschie Extension: 23684 Date:

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

SGS/medy

FOR GRADUATE COUNCIL APPROVAL

NEW GRADUATE SCHOLARSHIP

The Dr. Erwin Regoeczi Prize in Pathology and Molecular Medicine

Established in 2010 by family and friends in honour of Dr. Erwin Regoeczi, Professor Emeritus, in recognition of his significant contributions to research and scholarly teaching in the Department of Pathology and Molecular Medicine at McMaster University. To be awarded by the School of Graduate Studies on the recommendation of the Chair of Pathology and Molecular Medicine to a Master's or Ph.D. student who demonstrates outstanding scholastic achievements and innovative research.



1280 Main Street West Hamilton, Ontario, Canada L8S 4M2 Phone 905.525.9140 Ext. 23679 Fax 905.521.0689 http://graduate.mcmaster.ca/

April 18, 2011

To : Graduate Council

From: Medy Espiritu

Assistant Secretary and SynApps System Administrator

Re : Report from the Faculty Business Graduate Curriculum and Policy Committee

By means of an email ballot conducted on April 7, 2011, the Faculty of Business Graduate Curriculum and Policy Committee approved the following items:

FOR GRADUATE COUNCIL INFORMATION

I. Change in prerequisites for the following courses in Health Services Management:

*C711 – Health Economics and Evaluation -Current prerequisite: None

New prerequisite: *C721 and registration in the Global Health Program, or eHealth Program, or Health Services Management specialization of the MBA, or permission of the instructor

*C721 – Health Policy Analysis - Current prerequisite: None

New prerequisite: Registration in the Global Health Program, or eHealth Program, or Health

Services Management specialization of the MBA, or permission of the instructor

*C722 – Management of Population Health – Current prerequisite: None New prerequisite: Registration in the Global Health Program, or eHealth Program, or Health Services Management specialization of the MBA, or permission of the instructor

*C726 – Critical Issues in Health Services Management Current prerequisite: Registration in the Health Services Management Specialization New prerequisite: *C721 and registration in the Health Services Management Specialization of the MBA or permission of the instructor *C727 – Pharma/Biotech Business Issues – Current prerequisite: None New prerequisite: Registration in the Health Services Management specialization of the MBA or permission of the instructor

*C736 – Quality Management in Health Services – Current prerequisite: None New prerequisite: Registration in the Health Services Management Specialization of the MBA or permission of the instructor

*C741 – Health Care Marketing – Current prerequisite: None

New prerequisite: Registration in the Global Health Program, or Health Services Management

Specialization of the MBA, or permission of the instructor

II. Request from the School of Computational Engineering and Science to cross-list *Q773 – Optimization I

These items will also be presented to the next meeting of the Faculty of Business.



1280 Main Street West Hamilton, Ontario, Canada L8S 4M2 Phone 905.525.9140 Ext. 23679 Fax 905.521.0689 http://graduate.mcmaster.ca/

April 18, 2011

From:

To : Graduate Council

Medy Espiritu

Assistant Secretary and SynApps System Administrator

Re : Report from the Faculty of Engineering Graduate Curriculum

and Policy Committee

At its meeting on April 12, 2011, the Faculty of Engineering Graduate Curriculum and Policy Committee approved the following graduate curriculum recommendations.

FOR GRADUATE COUNCIL APPROVAL

(Please note that approval of Graduate Council is contingent upon approval of the report by the Faculty of Engineering, which will meet on May 26, 2011.)

Electrical and Computer Engineering

Change in the "Courses" calendar description

Walter G. Booth School of Engineering Practice

Calendar copy: Master of Technology Entrepreneurship and Innovation program

FOR GRADUATE COUNCIL INFORMATION

Biomedical Engineering

Change in course title and description

*702 – Medical Imaging Systems II (to be cross-listed as Electrical and Computer Engineering *780 and Medical Physics *702)

Request to cross-list a course:

Medical Physics *770 – Medical Imaging Systems I (to be cross-listed as Biomedical Engineering *770)

New course:

*706 – Biomedical Engineering II (Core)

Chemical Engineering

New courses:

*782 - Biopharmaceuticals

*791 - Nanotechnology in Chemical Engineering

Civil Engineering

New course:

*743 - Fundamentals of Soil Behaviour

Change in course title and description:

761 – Civil Engineering Seminars

Request to cross-list a course:

ES *757 – Advanced Statistical and Data Driven Methods in Hydrology (to be cross-listed as Civil Engineering *757)

Course cancellations:

#713 - Theory of Elasticity

#715 - Structural Stability

#723 - Advanced Steel Design

762 – Civil Engineering Seminar (Ph.D.)

Computational Engineering and Science

Ph.D./M.A.Sc./M. Eng.: Merge two groups of courses into one group

Request to cross-list courses:

Chemistry *6PB3 – Computational Models for Electronic Structure and Chemical Bonding (to be cross-listed as CES *6PB3)

Math *749 – Mathematical and Computational Fluid Dynamics (to be cross-listed as CES *749) Business *Q773 – Optimization I (to be cross-listed as CES *776)

Course cancellations:

#715 – Incompressible Computational Fluid Dynamics

#716 - Mathematical Introduction to Fluid Mechanics

Computing and Software

New course:

*733 – Mobile User Interface Design

Course cancellation:

*747 – Software Architecture Modeling and Reverse Engineering

Electrical and Computer Engineering

New courses:

- *702 Engineering Communication and Presentation
- *703 Advanced Computer Programming for Engineers
- *704 Advanced Engineering Mathematics
- *705 Probability and Stochastic Processes
- *706 Digital Signal Processing
- *709 High Performance Parallel Computing on Graphical Processing Units (GPU)
- *772 Neural Networks and Learning Machines
- *777 Advanced Topics in High Fidelity Image and Video Processing
- *785 Computer Integrated Surgical Systems

Change in course number:

- *707 Linear Systems
- *708 Digital Communications

Request to cross-list courses:

Medical Physics *770 – Medical Imaging Systems I (to be cross-listed as ECE *779)
Biomedical Engineering *702 – Medical Imaging Systems II (to be cross-listed as ECE *780)

Course cancellations:

- *711 Computer-Aided Design
- *715 Simulation and Optimization
- *716 Numerical Solution of Partial Differential Equations in Engineering

Engineering Physics

Change in course title and description:

UN *0805 - Introduction to Operational Health Physics

Materials Science and Engineering

Change to half course:

#764 - Solid State Polymer Analysis

#774 – Injection Metallurgy

#775 - Physical and Mathematical Modeling in Materials Processing

<u>Change to half course, title, and description</u>:

#743 - Advanced Topics in Corrosion Science and Engineering

Mechanical Engineering

Course cancellations:

- *712 Kinematics of Three-dimensional Mechanisms
- *744 Advanced Mechanical Engineering Thermodynamics
- *757 Simulation of Manufacturing Systems

Walter G. Booth School of Engineering Practice

New courses:

- *711 Regeneration of the Natural and Built Environment
- *728 Legal Issues for the Technology-Based Enterprise
- *747 Energy Efficient Buildings

Change to 600-level courses:

- *720 Entrepreneurial Processes and Skills (change to SEP *6E03)
- *721 Breakthrough Technology Venture Development (change to SEP *6EE3)

McMaster School of Graduate Studies University Recommendation for Change in

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

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM: 1. This form must be completed for ALL changes involving degree program requirements/procedures. All sections of this form must be completed. 2. An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator																							
 (Email: espiritu@mcmaster.ca). 3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed. 																							
DEPARTMEI			trical an							e uis	cus	Seu	1.										
NAME OF		Elec	d Con	Computer Engineering																			
PROGRAM PROGRAM DEGREE	Ph.D. (M.A.Sc.				M.B.A.				M. Eng.			M.Sc. ()		Diploma Program ()			Other (Specify		
NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)																							
CHANGE IN REQUIREME		N			_	_		IN C	_				E			CHAI	_		I COURSE				
CHANGE IN SECTION IN		R	х		EXPL Addin			nce	unc	der th	ne Co	ours	ses sec	tion									
OTHER	THER EXPLAIN:																						
DESCRIBE T	HE EXIST	ING R	REQUIR	EMEN	IT/PR	OCE	ĒD	DURE	:														
Currently, 600-level courses are not available for graduate credit within the minimum course requirements of ECE students in the M.A.Sc. or Ph.D. programs.																							
PROVIDE A sufficient.)	DETAILED	DES	CRIPTIO	ON OF	THE	RE	CC	OMM	END	ED C	HA	NG	E (A	ttach	n ac	dition	al p	age	s if	space is	not		
Currently, 60 M.A.Sc. or Ph																			s of	ECE stu	dent	s in tl	ne
																.,							

RATIONALE FOR THE RECOMMENDED CHANGE:

To provide more of a course selection for Master's level students

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

September 2011

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

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

In the Courses section after the sentence starting with "However, these will not be available..." add "PhD candidates in the department may not count courses *702-*709, inclusive, towards minimum course requirements. (see below)

Courses

The following 600-level courses will be offered fo graduate credit to ECE students in the M. Eng. program (to a maximum of two courses) or for extra graduate credits to ECE students in the M.A.Sc. and Ph.D. programs. However, these will not be available for graduate credit within the minimum course requirements of ECE students in the M.A.Sc. or Ph.D. programs. Ph.D. candidates in the department may not count courses *702-*709, inclusive, towards minimum course requirements. Courses marked with an asterisk (*) are half courses. All course prerequisites must be satisfied or students must have permission of the instructor. Credit for graduate courses from previous programs will be considered on a case by case basis by the Department's Graduate Affairs Committee on the recommendation of the student's supervisor.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Kerri Hastings Email: hastings@mcmaster.ca Extension: 24826 Date: April 18, 2011

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

SGS/medy

Admission

Candidates will normally have completed an undergraduate degree in engineering or applied sciences. However, applicants to the Master of Technology Entrepreneurship and Innovation program may have an undergraduate honours degree (or equivalent) from any discipline. Applicants should have an undergraduate degree, with at least a B- average (equivalent to a McMaster 7.0 GPA out of 12). Each applicant will also be interviewed as part of the admission process. Professional work experience will be highly desirable.

Bachelor of Technology students are also required to take the Graduate Record Exam.

- Verbal >550
- Quantitative >550
- Verbal and Quantitative >1200
- Analytical Writing >3.5

Candidates may be enrolled on a full- or part-time basis. Students are admitted for September or January, except for the Master of Engineering Entrepreneurship and Innovation, the Master of Technology Entrepreneurship and Innovation, and Master of Engineering Design programs which only admit in September.

The delivery of the programs relies heavily on the synergy created between members of student teams, and successful operation of the program requires that each cohort have an appropriate blend of skills and experience. Therefore each applicant will be interviewed. A strong performance in the interview is a critical requirement for admission. Prospective applicants who did not attain the required standing in their undergraduate degree, but who have at least four (4) years of relevant work experience, should discuss their situation with the appropriate program director. If the experience is deemed sufficient, the director may then recommend an interview. Evidence of ability to do graduate work will still be required. (See Sections 2.1.1 Admission Requirements for Master's Degree and 2.1.3 Admission of Students with Related Work Experience or Course Work Beyond the Bachelor's Degree in the Graduate Calendar.)

TECHNOLOGY ENTREPRENEURSHIP AND INNOVATION

The Master of Technology Entrepreneurship and Innovation program is a fast paced program aimed at highly motivated students. The program will accept full- or part-time students. The full program is expected to take up to 18 months full-time study or three years part-time. A compressed program of 12 months may be possible.

While students in the Technology Entrepreneurship and Innovation program are not expected to have any engineering or scientific background, they are expected to embrace creativity and innovation. Some basic familiarity with technology is expected, but the required technological depth will depend on the project itself and will be evaluated on a case-by-case basis. Considerable emphasis will be placed on team-based experiential learning in which all members of the team will learn from each other as they complete the project.

A candidate is required to complete successfully two one-term advanced graduate courses and the five compulsory Entrepreneurship and Innovation module courses. A faculty advisor will assist the student in selecting relevant graduate courses. Students will normally be required to complete two graduate level (700 –level) graduate courses in fulfillment of the requirements for Advanced Studies. Advanced studies are an integral component of the program and are offered by various departments in the Faculty of Engineering and beyond. The objective is to acquire leading-edge skills and apply them to the enterprise project.

Innovation and Entrepreneurial Skills Development

Five compulsory enterprise modules will focus on providing the Master's degree candidate basic skills to select an idea with good potential, manage the innovation process, then create and manage the business outcome. The skills will broadly cover all the business cycle from start, growth and sustainability. The modules will develop an understanding of both the innovation and the entrepreneurial processes through lectures, workshops and hands-on work, and will enable the student to fully exploit the potential of the engineering enterprise project. Each module is considered the equivalent of a half-course as defined by the School of Graduate Studies, but will contain elements of lecture, group work, presentation and other activities as defined in the course outline. The module courses will be delivered in an intensive format; and it is expected that students will take the module courses in sequenced numerical order. The module courses are:

- *720 / Entrepreneurial Processes and Skills (Module 1) / R. Loutfy
- *721 / Breakthrough Technology Venture Development (Module 2) / D. Potter
- *722 / Positioning and Shaping an Enterprise (Module 3) / Staff
- *723 / New Venture Business Strategy (Module 4) / Staff
- *724 / Taking a New Venture to Market (Module 5) / S. Treiber

Enterprise Project

The Enterprise Project will run throughout the entire study period and will result in both a business and a technical plan for an engineering prototype product (ideally with an actual prototype device or software produced) with an identified customer base and a plan outlining the way to commercialization. The project will bring together complementary streams of activities to bring an idea to the proof of concept phase. The core Entrepreneurial course stream, will guide the technological work performed in the research laboratory so that the concept becomes, by the end of the degree, the nucleus of a business proposition. The Enterprise project development will be supported by two additional graduate level courses.

The Enterprise Project will have three phases, which will end with project gate assessments to determine the project's readiness to proceed to the next phase:

Phase 1 - Project Preparation: Market research to arrive at a proposed product or service with clear value proposition; define the market for the intended product or service revealing competitive threat, opportunities, and margins and volumes projections; draw up development plans for the product or service indicating the required resources and estimated investment cost; seek the resources within the university and without; build a team of support that might include a partner.

Phase 2 - Technical Research and the Development of the Prototype: Develop a research plan, identifying key issues and opportunities (with the assistance of academic technical and business supervisors); conduct technical research and development; implement the engineering research plan within the research group in the host-engineering department; build a development network within the engineering research community; ready the technology for transfer to market; conduct initial market engagement to get customer feedback and reactions.

Phase 3 - Technology Transfer to Market: Apply for IP protection; develop a path-to-market strategy; develop a business case; present to funding institutions and explore business arrangements; plan for business start-up. Each phase has two equally important components, one technical and the other business:

Phase I: Concept initiation proposal; Technology development plan presentation and documentation

Phase II: Technical Proof-of-concept; Draft financial plan presentation and documentation

Phase III: Business Strategy and Go-to-market plan or a Venture feasibility presentation and documentation The Phase III evaluation will be a defence of your project in an oral examination to your board (technical supervisor, enterprise advisor, business advisor and your business mentor). Candidates are required to complete and pass each phase in order to graduate.

Peer Evaluation and the Enterprise Project

The ability to effectively work in a team environment is an important learning outcome of team-based project work on the Enterprise project. Candidates will be mentored on their progress in this aspect by their enterprise advisor based on input from their peers in the project team and from the observations of the enterprise advisor. Team member evaluations will be collected in confidence from team members by the enterprise advisor, or their designate, on a six-month basis. Every six months the Enterprise Advisor will review the performance of the individual candidate in the team with the candidate. The enterprise advisor will generate an assessment of performance. To successfully complete the program, the candidate must maintain an average rating of "Good" over the span of the enterprise project.

Enterprise Development Lab

The MTEI program is constructed in such a way as to allow students from different disciplines to work in a common learning environment – the Enterprise Development Lab. The Lab is equipped with state-of-the-art communications equipment designed to facilitate both internal and external collaboration with faculty, colleagues, mentors, technical supervisors and private sector representatives, if applicable.



1280 Main Street West Hamilton, Ontario, Canada L8S 4M2 Phone 905.525.9140 Ext. 23679 Fax 905.521.0689 http://graduate.mcmaster.ca/

April 18, 2011

To : Graduate Council

From: Medy Espiritu

Assistant Secretary and SynApps System Administrator

Re : Report from the Faculty of Health Sciences Graduate Policy and

Curriculum Council

At its meeting on April 15, 2011, the Faculty of Health Sciences Graduate Policy and Curriculum Council approved the following graduate curriculum recommendations.

FOR GRADUATE COUNCIL APPROVAL

(Please note that approval of Graduate Council is contingent upon approval of the report by the Faculty of Health Sciences Executive Committee, which will meet on April 27, 2011.)

Medical Sciences

Closure of the Neuroscience & Behavioural Sciences field

Rehabilitation Science

Changes to the calendar description of the admissions requirements for the M.Sc. Thesis and M.Sc. Online

Changes to the calendar description of the "Courses" section

Changes to the calendar description of the Ph.D. Degree

Changes to the Rehabilitation Science introduction section - page 207 of the current graduate calendar

Changes to the calendar description pertaining to other courses – page 210 of the current graduate calendar

FOR GRADUATE COUNCIL INFORMATION

Global Health

New courses:

- *707 Global Burden of Disease
- *715 Supervised Knowledge Opportunity

Health Management

Change in course number:

*770 – Leadership in Health Organizations – from *770 to *708

Health Research Methodology

New course:

*774 – Introduction to Biostatistics (Online)

Change in course title:

*742 – Ethical Issues in Research Involving Human Subjects

Change in course description:

- *721 Fundamentals of Health Research and Evaluation Methods
- *751 Observational and Analytical Research Methods
- *759 Survival Analysis in Health Research
- *771 Fundamentals of Health Research and Evaluation Methods (Online)

Change in method of evaluation:

- *727 Theory and Practice of Measurement
- *743 Systematic Review Methods

Clarification of prerequisites:

*773 – Systematic Review Methods (Online)

Course cancellation:

*725 - Knowledge Exchange and Translation

Nursing

Course cancellation:

*708 – Information and Communication Technology Applications in Health: Theory and Practice

Occupational Therapy

Change in course description:

637 - Disability, Development and Occupation: Inquiry and Integration

*737 – Transition to Practice: Inquiry and Integration VI

*738 – Transition to Practice: Professional Roles and Experiential Practicum VI

*749 - Transition to Practice: Evidence Based Practice VI

Change in course description and method of evaluation

638 - Disability, Development and Occupation: Professional Roles and Experiential Practicum

Physiotherapy

Change in course description:

*634 - Physiotherapy Clinical Practice II

*734 - Physiotherapy Clinical Practice V

Update course information to reflect current status

- *631 Fundamentals of Cardiorespiratory and Neurological Practice/Problem-based III
- *632 Fundamentals of Cardiorespiratory and Neurological Practice/Clinical Laboratory III

713 - Research and Evidence-based Practice

- *731 Integrated Physiotherapy Practice Problem-based VI
- *732 Integrated Physiotherapy Practice Laboratory VI
- *735 Professional Transition

Rehabilitation Science

Change in course description:

*758 – Qualitative Research Methods for Analyzing and Interpreting Data (cross-listed as HRM *758 and Nursing *758)



FACULTY OF HEALTH SCIENCES - GRADUATE PROGRAMS Office of the Associate Dean of Graduate Studies (Health Sciences)

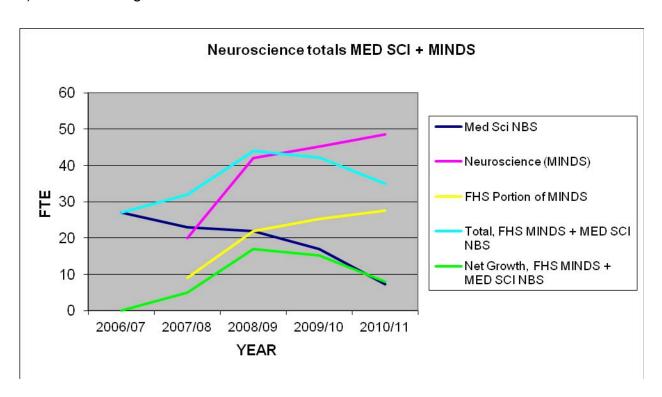
1280 Main Street West, MDCL 2235, Hamilton, ON L8S 4K1 Telephone: (905) 525-9140, Ext. 22982 Fax (905) 546-1129

April 7, 2011-04-07

Proposal to Discontinue the Neuroscience and Behavioral Science Field of Medical Sciences Effective September 1, 2011

The Medical Sciences Program and the Health Sciences Graduate Program Office has evaluated the enrolment in the Neuroscience and Behavioral Science (NBS) Field, three years after the Neuroscience Graduate Program was launched. When the Neuroscience Graduate Program proposal was presented to FHS GPCC for information prior to the program approval, it was acknowledged that there could be competition, leading to eventual closure of this field in Medical Sciences as new students might prefer to enrol in the new program. Enrolment in the Neuroscience Program has grown, while the enrolment in the NBS Field of Medical Sciences has declined.

Figure 1. Changes in enrolment of BIU eligible graduate students (shown as total FTE) in the Neuroscience and Behavioral Science (NBS) Field of Medical Sciences and the Neuroscience (MiNDS) Graduate Program.



There is now extensive overlap in the Health Sciences Faculty Members that are approved to supervise students in the Neuroscience Graduate Program and the NBS Field of Medical Sciences, with most Faculty opting to recruit students through the Neuroscience Graduate Program. Applicants are confused by the fact that McMaster University offers Neuroscience training in more than one program. The NBS Field is no longer a broad focus of the Medical Sciences program and the enrolment in the Field has fallen below the critical mass required to continue. After review of the situation, we are seeking approval to close the NBS Field of Medical Science, effective September 2011.

The Department Chairs, and the Faculty that are supervisors in the NBS Field of Medical Science, have been consulted to ensure that all issues associated with a field closure are addressed. As the Medical Science faculty that have trained graduate students in the NBS Field are now supervisors in the Neuroscience Program, the impact of the proposed field closure is estimated to be minimal. The Program Director of the Neuroscience Program, Kathy Murphy has been consulted and has not identified any concerns. The closure of the NBS Field of Medical Science would allow for more focused Neuroscience training at McMaster University while allowing the Medical Sciences Program to focus on training in other Fields. The records for the students that are presently enrolled in the NBS Field of Medical Science have been reviewed. The program estimates that many of the current students in this field will likely defend in the next six months, leaving a projected 5 students (1 MSc, 4 PhD) in the field as of November 1, 2011. The Medical Sciences Program proposes to roll the remaining students in the field into the Physiology and Pharmacology Field of Medical Sciences, effective September 1st, 2011, so that they can complete their degree in Medical Sciences (note: the degree will be the same as it does not specify the field). Additionally, Neuroscience courses offered by Medical Sciences are under review to determine if they should be discontinued, cross-listed or become Neuroscience program courses.

Respectfully submitted by James Mahony, Assistant Dean of Medical Sciences and Catherine Hayward, Associate Dean of Graduate Studies (Health Sciences)



Dean and Vice-President Faculty of Health Sciences

Hamilton, Ontario. Canada L8N 375

1200 Main Street W. Phone 905,525,9140 Ext. 22100 Fax 905.546.0800 Email keltoni@mcmaster.ca http://www.fhs.mcmaster.ca

April 15, 2011

Allison Sekuler Associate Vice-President and Dean of Graduate Studies GH 212 McMaster University

Re: Discontinuation of NBS Area of Medical Sciences

Dear Allison,

I am writing to bring to your attention the Faculty of Health Sciences leadership's request to put the following item (approved by the Health Sciences Graduate Curriculum Council today) forward to Graduate Council. As it involves the closure of the Neuroscience & Behavioural Sciences field of the Medical Sciences program, I am writing to you as the Dean of our Faculty to request that this item go forward to Graduate Council on April 27th, provided it is approved by the Faculty of Health Sciences Executive (which includes the Chairs of Departments supporting Medical Sciences) on the morning of April 27th.

The discontinuation of this program area has the full support of the Associate Dean of Graduate Studies (Health Sciences) and the Program's Assistant Dean. As indicated in this brief, it is clear that declining enrolment within this stream of the Medical Sciences program has left no alternative but to discontinue the Neuroscience & Behavioural Sciences field at this time. Our Faculty will continue to support neuroscience training in the Interdisciplinary Neuroscience Graduate Program.

Thank you for your assistance in this matter.

Yours sincerely,

Jókn Kelton

Dean and Vice-President, Faculty of Health Sciences

cc:

S. Denburg

C. Hayward

/cw

V:\Dean\Kelton\Sekuler re Grad Council.doc

Admissions Requirements for MSc Thesis & MSc Online

These are the revisions to the section of the calendar describing the MSc and PhD degree for rehabilitation sciences starting on page 208 (after faculty list) based on recent changes.

The general regulations for the M.Sc. and Ph.D. degrees appear under the Regulations for Master's and PhD degrees near the beginning of this Calendar.

For foreign applicants whose native language is not English, evidence of proficiency in the use of the English language is required. The most common evidence is the Test of English. The minimum university requirements are outlined in the *General Regulations of the Graduate School*; preferred standards for admission into the SRS degrees are:

- Paper Based TOEFL: Minimum score of 600 with a minimum speaking score of 45 and minimum of 50 in the other areas.
- Computer Based TOEFL: Minimum score of 250 with minimum oral score of 45.
- Internet Based (iBT) TOEFL: Minimum total score of 92 with a minimum writing score of 22.

M.Sc. Course-based Option

The admission requirements for the course-based option are:

- 1. Graduation from a Physical or Occupational Therapy Entry Level Degree Program; or a four-year health relevant degree program with a minimum of a B+ average in the final year of the program.
- 2. Two academic references. In addition, applicants have the option of providing one work-related reference.
- 3. Written application outlining clinical interests and experience, learning expectations and goals.

For the course-based option, candidates must:

- 1. Complete, with at least a B- standing, a minimum of seven (7) graduate half courses.
 - Five courses, RS *705, *706, *708, *709, *710 are mandatory.
 - Students may take courses RS *700, *701, *702, *703, *707 as electives if they are able to be onsite at McMaster University and *704 dependent on the availability of faculty.
 - Two elective courses may be chosen from among on-campus and other distance education courses, including those offered by other universities. A list of pre-approved courses for electives has been created (see the website) and approved by the Associate Dean of Rehabilitation Science and the Associate Dean of Graduate Studies (Health Sciences).
- 2. Complete RS 730 scholarly paper to demonstrate integrative thinking while addressing an issue in rehabilitation.

M.Sc. Degree -M.Sc. Thesis Option

The admission requirements for the thesis option are:

- 1. Graduation from a Physical or Occupational Therapy Entry Level Degree Program; or a four-year health relevant degree program with a minimum of a B+ average in the final year of the program.
- 2. Two academic references. In addition, applicants have the option of providing one work-related reference.
- 3. A letter (maximum two pages) outlining the proposed training plan (supervisor and research area), research interests and experience; and long term career goals.

For the thesis option, candidates must:

- 1. Complete, with at least a B- standing, a minimum of four graduate half courses:
- An approved Research Methods Course (e.g. RS *707);
- An approved Data Analysis course (e.g. RS *714)
- RS *700: and
- An additional approved course (e.g. RS*701, *702, *703, *704, *711, *712)
- SGS 101 Academic Research Integrity and Ethics (an online module taken by all graduate students)
- The School of Rehabilitation Science has a series of seminars given by rehabilitation scientists. Regular attendance at these seminars is required.
- The student's supervisory committee may require students to take additional courses
- Students may choose additional courses, which may be taken once approved by the student's supervisory committee
- 2. Complete a research thesis on an approved rehabilitation science issue and defend the thesis at a final oral examination.

<u>Transfer Process</u> (from a Masters to PhD program)

Exceptional students enrolled in the McMaster M.Sc. thesis option in the Rehabilitation Science Program can apply to transfer to the Ph.D. after meeting all the course requirements of the M.Sc. and establishing a thesis plan consistent with a PhD. The application must first be approved by the student's committee. Then, a written application is submitted to the SRS Admissions Committee, followed by an oral presentation; at which time a decision on transfer is made.

Rehabilitation Science

These are the revisions to the preamble section of the calendar describing courses on page 209.

Courses

Courses marked with an asterisk (*) are half courses.

Students are responsible for ensuring their course selections meet their program and learning requirements, in consultation with their committee and program faculty/administration. Thesis-based students require permission of their supervisor before registering for courses. Some courses require permission of the course instructor and have enrollment restrictions. Not all courses are offered every year. Students may take more than one special topics (*703/*704) course, but only one may be counted towards the minimum degree requirements. Students taking a special topics course cannot also receive credit for a subsequent regular course offered on the same topic.

Ph.D. Degree

The admission requirements for the Ph.D. are:

- 1. Completion of a thesis-based M.Sc. degree in rehabilitation or a related field with a minimum of a B+ average. Students in non-thesis-based degrees such as entry-level professional Masters (OT or PT or health related professionals degree) or a course-based Masters in a rehabilitation related field may be considered based on a minimum B+ average, combined with evidence of research experience and scholarly writing.
- 2. Two letters of recommendation from referees attesting to your academic/research abilities.
- 3. An up-to-date curriculum vitae.
- 4. A letter (maximum two pages) outlining the proposed training plan (research interests, proposed research project/line of investigation, identified potential supervisors) and previous research experience/training. The letter should also provide an explanation of expectations for financial support including any applications for external funding. Finally, a brief description of tentative future career plans should also be included.

The degree requirements for the Ph.D. are:

- The general regulations for the Degree Doctor of Philosophy appear earlier in the Calendar.
- RS *725 Effective Knowledge Transfer for Rehabilitation Scientists (3 credits)
- An approved Data Analysis or Methods course (3 credits)
- An approved Content Course Relevant to Thesis (3 credits)
- SGS 101 Academic Research Integrity and Ethics (an online module taken by all graduate students)
- The School of Rehabilitation Science has a series of seminars given by rehabilitation scientists. Regular attendance at these seminars is required.
- The student's supervisory committee may require students to take additional courses. PhD students are expected to have previously completed Masters level training in research methods, data analysis and theory. If these have not been completed during Masters level training, then additional courses in research methods/analysis will be required. If a course on the theory of science relevant to Rehabilitation has not been completed at the Master's level, students will be required to complete RS *700.
- Students may choose additional courses, which may be taken once, approved by the student's supervisory committee.
- Candidates are required to complete and pass the Ph.D. Comprehensive Examination. The comprehensive examination will include submission and oral defense of a portfolio designed to demonstrate breadth of knowledge and skills within their field, extending beyond the thesis topic. The candidate will use critical thinking and analysis to complete three tasks: a scholarly paper, a completed funding proposal, and an evaluated knowledge translation tool/intervention. The comprehensive examination will normally be

- completed within 20 months following registration for full time students, and 28 months for part-time students.
- The student will submit and defend a thesis demonstrating an original contribution to rehabilitation science. The supervisory committee determines when a candidate is ready to write the thesis and proceed to defense. The candidate submits a written thesis and defends it at a Final Oral Examination.

Note: This section ends at staff

Preamble to Rehabilitation Science Section Page 207 of Graduate Calendar

The School of Rehabilitation Science offers a M.Sc. and Ph.D. in Rehabilitation Sciences for individuals who have a prerequisite degree in Occupational Therapy, Physiotherapy or another field relevant to Rehabilitation Science; and wish to pursue graduate training in Rehabilitation Science.

There are two options within the Rehabilitation Science Master's programs:

- 1. The thesis option which may be undertaken on a full or part-time basis on campus, and
- 2. The course-based option which is offered on a full or part-time basis; and can be completed entirely through online education, or include on-campus course options.

The M.Sc. course-based option provides training to physiotherapists, occupational therapists and other health professionals who want to obtain a master's degree relevant to their clinical practice. Components of the program are offered as collaboration between the School of Rehabilitation Science and the University of British Columbia. The program provides flexibility for working clinicians at a distance to complete the program entirely online and on a part-time basis. However, students also have the option to take on-campus courses. Courses emphasize evidence-based practice, clinical measurement/evaluation, critical thinking and application of knowledge to practice.

The **M.Sc. thesis option** provides training that will develop knowledge, appraisal and evaluation skills in Rehabilitation Science. Students will study and apply theory, research design, analysis methods, and rehabilitation science to contribute to the conduct and application of rehabilitation research; and assume leadership in health-related roles.

The **Ph.D.** in Rehabilitation Science provides training to develop rehabilitation scientists who will become experts in rehabilitation science, advance rehabilitation research and transfer new knowledge into practice and policy. This competency based program educates students in rehabilitation theory, research design and methods, grantsmanship, scientific writing, knowledge exchange and translation, and teaching/learning strategies.. This option includes coursework, a comprehensive portfolio and a thesis. Graduates will be prepared to take on academic, leadership or research roles.

Rehabilitation Science – changes to page 210 of the graduate calendar

Please remove the entire section on page 210 entitled "Other Courses that may be of interest to students in the thesis option are the following" —this section lists courses in other departments. It is redundant information that is contained in the calendar elsewhere; and there are a number of courses listed that students cannot get into very easily, and others that are appropriate that are not listed here. I think it is fine for supervisors and students to find appropriate courses by looking throughout the calendar.

That would mean that after the description of course 758, the next section of the calendar would be entitled "Courses in the Online Course-based Option".



1280 Main Street West Hamilton, Ontario, Canada L8S 4M2 Phone 905.525.9140 Ext. 23679 Fax 905.521.0689 http://graduate.mcmaster.ca/

April 18, 2011

From:

To : Graduate Council

Medy Espiritu

Assistant Secretary and SynApps System Administrator

Re : Report from the Joint Faculties of Humanities and Social Sciences

Graduate Curriculum and Policy Committee

At its meeting on April 13, 2011, the Joint Faculties of Humanities and Social Sciences Graduate Curriculum and Policy Committee approved the following graduate curriculum recommendations.

FOR GRADUATE COUNCIL APPROVAL

(Please note that approval of Graduate Council is contingent upon approval of the report by the Faculty of Humanities, which will meet on May 26, 2011 and the Faculty of Social Sciences, which will meet on May 24, 2011.)

Communication Studies and New Media

Change in the calendar description of the Major Research Project

Cognitive Science of Language

Change to its Ph.D. comprehensive examination

French

Calendar copy: Ph.D. in French program

History

Change to the Foreign Language Requirement for the Ph.D. program

Philosophy

Change to the calendar description of the Ph.D. program

Health and Aging

Change to the calendar description of the M.A. degree – informing students that they must apply to complete the two-year option

Labour Studies (Work and Society)

Change in course requirements for the M.A. degree

Political Science

Change in the calendar description of the language requirement for the Ph.D. program

Social Work

Calendar copy: Critical Analysis of Social Work field

Water Without Borders

Calendar copy: Water Without Borders Graduate Diploma program

FOR GRADUATE COUNCIL INFORMATION

Communication Studies and New Media

New courses:

*710 – International Communication

*711 - Sound as Art and Research

Change in course title and description:

*704 – Media, Discourse and Reality

*705 – Digital Media and Cultural Exchange

Course cancellations:

*6C03 – Issues in Performance Studies

*6D03 – International Communication

*6E03 - Media and Promotionalism

*6F03 – Topics in Multimedia Production

*6M03 – Communication, Culture and Technology

*6N03 - News Analysis: Theory and Practice

*6P03 - Social Activism and the Media

*6Q03 - Advanced Topics in Communication I

*6QQ3 - Advanced Topics in Communication II

Cognitive Science of Language

New courses:

*6P03 – Advanced Pragmatics

*727 - Visual Language Processing

English / Cultural Studies and Critical Theory

New courses:

- *716 Bob Dylan and American Culture: Memory, Consciousness and Meaning (to be cross-listed as CSCT *716)
- *720 Looking Within: Films about Filmmaking (to be cross-listed as CSCT *720)
- *724 Reproduction, Citizenship, and the Nation/State 2011-2012 (to be cross-listed as CSCT *724)
- *728 Comparative Studies in Nineteenth-Century Literature II
- *757 Gender, Civility, and Courtliness in Early Modern Europe (to be cross-listed as CSCT *757)

Change in course title and description:

- *731 Anxiety Disorders: The Cultural Politics of Risk (to be cross-listed as Globalization *731)
- *766 Feminist, Queer and Trans Theory

Course cross listing:

*765 – Biopolitics: An Introduction (to be cross-listed as Globalization *765)

Course cancellations:

CSCT *704 - Music and Subjectivity in a Global Context

CSCT/English *738 – Intra-African Mobilities

CSCT/English *746 – Reading Sex and Sexuality in Post-Apartheid South Africa

- *781 Debating Canadian Multiculturalism: Literary Production and Cultural Politics
- *792 The Literary and Cultural Theory of Northrop Frye

French

New courses:

- *705 Introduction to Literary Theory
- *710 Research Methods and Professional Practices

History

New courses:

- *706 Culture and Politics in Nineteenth-Century France
- *724 Modern Caribbean History

Change in course title and description:

- *743 Topics in Soviet History
- *761 Themes in the History of the Post-Slavery African Diaspora

Anthropology

New courses:

*786 – Global Futures: Theory, Practice, and Possibility (to be cross-listed as Globalization *786)

*787 – Object Worlds: The Circulation and Value of Material Culture

Economics

Change in course description:

*768 – Advanced Econometrics

Globalization

Cross listing of courses:

History *723 – Global Environmental History (to be cross-listed as Globalization *723)

English/CSCT *731 – Anxiety Disorders: The Cultural Politics of Risk

(to be cross-listed as Globalization *731)

Political Science *758 – Cosmopolitanism and its Critics (to be cross-listed as Globalization *758)

English/CSCT *765 – Biopolitics: An Introduction (to be cross-listed as Globalization *765)

History *766 – Imperialism and Medicine (to be cross-listed as Globalization *766)

Anthropology *786 – Global Futures: Theory, Practice and Possibility

(to be cross-listed as Globalization *786)

Political Science *789 – Global Finance (to be cross-listed as Globalization *789)

Course cancellation:

*738 - Intra-African Mobilities

Health and Aging

New course:

*713 - Reading Course

Change in course description:

*706 – Independent Study

Labour Studies (Work and Society)

New course:

*770 – Special Topics (Labour and the Environment)

Political Science

Change in the calendar description of the Ph.D. comprehensive examination - reformatting (bulleting) of the list of Ph.D. comprehensive exams that may be written in the Major Field 2 (Teaching Field).

New course:

*706 – Comparative Politics of Health Policy

Cross listing of courses:

- *758 Cosmopolitanism and its Critics (to be cross-listed as Globalization *758)
- *789 Global Finance (to be cross-listed as Globalization *789)

Course cancellation:

6P06 – Topics in Political Theory

Social Work

New courses:

- *700 Social Work Practice: Critical Frameworks
- *701 Social Policy: Critical Frameworks

Change in course title and description:

- *721 Community, Citizenship and Social Justice
- *726 Changing Social Service Organizations: Tensions in Practice

Course cancellations:

- *703 Policy Making Process
- *706 Social Welfare & Social Work in the Context of Globalization and Restructuring
- *731 Critical Analysis of Social Work Practice
- *736 Social Work Practice and Social Justice

SCHOOL OF GRADUATE STUDIES

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

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

- This form must be completed for ALL changes involving degree program requirements/procedures. All sections of this form must be completed.
- 2. An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: espiritu@mcmaster.ca).
- A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which

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DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

Major Research Project

In addition to the course requirements, students will complete a major research project under the supervision of a core faculty member. Students will be assigned a supervisor on entry into the program, but have the option of changing supervisors. Any change of supervisor must be submitted for approval to the departmental Graduate Committee by the end of February.

The major research project will be evaluated on a pass/fail basis by the project supervisor.

There are two options for the major research project:

1. A paper (approximately 40 pages) based on original empirical research.

This may consist of primary data gathering and analysis or analysis of secondary data. The paper will provide an opportunity to apply methodological skills acquired in the mandatory research methods course (CSMM 700) to theoretical and substantive issues taken up in other courses. A short proposal outlining the research should be completed and approved by the supervising faculty member by the end of Term II. A copy of the proposal and the supervisor's written approval and comments must be submitted to CSMM's Graduate Committee within one week of approval being given. The Graduate Committee may seek further clarification about the project if deemed appropriate.

2. A digital media product (e.g., a methodological tool, an educational application, or computer game related to communication skills) together with a shorter paper (approximately 15-20 pages) explaining the conception and development of the product.

The digital media product should reflect expertise and knowledge acquired during course work. A short proposal outlining the project must be completed and approved by the supervising faculty member by the end of Term II. A copy of the proposal and the supervisor's written approval and comments must be submitted to CSMM's Graduate Committee within one week of approval being given. The Graduate Committee may seek further clarification about the project if deemed appropriate.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE (Attach additional pages if space is not sufficient.)
The Graduate Committee has deleted and summarized a great deal of text. It has replaced "Students will be assigned a supervisor on entry into the program, but have the option of changing supervisors. Any change of supervisor must be submitted for approval to the departmental Graduate Committee by the end of February." with "The major research project will be evaluated on a pass/fail basis by the project supervisor."
It has deleted "empirical," "This may consist of primary data gathering and analysis or analysis of secondary data," "mandatory," and "A short proposal outlining the research should be completed and approved by the supervising faculty member by the end of Term II. A copy of the proposal and the supervisor's written approval and comments must be submitted to CSMM's Graduate Committee within one week of approval being given. The Graduate Committee may seek further clarification about the project if deemed appropriate."
It has replaced "A digital media product (e.g., a methodological tool, an educational application, or computer game related to communication skills)" with "A digital media project (e.g., a work of art, performance, or installation; methodological tool; a software application; an educational application, or a digital game)" and has replaced "product" with "project" in two subsequent instances.
It replaces "should" with "may" and deletes the following text: "A short proposal outlining the project must be completed and approved by the supervising faculty member by the end of Term II. A copy of the proposal and the supervisor's written approval and comments must be submitted to CSMM's Graduate Committee within one week of approval being given. The Graduate Committee may seek further clarification about the project if deemed appropriate."

RATIONALE FOR THE RECOMMENDED CHANGE:

There are two main rationales for the changes to the description of the MRP. First, this program's description of the MRP is highly detailed for calendar copy. As it stands, the Graduate Committee needs to revise the calendar copy every time a procedural change is made by the department. Second, now that we are two years into the program, we have a better idea of the range of topics and approaches students are pursuing: these changes better reflect what students are doing. They also better reflect the diversity of approaches that researchers pursue in our highly interdisciplinary department.

The copy in the first paragraph was changed because it was overly detailed, as were the proceedural descriptions in options 1 and 2. The language about "empirical," "data gathering," and "secondary data" struck the committee of offering an overly narrow vision of the MRP, which did not account for the range of approaches in the department. The description of CSMM 700 as "mandatory" is redundant. The description of the multimedia MRP as a project, not a product, as well as the revised list of examples better reflects the range of work students and their professors pursue.

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

September 1, 2011

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

N/A

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

Major Research Project

In addition to the course requirements, students will complete a major research project under the supervision of a core faculty member. The major research project will be evaluated on a pass/fail basis by the project supervisor.

There are two options for the major research project:

1. A paper (approximately 40 pages) based on original research.

The paper will provide an opportunity to apply methodological skills acquired in the research methods course (CSMM 700) to theoretical and substantive issues taken up in other courses.

2. A digital media project (e.g., a work of art, performance, or installation; methodological tool; a software application; an educational application, or a digital game) together with a shorter paper (approximately 15-20 pages) explaining the conception and development of the project.

The digital media project may reflect expertise and knowledge acquired during course work.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Dr. Christina Baade Email: baadec@mcmaster.ca Extension: 23736 Date: Feb. 11, 2011

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

Cognitive Science of Language Graduate Program

Ph.D. Comprehensive Exam

The Ph.D. Comprehensive Exam must be completed within two years of entering the Ph.D. program and is articulated in three phases:

- Phase 1: Directed Reading: The student will develop a reading list in collaboration with the supervisor and the Comprehensive Committee (appropriate for each student), by the Spring of the first year of Ph.D. study. The Reading List, established by the Comprehensive Committee, will cover at least two (2) subject areas determined by this committee.
- Phase 2: Written Exam: In the Spring of the second year of the Ph.D. program, students will be required to take a comprehensive exam. The examination is on two distinct areas and may requires the student to complete one assignment in each area, i.e., the student may write two papers (of publishable quality), take two take-home exams, prepare two original experiment reports, or some combination of these. The Comprehensive Committee will determine the appropriate format of the written exam for each student. If the student fails the exam, there will be one opportunity to re-write the exam within one month of the original.
- Phase 3: Oral Exam: Within a— one week of having completed and passed the written exam, the student will be examined orally by the Comprehensive Committee. The Oral Exam will take the form of a discussion of the material submitted for the Written Exam. If the student fails the exam, there will be one opportunity to re-take it.

<u>Submission for 2011 - 2012 Graduate Calendar</u> <u>Department of French Ph.D Degree</u>

<u>Please note:</u> The Department of French has submitted a proposal for a doctoral programme to the OCGS (Ontario Council of Graduate Schools) for approval. All the information supplied below is subject to approval by the OCGS. As well, all information may be modified according to the conditions of approval of the Council.

Ph.D. Degree

The Ph.D. Degree Program will normally be four years in length. Students will be admitted to the Ph.D. program with a completed M.A. in French literature or linguistics, or in a program deemed equivalent. Equivalence will be granted on a case by case basis in consultation with the School of Graduate Studies. Students must obtain a minimum B+ average or equivalent at the Master's level to be considered for admission. All applicants will be required to submit official transcripts, two letters of recommendation, and a detailed statement of interest. As a rule, part-time studies will not be an option at the Ph.D. level. However, in exceptional circumstances, permission to pursue the doctorate part-time might be granted, provided the student adheres to a rigorously scheduled plan of action for completion of all degree requirements within a reasonably limited timeframe.

Note: Applicants to the French Graduate programme are exempted from the TOEFL requirement.

Fields in the program

The Ph.D. program, "Francophonie et diversité", comprises the following three fields:

- 1. Francophone* Theories, Languages and Literatures of the 20th and 21st centuries.
- 2. Colonial and Post-Colonial Contexts in the Francophone World.
- 3. Discourse and Representation of the *Ancien Régime* and 19th Century.

^{* &#}x27;Francophone' includes France and other French-speaking countries and regions.

Program Requirements

The program will be four years in length. By the end of their courses and/or first year of residency, students will select a thesis supervisor who will in turn recommend, for the student's approval, at least two other colleagues – to a maximum of four – as members of the supervisory committee. The Graduate Studies Committee, normally comprised of the Graduate Chair, the Chair of the department, two faculty members and two students (one from the MA, one from the PhD programme), will also vet supervisory committees.

During their third year of the program, students may elect to study or do research abroad, audit classes in other disciplines, at McMaster or at other universities, or participate in a field work/internship program in a Francophone region or country. To spend a period of time in a Francophone region or country, students must obtain the written approval of their committee and of the School of Graduate Studies.

1. Course Work

All graduate students, including part-time students, must complete the course *SGS-101 - Academic Research Integrity and Ethics* within the first twelve months after their admission to graduate studies at McMaster. The purpose of this course is to ensure that the standards and expectations of academic integrity and research ethics are communicated early and are understood by incoming students. A graduate student may not obtain a graduate degree at McMaster without having passed this course. In the event that a student fails this course, they must retake it at the earliest opportunity. The course description for *SGS-101* may be found in Section 11 of the Calendar.

The Ph.D. Degree Program itself includes six half-courses (three units each) of which two are required. The two required half-courses (three units each) are the following: *Introduction to Literary Theory* and *Research Methods and Professional Practices*.

2. <u>Language Requirement</u>

Candidates will successfully pass a proficiency examination in a language other than English or French. The choice of language should be made by the candidate in consultation with her/his supervisory committee. Successful completion of a three-unit, doctoral-level course in another discipline more relevant to the candidate's research topic may be substituted for the language requirement with the approval of the candidate's supervisory committee. This requirement may be fulfilled at any time before completion of the degree.

3. <u>Comprehensive Field Examinations</u>

Ph.D. candidates in consultation with their supervisory committee will choose two areas of concentration: the first will be literary and theoretical in nature and the second interdisciplinary. Candidates will submit an extensive bibliography for each area of concentration and will be assessed by way of a written examination. Candidates will be given one week to complete a ten- to fifteenpage paper for each area. Full-time students will write these examinations within the first twenty months of their program, that is, before the end of April of their second year of residency, assuming the student began residency in September of the first year. These exams are intended as opening stages of the doctoral dissertation. For each examination, candidates must prove their proficiency in the French language and their competence in their selected areas of specialisation. They must display in-depth knowledge, not only of the primary texts, but also of the existing scholarship in their areas of concentration. Candidates must obtain a passing grade. In the event of a failing grade, candidates will have one opportunity to rewrite their exams; this second and final attempt should occur within three months of the date of their first examination.

4. Thesis Project

Students will prepare a 25-page thesis project in consultation with their thesis supervisor. This project will then be presented and examined by the candidate's supervisory committee. An oral defence of the project, conducted by the supervisory committee, must be successfully completed before the candidate can proceed with research and preparation of the thesis manuscript. This requirement should be completed within the first 24 months of the candidate's program.

5. Doctoral Thesis

During the third or fourth year of the program, candidates will write a scholarly thesis of approximately 250 pages (including notes and bibliography), and will defend it at an Oral Examination. The oral examination of the thesis will normally be conducted in French.

Required courses:

Introduction to Literary Theory

This seminar is an introduction to text analysis methods and critical approaches used in French and Francophone studies. It is designed to familiarize students

with the conceptual tools necessary to investigate different cultural texts. Topics addressed may include: discourse analysis, ecocriticism, feminism, genre poetics, narratology, post-colonial theories, post-structuralism, pragmatics, psychoanalysis, queer theories, reception and reader-response theory, Russian formalism, semiotics, etc.

Research Methods and Professional Practices

This course considers practical aspects of research. Il includes advanced training in the use of library resources and online databases, in research techniques for interdisciplinary projects, in writing conference proposals and journal articles, in preparing grant and job applications. The objective of this course is to impart students with effective research and professional skills.



SCHOOL OF GRADUATE STUDIES

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

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

- This form must be completed for <u>ALL</u> changes involving degree program requirements/procedures. <u>All</u> sections of this form <u>must</u> be completed.
- An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: espiritu@mcmaster.ca).
- 3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMEN	NT	His	tory									
NAME OF PROGRAM		His	tory									
PROGRAM DEGREE	Ph.D. (X)	М.А. ()	M.A.S ()	ic.	M.B.A. ()	M. Eng. ()	M.Sc. ()	Diploma Program ()	Other (Specif	
		NAT	JRE OF	RECO	MMEN	DATI	ON (PLEASE	CHECK AP	PROPRIATE E	BOX)		
CHANGE IN REQUIREME		NC					COMPREHENS N PROCEDUR		CHANGE IN (
CHANGE IN SECTION IN					x	Char	LAIN: nge to the proce Degrees.	edure and rules	s for the Foreign	Language Req	uirement f	for
OTHER	EXP	LAIN	:									

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

The current calendar description is as follows:

"Language requirement for doctoral candidates: Competence in English and one other language is the minimum requirement of the Department of History. For candidates selecting as their major field Canadian or Modern British History, the other language will normally be French or German, although utility in the candidate's proposed field of research will be the governing consideration. Candidates in Twentieth Century European History must demonstrate competence in two of French, German, Italian, Russian. Competence in a modern non-English language is deemed to mean the ability to comprehend standard historical prose with the aid of a dictionary. Written tests are administered by the Department for both MA and PhD candidates at intervals throughout the academic year. In particular cases the Supervisory Committee may recommend that a candidate demonstrate proficiency in an additional language or in special methodological skills in preparation for his or her research. Statistics, computer application and programming, applied mathematics, and advanced cartography are examples of such skills which may be demonstrated by arrangement with the Supervisory Committee. All such recommendations must be approved by the Graduate Studies Committee. All language and additional requirements for the PhD must be cleared by the time the Comprehensive Examination is completed."

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

Calendar to now read:

"Language requirement for doctoral candidates: competence in English and one other language is the minimum requirement of the Department of History. For candidates working in Canadian, Modern British, or thematic areas, the other language will normally be French, although utility in the candidate's proposed field of research will be the governing consideration. Candidates working on Twentieth Century European History must demonstrate competence in two of French, German, Spanish, Russian. Competence in a modern non-English language is deemed to mean the ability to translate standard historical prose with the aid of a dictionary. Specific expectations for translation competency are explained in the PhD regulations which are available on the department website. Written tests are administered by the Department for PhD candidates at intervals throughout the academic year. In particular cases the Supervisory Committee may recommend that a candidate demonstrate proficiency in an additional language or in special methodological skills, such as statistics or advanced cartography, in preparation for her or his research. All such recommendations must be approved by the Graduate Studies Committee. With the exception of Twentieth Century European History candidates, the language requirements for the PhD must be cleared by the time the Comprehensive Examination is completed. Twentieth Century European History and other candidates requiring two or more languages, should complete the language requirement most relevant to their dissertation topic before completion of their Comprehensive Examination; the other language requirements may be completed while working on the dissertation but must be cleared prior to the dissertation defense."

RATIONALE FOR THE RECOMMENDED CHANGE:

In regard to the timing of testing languages, this change brings our stated policy into line with how practice has evolved over the past decade. It also makes clearer the standard being applied by substituting a formal translation for the more amorphous and subjective 'comprehension'. Our new policy is designed to be clearer in terms of the responsibilities of both students entering the program and for faculty supervisors.

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

September 2011

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

This completes the revision of language requirements that we began last year with the removal of language requirement for the MA degree.

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

"Language requirement for doctoral candidates: competence in English and one other language is the minimum requirement of the Department of History. For candidates working in Canadian, Modern British, or thematic areas, the other language will normally be French, although utility in the candidate's proposed field of research will be the governing consideration. Candidates working on Twentieth Century European History must demonstrate competence in two of French, German, Spanish, Russian. Competence in a modern non-English language is deemed to mean the ability to translate standard historical prose with the aid of a dictionary. Specific expectations for translation competency are explained in the PhD regulations which are available on the department website. Written tests are administered by the Department for PhD candidates at intervals throughout the academic year. In particular cases the Supervisory Committee may recommend that a candidate demonstrate proficiency in an additional language or in special methodological skills, such as statistics or advanced cartography, in preparation for her or his research. All such recommendations must be approved by the Graduate Studies Committee. With the exception of Twentieth Century European History candidates, the language requirements for the PhD must be cleared by the time the Comprehensive Examination is completed. Twentieth Century European History and other candidates requiring two or more languages, should complete the language requirement most relevant to their dissertation topic before completion of their Comprehensive Examination; the other language requirements may be completed while working on the dissertation but must be cleared prior to the dissertation defense."

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Stephen Heathorn Email: heaths@mcmaster.ca Extension: 24150 Date: 10 Feb. 2010

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

McMaster University

SCHOOL OF GRADUATE STUDIES

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

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

- This form must be completed for <u>ALL</u> changes involving degree program requirements/procedures. <u>All</u> sections of this form <u>must</u> be completed.
- An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: espiritu@mcmaster.ca).
- 3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMEN	NT	Philosophy										
NAME OF PROGRAM		Philosophy										
PROGRAM DEGREE	Ph.D. ()	K) M.A.	()	M.,	A.Sc.	M.B.A. ()	M. Eng.	J.	M.Sc. ()	Diploma Program ()	Other (Specit	
	ı	NATURE O	F REC	ОММ	ENDA ⁻	ΓΙΟΝ (PLEASE	CHECK A	APPI	ROPRIATE E	BOX)		
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CHANGE IN SECTION IN				₹		PLAIN: .D. Degree descr	ription					
OTHER	EXPL	AIN:			•							

DESCRIBE THE **EXISTING** REQUIREMENT/PROCEDURE:

Ph.D. Degree

Admission to the Ph.D. program requires an M.A. in Philosophy or an equivalent degree. Selection is made by the Ph.D. Program Committee of the Department of Philosophy, and any student admitted comes under the general regulations of McMaster University.

The normal course load in the doctoral program is six half courses or the equivalent including the Ph.D. research seminar, which is a required course. Candidates are also expected to demonstrate familiarity with the central areas of philosophy.

Students in the program may be required to demonstrate competence in one or more skills which their supervisory committee decides, in consultation with the program officer, is needed for their dissertation (e.g., a language other than English, logic). Also required are successful completion of an Oral Qualifying Examination in which the dissertation proposal is presented; a satisfactory dissertation and oral defense.

A detailed description of the doctoral program is available at http://www.humanities.mcmaster.ca/~philos/PHD.html.

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

The normal course load in the doctoral program is six half courses or the equivalent including the Ph.D. research seminar, which is a required course. Candidates are required to demonstrate a comprehensive knowledge of the central areas of philosophy by meeting five area requirements, chosen in consultation with the PhD Advisor.

The areas are:

Ancient and Medieval Philosophy; Modern Philosophy 1600 to 1800;

Continental Philosophy from 1800;

British and American Philosophy from 1800;

Ethics and Value Theory;

Metaphysics and Epistemology;

Social, Political, and Legal Philosophy; Logic,

Philosophy of Language, and Philosophy of Science.

RATIONALE FOR THE RECOMMENDED CHANGE:

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

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

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

Ph.D. Degree

Admission to the Ph.D. program requires an M.A. in Philosophy or an equivalent degree. Selection is made by the Ph.D. Program Committee of the Department of Philosophy, and any student admitted comes under the general regulations of McMaster University.

The normal course load in the doctoral program is six half courses or the equivalent including the Ph.D. research seminar, which is a required course. Candidates are also expected to demonstrate familiarity with the central areas of philosophy. Candidates are required to demonstrate a comprehensive knowledge of the central areas of philosophy by meeting five area requirements, chosen in consultation with the PhD Advisor.

The areas are:

Ancient and Medieval Philosophy; Modern Philosophy 1600 to 1800;

Continental Philosophy from 1800;

British and American Philosophy from 1800;

Ethics and Value Theory;

Metaphysics and Epistemology;

Social, Political, and Legal Philosophy; Logic,

Philosophy of Language, and Philosophy of Science.

Students in the program may be required to demonstrate competence in one or more skills which their supervisory committee decides, in consultation with the program officer, is needed for their dissertation (e.g., a language other than English, logic). Also required are successful completion of an Oral Qualifying Examination in which the dissertation proposal is presented; a satisfactory dissertation and oral defense.

A detailed description of the doctoral program is available at http://www.humanities.mcmaster.ca/~philos/PHD.html.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Daphne Kilgour Email: kilgoud Extension: 24312 Date: April 1, 2011

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



SCHOOL OF GRADUATE STUDIES

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

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

- This form must be completed for <u>ALL</u> changes involving degree program requirements/procedures. <u>All</u> sections of this form <u>must</u> be completed.
- An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: espiritu@mcmaster.ca).
- 3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMEN	NT	Не	alth Aging	& Socie	ety						
NAME OF PROGRAM		М.	A. in Health	n & Agiı	ng						
PROGRAM DEGREE	Ph.D.	()	M.A. (>	()	M.A.S ()	c.	M.B.A. ()	M. Eng. ()	M.Sc. ()	Diploma Program ()	Other (Specify)
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OTHER		PLAIN orming		hat they	/ must a	apply t	o complete the	two year opt	ion of the MA pro	gram.	

DESCRIBE THE **EXISTING** REQUIREMENT/PROCEDURE:

Students can select whether they do a one year or two year option.

M.A. Degree

The M.A. offers students a critical social science perspective and an interdisciplinary approach to the study of health and aging. Admission to the M.A. degree program requires an average of B+ or better in an undergraduate Honours degree or equivalent.

Degree Requirements

Students will have two options for completing their M.A.

A. Course Work and Research Paper Option (one year)

Students will be required to complete six (6) half courses, including:

- (i) *701/ Social Science Perspectives on Health and Aging and *702/ Research Methods & Design in Studies of Health & Aging (ii) Any one of the following courses: *703/ Health & Aging in a Global and International Context; *704/ Systems Services and Policy; *705/ Socio-Cultural Aspects of Health and Aging.
- (iii) Three elective courses offered by Health Aging and Society or by another department or academic unit (provided that permission has been obtained from those departments or academic units). One of the three courses can be taken as an independent study with a faculty member (*706/ Independent Study). Only two of the three elective courses may be taken in a department or academic unit other than Health Aging and Society.
- (iv) A research paper (7500-8500 words, excluding endnotes and bibliography) supervised by a core or associate faculty member. The research paper will be read by the supervisor and another faculty member. (If the supervisor is an associate member, then the second reader must be a core faculty member selected by the supervisor in consultation with the student).

B. Course Work and Thesis Option (two years)

Students will be required to complete four (4) half courses, including:

- (i) *701/ Social Science Perspectives on Health and Aging and *702/ Research Methods & Design in Studies of Health & Aging. (ii) Any one of the following courses: *703/ Health & Aging in a Global and International Context; *704/ Systems Services and Policy; *705/ Socio-Cultural Aspects of Health and Aging.
- (iii) One elective course offered by Health Aging and Society or by another department or academic unit (provided that permission has been obtained from those departments or academic units). This elective course may be taken as an independent study with a faculty member (*706 / Independent Study).
- (iv) A thesis that involves original and independent research (20,000 25,000 words) excluding endnotes and bibliography) supervised by a core faculty member or an associate member if approved by the graduate committee. The thesis will be orally examined by a committee including the supervisor and two other faculty selected by the thesis supervisor in consultation with the student.

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

M.A. Degree

The M.A. offers students a critical social science perspective and an interdisciplinary approach to the study of health and aging. Admission to the M.A. degree program requires an average of B+ or better in an undergraduate Honours degree or equivalent.

Upon admission, students will be accepted into the one year course work and research paper option. Students must apply for the two year course work and thesis option during their first term of studies.

Degree Requirements

Students will have two options for completing their M.A.

A. Course Work and Research Paper Option (one year)

Students will be required to complete six (6) half courses, including:

- (i) *701/ Social Science Perspectives on Health and Aging and *702/ Research Methods & Design in Studies of Health & Aging (ii) Any one of the following courses: *703/ Health & Aging in a Global and International Context; *704/ Systems Services and Policy; *705/ Socio-Cultural Aspects of Health and Aging.
- (iii) Three elective courses offered by Health Aging and Society or by another department or academic unit (provided that permission has been obtained from those departments or academic units). One of the three courses can be taken as an independent study with a faculty member (*706/ Independent Study). Only two of the three elective courses may be taken in a department or academic unit other than Health Aging and Society.
- (iv) A research paper (7500-8500 words, excluding endnotes and bibliography) supervised by a core or associate faculty member. The research paper will be read by the supervisor and another faculty member. (If the supervisor is an associate member, then the second reader must be a core faculty member selected by the supervisor in consultation with the student).

B. Course Work and Thesis Option (two years)

Students will be required to complete four (4) half courses, including:

(i) *701/ Social Science Perspectives on Health and Aging and *702/ Research Methods & Design in Studies of Health & Aging. (ii) Any one of the following courses: *703/ Health & Aging in a Global and International Context; *704/ Systems Services and

Policy; *705/ Socio-Cultural Aspects of Health and Aging.

- (iii) One elective course offered by Health Aging and Society or by another department or academic unit (provided that permission has been obtained from those departments or academic units). This elective course may be taken as an independent study with a faculty member (*706 / Independent Study).
- (iv) A thesis that involves original and independent research (20,000–25,000 words excluding endnotes and bibliography) supervised by a core faculty member or an associate member if approved by the graduate committee. The thesis will be orally examined by a committee including the supervisor and two other faculty selected by the thesis supervisor in consultation with the student.

RATIONALE FOR THE RECOMMENDED CHANGE:
The rationale is the department needs to be assured that the student has the capacity to complete the two year course work and thesis option.
PROVIDE IMPLEMENTATION DATE: (Implementation date should be at the beginning of the academic year)
Beginning of the academic year - September 2011
ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.
N/A
PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:
See above.
CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:
Name: James Gillett Email: gillett@mcmaster.ca Extension: 27424 Date: February 15, 2011

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



SCHOOL OF GRADUATE STUDIES

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

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		ust be completed for ALL changes involving degree program requirements/procedures. All sections of this form												
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DEPARTME	NT	Lab	our Stud	ies										
NAME OF PROGRAM		Wo	rk and So	ociety										
PROGRAM DEGREE	Ph.D. ()	М.А. ((x)		.A.Sc. ()	÷.	M.B.A. ()	M. Eng] .	M.Sc. ()	Diploma Program ()	Othe (Speci	-
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1) The existing	ng MRP red	quiren	nent is 6	,000-7	,000 v	words.	i.							
2) The existing	ng thesis re	quire	ment is 1	10,000	-15,00	00 wo	ords.							
	We currently require an introduction to methods course based on six three hour sessions, each focusing on a research methods. is is a pass fail course.													
PROVIDE A sufficient.)	OVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE (Attach additional pages if space is not fficient.)													
1) Increase M	IRP length	to 10),000-12,	000										
2) Increase th	nesis lengtl	n to 1	5,000-20	0,000										
3)Replace In	troduction	to Me	ethods											

In place of the existing methods introduction we propose that during their studies, students be required to participate in at least four seminars and to prepare a short report on the research methods employed. These seminars can include faculty seminars in Work

and Society, faculty seminars in other departments, or presentations at conferences attended by the students.

RATIONALE FOR THE RECOMMENDED CHANGE:

The increased length for MRPS and Thesis brings our program into line with similar programs at other universities. Our experience has been that students have had trouble keeping to the existing work lengths and were requesting more flexibility to develop issues in more detail.

Our existing approach to inroducing students to methods has not worked well and has met with resistance from students. As an interdisciplinary program it is unclear what methods we should focus on and as a result our current approach explores this issue too superficially. As an alternative we are asking students to attend four faculty seminars or conference papers. This gives students more flexibility and exposes them to a range of ideas. They are asked to prepare a short piece on the methodology used in the papers.

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

September 2011

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

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

- 1)The new word requirement for MRPs and Thesis simply replace the ones that are in the calender copy.
- 2) What follows is to replace the existing description of the Methods requirement in our calender copy

Introduction to Methods

During their studies, students are required to attend at least four faculty seminars and to prepare a short report on the research methods employed. These seminars can include faculty seminars in Work and Society, faculty seminars in other departments, or presentations at conferences attended by the students.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Wayne Lewchuk Email: Lewchuk@mcmaster.ca Extension: 27293 Date: January 5/2011

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



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

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			must	be emaile	d to tl	he Assistant Se	cretary and	Syn	Apps System	Administrator		
		ncmaster.ca). om the departi	ment is	s required	to att	end the Faculty	Curriculum	n and	Policy Comm	ittee meeting du	ring whic	h
						n will be discus						
DEPARTMEN	NT	Political Scient	ence									
NAME OF PROGRAM		Ph.D. Degre	ee									
PROGRAM DEGREE	Ph.D. ()	×) M.A. ()	M.A.S		M.B.A.	M. Eng ()	 -	M.Sc. ()	Diploma Program ()	Othe (Speci	
	ı	NATURE OF	REC	OMMEN	DAT	ION (PLEASE	CHECK	APP	ROPRIATE	BOX)		
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B. Degree Re	equirement	s										
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B. Degree Re	equirement	S										
2. Demonstra	te reading	and research	comp	etence in	an ap	proved languag	e other tha	ın En	glish.			

RATIONALE FOR THE RECOMMENDED CHANGE:
Students must demonstrate reading and research competence in an approved language other than English. Competence in a language is deemed to mean the ability to comprehend government documents, newspapers and scholarly publications with the aid of a dictionary and, when it is appropriate to the student's intended means of research, to be able to speak and comprehend to a level that will allow the student to conduct interviews.
PROVIDE IMPLEMENTATION DATE: (Implementation date should be at the beginning of the academic year)
September 2011
ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.
No
PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:
B. Degree Requirements
2. Demonstrate reading and research competence in an approved language other than English.

Name: Karen Bird Email: kbird@mcmaster.ca Extension: 23701 Date: February 18, 2011

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

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



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

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PROGRAM DEGREE	Ph.D. ()	M.A. ()	M.A.S		M.B.A. ()	M. Eng. ()	M.Sc. ()	Diploma Program ()	Other (Specify MSW	<i>y)</i>
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OTHER	EXPL											
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PROVIDE A sufficient.)	DETAILED) DES	CRIPTIC	ON OF	THE RE	COMI	MENDED CHAI	NGE (Attach	additional page	es if space is n)t	
Please see at	ttached.											

RATIONALE FOR THE RECOMMENDED CHANGE:

Collapsing the two existing fields (Policy and Practice) to one, Critical Analysis of Social Work. The two fields have always shared a common theoretical emphasis on the critical analysis of established service and policy frameworks and of the contestable forms of knowledge in which they are rooted. Both require students to examine the power relations and patterns of privilege and oppression in which social work and social welfare are embedded. The inter-relatedness of the two fields is reflected in faculty members' research which generally bridges both areas.

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

September 1, 2011

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

N/A

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

Please see attached.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Dr. Stephanie Baker Collins Email: sbcollins@mcmaster.ca Extension: 23779 Date: Dec. 7, 2010

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

MSW Curriculum with two separate fields:

MSW Policy	MSW Practice
703, Policy Making Process	731, Critical Analysis of Social Work Practice
706, Social Work and Social Welfare in the Context of Globalization and Restructuring	736, Social Work Practice and Social Justice
721, Community Based Social Policy	726, Institutional Structuring of Practices in SW
737, Critical Approaches to SW Knowledge	737, Critical Approaches to SW Knowledge
738, Research Methods for Social Work	738, Research Methods for Social Work
One El	ective
The	sis

An integrated MSW curriculum:

	Integrated MSW Curriculum
	700, Social Work Practice: A Critical
	701, Social Policy: A Critical Framework
7.	37, Critical Approaches to SW Knowledge
	738, Research Methods for Social Work
	Elective One; 726 or 721
	Elective Two
	The Thesis

The first two courses in the curriculum outlined above set the stage for students with a critical examination of social work practice and of social policy. The first elective takes this examination further in paying attention to how the broad themes in the first two courses play out on the ground in the context of either direct service delivery/practice or community practice. The research courses prepare students for undertaking the thesis. And the final elective gives students an opportunity to explore in more depth, a particular substantive area.

The School of Social Work offers a one year (12 month) thesis-based program leading to the degree Master of Social Work (M.S.W.). There are two areas of concentration — Analysis of Social Welfare Policy and Analysis of Social Work Practice. A commitment to critical analysis in the service of social justice underpins this program. The program is accredited by the Canadian Association of Schools of for Social Work Education as a graduate program in social work.

M.S.W. Degree

ANALYSIS OF SOCIAL WELFARE POLICY

The aim of this concentration is to prepare graduates for policy analysis and decision-making roles that have the potential for changing services and practices. Emphasis is on the critical analysis of existing policies and the design of new policies. An objective of fundamental importance is to assist students to ask the right questions, and to appreciate the differing contribution of values and empirical evidence in policy making.

This area of concentration prepares graduates for careers concerned with policy analysis, design, and evaluation in the public and private sectors.

ANALYSIS OF SOCIAL WORK PRACTICE

This concentration focuses on the development of analytic skills concerned with direct social work practice. Students build on their practice knowledge base to increase their ability to identify and analyze social work theories and examine how they are utilized within a changing social, political, and economic context.

This concentration prepares graduates who will have responsibility as supervisors in social agencies and social work programs, have staff training or consulting responsibilities, or have responsibility for conducting research concerning social work practice and/or programs. Others may use their analytic skills to better perform their professional practice.

In addition, the M.S.W. program prepares students for advanced study in the field of social work.

Candidates may be enrolled on a full-or part-time basis. Full-time students will complete the program in twelve consecutive menths of study, beginning in September. Part-time students will normally be expected to complete the program in about three years.

CRITICAL ANALYSIS OF SOCIAL WORK

A commitment to critical analysis in the service of social justice underpins this program. This degree focuses on the development of analytic skills with regard to social work practice and social policy. Students will build on existing knowledge to increase their ability to identify and analyze practice and policy theories and examine how they are utilized within a changing social, political, economic and global context.

Students will engage in analyzing social problems and policies, critique existing practices, challenge established knowledge, research alternative approaches and contribute to the development of innovative policies and practices.

This program will prepare candidates for a range of positions in the field (e.g. policy analysts, directors of services or agencies, program managers, supervisors, senior practitioners, researchers, social planners and advocates) and for doctoral level study.

Candidates may be enrolled on a full- or part-time basis. Full-time students will complete the program in twelve consecutive months of study, beginning in September. Part-time students will normally be expected to complete the program in about three years.

Admission

To be eligible for admission to either concentration of the Master of Social Work Program, applicants are required to hold a B.S.W. degree from an accredited social work program. In addition, admission requirements are:

(a) half course in introductory social research methods; (b) B+ standing* in senior level social work courses.

(A) Distancing in school of Social Work prior to January 5th December 15th for admission the following September.

Curriculum

The curriculum has three main components:

- 1. Required courses that provide the content and methodological skills necessary for policy and practice analysis;
- 2. Elective course(s) that enable students to deepen their knowledge of one substantive policy or practice field of their choice practice and policy in the inner workings of social agencies and in social change efforts at the community level;
- Thesis designed to integrate analytical and evaluative skills and to elucidate the contribution of knowledge to policy or practice contribute to the critical analysis of policy and practice.

ANALYSIS OF SOCIAL WELFARE POLICY

Candidates for the M.S.W. degree in Analysis of Social Welfare Policy concentration will follow a program consisting of the following:

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1. Required Courses

Five Four half courses:

700 / Social Work Practice: Critical Frameworks

701 / Social Policy: Critical Frameworks
*703 / Policy Making Process
*706 / Social Welfare & Social Work in

the Context of Globalization & Restructuring

*721 / Community-Based Social Policy

*737 / Critical Approaches to Social Work Knowledge

*738 / Research Methods for Social Work

2. One Two elective courses (see below)

i) at least one of:

*721 / Community, Based Social Policy Citizenship and Social Justice
*726 / Institutional Structuring of Practices in Social Work Changing So

ces in Social WorkChanging Social Service Organizations: Tensions in Practice

ii) One additional elective (see below)

ANALYSIS OF SOCIAL WORK PRACTICE

Candidates for the M.S.W. degree in Analysis of Social Work Practice concentration will follow a program consisting of the following:

1. Required Courses

*726 / Institutional Structuring of Practices in Social Work

*731 / Critical Analysis of Social Work Practice

*736 / Social Work Practice and Social Justice

*737 / Critical Approaches to Social Work Knowledge

*738 / Research Methods for Social Work

2. One elective (see below)

Electives Open to Both Concentrations

Electives enable students to deepen their knowledge in a substantive field of their choice and to develop a capacity to analyze systematically existing policies or practices in that field. All students take one elective which can be selected from the following: *705 / Directed Readings

*711 / Children and Families

*721 / Community. Citizenship and Social Justice-Based Social Policy

*722 / Topics in Advanced Social Work

Changing Social Service Organizations: Tensions in Practice

In planning the course of study, students should consult with their advisor concerning possible elective(s) which may be taken outside the School of Social Work. Electives offered in a given year are subject to the availability of faculty.

3. A Thesis for Both Concentrations

Each student is required to complete a thesis. It offers students an opportunity to build upon their particular experiences and interests and upon perspectives and materials introduced in courses, and to demonstrate their capacities for the critical study and analysis of policy and practice. The thesis (12,500 words) is supervised by a faculty member and orally examined by a committee including the supervisor and two other faculty members.

Ph.D. Degree

The School of Social Work offers a Ph.D. degree in Social Work in the field of Social Justice.

Admission

To be eligible for admission to the Ph.D. program, applicants are normally required to have:

a) a completed MSW degree with an average of at least an A-.

(Applicants with Master's degrees in other subjects must be able

to demonstrate substantial knowledge of the social service/ social welfare field and have experience of working in justice and equity-seeking

services or organizations);

b) a completed graduate level course in social research methods; and

c) demonstrated interest and experience in critical approaches to policies, practices and knowledge-building in social work.

Applicants will be evaluated on the basis of their qualifications and the alignment of their interests with the research interests and availability

of faculty.

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Curriculum

The curriculum has three main components:

1. Course requirements. Candidates for the Ph.D. are required to

complete a minimum of six post-MSW courses.
* 770 / Social Work and Social Justice: Theoretical Tensions

*771 / Research for Social Change

*772 / Qualitative Methods for Social Work

or a methods course selected from another department

(e.g. quantitative, historical, mixed methods) *773 / Doctoral Research Seminar

Two elective courses. Students will be encouraged to take at least one of their elective courses in another department in order

to profit from the interdisciplinary opportunities at McMaster. A Ph.D. candidate admitted without Master's level courses in

epistemology (*737) and in critical analysis of practice/ policy (*700/731 or

*701/703) will be expected to complete these courses in addition to the

requirements of the doctoral program.

Candidates may be required to complete courses beyond the minimum course requirements of the program in order that they achieve the breadth of perspective required by the program and are sufficiently prepared for their research.

Water Without Borders

McMaster University and the United Nations University-Institute for Water, Environment & Health

Water Without Borders is a collaborative graduate diploma program between McMaster and the United Nations University-Institute for Water, Environment & Health or UNU-INWEH. The aim of the program is to provide an inter-disciplinary, research and policy oriented learning experience for students interested in the relationship between water and environment and/or health. Access to safe water and sanitation, the economics of water provision, the impact of climate change on water, environment and health, and the development of international policies to ensure water access, environmental sustainability and human health are among the issues that the program addresses.

There is no tuition fee for the program, but students are expected to fund the cost of the field course (WWB 701, see below) themselves.

Admission

The program is open to any student who is enrolled in or has accepted an offer admission to a graduate program (at the Maters or Doctoral level) in any of the six Faculties at McMaster. Applicants will be evaluated on the basis of their grade transcripts, reference letters and statement of interest. The evaluation will be made in terms of the applicant's qualifications and interests in relation to the research goals and program of UNU-INWEH, and the ability of UNU-INWEH researchers to provide co-supervision. Applications that have met the eligibility requirement will be assessed by the Water Without Borders program committee. Students can only be admitted at the start of the academic year.

Requirements

Students who are admitted to the program are required to complete the three courses that constitute the core curriculum. In addition to these courses, Water Without Borders students are also expected, in consultation with their home department supervisor, to involve their UNU-INWEH co-supervisor in the principal research activity (e.g. an independent study course, major research project or thesis for Masters students, or dissertation for PhD students) they are undertaking for their graduate degree.

Courses

The curriculum consists of three courses, all of which are non-credit courses at McMaster and all of which are required to graduate from the program.

(1) WWB 701 Field course

At some point during the main academic year (September to April), students will participate in a one week field trip linked to a UNU-INWEH project in a developing country. Core faculty will accompany the students on the trip, the objective of which will be to ground the students in the research focus of the program as well as its core principles. Upon return from the field, a brief reflection paper must be submitted by each student to his/her UNU-INWEH co-supervisor before the end of the second term.

(2) WWB 702 Principles of International Policy Development

This course consists of a bi-weekly seminar conducted over two terms. It is designed to address issues of transdisciplinary research on the water-health nexus, science-policy bridging, knowledge translation and brokering, and capacity building.

The seminar involves participation from UNU-INWEH researchers, McMaster faculty and guest speakers in the form of lectures, discussion and debates.

(3) WWB 703 Practicum

Beginning in the second term, individual students will have a second immersion experience in the work and activities of UNU-INWEH. This will be equivalent to no more than 12 person days and will normally be completed no later than mid-June of Term III. The practicum will be organized by the UNU-INWEH co-supervisor in consultation with other members of the student's supervisory committee.

The **objective** of the practicum will be to reintroduce the student (post course-work) to the core principles of the program via a practical experience related to UNU-INWEH's day to day activities. This will involve the student participating in the development of a short written piece of work relevant to UNU-INWEH activities such as a position paper, an op-ed piece, or policy brief.

Contact Information

More information about the Water Without Borders program can be found on the program website: http://www.socialsciences.mcmaster.ca/water-without-borders

For additional information, please email wwbdir@mcmaster.ca



1280 Main Street West Hamilton, Ontario, Canada L8S 4M2 Phone 905.525.9140 Ext. 23679 Fax 905.521.0689 http://graduate.mcmaster.ca/

April 18, 2011

To : Graduate Council

From: Medy Espiritu

Assistant Secretary and SynApps System Administrator

Re : Report from the Faculty of Science Graduate Curriculum, Policy,

Admissions and Study Committee

At its meeting on April 15, 2011, the Faculty of Science Graduate Curriculum, Policy, Admissions and Study Committee approved the following graduate curriculum recommendations.

FOR GRADUATE COUNCIL APPROVAL

(Please note that approval of Graduate Council is contingent upon approval of the report by the Faculty of Science, which will meet on May 26, 2011.)

Mathematics

Change in course requirements for the Ph.D. program – reduce course requirements for Ph.D. students who have already fulfilled the M.Sc. course requirements

Change in course requirements for the M.Sc. program – harmonize requirements for M-phimac students with regular M.Sc. (Project) students

Statistics

Change in course requirements for the M.Sc. program – Statistics *770 will be a required course

FOR GRADUATE COUNCIL INFORMATION

Biology

Change from Biology *6DD3 to Molecular Biology *6DD3 Change from Biology *6H03 to Molecular Biology *6H03

Change from Biology *6P03 to Molecular Biology *6P03

Course cancellations:

*6Y03 – Ecology of Inland Waters 764 – Ultrastructure of Cells

New course:

*6YY3 – Ecology and Management of Coastal Waters

Chemistry

Request to cross-list a course:

*6PB3 – Computational Models for Electronic Structure and Chemical Bonding (to be cross-listed as CES *6PB3)

Geography and Earth Sciences

New courses:

- *758 Advanced Structural Geology
- *759 Numerical Modelling in Global Climatology

Course cancellations:

- *6003 Environmental Isotope Geochemistry
- *6Q03 Sedimentary Geochronology
- *6S03 Advanced Topics in Spatial Statistics

Kinesiology

Course cancellation:

*716 – Skeletal Muscle Cell Biology and Clinical Myology

Mathematics

New courses:

*749 – Mathematical and Computational Fluid Dynamics (to be cross-listed as CES *749)

#778 - Applied Computational Finance I

#779 - Applied Computational Finance II

<u>Change in course title and description</u>:

*711 – Model Theory

Course cancellations:

*773 - Applied Computational Finance

Statistics (Dr. N. Balakrishnan)

New course:

*721 – Statistical Modelling in Practice

Change in course description:

*770 - Statistics Seminar

Medical Physics

Change in course title and description:

*770 – Medical Imaging Systems I (to be cross-listed as Biomedical Engineering *770 and Electrical and Computer Engineering *780)

Change in course description:

*776 – Introduction to Operational Health Physics

Request to cross-list a course:

Biomedical Engineering *702 – Medical Imaging Systems II (to be cross-listed as Medical Physics *702)

Psychology

Course cancellation:

#721 - Scientific Ethics and Professional Issues



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

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

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

 An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator

 (Email: espiritu@mcmaster.ca). 3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed. 												
DEPARTME	NT	Mathematics	ematics & Statistics									
NAME OF PI	ROGRAM	PhD in Math	ematics	S								
PROGRAM DEGREE	Ph.D. (2	X) M.A.	M.A.Sc.		_	M.B.A. ()	M. Eng.		M.Sc. ()	Diploma Program ()	Other (Specify)	
	!	NATURE O	REC	OMMEN	DAT	ION (PLEASE	CHECK	APF	PROPRIATE E	BOX)		
CHANGE IN ADMISSION CHANGE IN COMPREHENSIVE CHANGE IN COURSE REQUIREMENTS										X		
	CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR X EXPLAIN: Reduce course requirements for PhD students who have already fulfilled the MSc course requirements.											
OTHER EXPLAIN:												
DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE: The minimum course requirement for the Ph.D. is four one-term courses beyond the Master's degree and acceptable to the department.												
							•		Iditional pages the MSc level to t	-	·	

RATIONALE FOR THE RECOMMENDED CHANGE:

The current policy requires students who have completed an MSc in mathematics to complete a minimum of 10 one-term courses during their PhD and MSc studies. This minimum is inappropriate given the range of appropriate courses currently offered and the fact that essentially all PhD students enter through the MSc programme (either by transferring or completing an MSc).

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

Fall 2011

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

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

The minimum course requirement for the PhD is two one-term courses beyond the MSc acceptable to the department.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Nicholas Kevlahan Email: kevlahan@mcmaster.ca Extension: 23412 Date: 2011-01-20

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

SGS/December 2006

McMaster University

SCHOOL OF GRADUATE STUDIES

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

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:

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

DEPARTMENT		Mathematics & Statistics											
NAME OF P	MSc in M	MSc in Mathematics											
PROGRAM DEGREE	···· Ph D / 1 M A		ı. ()	M.A.Sc.		e. M.	B.A.)	M. Eng.		M.Sc. (X)	Diploma Program ()	Other (Specify)	
NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)													
					ANGE IN COMPREHENSIVE CHANGE IN COURSE REQUIREMENTS							X	
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR					EXPLAIN: Add an M-phimac option to the MSc and update PhD course requirement to two courses for those students transferring from the MSc.								
OTHER	EXPI	_AIN:											

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

M.Sc. Degree

Applicants will be considered for admission to the M.Sc. program if they have a B+ average in the final year of an honours Bachelor's degree in Mathematics, or in a related area. They may apply to follow one of three options. In all options, at most two one-term 600-level courses may be used to fulfill the course requirement.

A. Thesis option

A candidate for the M.Sc. with thesis must complete a minimum of six one-term graduate courses and submit a thesis written under the supervision of a faculty member and based on original research. The thesis is defended in an oral examination. The duration of this option is normally 20 months.

B. Project Option

A candidate for the MSc with project must complete a minimum of seven one-term graduate courses, one of which is required to be Math 790 (Major Research Project). The duration of this option is normally 12 months.

C. Transfer Option

A candidate may transfer directly to the Ph.D. program without completing an M.Sc. by first registering for the thesis option and then submitting an application for transfer after 12 to 20 months. This option requires completion of six one-term graduate courses, one written comprehensive exam, submission of a research proposal, and a statement from the supervisor. Successful applicants may apply all accumulated credits to the Ph.D. degree, but are still required to complete four one-term courses beyond the M.Sc. once registered in the Ph.D. program. Unsuccessful applicants must choose one of the other options.

Each candidate for the M.Sc. is required to choose no fewer than four 700-level courses in Mathematics, and the remaining courses may include up to two one-term courses at the graduate level from a cognate subject, with the entire programme of coursework subject to departmental approval. Students intending to do doctoral work are expected to complete two of the two-term course sequences from Algebra 701/702, Analysis 721/722, and Applied Math 741/742.

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE (Attach additional pages if space is not sufficient.)
The M-phimac financial math specialization now appears as a separate option. This makes it clear what courses M-phimac students must take. We have also updated the PhD course requirements to two one-term courses for those students transferring from the MSc (formerly four).

RATIONALE FOR THE RECOMMENDED CHANGE:

To make explicit which courses M-phimac students must take and update course requirement for PhD students transferring from the MS.

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

Fall 2011

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

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

MSc Degree

Applicants will be considered for admission to the MSc program if they have a B+ average in the final year of an honours Bachelor's degree in Mathematics, or in a related area. They may apply to follow one of four options:

A. Thesis Option

The candidate must complete a minimum of six one-term graduate courses and submit a thesis written under the supervision of a faculty member and based on original research. The thesis is defended in an oral examination. The duration of this option is normally 20 months.

B. Project Option

The candidate must complete a minimum of seven one-term graduate courses, one of which is required to be Mathematics *790 (Major Research Project). The duration of this option is normally 12 months.

C. Financial Mathematics Option (M-Phimac)

The candidate must complete the following graduate courses: Mathematics *771, Mathematics *772, Mathematics #778, Mathematics #779, Mathematics *774, Mathematics *775, Mathematics *776, Mathematics 790 and Statistics *721 (or an alternate statistics course approved by the department). The duration of this option is normally 12 months.

D. Transfer Option

A candidate may transfer directly to the PhD program without completing an MSc by first registering for the thesis option and then submitting an application for transfer after 12 to 20 months. This option requires completion of six one-term graduate courses, one written comprehensive exam, submission of a research proposal, and a statement from the supervisor. Successful applicants may apply all accumulated credits to the PhD degree, but are still required to complete two one-term courses beyond the MSc once registered in the PhD program. Unsuccessful applicants must choose one of the other options.

Each candidate for the MSc is required to choose no fewer than four 700-level courses in Mathematics, and the remaining courses may include up to two one-term courses at the graduate level from a cognate subject, with the entire programme of coursework subject to departmental approval. In all options, at most two one-term 600-level courses may be used to fulfill the course requirement. Students intending to do doctoral work are advised to complete two of the two-term course sequences from Algebra *701/*702, Analysis *721/*722, and Applied Math *741/*742.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Nicholas Kevlahan Email: kevlahan@mcmaster.ca Extension: 23412 Date: 2011-04-18

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

SGS/December 2006



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

PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM: 1. This form must be completed for <u>ALL</u> changes involving degree program requirements/procedures. <u>All</u> sections of this form must be completed. 2. An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: espiritu@mcmaster.ca). 3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.														
DEPARTME	DEPARTMENT Mathematics and Statistics													
NAME OF PROGRAM			Ма	sters Pro	gram	in Statistic	cs							
PROGRAM DEGREE	PI	h.D. () M.A.() M.A.Sc. M.B.A. M. Eng. M.Sc. (X) Diploma Program ()									Othe (Spec		
		N	IAT	URE OF	REC	OMMEN	DAT	ION (PLEASE	CHECK	APF	PROPRIATE E	BOX)		
CHANGE IN REQUIREME			N					COMPREHENS ON PROCEDUR			CHANGE IN C			Х
CHANGE IN	CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR EXAMINATION PROCEDURE REQUIREMENTS EXPLAIN: Stats 770 "Statistics Seminar" is an elective course until now, but is to be changed to a required course starting Sept 2011													
OTHER	EXPLAIN:													
DESCRIBE 1	ГНЕ	EXIST	ING	REQUIR	EMEN	NT/PROCE	EDUR	E:						
option of the	MSc iled	progra written	am. rep	For this orts on ei	course	e, they are	ехре	ected to attend v	veekly sen	ninars	n the thesis opti s from both Fall n. These written	and Winter ter	ms, and tl	

PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE (Attach additional pages if space is not sufficient.)
Stats 770 is an elective course until now. However, in order to make the research component of the course stronger and also to
introduce it to the Coursework Option (based on a recommendation made by the OCGS Panel), we would like to make this course as a

This would require changes to be made at the following 5 specific places in the Graduate Calendar:

required course and simultaneously reduce the number of reports to be submitted from 8 to 6.

- 1. On Page 221, at the end of the 5th line of Program Requirements, change to "... Fall and Winter terms, and also submit written reports on six seminars delivered during the year."
- 2. On Page 221, in the 2nd and 3rd lines of Thesis Option, change "consisting of three compulsory and three elective courses" to "consisting of four compulsory and two elective courses"
- 3. On Page 221, in the 2nd line of Coursework Option, change "consisting of three compulsory and five elective courses" to "consisting of four compulsory and four elective courses"
- 4. On Page 222, in the Section on Courses, change the text on 5th line to 10th lines as follows: "STATS *770 is another required course that develops a broad knowledge of statistics through attendance at research seminars as well as report-writing skills through critical written reviews of the seminars. The elective courses are traditional statistics courses covering a sufficient variety of topics to offer students a choice based upon their individual interests."

5. On Page 223, in the 4th line of Stats 770 "Statistics Seminar" Course, change "reviews of at least 8 seminars." to "reviews of 6

seminars delivered during the year."

RATIONALE FOR THE RECOMMENDED CHANGE:
So as to get all graduate students in Statistics to develop technical report writing skills. In addition, this would introduce effectively research component into the Coursework Option Masters Program which was one of the concerns raised in the recent OCGS evaluation of the MSc program in Statistics.
PROVIDE IMPLEMENTATION DATE: (Implementation date should be at the beginning of the academic year)
SEPTEMBER 2011
ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.
NO
PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR:
SEE ABOVE
CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: N. BALAKRISHNAN Email: bala@mcmaster.ca Extension: 23420 Date: january 31, 2011

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



SCHOOL OF GRADUATE STUDIES

RECOMMENDATION FOR CHANGE IN GRADUATE CURRICULUM - FOR CHANGE(S) INVOLVING COURSES

DI FACE DEAD THE FOLLOWING NOTES DEFORE COMPLETING THIS FORM

1. This form must be completed for <u>ALL</u> course changes. All sections of this form <u>must</u> be completed. 2. An electronic version of this form must be emailed to the Assistant Secretary and SynApps System Administrator (Email: espiritu@mcmaster.ca). 3. A representative from the department is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.												
DEPARTMENT/PROGRAM MSc PROGRAM IN STATISTICS, DEPT OF MATHEMATICS AND STATISTICS												
COURSE TITLE	3	STATISTICS	ATISTICS SEMINAR									
COURSE NUMBER	770	FULL (COURSE ()	HALF COU		CREDIT (x)	QUARTER (MODULE)	()			
INSTRUCTOR(S)	N. BALAK	KRISHNAN										
PREREQUISITE(S)	NONE											
NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)												
NEW DATE	TO BE OFFE	RED:			OSED COURSE THE DATE:	OFFER	ED ON DEAN'	s Approval?				
WILL THE COURSE BE COURSE BE CONCERNED.								Y RELEVANT CORRESPOND PARTMENT AND FACULTY	ENCE			
CHANGE IN COURSE TITLE	CHANGE IN PROVIDE THE CURRENT COURSE TITLE:											
CHANGE IN COURSI	CHANGE IN COURSE DESCRIPTION A course for graduate credit) Please See #4 on page 2 of this form											
CHANGE TO FULL O	OURSE		CHANGE TO HALF COURSE CHANGE TO QUART COURSE									
COURSE CANCELLATION	Provide	E THE REASO	N FOR COURSE	CANCELLA	ATION:							
OTHER	Explain:											
BRIEF DESCRIPTION Calendar.	N FOR CAL	ENDAR - P	rovide a brie	f descript	ion <i>(maxim</i> u	um 6 li	nes) to be in	ncluded in the Graduate				

A statistics seminar is held weekly during the fall and winter terms, with presentations by faculty, visitors and students. Students are to attend the seminar, participate in discussion, and submit short written critical reviews of 6 seminars delivered during the year.

CONTENT/RATIONALE - Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.

The contents of this course will be the seminars delivered in the weekly seminar series and the reports that are prepared by the graduate students on some selected seminars and submitted by them for evaluation. In this process, the research component can be introduced for all students in the Masters program irrespective of whether they are in the thesis option or in the course work option.

It would become a key course which, in addition to introducing research component to students in course work option, would teach all students the important aspect of technical report writing.

2. EXPECTED ENROLMENT:

25 per academic year

3. DESCRIBE IN DETAIL THE METHOD OF PRESENTATION OF COURSE MATERIAL (i.e., lectures, seminars):

6 seminar reports in a year from September to April based on some seminars presented in Statistics Seminar series

4. DESCRIBE IN DETAIL THE METHOD OF EVALUATION: (For 600-level course, indicate the <u>Extra Work</u> to be required of graduate students, i.e., exams, essays, etc.)

Evaluate the writing and presentation style as well as the technical content and conclusions drawn

5. TO PREVENT OVERLAP, IS A COURSE IN THE SAME OR A RELATED AREA OFFERED IN ANOTHER DEPARTMENT? IF YES, PLEASE ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S).

NO

6. IF THE COURSE IS INTENDED PRIMARILY FOR STUDENTS OUTSIDE YOUR DEPARTMENT, DO YOU HAVE THE SUPPORT OF THE DEPARTMENT/PROGRAM CONCERNED?

NO

PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: N. BALAKRISHNAN Email: bala@mcmaster.caExtension: 23420 Date: JANUARY 31, 2011

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

Proposed change in Graduate Calendar copy for SGS#101

(Section 11, page 234 of the 2010-2011 Graduate Calendar)

11. Common Purpose/Interdisciplinary/Collaborative Programs

Academic Integrity and Research Ethics

1st para currently reads:

"The need for the highest level of academic research integrity and ethics crosses field and discipline boundaries. This single graduate offering, required of all incoming graduate students, will ensure uniformity of message and communicate the priority that McMaster assigns to such practices to each student at an early time. Further details may be obtained by contacting the School of Graduate Studies at 905 525-9140 Ext. 23679."

Change to:

"The need for the highest level of academic research integrity and ethics crosses field and discipline boundaries. This single graduate offering, is required to be taken in their first year of graduate studies. It ensures the uniformity of message and communicates the priority that McMaster assigns to such practices to each student."

Next paragraph:

SGS #101 / Academic Research Integrity and Ethics

This course will introduce incoming graduate students to the standards of academic integrity expected at McMaster. It will provide examples of acceptable and unacceptable practices and will clarify the responsibility and expectations of graduate students with respect to academic integrity. Students will be exposed to the Academic Integrity Policy of McMaster and best practices will be described that will minimize the likelihood of incorrectly attributed work from appearing in their assignments and research records.

Add to this:

"Students may not graduate or register for subsequent years in a graduate program at McMaster unless they have received a passing grade in SGS #101."