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To   :   Members of Graduate Council

From   :   Christina Bryce
                    Assistant Graduate Secretary

_____

The next meeting of Graduate Council will be held on **Tuesday April 16th at 9:00 am in Council Chambers (GH 111)**

Listed below are the agenda items for discussion.

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

A G E N D A

I.   **Opening Remarks**

II.   **Minutes of the meeting of March 19th, 2024**

Approval

III.   **Business arising**

IV.   **Report from the Associate Deans, Graduate Studies**

V.   **Report from the Associate Registrar and Graduate Secretary**

VI.   **New Indigenous Student Bursary and Financial Aid Supports**

Approval

VII.   **Graduate Academic Certificate in Teaching and Learning in Higher Education**

Approval

VIII. **Faculty of Health Sciences Spring 2024 Graduands**

Approval (to be circulated)

IX.   **Faculty of Science Graduate Curriculum and Policy Committee Report**

Approval

X.   **Faculty of Engineering Graduate Curriculum and Policy Committee Report**

Approval

XI.   **Faculty of Health Sciences Graduate Curriculum and Policy Committee Report**

Approval

XII.   **Faculty of Humanities Graduate Curriculum and Policy Committee Report**

Approval

XIII. **2024-2025 Graduate Calendar Admin Sections**

Approval

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XIV.   **Taskforce on Graduate Funding Final Report**

Information

XV.   **Changes to Award Terms**

Information

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Tuesday March 19th at 9:00 am in Council Chambers (GH 111)

Present: S. Hranilovic(Chair), M. Heath, S. Hanna, M. Verma, M. Thompson, B. Newbold, E. Grodek, A. Prasad, D. Trigatti, N. Carter, K. McCallum, X. Li, C. Di Maria, A. Anand, J. Kish, L. Parker, D. Emslie, L. Side, N. Wagner, M. Gough, Y. Kim, J. Antwi-Boasiako, C. Ching, C. Biruk, B. Milliken, W. Liao, C. Bryce (Assistant Graduate Secretary)

Regrets: S. Baschiera, M. Horn, T. McDonald, M. Pham, M. Young, N. Santesso, T. Chamberlain

I.   Opening Remarks

Dr. Hranilovic reported on the following items:

- Welcomed the new Faculty of Health Sciences student member, Michelle Pham;
- Provincial announcements regarding funding;
- The upcoming allocation of international visa caps;
- Research security requirements from the Federal government and work at McMAster to accommodate the requirement;
- The Taskforce report had been submitted to the Provost for review.

Members discussed the research security requirement, including the implementation at McMaster, issues students at other institutions had experienced, and the importance of communicating what information was available.

II.   Minutes of the meeting of February 13th, 2024

It was duly moved and seconded, **'that Graduate Council approve the minutes of the February 13th, 2024 meeting, with one correction to the regrets.'**

The motion was **carried.**

III.   Business arising

There was no business arising.

IV.   Report from the Associate Deans, Graduate Studies

Dr. Hanna (Faculty of Health Sciences) reported on the following items:
- Research security discussion within the Faculty, related to the new Federal requirement;
- Policy work within the Faculty in anticipation of some of the recommendations of the Task Force report, including a clearer policy for what adjustment happens when a student gets an award.

Dr. Heath (Faculty of Social Sciences) reported on the following items:
- The Faculty had drafted and passed an adjustment policy that will apply for all students who have received an external grant;

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- An upcoming workshop for graduate students on job searches.

Dr. Thompson (Faculty of Engineering) reported on the following item:
- An annual event in recognition of students and employers for co-op, noting the growth of this option year over year.

Dr. Newbold (Faculty of Science) reported on the following items:
- The Faculty had pulled together a committee to discuss the award adjustment policy;
- Congratulations to the Science Graduate Student Association on successful alumni event

Dr. Verma had no report.

V.   Report from the Associate Registrar and Graduate Secretary

There was no report.

VI.   Faculty of Business Graduate Curriculum and Policy Committee Report

Dr. Verma reported on the following items:
- An update to the admission requirements for the Graduate Diploma in Professional Accountancy to align with current CPA wording regarding prerequisite courses and to remove redundant language;
- An update to the admission requirement for the Master of Finance program, acknowledging the fact that a new version of GMAT has been introduced;
- For the Business Ph.D. program:
  - An update to the calendar copy to emphasize the comprehensive requirement listed in the administrative section of the Graduate Calendar;
  - A change to the requirements for the Accounting specialization, reducing the number of economics courses required and instead requiring students choose two quantitative courses from an approved list;
  - A change to the course requirements for the Health Management specialization to add a new required seminar;
- The Blended Part-Time MBA program updated their admission language to state explicitly that applicants need to complete all components of their application and removed a required course, adding the opportunity for an additional elective course;
- The following changes from the MBA program:
  - The courses and calendar copy related to the previously-approved MBA redesign;
  - A change to admission requirements related to the new GMAT format.

Members discussed the comprehensive examination requirement text for the Business Ph.D. calendar copy change, including the structure of the program and the existing requirement in the Graduate Calendar.

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It was duly moved and seconded, **'that Graduate Council approve, for recommendation to Senate as appropriate, the change proposed by the Faculty of Business, as described in the documents.'**

The motion was **carried**.

VII.   Faculty of Humanities Graduate Curriculum and Policy Committee Report

This item was deferred.

VIII.   Faculty of Science Graduate Curriculum and Policy Committee Report

Dr. Newbold reported on the following items:
- A change to course requirements for Biology, to now include a new required seminar course;
- For the Chemistry M.Sc. program the addition of an advanced credit option and a correction to the calendar language around the unit counts listed for their 600-level courses;
- For Physics, an expansion to the list of core courses for the Ph.D. program and for Radiation Sciences an addition to the list of possible electives.

In response to a question about who the advanced credit pathway would be open to, Dr. Newbold noted it was for internal students.

Members discussed the Biology seminar requirement, including the importance of student engagement in the departmental environment, highlighting accommodations listed, and the context for a transfer from Masters to Ph.D.

It was duly moved and seconded, **'that Graduate Council approve, for recommendation to Senate as appropriate, the change proposed by the Faculty of Science, as described in the documents.'**

The motion was **carried**.

IX.   Faculty of Social Science Graduate Curriculum and Policy Committee Report

Dr. Heath reported on the following items:
- Religious Studies proposed the addition a new area of focus in Jewish Studies in the Western Field within the program, noting they've had expertise in that area but haven't previously highlighted it;
- The new program calendar copy, listing requirements and details of program for the M.A. in Indigenous Studies;
- A change to program requirements for the Ph.D. in Political Science, removing the requirement for an additional language and now noting the requirement for additional

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language training will depend on the area of research and be decided with the supervisory committee.

Members discussed why Hinduism wasn't listed under the Asian religions category and the distinction between Jewish Studies versus Judaism in Antiquity.

It was duly moved and seconded, **'that Graduate Council approve, for recommendation to Senate as appropriate, the change proposed by the Faculty of Social Sciences, as described in the documents.'**

The motion was **carried**.

X.   New Awards and Changes to Award Terms

With respect to the Physics & Astronomy Graduate Support Award members discussed the number of students who would benefit from the award, the assessment, the timing, and the different types of awards at McMaster.

It was duly moved and seconded, **'that Graduate Council approve the new awards as described in the documents.'**

The motion was **carried**.

Dr. Hranilovic noted his thanks to the former Vice-Provost and Dean of Graduate Studies, Dr. Doug Welch for his donation and the subsequent award.

XI.   Other Business

In response to a question about an issue with an overpayment and repayment Dr. Hranilovic directed them to speak with their associate dean.

Memo

To: Graduate Council
From: Sean Van Koughnett, associate vice-president, (Students and Learning) and Dean of Students
Date: April 2, 2024
RE: New Indigenous Student Bursary and Financial Aid Supports

A new Indigenous Student Bursary program, named **ionkhihahonnién:ni**, which means "they're making a path for us" in the Mohawk language has been launched with an announcement at the March 20th Senate meeting and subsequently a story in the [Daily News March 21st](#).

This program was developed by a working group comprised of:

- Brad Coburn, Policy Advisor and Projects Officer, University Secretariat
- Chrissy Doolittle, director, Indigenous Student Services
- Dawn Martin-Hill, professor, academic co-chair, Indigenous Education Council
- Nicole Martin-Enlund, academic department manager, Indigenous Studies
- Elya Porter, research coordinator, McMaster Indigenous Research Institute
- Alexandra Trottier, executive director, Indigenous Health Learning Lodge, Faculty of Health Sciences
- Sean Van Koughnett, associate vice-president, (Students and Learning) and Dean of Students
- Elizabeth Way, senior associate registrar, Aid & Awards

Input was also provided by McMaster University's Indigenous Education Council and the Joint Indigenous-Administrative Consultation Group.

This financial need-based program seeks to address funding gaps experienced by Indigenous learners from the Haudenosaunee and Mississauga nations. These gaps can include tuition as well as cost of living expenses. Learners in McMaster Continuing Education and OSAP eligible Undergraduate and Graduate programs from these communities can apply. Each learner will be accessed individually. Application details will be available in May.

Alongside the bursary program, a new Indigenous Financial Aid Specialist role will be established within the Indigenous Student Services team for the 2024-25 Academic Year. The role will address funding needs through internal and external bursaries, scholarships, and awards, Indigenous financial literacy programming, and access to emergency supports. This role will also be accountable to the Aid & Awards team within the Office of the Registrar.

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REPORT TO THE GRADUATE COUNCIL
from the
JOINT COMMITTEE ON
CERTIFICATES, DIPLOMAS AND MICROCREDENTIALS

FOR APPROVAL

1. **Graduate Academic Certificate in Teaching and Learning in Higher Education**

    At its meeting on March 5, 2024, the Joint Committee on Certificates, Diplomas and Microcredentials reviewed and approved the Graduate Academic Certificate in Teaching and Learning in Higher Education. Further details can be found in the circulated materials.

    It is recommended,

    that the Graduate Council approve, for recommendation to the University Planning Committee and the Senate, the establishment of the Graduate Academic Certificate in Teaching and Learning in Higher Education, for inclusion in the *2024-2025 Graduate Calendar*, and as circulated.

Graduate Council
FOR APPROVAL
March 19, 2024

Graduate Academic Certificate Form

Department & Program Information (complete all fields)	
Certificate Name:	Graduate Academic Certificate in Teaching and Learning in Higher Education
Department:	Paul R. MacPherson Institute for Leadership, Innovation and Excellent in Teaching
Name of Representative:	Lori Goff, Director
Effective Date:	September 2024
Date of Submission:	February 26, 2024
Program Information:	
1. Program Overview	**Purpose:** The Graduate Academic Certificate in Teaching and Learning in Higher Education will provide students with foundational knowledge and skills in post-secondary teaching and learning, with a special focus on either teaching design, technology, research, or application. All students will complete a required course on essential theory in teaching and learning, with students selecting an elective second course based on area of intertest (i.e., design, technology, research, or application). **Intended Audience:** The intended audience includes current graduate students at McMaster, students who have recently completed graduate studies at McMaster, and external students interested in expanding their knowledge on teaching and learning in higher education. Qualifying student must meet the eligibility entrance criteria for a Master's level program at McMaster. We anticipate that the largest audience will be that of current McMaster graduate students who take the Certificate alongside or immediately after another graduate program as an add-on option. **Concurrent or Standalone:** This Certificate could be taken as a standalone Graduate Academic Certificate. However, as noted above, current McMaster graduate students could also take this Certificate while enrolled in another graduate program at the same time. **Why This Configuration of Courses:** Students admitted to the Certificate will be required to pass two courses, a required core 3-unit course and a second elective 3-unit course chosen from a course list. The required core course

		provides the foundational knowledge and skills upon which students can then opt to dive deeper in an area of interest.
		1. In the required core course, EDUCATN 701: Essential Topics in Teaching and Learning , students will work towards developing three essential teaching and learning competencies by: 1) reflecting in writing on their teaching beliefs, practices, impacts, and goals; 2) demonstrating an understanding of how to design and/or deliver effective learning experiences; and 3) articulating a teaching philosophy statement suitable for inclusion in a teaching portfolio. 2. One 3-unit elective will be selected from a course list of courses electives. Courses are listed below and described in the attached documents.
2.	Learning Outcomes	After completing the Graduate Academic Certificate, students should be able to: 1. Reflect on and document their teaching beliefs, practices, impacts and goals 2. Describe how to design and deliver effective learning experiences 3. Apply effective teaching practices in an area of interest in higher education (e.g., design, application, research, or technology)
3.	Demonstrating Student Achievement of Learning Outcomes	1. Reflect on and document their teaching beliefs, practices, impacts and goals: • Students write a short paper that entails reflecting on the various reflective models and identifying one or more they plan to apply in their teaching. • Students will draft, solicit feedback on, and refine their teaching philosophy statement 2. Describe how to design and deliver effective teaching experiences: • Students will complete five online asynchronous modules and submit a post-module reflection for each. They can choose to focus their modules on design, delivery, or both. 3. Apply effective teaching practices in an area of interest in higher education (i.e., design, application, research, or digital media): • In the design course option, students will design a university level course syllabus, an assessment, and an

		evaluation framework, which will be included as part of their teaching portfolio. • In the application course option, students will apply and practice teaching skills by designing, delivering, receiving feedback on, and reflecting on a short lesson for university learners. • In the research course option, students will propose a small research project in teaching and learning following good practices in educational research. • In the digital media course option, students will produce media artifacts and assess quality related to digital media for learning, sharing their deliverables in a portfolio as evidence of their learning.
4.	Program Admission Requirements	The admission requirement for the Certificate will include holding an Honours bachelor's degree from a recognized university with at least a B+ average (equivalent to a McMaster 8.5 GPA out of 12) in the final year in all courses.
5.	Program Completion Requirements	Students are required to complete and pass two courses: a required core 3-unit course and one elective 3-unit course chosen from a course list (i.e. application, design, research, or technology).
6.	Program Delivery Format	Some courses will be offered in a fully virtual format, whereas others will include both online and in-person components.

Listing of Courses (if the courses are new, please complete the Graduate Course Form, if the courses are existing please append the most recent syllabus for course)

All courses in the proposed Certificate have existed in some form previously as part of MacPherson Institute's Teaching and Learning Certificates of Completion Program. A Graduate Course Form is attached for each course. Also attached is a document that provides the calendar descriptions for each course.

Required course:

EDUCATN 701: Essential Topics in Teaching and Learning
- New course to replace EDUCATN 640: Essential Theory in Teaching and Learning
- prerequisite for all the elective courses

Elective Courses:

EDUCATN 731: Principles and Practices of University Course Design
- New course to replace EDUCATN 750: Principles and Practices of University Teaching

EDUCATN 741: Applied Teaching Experiences
- New course to replace EDUCATN 740: Peer-Evaluated Teaching Experience

EDUCATN 761: Research on Teaching and Learning
- New course to replace EDUCATN 760: Self-Directed Study

EDUCATN 771: Building and Assessing Digital Media for Learning
- New course to replace EDUCATN 770: Digital Literacies for Teaching and Learning

EDUCATN 791: Education Topics in the Disciplines
- New course to be added

If you're planning on charging a fee, please note the date of USFC approval of intended fee:
$1051.20 per course (post-degree course rate) x 2 courses = $2102.40 for the certificate
A modified supplemental fee will be charged to any student who is not already a McMaster student.
Note: USFC committee date is on March 19th.

Graduate Academic Certificate in Teaching and Learning in Higher Education

The Graduate Academic Certificate in Teaching and Learning in Higher Education will provide students with foundational knowledge and skills in post-secondary teaching and learning, with a special focus on either teaching design, application, research, or digital media. All students will complete a required course on essential topics in teaching and learning, with students selecting an elective second course based on area of interest.

Admission

The admission requirement for the Certificate will include holding an Honours bachelor's degree from a recognized university with at least a B+ average (equivalent to a McMaster 8.5 GPA out of 12) in the final year in all courses.

*Note: In the future, we imagine that three microcredentials may be offered and will stack to create an equivalency to the EDUCATN 701: Essential Topics in Teaching and Learning course.

Requirements

Students who are admitted to the program are required to pass two courses.
1. One core required 3-unit course
   * EDUCATION 701: Essential Topics in Teaching and Learning
2. One elective course (3 units) from the approved course list of electives:
   * EDUCATN 731: Principles and Practices of University Course Design
   * EDUCATN 741: Applied Teaching Experiences
   * EDUCATN 761: Research on Teaching and Learning
   * EDUCATN 771: Building and Assessing Digital Media for Learning
   * EDUCATN 791: Education Topics in the Disciplines

Course	Description
EDUCATN 701: Essential Topics in Teaching and Learning	In this course, students will work towards developing three core teaching and learning competencies by: reflecting on effective teaching practices, demonstrating an understanding of foundational teaching and learning topics explored via online learning modules, and articulating a teaching philosophy statement suitable for inclusion in a teaching portfolio.
EDUCATN 731: Principles and Practices of University Course Design	In this course, students will review the principles of course design and create a syllabus, assessment, and evaluation framework for a university level course. These course components will be included in a teaching portfolio. Accessible design principles will be emphasized throughout. Prerequisite: EDUCATN 701
EDUCATN 741: Applied Teaching Experiences	In this course, students will engage in lesson planning within the higher education context. In a small group setting, they will design and conduct a short lesson, receive feedback, and extend their learning by designing and delivering a lesson in a real-world context. Students will reflect on each of the experiences, identifying areas for further growth. Prerequisite: EDUCATN 701
EDUCATN 761: Research on Teaching and Learning	In this course, students will review educational research approaches, conceptualize a research project in teaching and learning, and receive feedback on their proposed project. At the end of the term, students will present their work and share plans for dissemination. Prerequisite: EDUCATN 701
EDUCATN 771: Building and Assessing Digital Media for Learning	In this course, students will explore topics in digital learning and consider the trends, opportunities and challenges as they relate to digital environments. They will develop media creation skills needed to produce media artifacts and assess quality related to digital media for learning. Prerequisite: EDUCATN 701

EDUCATN 791: Education Topics in the Disciplines	In this course, students will examine current topics in education within a particular discipline. The discipline will vary depending on instructor interest and availability. Prerequisite: EDUCATN 701

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Recommendation for Change in Graduate Curriculum:
For Change(s) Involving Courses

Please read the following notes before completing this form:
1. This form must be completed for ALL course changes. Sections of this form pertaining to your requested change must be completed.
2. An electronic version of this form (must be MS WORD not PDF) should be emailed to the Assistant Graduate Secretary (cbryce@mcmaster.ca).
3. A representative from the department/program is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Paul R. MacPherson Institute for Leadership, Innovation, and Excellence in Teaching
COURSE TITLE	**EDUCATN 701: Essential Topics in Teaching and Learning**

COURSE NUMBER	EDUCATN 701	COURSE CREDIT		
		6 Unit Course ( )	3 Unit Course (X)	1.5 Unit Course ( )

REQUISITE(S) (Pre/Co/Anti or program enrollment requirement)	Prerequisite -> Enrollment in GAC in Teaching and Learning in Higher Education
	Antirequisite -> EDUCATN 640: Essential Theory in Teaching and Learning.
	Students who have completed EDUCATN 640 will require permission of the Dean to register in EDUCATN 701.

Nature of Recommendation (Please Check Appropriate Box)
Is this change a result of an IQAP review? ☐ Yes ☒ No

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NEW COURSE	Yes	DATE TO BE OFFERED (FOR NEW COURSES ONLY): Fall 2024	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? No IF YES, PROVIDE THE DATE:

Will the Course be Cross-listed (combined sections) with another department? NO Yes, please note which department:

 Attach to this Form Any Relevant Correspondence with the other department(s).   Note: Cross-listing of courses requires written approval from each department and faculty concerned.   If you would like to remove a cross-listing you must include a written explanation agreed upon by both departments affected.

CHANGE IN COURSE TITLE		**Provide the new Course Title:**
CHANGE IN COURSE DESCRIPTION		**600-LEVEL COURSE (Undergraduate course for graduate credit) Please see #4 on page 2 of this form**

COURSE CANCELLATION	**Provide the Reason for Course Cancellation:** Please note: cross-listed (combined sections) courses can only be cancelled by the department who owns the course.
OTHER CHANGES	**EXPLAIN:** The MacPherson Institute is planning on transitioning away from offering a Theory and Inquiry Teaching and Learning Certificate of Completion comprised of 0 unit EDUCATN courses to offering a Graduate Academic Certificate in Teaching and Learning in Higher

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Education instead. This will require that each of the courses be revised and offered as a 3-unit course.

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

In this course, students will work towards developing three core teaching and learning competencies by: reflecting on effective teaching practices, demonstrating an understanding of foundational teaching and learning topics explored via online learning modules, and crafting a teaching philosophy statement suitable for inclusion in a teaching portfolio.

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

The major topics include reflective teaching practices, designing and delivering effective teaching experiences, and articulating a teaching philosophy. Sub-topics will be explored via online learning modules (e.g., Adult Learning Theories, Accessible Teaching Techniques, Creating Interactive Content, Open Educational Resources, Generative AI, Design for Learning, Teaching Contentious Topics) made available in the MacPherson Institute Learning Catalogue.

1.   **STATEMENT OF PURPOSE (How does the course fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review (if applicable)?)**

EDUCATN 701 will be the core required course for the new Graduate Academic Certificate in Teaching and Learning in Higher Education. The course's outcomes are aligned with the Certificate's outcomes (specifically numbers 1 and 2) noted below.

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1. Reflect on and document their teaching beliefs, practices, impacts and goals
2. Describe how to design and deliver effective learning experiences
3. Apply effective teaching practices in an area of interest in higher education (e.g., design, application, research, or technology)

2. EXPECTED ENROLMENT:

Maximum enrolment for each section of this course will be 30.

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

This course will be delivered in an online format with both synchronous and asynchronous components. The synchronous components will engage students via a seminar format offering content delivery and active learning exercises. The asynchronous component will engage students via online learning modules.

4.   DESCRIBE IN DETAIL THE METHOD OF EVALUATION (<u>percentage breakdown, if possible</u>): (For 600-level course, indicate the <u>Extra Work</u> to be required of graduate students, i.e., exams, essays, etc. Please also note if a lab or tutorial will be included.)

After engaging in online synchronous modules, students will:

- Write a paper on reflective teaching practices, identifying one or more they plan to apply in their teaching (30%)
- Write a summative reflection that draws on key ideas and skills in teaching and learning in the post-secondary context in Canada (40%)

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- Craft, revise, and finalize their teaching philosophy statement (30%)

5. To prevent overlap, is a course in the same or related area offered in another department? If YES please note below and/or attach to this form any relevant correspondence with the other department(s).   No

6. If the course is intended primarily for students outside of your department, do you have the support of the department/program concerned?   The course will be open to any student accepted into the Graduate Academic Certificate in Teaching and Learning in Higher Education. This course may also become part of a future Collaborative Specialization in Teaching and Educational Research, pending approval of the specialization and MOA with any partnering departments.

PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE: Name: Lori Goff   Email: midirect@mcmaster.ca   Submitted: February 26, 2024

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

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Recommendation for Change in Graduate Curriculum:
For Change(s) Involving Courses

Please read the following notes before completing this form:
1. This form must be completed for ALL course changes. Sections of this form pertaining to your requested change must be completed.
2. An electronic version of this form (must be MS WORD not PDF) should be emailed to the Assistant Graduate Secretary (cbryce@mcmaster.ca).
3. A representative from the department/program is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching
COURSE TITLE	**EDUCATN 731: Principles and Practices of University Course Design**

COURSE NUMBER	EDUCATN 731	**COURSE CREDIT**		
		6 Unit Course ( )	**3 Unit Course (X)**	**1.5 Unit Course ( )**

REQUISITE(S) (Pre/Co/Anti or program enrollment requirement)	Prerequisite -> EDUCATN 701: Essential Topics in Teaching and Learning Antirequisites -> EDUCATN 750: Principles and Practices of University Teaching, AND EDUCATN 751: Principles and Practices of University Teaching

Nature of Recommendation (Please Check Appropriate Box)

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Is this change a result of an IQAP review? ☐ Yes ☒ No			
NEW COURSE		**DATE TO BE OFFERED (FOR NEW COURSES ONLY):** Winter 2025 FORMTEXT	**WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL?** NO **IF YES, PROVIDE THE DATE:**

Will the Course be Cross-listed (combined sections) with another department? No Yes, please note which department:

 Attach to this Form Any Relevant Correspondence with the other department(s).   No<u>te</u>: Cross-listing of courses requires written approval from <u>each</u> department and faculty concerned.   If you would like to remove a cross-listing you must include a written explanation agreed upon by both departments affected.

CHANGE IN COURSE TITLE		**Provide the new Course Title:**
CHANGE IN COURSE DESCRIPTION		**600-LEVEL COURSE (Undergraduate course for graduate credit) Please see #4 on page 2 of this form**
COURSE CANCELLATION		**Provide the Reason for Course Cancellation:** Please note: cross-listed (combined sections) courses can only be cancelled by the department who owns the course.
OTHER CHANGES		**EXPLAIN:**

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

In this course, students will review the principles of course design and create a syllabus, assessment, and evaluation framework for a university level course. These course components will be included in a teaching portfolio. Accessible design principles will be emphasized throughout.

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

In this course, students will learn about the principles of course design, including the creation of constructively aligned intended learning outcomes, active learning strategies, and assessments. They will also learn about teaching portfolios. The materials will be drawn from a series of sources (e.g., online learning modules, peer-reviewed journal articles).

1. **STATEMENT OF PURPOSE (How does the course fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review (if applicable)?)**

EDUCATN 731 will be an elective course for the new Graduate Academic Certificate in Teaching and Learning in Higher Education. The course's outcomes are aligned with the Certificate's outcomes (specifically number 3) noted below.

1. Reflect on and document their teaching beliefs, practices, impacts and goals
2. Describe how to design and deliver effective learning experiences
3. Apply effective teaching practices in an area of interest in higher education (e.g., design, application, research, or technology)

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2. EXPECTED ENROLMENT:

Maximum enrolment for each section of this course will be 24 students.

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

This course will be delivered in an online and/or blended format.

4.   DESCRIBE IN DETAIL THE METHOD OF EVALUATION (<u>percentage breakdown, if possible</u>): (For 600-level course, indicate the <u>Extra Work</u> to be required of graduate students, i.e., exams, essays, etc. Please also note if a lab or tutorial will be included.)

Students will:

- Design a course outline or syllabus for an accessibly-designed adult learning or university/college level experience. (35%)
- Develop an assessment with instructions and an evaluation framework that can be used as part of their course. (35%)
- Develop a teaching portfolio that builds on their teaching philosophy created for EDUCATN 701 and incorporates their designed course materials. (30%)

5. To prevent overlap, is a course in the same or related area offered in another department? If YES please note below and/or attach to this form any relevant correspondence with the other department(s).

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No

6. If the course is intended primarily for students outside of your department, do you have the support of the department/program concerned? The course will be open to any student accepted into the Graduate Academic Certificate in Teaching and Learning in Higher Education.
PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE: Name: Lori Goff Email: midirect@mcmaster.ca   Date submitted: February 26, 2024

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

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Recommendation for Change in Graduate Curriculum:
For Change(s) Involving Courses

Please read the following notes before completing this form:
1. This form must be completed for ALL course changes. Sections of this form pertaining to your requested change must be completed.
2. An electronic version of this form (must be MS WORD not PDF) should be emailed to the Assistant Graduate Secretary (cbryce@mcmaster.ca).
3. A representative from the department/program is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching		
COURSE TITLE	**EDUCATN 741: Applied Teaching Experiences**		
COURSE NUMBER	EDUCATN 741	COURSE CREDIT	
		6 Unit Course ( )	**3 Unit Course (X)**	**1.5 Unit Course ( )**
REQUISITE(S) (Pre/Co/Anti or program enrollment requirement)	Prerequisite -> EDUCATN 701: Essential Topics in Teaching and Learning

Antirequisite -> EDUCATN 740: Peer-Evaluated Teaching Experience | | |
| **Nature of Recommendation (Please Check Appropriate Box)** | | | |
| **Is this change a result of an IQAP review? ☐ Yes ☒ No** | | | |

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NEW COURSE	Yes	DATE TO BE OFFERED (FOR NEW COURSES ONLY): Winter 2025	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? No IF YES, PROVIDE THE DATE:

Will the Course be Cross-listed (combined sections) with another department? N   If Yes, please note which department:

Attach to this Form Any Relevant Correspondence with the other department(s).   Note: Cross-listing of courses requires written approval from each department and faculty concerned.   If you would like to remove a cross-listing you must include a written explanation agreed upon by both departments affected.

CHANGE IN COURSE TITLE		**Provide the new Course Title:**
CHANGE IN COURSE DESCRIPTION		**600-LEVEL COURSE (Undergraduate course for graduate credit) Please see #4 on page 2 of this form**
COURSE CANCELLATION		**Provide the Reason for Course Cancellation:** Please note: cross-listed (combined sections) courses can only be cancelled by the department who owns the course.
OTHER CHANGES		**EXPLAIN:**

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

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In this course, students will engage in lesson planning within the higher education context. In a small group setting, they will design and facilitate their lesson, receive feedback, and extend their learning by designing and delivering a lesson in a real-world context. Students will reflect on each of the experiences, identifying areas for further growth.

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

Lesson planning topics will focus on intended learning outcomes, pre- and post-assessment, and participatory learning activities, with consideration given to accessible and inclusive lesson design and lesson delivery format. The materials will be drawn from a series of sources (e.g., online learning modules, peer-reviewed journal articles).

1.   **STATEMENT OF PURPOSE (How does the course fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review (if applicable)?)**

EDUCATN 741 will be an elective course for the new Graduate Academic Certificate in Teaching and Learning in Higher Education. The course's outcomes are aligned with the Certificate's outcomes (specifically number 3) noted below.

1. Reflect on and document their teaching beliefs, practices, impacts and goals
2. Describe how to design and deliver effective learning experiences
3. Apply effective teaching practices in an area of interest in higher education (e.g., design, application, research, or technology)

2. **EXPECTED ENROLMENT:**

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Maximum enrolment for each section of this course will be 24.

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

This course will be delivered in an online and/or blended format.

4. DESCRIBE IN DETAIL THE METHOD OF EVALUATION (<u>percentage breakdown, if possible</u>): (For 600-level course, indicate the <u>Extra Work</u> to be required of graduate students, i.e., exams, essays, etc. Please also note if a lab or tutorial will be included.)

Students will:

- Design a pedagogically-sound lesson plan drawing on theoretical knowledge of teaching and learning. They will facilitate their lesson and receive formative verbal, written, and video feedback. (30%)
- Create a lesson plan in a real-world context (e.g., in a classroom or online setting), facilitate their lesson, and collect feedback from learners using a metric of their own choice. (40%)
- Submit a reflective paper on each of the experiences, identifying further areas for growth. (30%)

5. To prevent overlap, is a course in the same or related area offered in another department? If YES please note below and/or attach to this form any relevant correspondence with the other department(s).

No

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6. If the course is intended primarily for students outside of your department, do you have the support of the department/program concerned?

The course will be open to any student accepted into the Graduate Academic Certificate in Teaching and Learning in Higher Education.

PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Lori Goff Email: midirect@mcmaster.ca Date submitted: February 26, 2024

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

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Recommendation for Change in Graduate Curriculum:
For Change(s) Involving Courses

Please read the following notes before completing this form:
1. This form must be completed for ALL course changes. Sections of this form pertaining to your requested change must be completed.
2. An electronic version of this form (must be MS WORD not PDF) should be emailed to the Assistant Graduate Secretary (cbryce@mcmaster.ca).
3. A representative from the department/program is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching
COURSE TITLE	**EDUCATN 761: Research on Teaching and Learning**

COURSE NUMBER	EDUCATN 761	COURSE CREDIT		
		6 Unit Course ( )	**3 Unit Course (X**	**1.5 Unit Course ( )**
REQUISITE(S) (Pre/Co/Anti or program enrollment requirement)	Prerequisite -> EDUCATN 701: Essential Topics in Teaching and Learning Antirequisite -> EDUCATN 760: Self-Directed Study			

Nature of Recommendation (Please Check Appropriate Box*)*
Is this change a result of an IQAP review? ☐ Yes ☐ No

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NEW COURSE	Y	DATE TO BE OFFERED (FOR NEW COURSES ONLY): Spring 2025 FORMTEXT	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? NO IF YES, PROVIDE THE DATE:

Will the Course be Cross-listed (combined sections) with another department? NO Yes, please note which department:

 Attach to this Form Any Relevant Correspondence with the other department(s).   Note: Cross-listing of courses requires written approval from each department and faculty concerned.   If you would like to remove a cross-listing you must include a written explanation agreed upon by both departments affected.

CHANGE IN COURSE TITLE		**Provide the new Course Title:**
CHANGE IN COURSE DESCRIPTION		**600-LEVEL COURSE (Undergraduate course for graduate credit)** **Please see #4 on page 2 of this form**
COURSE CANCELLATION		**Provide the Reason for Course Cancellation:** Please note: cross-listed (combined sections) courses can only be cancelled by the department who owns the course.
OTHER CHANGE		**EXPLAIN:**

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

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In this course, students will review educational research approaches, conceptualize a research project in teaching and learning, and receive feedback on their proposed project. At the end of the term, students will present their work and share plans for dissemination.

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

This course will focus on principles in research on teaching and learning and emphasize good practices in literature reviews, research methods (i.e. qualitative, quantitative and mixed methods approaches), research ethics, and dissemination strategies for effectively disseminating research findings. The materials will be drawn from a series of sources (e.g., online learning modules, peer-reviewed journal articles).

1. **STATEMENT OF PURPOSE (How does the course fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review (if applicable)?)**

EDUCATN 761 will be an elective course for the new Graduate Academic Certificate in Teaching and Learning in Higher Education. The course's outcomes are aligned with the Certificate's outcomes (specifically number 3) noted below.

1. Reflect on and document their teaching beliefs, practices, impacts and goals
2. Describe how to design and deliver effective learning experiences
3. Apply effective teaching practices in an area of interest in higher education (e.g., design, application, research, or technology)

2. **EXPECTED ENROLMENT:**

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Maximum enrolment for each section of this course will be 12 students.

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

This course will be delivered in an online and/or blended format.

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4. **DESCRIBE IN DETAIL THE METHOD OF EVALUATION (percentage breakdown, if possible): (For 600-level course, indicate the Extra Work to be required of graduate students, i.e., exams, essays, etc. Please also note if a lab or tutorial will be included.)**

Students will:

- Conduct and submit a literature review on a topic related to teaching and learning. (30%)
- Propose a methodically-sound educational research project plan. (40%)
- Present their project and propose possible ways of disseminating results. (30%)

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5. **To prevent overlap, is a course in the same or related area offered in another department? If YES please note below and/or attach to this form any relevant correspondence with the other department(s).**

No

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6. **If the course is intended primarily for students outside of your department, do you have the support of the department/program concerned?**

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The course will be open to any student accepted into the Graduate Academic Certificate in Teaching and Learning in Higher Education.

PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Lori Goff   Email: midirect@mcmaster.ca   Date submitted: February 26, 2024

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

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Recommendation for Change in Graduate Curriculum:
For Change(s) Involving Courses

Please read the following notes before completing this form:
1. This form must be completed for ALL course changes. Sections of this form pertaining to your requested change must be completed.
2. An electronic version of this form (must be MS WORD not PDF) should be emailed to the Assistant Graduate Secretary (cbryce@mcmaster.ca).
3. A representative from the department/program is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching
COURSE TITLE	**EDUCATN 771: Building and Assessing Digital Media for Learning**

COURSE NUMBER	EDUCATN 771	COURSE CREDIT		
		6 Unit Course ( )	3 Unit Course (X	1.5 Unit Course ( )

REQUISITE(S) (Pre/Co/Anti or program enrollment requirement)	Prerequisite -> EDUCATN 701: Essential Topics in Teaching and Learning Antirequisites -> EDUCATN 770: Digital Literacies for Teaching and Learning

Nature of Recommendation (Please Check Appropriate Box)
Is this change a result of an IQAP review? ☐ Yes ☐ No

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NEW COURSE	Y	DATE TO BE OFFERED (FOR NEW COURSES ONLY): Fall 2025 FORMTEXT	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? NO IF YES, PROVIDE THE DATE:

Will the Course be Cross-listed (combined sections) with another department? NO IfYes, please note which department:

 Attach to this Form Any Relevant Correspondence with the other department(s).   Note: Cross-listing of courses requires written approval from each department and faculty concerned.   If you would like to remove a cross-listing you must include a written explanation agreed upon by both departments affected.

CHANGE IN COURSE TITLE		**Provide the new Course Title:**

CHANGE IN COURSE DESCRIPTION		**600-LEVEL COURSE (Undergraduate course for graduate credit) Please see #4 on page 2 of this form**	

COURSE CANCELLATION		**Provide the Reason for Course Cancellation:** Please note: cross-listed (combined sections) courses can only be cancelled by the department who owns the course.

OTHER CHANGE		**EXPLAIN:**

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

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In this course, students will explore topics in digital learning and consider trends, oppotunities and challenges as they relate to digital environments. They will develop media creation skills needed to produce media artifacts and assess quality related to digital media for learning.

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

Students will explore topics related to teaching and learning in the digital environment including digital pedagogy, inclusive design, effective online collaboration, open educational resources, digital accessibility, ethical evaluation and use of educational technologies. The materials will be drawn from a series of sources (e.g., online learning modules, peer-reviewed journal articles).

1. **STATEMENT OF PURPOSE (How does the course fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review (if applicable)?)**

EDUCATN 771 will be an elective course for the new Graduate Academic Certificate in Teaching and Learning in Higher Education. The course's outcomes are aligned with the Certificate's outcomes (specifically number 3) noted below.

1. Reflect on and document their teaching beliefs, practices, impacts and goals
2. Describe how to design and deliver effective learning experiences
3. Apply effective teaching practices in an area of interest in higher education (e.g., design, application, research, or technology)

2. **EXPECTED ENROLMENT:**

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Maximum enrolment for each section of this course will be 24 students.

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

This course will be delivered in an online and/or blended format.

4.   DESCRIBE IN DETAIL THE METHOD OF EVALUATION (<u>percentage breakdown, if possible</u>): (For 600-level course, indicate the <u>Extra Work</u> to be required of graduate students, i.e., exams, essays, etc. Please also note if a lab or tutorial will be included.)

Students will:
- Write a reflection paper that considers the trends, challenges and opportunities in digital learning environments. (30%)
- Produce media artifacts or learning objects to be used in the context of teaching in higher education. (35%)
- Conduct a quality assessment of a course or course component that uses digital media for learning. (35%)

5. To prevent overlap, is a course in the same or related area offered in another department? If YES please note below and/or attach to this form any relevant correspondence with the other department(s).

No

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6. If the course is intended primarily for students outside of your department, do you have the support of the department/program concerned?

The course will be open to any student accepted into the Graduate Academic Certificate in Teaching and Learning in Higher Education.

PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Lori Goff Email: midirect@mcmaster.caDate submitted: February 26, 2024

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

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Recommendation for Change in Graduate Curriculum:
For Change(s) Involving Courses

Please read the following notes before completing this form:
1. This form must be completed for ALL course changes. Sections of this form pertaining to your requested change must be completed.
2. An electronic version of this form (must be MS WORD not PDF) should be emailed to the Assistant Graduate Secretary (cbryce@mcmaster.ca).
3. A representative from the department/program is required to attend the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Paul R. MacPherson Institute for Leadership, Innovation and Excellence in Teaching
COURSE TITLE	**EDUCATN 791: Education Topics In The Disciplines**

COURSE NUMBER	EDUCATN 791	COURSE CREDIT		
		6 Unit Course ( )	**3 Unit Course (X)**	**1.5 Unit Course ( )**
REQUISITE(S) (Pre/Co/Anti or program enrollment requirement)	Prerequisite -> EDUCATN 701: Essential Topics in Teaching and Learning			

Nature of Recommendation (Please Check Appropriate Box)
Is this change a result of an IQAP review? ☐ Yes ☒ No

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NEW COURSE		DATE TO BE OFFERED (FOR NEW COURSES ONLY): Fall 2025 FORMTEXT	WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL? No IF YES, PROVIDE THE DATE:

Will the Course be Cross-listed (combined sections) with another department? No   Yes, please note which department:

 Attach to this Form Any Relevant Correspondence with the other department(s).   Note: Cross-listing of courses requires written approval from each department and faculty concerned.   If you would like to remove a cross-listing you must include a written explanation agreed upon by both departments affected.

CHANGE IN COURSE TITLE		**Provide the new Course Title:**

CHANGE IN COURSE DESCRIPTION		**600-LEVEL COURSE (Undergraduate course for graduate credit)** **Please see #4 on page 2 of this form**	

COURSE CANCELLATION		**Provide the Reason for Course Cancellation:** Please note: cross-listed (combined sections) courses can only be cancelled by the department who owns the course.

OTHER CHANGES	**EXPLAIN:**

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

In this course, students will examine current topics in education within a particular discipline. The discipline will vary depending on instructor interest and availability.

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

The topics examined in the course will vary depending on the instructor but will emphasize current topics and emerging trends across disciplines. The materials will be drawn from a series of sources (e.g., peer-reviewed journal articles, disciplinary-specific texts).

1. **STATEMENT OF PURPOSE (How does the course fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review (if applicable)?)**

EDUCATN 791 will be an elective course for the new Graduate Academic Certificate in Teaching and Learning in Higher Education. The course's outcomes are aligned with the Certificate's outcomes (specifically number 3) noted below.

1. Reflect on and document their teaching beliefs, practices, impacts and goals
2. Describe how to design and deliver effective learning experiences
3. Apply effective teaching practices in an area of interest in higher education (e.g., design, application, research, or technology)

2. **EXPECTED ENROLMENT:**

Maximum enrolment for each section of this course will be 24 students.

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

This course will be delivered in an online and/or blended format, seminar style.

4.   DESCRIBE IN DETAIL THE METHOD OF EVALUATION (percentage breakdown, if possible): (For 600-level course, indicate the Extra Work to be required of graduate students, i.e., exams, essays, etc. Please also note if a lab or tutorial will be included.)

The specific details of each evaluation will vary depending on the co-instructors assigned and the disciplinary connection, but will include at minimum that the students submit a proposal or project plan (30%), literature review (30%), and major paper (40%) that connects teaching and learning within a disciplinary area of study.

5. To prevent overlap, is a course in the same or related area offered in another department? If YES please note below and/or attach to this form any relevant correspondence with the other department(s).

No

6. If the course is intended primarily for students outside of your department, do you have the support of the department/program concerned?

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The course will be open to any student accepted into the Graduate Academic Certificate in Teaching and Learning in Higher Education and will be offered only when there is an instructor available from the discipline to co-teach the course.

PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Lori Goff Email: midirect@mcmaster.ca   Date submitted: February 26, 2024

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

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To   :   Graduate Council

From   :   Christina Bryce
                      Assistant Graduate Secretary

_____

Via e-ballot on October 31st and at it's meeting on February 14th the Faculty of Science Graduate Curriculum and Policy Committee approved the following recommendations.

Please note that these recommendations were approved by the Faculty of Science.

For Approval of Graduate Council:
   a. Chemical Biology*
            i.   Addition of Accelerated Option

*also approved by the Faculty of Health Sciences

SCHOOL OF GRADUATE STUDIES

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1. This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed. 2. An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	Chemical Biology Graduate Program		
NAME OF PROGRAM and PLAN	Accelerated Option for Chemical Biology graduate students in the Chemical Biology Graduate Program		
DEGREE	MSc		

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No

CREATION OF NEW MILESTONE ☐

CHANGE IN ADMISSION REQUIREMENTS		CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR		**EXPLAIN:**			

OTHER CHANGES	**EXPLAIN:** New offering for Chemical Biology students of an Accelerated Option

DESCRIBE THE **EXISTING** REQUIREMENT/PROCEDURE:
None

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

An Accelerated MSc pathway to be completed in 12 months, will be introduced as an option to McMaster Chemical Biology undergraduate students who complete their BSc in Honours Chemical Biology or Biochemistry and Biomedical Sciences (BBS), complete the undergraduate thesis course (CB 4G12 or BBS 4T15 or alternative equivalent courses). The accelerated MSc is with the same supervisor as the undergraduate thesis course and can be on a similar topic as the thesis project, but it must build on it without duplication. Students will be required to have a average of 10 or greater for the last two years at the time of application and the end of their BSc. Admission without meeting these requirements will require special permission from the supervisor and director of the Chemical Biology Graduate Program (CBGP).

Application to the Accelerated MSc pathway. Honours Chemical Biology and Honours Co-op Chemical Biology students would apply to the Accelerated MSc pathway by mid-November of their last year for admission in May or September immediately following completion of their BSc in Level IV (for Honours Chemical Biology and BBS graduates) or Level V for (Honours Co-op Chemical Biology and BBS graduates). The application form requires a description of their proposed undergraduate thesis project (CB 4G12, BBS 4T15 or alternative equivalent courses) and their Accelerated MSc project as approved by the proposed supervisor. The applicant must obtain the approval of the supervisor, as evidenced by their signature. Additional materials will include a statement of interest in pursuing graduate studies. If appropriate, an additional sheet detailing any previous research, teaching, or work experience related to their proposed area of specialization may be submitted.

After admission. Accelerated MSc students will be required to meet the same requirements as students enrolled in the current Chemical Biology MSc program, as outlined below.

Supervisory committee. Establish a supervisory committee in the first month and complete their first and second meetings within 2 and 10 months of starting their degree, respectively.

Course requirements. Accelerated MSc students will complete the same course requirements as the traditional MSc students. Accelerated MSc students will be required to complete CB 700, a 12-week course performed as two 6-week modules in the Fall and Winter semesters. Complete a 600-level course for which no undergraduate training was previously received or CB 702 by submitting a report of a detailed review of their respective research fields to their supervisory committee. An alternative 3U course, in lieu of a 600-level course or CB702, is also allowed. Eligible students may request advance credit for up to one course based on course taken in their undergraduate degree at McMaster. Requests for advance credit are done by petition to the Associate Dean of the Faculty once enrolled in the graduate program and must be approved by their supervisor and the Director of the CBPG. Courses taken at the 600-level in a student's undergraduate career at McMaster may be considered for advanced credit.

Colloquium. Students will be required to present their research at the April Chemical Biology colloquium with the second year traditional MSc students.

Thesis submission and defense. Students would be expected to submit and defend their thesis in the twelfth month or conduct a PhD transfer exam. If they successfully complete the PhD transfer exam, they will be required to meet all the requirements of the traditional Chemical Biology PhD program with the earliest graduation being 3 years after entering graduate school. The option of a non-accelerated, two-year MSc degree is also still available, if the Supervisory Committee deems that more time is needed to complete the MSc thesis.

Please refer to Appendix A for the proposed addition to the CBGP handbook.

Timeline of the Accelerated MSc pathway compared to the traditional two year MSc program*		
	Accelerated MSc pathway (1 year)	**Traditional MSc pathway (2 years)**
Start date option	May 1st September 1st	May 1st September 1st **January 1st**
First Committee meeting**	**Within the first 2 months**	**Within the first 6 months**
CB 700 (Divided over two modules)	In the first-year Fall and Winter semester	In the first-year Fall and Winter semester
Additional 3-unit course	One of the following: • CB 702 • An alternative 3U course • **Advanced credit from a cross listed 400/600 level course taken in UG (approval required).**	One in the following • CB 702 • An alternative 3U course
Second Committee meeting**	By the 10th month	Around the 12th month
Colloquium Presentation	In April of the **first year**	In April of the **second year**
Thesis submission	At least two weeks before the thesis oral defence	At least two weeks before the thesis oral defence
Thesis oral defence	Two weeks after the thesis document submission and **by the end of the 12th month**.	Two weeks after the thesis document submission and **by the end of the 24th month**.
PhD transfer (if applicable)	**By the 12th month**	**By the 22nd month**

*Differences in bold

** A third committee meeting is recommended for the accelerated MSc pathway, with committee meetings occurring around the second, sixth and tenth months.

RATIONALE FOR THE RECOMMENDED CHANGE (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

The Chemical Biology BSc program is an intensive 4-year program with significant experiential learning including advanced lab-based and inquiry courses, including a 12-credit undergraduate thesis course (4G12). Many high-achieving students would benefit from an Accelerated MSc pathway for multiple reasons, including:

(1) The expedited degree will match the advanced skill set of our best students. The accelerated MSc capitalizes on synergies between 4th year theses and staying in same lab for MSc. With the accelerated MSc we now recognize and reward such synergy.
(2) To the best of our knowledge, the option of an accelerated M.Sc. in chemical biology is quite unique and is expected to also increase our undergraduate enrolment.
(3) A B.Sc. degree is often insufficient to secure competitive positions in industry, while M.Sc. graduates in Chemical Biology are currently highly sought after by companies.
(4) Efficient preparation for the growing Canadian Biotechnology sector, which requires candidates with advanced skills. According to the 2021 Close-up on the bio-economy: National report by BioTalent Canada (the most recent national report), demand for biological scientists and engineers will outstrip supply. For example, the report states "The bio-economy is expected to grow modestly between 2021 and 2029. Current estimates indicate there will not be enough workers to meet the labour need of 65,000 additional workers by the end of the decade, with significant pressure starting within the next three years and job-opening-to-candidate ratios reaching 4:1 in some cases".
(5) Improving their competitiveness for professional post-undergraduate programs.

Alignment with CBGP core missions. The mission of CBPG is to provide an intensive research environment for high achieving students, which has been traditionally executed with a lower traditional course load and TA commitments to maximize research time. To this end, providing a path for expedited research intensive 1-year MSc will improve access and inclusivity of our program for students with time restraints (e.g., future applicants to professional schools, financial limitations, family constraints) without sacrificing quality. The pathway will provide an opportunity and greater incentive for current undergraduates to enter the MSc program.

Alignment with Program Learning outcomes. The proposed 1-year MSc maintains all requirements from the traditional 2-year MSc, and therefore aligns perfectly with all learning outcomes. Students are still required to take complete the same program requirements as the 2-year Option.

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

September 2024

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

MSc option is available to Honours Chemical Biology or BBS and Honours Chemical Biology or BBS Co-op students currently enrolled at McMaster University.

PROVIDE A DESCRIPTION OF THE RECOMMENDED CHANGE TO BE INCLUDED IN THE CALENDAR (please include a tracked changes version of the calendar section affected if applicable):

An accelerated MSc option is available to students currently enrolled at McMaster University in Honours Chemical Biology or BBS or Honours Co-op Chemical Biology or BBS whereby the degree may be completed in 12 months of full-time study. Application for entry into the accelerated option occurs in by mid-November of their last year for admission in May or September immediately following completion of their BSc in Level IV (for Honours Chemical Biology and BBS graduates) or Level V for (Honours Co-op Chemical Biology and BBS graduates). Applicants must have a sessional average of 10.0 at the time they are applying for the option.

- Students will need to complete the undergraduate thesis course (CB 4G12 or BBS 4T15 or alternative equivalent courses) with their proposed Accelerated MSc supervisor during completion of their undergraduate degree.
- Advance Credit: Eligible students may request advance credit for up to one course based on a course taken in their undergraduate degree at McMaster. Requests for advance credit are done by petition to the Associate Dean of the Faculty once enrolled in the graduate program and must be approved by their supervisor and the Director of the Chemical Biology Graduate Program. Courses taken at the 600-level in a student's undergraduate career at McMaster may be considered for advanced credit.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Ryan Wylie and Giuseppe Melacini

Email: wylier@mcmaster.ca   melacin@mcmaster.ca Extension: N/A   Date submitted: 2024/1/23

Appendix A: Handbook entry for the Accelerated MSc Degree Option in the Chemical Biology Graduate Program (CBGP)

<u>Entrance requirements for the Accelerated M.Sc. Pathway</u>

An accelerated MSc option is available to students currently enrolled at McMaster University in Honours Chemical Biology, Honours Biochemistry and Biomedical Sciences (BBS), Honours Co-op Chemical Biology or Honours Co-op BBS whereby the degree may be completed in 12 months of full-time study. Application for entry into the accelerated option occurs by mid-November of their last year for admission in May or September immediately following completion of their BSc in Level IV (for Honours Chemical Biology and BBS graduates) or Level V for (Honours Co-op Chemical Biology and BBS graduates). Applicants must have an average of 10.0 over the last two years at the time they are applying for the option. Exceptions will have to be approved by supervisor, director of the program, and the Associate Dean.

- Students will need to complete CB 4G12 or equivalent (*e.g.* BBS 4T15), undergraduate thesis course, with their proposed supervisor during completion of their undergraduate degree. Alternative thesis courses may be allowed but will have to be approved by supervisor and director of the program.

Students are expected to begin in May or September of the year after they graduate at McMaster University from Honours Chemical Biology, Honours Biochemistry and Biomedical Sciences (BBS), Honours Co-op Chemical Biology or Honours Co-op BBS. They will need to follow the normal application procedures of Graduate Studies and must meet the requirements of both the Chemical Biology Graduate Program and the School of Graduate Studies. Students would apply to the Accelerated MSc pathway in mid-November of level IV for admission in May or September immediately following completion of their BSc in Level IV (for Honours Chemical Biology graduates) or Level V for (Honours Co-op Chemical Biology graduates). The application form requires a description of their proposed undergraduate thesis project (e.g., CB 4G12 or BBS 4T15) and their Accelerated MSc project as approved by the supervisor. The applicant must obtain the approval of the supervisor, as evidenced by their signature. Additional materials will include a statement of interest in pursuing graduate studies. If appropriate, an additional sheet detailing any previous research, teaching, or work experience related to their proposed area of specialization may be submitted.

<u>Accelerated M.Sc. Description.</u>

A candidate for the Accelerated M.Sc. degree will spend at least one calendar year in full-time study at McMaster University. Candidates are required to:
(1) complete CB 700;
(2) Complete a 600-level course for which no undergraduate training was previously received or CB 702 by submitting a report of a detailed review of their respective research fields to their supervisory committee. An alternative 3U course or two 1.5 credit 700 courses, in lieu of a 600-level course or CB702, is also allowed. Eligible students may request advance credit for up to one course based on course taken in their undergraduate degree at McMaster. Requests for advance credit are done by petition to the Associate Dean of the Faculty once enrolled in the graduate program and must be approved by their supervisor and the Director of the Chemical Biology Graduate Program. Courses taken at the 600-level in a student's undergraduate career at McMaster may be considered for advanced credit.
(3) give at least one seminar in the Chemical Biology seminar program; and
(4) present a thesis which will embody the results of original research. The thesis must be defended in an oral examination. Students may be admitted to the doctoral program without completing their Master's degree. These students may be allowed to transfer to the Ph.D. program after 10 months provided their progress is judged satisfactory by the Supervisory Committee. Please see "Transfer from M.Sc. to Ph.D. Program" guidelines for details. M.Sc. Thesis Evaluation Permission to write up a M.Sc. thesis should be requested at approximately the tenth month mark following admission into the program.

Once the student has completed their thesis, they must submit it to their supervisor for formal review. If it is considered ready for defence, it will then be read and evaluated by a committee of two faculty members (including the supervisor). The thesis will be defended by the candidate in an oral examination before this committee. Acting on behalf of the Program Director, the time of the defence will be set by the Graduate Assistant; normally this will be

about two weeks after the completed thesis has been submitted to the department. After a successful defence, the candidate must address any necessary corrections and submit the thesis to the School of Graduate Studies. NOTE: A student whose work is unsatisfactory may at any time be required to withdraw from the program. The option of a non-accelerated, two-year MSc degree is also still available, **if the Supervisory Committee deems that more time is needed to complete the MSc thesis**.

PhD Transfer Examination. This exam provides a direct route from M.Sc. to Ph.D. studies and permits students to significantly reduce their overall time for completion of a Ph.D. degree. This examination can take place as early as 10 months after beginning the Accelerated M.Sc. pathway but MUST be completed by the twelfth months in the Accelerated M.Sc. pathway. Students considering continuing in a Ph.D. in Chemical Biology would need to meet all the requirements of the Ph.D. program.

Timeline for the Accelerated MSc pathway

Entry into the MSc program under the accelerated pathway must occur in May or September immediately following one's undergraduate degree and must meet the same requirements for admissions as other candidates. The timeline for the Accelerated MSc pathway would be as follows:

- Students will officially start their accelerated MSc in May or September (after completion of their BSc, and once they have been cleared to graduate).
- Complete first meeting within 2 months of starting the MSc program.
- Students would take CB 700 that comprises of a 6-week module in the Fall and an additional 6-week module in the Winter.
- Students would complete CB 702 in the Winter if they did not receive credit or advance credit for an approved alternative course.
- Students would present their research at the Chemical Biology Graduate Colloquium in April.
- Complete a second supervisory meeting at least one month before planned defense date.
- Students would submit their thesis at least two weeks prior to their scheduled defense.
- Students would orally defend their thesis by the end of April or August.

McMaster University | SCHOOL OF GRADUATE STUDIES

Gilmour Hall, Room 212
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Hamilton, ON L8S 4L8

(905) 525-9140 x 23679
gs.mcmaster.ca

To   :   Graduate Council

From   :   Christina Bryce
                Assistant Graduate Secretary

_____

At its meeting on February 20th, March 18th and via e-ballot on February 22nd and March 19th 2024 the Faculty of Engineering Graduate Curriculum and Policy Committee approved the following graduate curriculum recommendations.

Please note that these recommendations were approved by the Faculty of Engineering.

For Approval of Graduate Council:

    a. **Civil Engineering**
- **Addition of an Accelerated Option**

    b. **Computing and Software**
- **Change to Program Requirements**

    b. **Electrical and Computer Engineering**
- **Change to Program Requirements**

    c. **School of Engineering Practice and Technology**
- **Change to Program Requirements**

For Information of Graduate Council:

    d. **Civil Engineering**
- **New Courses**
    1. 6CA4 Construction Management and Automation
    2. 719 Design of Sustainable Cementitious Composites
    3. 721 Reactive Transport Modelling in Porous Media
    4. 723 Machine Intelligence for Civil Engineering Systems

    e. **Chemical Engineering**
- **New Cross-Listed Course**
    1. 721 Reactive Transport Modelling in Porous Media

    f. **Computing and Software**
- **New Course**
    1. SFWRENG 6TB3 Syntax-Based Tools and Compilers
    2. 731 Social and Collaborative Computing

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3. 742 Quantum Computing and Quantum Cryptography
4. 752 Group Theory for Optimization and Machine Learning
5. 759 Computer vision in medical image analysis
6. 776 Micro Robotics
7. 777 Model-Driven Engineering
8. 778 Foundations of Interactive Learning
9. 779 String Processing Algorithms
10. 782 Engineering Digital Twins
11. 783 Human – Centered Artificial Intelligence

- **Course Cancellations**
  1. 726 Robot Learning
  2. 767 Information Privacy and Security
  3. 756 Advanced Topics in Formal Methods and Software Architecture
  4. 765 Wireless Networking and Mobile Computing
  5. 758 Advanced Compiler Design and Optimization
  6. 6TC3 Recursive Function Theory and Computability
  7. 6GA3 Real-Time Systems and Computer Game Applications
  8. COMPSCI 6TB3 Syntax-Based Tools and Compilers

- **Change in Course Title and Description**
  1. 748 Analysis and Synthesis of Sound
  2. 760 Logic for Practical Use

g. **Electrical and Computer Engineering**
  - **New Courses**
    1. 6SP4 High Performance Programming
    2. 726 Machine Learning
    3. 730 Control of Adjustable Speed Drives
    4. 791 Advanced Communication Skills for Graduate Research in Electrical and Computer Engineering
  - **Change to Requisite**
    1. 790 Communication Skills for Graduate Research in Electrical and Computer Engineering

h. **Mechanical Engineering**
  - **Change in Course Title and Description**
    1. 777 Cognitive Systems Theory
  - **Change in Course Descriptions**
    1. 723 Flow Induced Vibrations
    2. 758 Graduate Seminars in Mechanical Engineering
  - **New Cross-listed Courses**
    1. 6I03 Sustainable Manufacturing Processes
    2. 6BC3 Building Science

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3. 767 Multivariate Statistical Methods for Big Data Analysis and Process Improvement
4. 785 Machine Learning

i. **School of Engineering Practice and Technology**
   - **Course Cancellations**
     1. 703 Applied Microeconomics and Environmental Economics
     2. 714 Workflow Management for Animated Prototypes
     3. 715 Rendering techniques
     4. 717 Biomanufacturing
     5. 719 Special Topics in Engineering/ Technology Entrepreneurship and Innovation
     6. 730 Reliability and Risk Management
     7. 732 Sustainable Energy - Technology and Options Selection
     8. 733 Project Management
     9. 737 Scenario Analysis, a Public Policy Analytical Method
     10. 746 Design of Sustainable Community Infrastructure
     11. 747 Energy Efficient Buildings
     12. 748 Development of Sustainable Communities
     13. 754 Process Design and Integration for Minimal Environmental Impact
     14. 768 Special Topics in Additive Manufacturing
     15. 772 Innovation Studio
     16. 774 Nanobiotechnology
     17. 779 Machine Learning : Regression Models
     18. 781 Contaminated Site Management
     19. 782 Modern Power System Design
     20. 792 GPU Intensive applications for real-time projects
   - **Change to Course Descriptions**
     1. 6X03 Livable Cities, the Built and Natural Environment
     2. 701 Theory and Practice of Policy Analysis: Frameworks and Models
     3. 704 Public Policy Research Project (Part 1 and 2)
     4. 705 Green Engineering, Sustainability and Public Policy
     5. 706 Energy and Public Policy
     6. 708 Special Topics in Engineering and Public Policy
     7. 709 Emerging Issues, Technology and Public Policy
     8. 773 Leadership for Innovation
     9. 778 Circular Economy – Engineering Perspectives and Application
   - **New Courses**
     1. 707 Fundamentals of Design for Virtual Care
     2. 797 Railway Signaling and Train Control
   - **New Cross-listed course**
     1. 798 Management and Control of Electric Vehicle Batteries

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j.   Materials Science and Engineering
- **New course**
    1. 6ML3 Applications of Machine Learning to Materials and Chemical Engineering
    2. 6Y03 Advanced Biomaterials: Applications and Characterization

k.   Biomedical Engineering*
- **New cross-listed courses**
    1. 6BB3 Biomaterials & Tissue Engineering

*Also approved by the Faculty of Health Sciences

McMaster University

School of Graduate Studies
Curriculum Changes - Program
Updated July 2022

Recommendation for change in graduate curriculum – for change(s) involving degree program requirements/procedures/milestones

Important: Please read the following notes before completing this form
1. This form must be completed for **all** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form (must be in MS Word **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	Civil Engineering
Name of Program and Plan	GENMC/CIVENGMASC
Degree	Master of Applied Science

Nature of Recommendation (please check appropriate box)	
Is this change a result of an IQAP review? ☐Yes ☑No	
☐ **Creation of new milestone**	
☐ **Change in admission requirements**	
☐ **Change in comprehensive**	
☐ **Change in course requirements**	
☑ **Change in the description of a section in the graduate calendar**	Explain: The Civil Engineering Department is creating an accelerated MASC option for our undergraduate students. This option will be available for undergraduates to apply in the 2024/2025 academic year.
☑ **Other changes**	Explain: The Civil Engineering Department is creating an accelerated MASC option for our undergraduate students. This option will be available for undergraduates to apply in the 2024/2025 academic year.

Describe the existing requirement/procedure	Currently, the Civil Engineering department offers an MASC degree with a completion time of 2 years. Applicants must have completed an undergraduate degree in the areas of Civil/Chemical/Mechanical Engineering or Science (honours). Applicants are required to have a minimum GPA of 8 (or B) in their last two years of undergraduate studies.
Provide a detailed description of the recommended change (Attach additional pages if space is not sufficient.)	While we would continue to offer the MASC degree, the Civil Engineering Department is proposing to add an 'accelerated' MASC degree option that is available to our undergraduate students. Please see attached word document for the detailed description of our proposed accelerated degree.
Rationale for the recommended change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):	We recommend this addition mainly for two purposes. One is to increase the number of our domestic graduate students. The other is to encourage good McMaster University undergraduate students to stay at McMaster and complete their Master's studies.
Provide implementation date: (implementation date should be at the beginning of the academic year)	Our hope is to start accepting applications in Winter 2025 for a Sept 2025 start.
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 (please include a tracked changes version of the calendar section affected if applicable):	There are two attached tracked changed versions of the recommended changes to the academic calendar. The first document is for the changes to the Civil Eng MASC page of the academic calendar and the second document is the tracked changes for the main Civil Eng page of the academic calendar under the 'Application' heading.

Contact information for the recommended change:

Name: Yiping Guo   Email: guoy@mcmaster.ca   Extension: 24846   Date submitted:

Detailed Description of the Accelerated MASc Program

Eligible students currently taking their undergraduate degree in the Department of Civil Engineering at McMaster University can obtain an MASc degree in a reduced time period. This provides a faster path to obtaining the highly valued post-graduate degree. The requirements of the MASc degree are not reduced. Instead, the accelerated program capitalizes upon research work that undergraduate students perform in the department, either through summer undergraduate research with one of our faculty members, or through the CIVENG 4Z04 independent study course. In addition, undergraduate students can take one 600-level course, which can provide credit both for their BEng and MASc degree requirements and therefore reduces the MASc course requirements.

To take part in the program the student must be eligible based on their grades, have a faculty member who will supervise their studies for 4 to 8 months before completion of their BEng, and have registered for the Accelerated Option before the end of the penultimate year of their Bachelor's degree. Interested students should inquire at the Department Office.

Applying and Registering

Department of Civil Engineering undergraduate students enrolled in the first or second term of their penultimate year can apply for the Accelerated MASc Option through the Civil Engineering Associate Chair – Graduate Studies (through Graduate Administrative Assistant Amelia Brook brookam2@mcmaster.ca). The student must identify a supervisor from the Department of Civil Engineering with whom they will be working, and the supervisor shall agree to supervise the student for their summer research work with the intension of also supervising their graduate studies. If necessary, the department may help the student in finding a suitable supervisor. It is possible that no suitable supervisor can be found and in that case the student cannot pursue the accelerated program but may apply through the usual route.

The Associate Chair and Supervisor will review the academic performance of the student (i.e., grades, prior research work, publications, etc.), requiring a minimum cumulative average of 9.5 and a sessional average in their last year of studies above 10 to apply for the Accelerated Option. The student will be notified if accepted under the Accelerated MASc Option prior to their first summer work term under the Accelerated Option. Students are highly encouraged to apply for the NSERC USRA program. Students may drop out of the Accelerated Option at any time prior to entering Graduate Studies without any effect to their undergraduate degree. Also, the permission to follow the Accelerated Option as an undergraduate student does not guarantee acceptance into Graduate Studies.

600-Level Courses

A student following the Accelerated MASc Option will be allowed to take one 600-level course required for the MASc program during their final year of undergraduate studies in our Department. All 600-level courses in the department are co-taught as simultaneous undergraduate (400-level) and graduate (600-level) versions, with the 600-level version requiring additional work to complete. The student will complete a form (available from the Department Office) that indicates the chosen course and obtain a signature from the instructor of the course. The instructor is responsible for keeping record of the student's performance and computing both a 400-level grade (based on the 400-level content) and a 600-level grade (based on the 600-level content). The grade at the 400-level will be recorded in the student's undergraduate transcript. At a later date, once the student has enrolled in the MASc program, the student will submit paperwork to the

Department to request that the 600-level grade be entered into their graduate transcript, which can then be counted toward degree requirements. It is the responsibility of the instructor to keep the grades related to the additional work for the 600-level separate from the 400-level content. A student cannot use a 400-level course taken prior to applying for the Accelerated Option towards the 600-level course requirement as they will not have completed the extra workload.

Research Project

A MASc student pursuing the Accelerated Option must complete all MASc requirements. The Accelerated Option facilitates that a minimum of 4 months of work towards the research project have been completed prior to admission into Graduate Studies. A maximum of 8 months of work completed prior to admission into Graduate Studies may be completed toward the graduate program. Thus, the graduate program can be completed in about 12 to 18 months after receiving the BEng degree.

Typically, undergraduate students complete at least one 4-month summer undergraduate research term with their supervisor in the summer before their final year as a part of the Accelerated Option. In addition, students may enrol in the CIVENG 4Z04 Independent Study course in which the research project is continued.

Enrollment

The student must apply to Graduate Studies during the final year of their undergraduate program in the Department of Civil Engineering and is expected to begin their graduate program either in May or September of the year during which they graduate from the undergraduate program. Students may not defer enrollment to a later time without the permission of the Department. A student must follow the normal application procedures to Graduate Studies and must meet the admission requirements of the Department and the School of Graduate Studies. Failing to enter Graduate Studies will have no influence on the student's undergraduate transcript.

Master's Degree

A candidate for the Master's degree may proceed by either a thesis (M.A.Sc.) or project (M.Eng.) program. In each case the candidate is required to spend at least one calendar year in full-time graduate study, or the equivalent in part-time graduate study at McMaster University. ~~All full-time Master's candidates must attend and participate in the Department of Civil Engineering Graduate Student Seminar Day each year, for the first 6 terms (24 months) of study.~~ ~~Regulations for Master's examinations are available from the Department.~~

Requirements

Candidates will be required to complete satisfactorily the equivalent of at least two full courses, of which at least one must be from within the Department of Civil Engineering at McMaster University. Additional course work may be prescribed if deemed necessary by the candidate's research supervisor. <ins>A dissertation must be presented which will embody the results of an original investigation; the dissertation is to be defended in an oral examination. This program is intended mainly for full-time candidates but may be taken on a part-time basis. Regulations for Master's examinations are available from the Department.</ins>

In addition to the above course requirements, all full-time Master's candidates must attend and participate in the Department of Civil Engineering Graduate Student Seminar Day each year, for the first 6 terms (24 months) of study. ~~A dissertation must be presented which will embody the results of an original investigation; the dissertation is to be defended in an oral examination. This program is intended mainly for full-time candidates but may be taken on a part-time basis.~~ ~~Regulations for Master's examinations are available from the Department.~~

<ins>An **Accelerated Option** is also available to students currently enrolled at McMaster as undergraduate students in the Civil Engineering Department whereby the M.A.Sc. degree may be completed in 16-20 months of full-time study. In exceptional circumstances, students from other Engineering departments in McMaster may apply for entry into the accelerated option by contacting the Civil Engineering Associate Chair (Graduate). Application for entry into the Accelerated Option, through the Associate Chair (Graduate), occurs in the penultimate year of undergraduate studies. Applicants must have maintained a minimum cumulative average of 9.5 for their undergraduate coursework with a sessional average of 10 at the time they are applying for the option. The Accelerated Option requires students to complete at least one term of their research project (typically the summer of their penultimate year of undergraduate studies) with a supervisor from the department</ins>

prior to the completion of their undergraduate degree. For students enrolled in the Accelerated Option, research conducted in CIVENG 4Z04 can count towards the accelerated option and therefore towards partial fulfillment of the graduate M.A.Sc. thesis work. A one-term 600-level course is required under the accelerated option in the final undergraduate year for graduate credit provided it is listed within the department. Entry into the M.A.Sc. program under the Accelerated Option must occur less than one year after completing one's undergraduate degree and must meet the same requirements for admission as other candidates.

Commented [SS1]: Let's completely remove this so that we are in line with other Departments. See ChemEng here: https://academiccalendars.romcmaster.ca/preview_entity.php?catoid=48&ent_oid=6484&returnto=9558

Research in Civil Engineering

Current research activities in the Department of Civil Engineering can be described in terms of discipline areas grouped as follows: Computational Mechanics, Environmental and Water Resources Engineering, Structural and Earthquake Engineering, Transportation and Construction Management.

The Department of Civil Engineering provides opportunities for research in a broad range of fundamental and applied research topics. Research in Civil Engineering includes: geochemical modeling transport in porous media, enhanced oil recovery, sustainable energy transitions, geo-energy storage (A. Awolayo); durability/service life modeling of engineering materials, modeling heat and mass transfer in porous media, concrete technology, stone masonry, energy efficiency of buildings (S.E. Chidiac); hydrologic modelling and forecasting, hydroinformatics, water resources engineering, environmental and climatic data analysis (P. Coulibaly); hydrogeology, contaminant fate & transport, local water security, coupled-systems (social) hydrology (S. Dickson-Anderson); complex systems simulation, data analytics, interdependence and resilience quantification, systemic risk mitigation, infrastructure performance in multi-hazard environments (W. El- Dakhakhni); geomechanics, geotechnical engineering seismic soil-structure interaction and finite element applications (P. Guo); earthquake engineering, system-level performance quantification, experimental dynamic testing, numerical and analytical modelling, nonlinear simulation models, reinforced concrete block systems, reinforced concrete structures, resilient systems, risk assessment, structural dynamics, data analytics (M.Ezzeldin); uncertainty and trend analysis in water resources engineering, urban hydrology and urban stormwater management (Y. Guo); road safety, active road users, road user interactions, Bayesian safety models, agent-based modeling, applications of AI, machine learning, computer vision in transportation, AV/CV safety applications, risk-based design and ITS (M. Hussein); biological wastewater treatment, nutrient recovery, PHA (polyhydroxyalkanoate) production, heavy metal separation, microbial electrochemistry, anaerobic digestion, electrodialysis, water quality monitoring (Y. Kim); reliability, vulnerability and risk of environmental infrastructure, climate change modeling and impact assessment, hydrological risk modeling and probabilistic forecasting (Z. Li); electrification of transit systems, transit modelling, transportation-energy nexus, electric and autonomous mobility, unmanned aerial vehicles (drones), optimization models and adaptable systems, system impacts, last-mile delivery (M. Mohamed); Cement-based

materials, concrete technology, durability/repair/rehabilitation, recycling byproducts, Net Zero - low carbon construction materials, sustainability, machine learning and data driven models (M. Nehdi); material-oriented structural design, sustainable repair solutions for aging concrete infrastructure, durability of concrete infrastructure in a changing climate (H. Ousmane); structural resistance against extreme hazards, experimental mechanics, real-time hybrid simulation, structural resilience and sustainability, risk assessment, uncertainty modelling, and reliability analyses for performance-based design.(R. Qureshi); automation in construction, intelligent transportation systems, AI-driven logistics, data-driven supply chain (S. Razavi); structural dynamics, passive structural control systems, base isolation, structural health monitoring, retrofit/rehabilitation (M. Tait); earthquake engineering, structural dynamics, nonlinear dynamic modelling techniques, steel structures, self-centering systems, large-scale physical testing, sustainable and resilient infrastructure (L. Wiebe); sustainable pavement engineering, long-life infrastructure, solar technology in roads and pavement infrastructure, application of asset management to highway and airport operations (S. Tighe) connected and autonomous vehicles, big data analytics, energy and environment sustainability, and transportation operations and control (H. Yang); climate change mitigation, renewable energy, water security, energy storage, carbon storage, multiphase flow, porous media, electrochemistry (R. Zhao); prestressed/reinforced concrete high way bridges, precast concrete components for accelerated bridge construction, corrosion of concrete structures in a changing climate, implementation of advanced materials in structural design for seismic resiliency, vehicle collision with concrete highway bridges (C. Yang), topology optimization on nonlinear materials, additive manufacturing modeling, chemo-hydro-mechanical coupling, microporomechanics and upscaling models, numerical modeling of fracture propagation, and constitutive models in plasticity, viscoplasticity, and fabric-based models (T. Xu).

Facilities for Research

McMaster University Centre for Effective Design of Structures

The McMaster University Centre for Effective Design of Structures links research and education to produce engineers who understand durability of materials, possess advanced analytical skills, can identify client-specific needs, and satisfy sustainability concerns including reduced maintenance and extended service life of structures. The construction process, building envelope design and building services are integrated parts of design.

In addition to traditional areas of research in concrete, steel and analytical methods, the Centre has established the following four research focus areas: Masonry, Remediation of Structures, Earthquake Engineering, and Enhanced Use of New and Under-Utilized Materials.

Structures and Earthquake Engineering Laboratory

Experimental research is conducted in the Applied Dynamics Laboratory, which is designed with a cellular box foundation strong floor measuring 25 m by 40 m. The special design features make the Applied Dynamics Laboratory a particularly suitable facility for large scale structural experimental research. Clear head room of over 12 m beneath a 10 tonne overhead crane permits full scale testing as well as scaled models of structures or structural components. The Laboratory

has a large strong wall, which is used to provide reaction and support for load application equipment. The strong wall is capable of providing reaction for 100 tonnes at a height of 6 m.

The main hydraulic accumulator and pump system, with over 450 GPM of hydraulic pump capacity, can operate a range of servo-controlled hydraulic actuators. This test equipment permits hybrid simulation through the use of a multi-actuator test system (2 to 4 actuators simultaneously) with capacities ranging from 450 kN to 1,400 kN and advanced data acquisition systems. This multi-actuator system permits the testing of a whole class of structural applications that cannot be tested on a shake table.

The main hydraulic system is also used to power three shake tables (1 DOF, 2 DOF, and 6DOF) for earthquake engineering studies. In addition, there is a wide selection of hydraulic jacks, computer controlled data acquisition equipment, MTS and Shore Western controller units (MTS 406 and MTS 407), load cells and displacement transducers, 3 fixed in-plane test machines with capacities between 5,000 kN and 550 kN are available.

Recently Acquired Equipment

Major research equipment that has recently been acquired includes a Simulator for Innovative Next-Generation Structural Systems (SINGSS). The SINGSS can test a specimen as large as 3 m x 5 m, under a vertical load of up to 2000 kN, while applying a horizontal load of up to 1000 kN with a 1000 mm stroke at a peak velocity of up to 500 mm/s. These large displacement, velocity, and force capabilities, together with hybrid testing capabilities, allow the SINGSS to reproduce large- to full-scale earthquake demands on innovative new structural systems that are being developed at McMaster University.

Through McMaster's collaboration with and generous support provided by the Canadian masonry industry, a Variable Scale Block Machine (VSBM) was acquired in 2008. The VSBM has been used to produce model-scale concrete-blocks which are utilized both at McMaster and by numerous researcher institutions throughout Canada. An air-bag system for out-of-plane testing of walls and a state-of-the-art 1,000 psi shock tube system with a 2.5 m test section are also available to simulate air and under-water explosions.

Material Testing Facilities and Equipment

An important aspect in the design of Civil Engineering structures and infrastructure is the consideration of the material properties. For cementitious materials such as concrete, considerations need to include workability, durability, and mechanical properties. The Civil Engineering material's laboratory, located at the ADL, possesses the facility and equipment to characterize these properties at both macro and micro-scale. Test equipment and corresponding functions available are listed below:

1. Mixers - Concrete, mortar, paste and grout
2. Workability - Automated slump rate machine, L-Box, J-Ring, Static segregation column test that are used to assess the workability of normal-slump concrete and self-consolidating concrete.

3. Rheology - Premium series rotational Viscometer (Fungilab) and RheoCAD 500 concrete rheometer (CAD Instruments) that are used to determine the rheological properties of the cementitious materials, yield stress and plastic viscosity.
4. Material instrument used to characterize the hydration, composition and micro-structure of the concrete
   o Isothermal calorimeter: Calmetrix I-Cal 8000 HPC - heat of hydration testing (isothermal temperature up to 70°C, 8 channels)
   o TGA: SDT Q600 TA Instruments - measures weight change (TGA) and differential heat flow (DSC) (max temperature = 1500°C)
   o Mercury Intrusion Porosimeter: Poremaster Quantachrome - (pore size range 1100 micron to 0.0064 micron pore diameter)
   o pH probe: Thermo Scientific Orion Star A211 Benchtop pH Meter
   o OHAUS MB23/MB25 Moisture Analyzer - precise moisture content determination
   o Microscope with camera
   o Electronic precision balance: Denver instrument (0.1mg) with draft shield
   o Titrator (components: 836 Titrando, 800 Dosimo, 801 stirrer, 804 Ti Stand) (Metrohm) - capable of dynamic (DET) and monotonic (MET) titration, endpoint titration (SET) and ion selective electrodes
   o Precision balance: OHAUS Explorer (0.01g)
5. Durability
   o Torrent permeability tester to measure surface permeability coefficients of concrete
   o Rapid freeze-thaw cabinet - Freeze-Thaw Test ASTM C 666
   o Temperature controlled freezers for other F/T tests including Scaling Resistance Test MTO- LS-412
   o Ultrasonic instrument TICO to measure concrete core properties
   o Restrained shrinkage ring - ASTM C1581
   o Ultrasonic cleaner (VWR) - to clean lab glassware
   o Freezers with freeze-thaw settings
   o Giatec Perma2, Rapid Chloride Permeability
   o Modified Giatec Perma 2, Chloride migration test equipment
   o Giatec RCON, Concrete Electrical resistivity test
6. Others
   o Profile grinder: Germann Instruments Concrete Profile Grinder PF-1100 Metabo GE 700
   o Rotary tool kit (PowerFist)
   o Desiccator
   o StableTemp water bath - maintain stable temperature
   o Caframo Real Torque Digital Stirrer - digital overhead stirrer
   o ENERAC 700 Integrated Emissions System - emission monitoring system

Geotechnical and Materials Engineering

The geotechnical and construction materials laboratories are equipped with conventional triaxial, direct shear, consolidation (odometer) testing equipment. An MTS loading system is available for the cyclic or dynamic testing of soils and pavement construction materials. A state -of-the-art hollow cylinder apparatus can be used for advanced testing to investigate the fundamental behaviour of soils. Special testing equipment such as rigid triaxial cell for K_0-tests and controlled strain paths, is available. The impact of freeze-thaw on soil behaviour can also be explored in the

Geotechnical Laboratory. Moreover, various components and instrumentation for small-scale model tests are available so that various model tests can be carried out to investigate complicated soil-structure interaction problems. Computing facilities are available for finite element computations. In addition, field studies on construction projects have been a regular part of the research program.

The Construction Materials Laboratory is equipped for the characterization of a range of materials such as aggregate, asphalt concrete, Portland cement concrete and slag. In particular, the laboratory can perform resilient modulus testing for pavement aggregates and asphalt concrete, which makes the lab unique in Ontario. A concrete mixer with 0.12 m^3 capacity, aggregate shakers, and sample splitters are also parts of the asphalt concrete technology laboratory. An asphalt foamer and gyratory compactor can be used for research of foamed asphalt concrete.

Environmental and Water Resources

A 100 m^2 graduate research lab is available with state-of-the-art equipment. The laboratory includes common areas available to all users (e.g., balances, sample preparation, fume hoods, and analytical equipment), as well as individual work spaces that can be assigned to graduate students for longer-term experiments.

An array of analytical equipment exists in the laboratory, including:

- two high performance liquid chromatographs (HPLC) equipped with an autosampler and full range of detectors (i.e., conductivity, ultraviolet/visible, refractive index, fluorescence, and photodiode array detectors) and a computer for control and data acquisition purposes;
- a gas chromatograph (GC) equipped with an autosampler capable of handling solid-phase microextraction (SPME), an electron capture detector (ECD) and a flame ionization detector (FID) and a computer for control and data acquisition purposes;
- a spectrophotometer that can be employed in either a discrete sample or flow-through mode equipped with a computer for data acquisition;
- a fluorometer that can be employed in either a discrete sample or flow-through mode equipped with a computer for data acquisition;
- a PCR machine;
- a DGGE system;
- a gel documentation system;
- a mass spectrometer equipped with a computer for data acquisition purposes; a laser diffraction particle size analyzer;
- a gas chromatography (GC) with a thermal conductivity detector (TCD);
- an X-ray fluorescence; and,
- two potentiostat instruments for electrochemical experiments.

The lab is also well-equipped in terms of general instrumentation which serves as the basis for all research activities conducted in the lab. This instrumentation includes a water purification

system, an autoclave, sample storage units, an ultrasonic cleaner, a laminar flow cabinet with flow control, an ultracentrifuge, balances, liquid and gas delivery systems, and a shaker table.

Supplementary laboratory equipment includes four fermenters equipped with computer control, water baths, digital cameras, various pH, dissolved oxygen and conductivity meters, sieve shaker and a set of sieves, data loggers, tipping bucket rain gauges, and pressure transducers. Field equipment includes water level tapes, pressure transducer/data loggers, high precision GPS, network of time domain reflectometry (TDR) systems for continuous soil moisture monitoring at three research sites, five weather stations, and 15 automated tipping bucket rain gauges, providing continuous record of meteorological data needed for hydrological model development and testing, flow meters and automatic samplers, fluid permeability test kit, and a research vehicle for fieldwork.

In addition to this in-house laboratory facility, extensive experimental facilities and support are available through Environment Canada's National Water Research Institute.

Transportation & Construction Management

Transportation and construction management research labs are equipped with advanced computer simulation tools that enable the design, modelling, and simulation of real-world projects. These tools span to cover multiple research areas including Data Processing with advanced statistical analysis, discrete choice, econometric modelling, data mining, and neural network models. X2X interaction modelling that addresses the interaction/communication between vehicle to vehicle (V2V), V2Pedestrians, and V2Infrastrcuture, which are modelled through Agent-based micro-simulation models and computer vision algorism. Transportation Planning and Traffic Simulation software that are capable of addressing transportation and traffic research at the Micro, Meso, and Macro levels. Similarly, Transit Network Design simulation tools are available to model city-level transit systems. Taken together, the available tools and software at the transportation and construction management labs enable students to perform advanced research studies.

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:
1. This form must be completed for all changes involving degree program requirements/procedures. All sections of this form must be completed.
2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	Computing and Software
NAME OF PROGRAM and PLAN	Software Engineering

DEGREE	**M.A. Sc.**

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No

Creation of a New Milestone ☐

Change in Admission Requirements		**Change in Comprehensive Examination Procedure**		**Change in Course/Program Requirements**	X
Change in the Description of a section of the Graduate Calendar		**EXPLAIN:**			
Other Changes:	**Explain:**				

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Describe the existing requirement/procedure:

Among the four required courses,

1. Two (2) Software courses

2. One (1) course from Theory

3. One (1) course from System

4. One (1) of the non-Software courses may be substituted by a graduate course from outside the department subject to the approval of the student's thesis advisor and the graduate advisor

5. At most one 600-level course

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

1. The four required courses must match exactly one of the following scenarios:

(a) Two Software courses, one Systems course, one Theory course

(b) Two Software courses, one Systems course, one graduate course from outside the department

(c) Two Software courses, one Theory course, one graduate course from outside the department.

2. A Furthermore, a course from outside the department must be approved by the students' thesis advisor and the graduate advisor.

3. At most one (1) of the four courses can be at the 600-level. course

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

The previous requirements were not clear as to what was allowed or not, i.e. what course could they replace with one from outside the department. The pedagogical aim is for Master's student to take a broad set of courses; the wording loophole in the previous requirements allowed them to very narrowly focus.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

September 20245.

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Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Students must successfully complete four half courses (or equivalent) in one of the following patterns:
(a) Two Software courses, one Systems course, one Theory course

(b) Two Software courses, one Systems course, one graduate course from outside the department

(c) Two Software courses, one Theory course, one graduate course from outside the department
Furthermore, a course from outside the department must be approved by the students' thesis advisor and the graduate advisor. At most one (1) of the four courses can be at the 600-level. ~~including i) two courses in Software, ii) one course in Theory and iii) one course in System. One course in the System or Theory can be taken from outside the department.~~ Additional courses may be required for students with gaps in their background. Students are required to successfully defend a thesis. All programs of study are subject to the approval of the Department.

Contact information for the recommended change:

Name: Jacques Carette   Email: carette@mcmaster.ca   Date submitted: Feb. 7, 2024

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

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DEPARTMENT	Computing and Software		
NAME OF PROGRAM and PLAN	Computer Science		
DEGREE	**M.Sc.**		
NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)* **Is this change a result of an IQAP review?** ☐ Yes ☒ No			
Creation of a New Milestone ☐			
Change in Admission Requirements		**Change in Comprehensive Examination Procedure**		**Change in Course/Program Requirements**	X
Change in the Description of a section of the Graduate Calendar		**EXPLAIN:**			
Other Changes:	**Explain:**				

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Describe the existing requirement/procedure:

Among the four required courses,

1. One (1) Software course

2. Two (2) Theory courses and one (1) Systems course; or

Two (2) Systems courses and one (1) Theory course

3. One (1) course may be substituted by a graduate course from outside the department subject to the approval of the student's thesis advisor and the graduate advisor

4. At most one (1) 600-level course

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

1. The four required courses must match exactly one of the following scenarios:

(a) Two Theory courses, one Systems course, one Software course

(b) Two Systems courses, one Theory course, one Software course

(c) One Systems courses, one Theory course, one Software course, one graduate course from outside the department.

Furthermore, a course from outside the department must be approved by the students' thesis advisor and the graduate advisor. At most one (1) of the four courses can be at the 600-level. 2. A course from outside the department must be approved by the students' thesis advisor and the graduate advisor.

3. At most one (1) 600-level course

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

The previous requirements were not clear as to what was allowed or not, i.e. what course could they replace with one from outside the department. The pedagogical aim is for Master's student to take a broad set of courses; the wording loophole in the previous requirements allowed them to very narrowly focus.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

September 20245.

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Students must successfully complete four half courses (or equivalent) ~~including i) one course in Software, ii) two Theory courses and one Systems course; or two Systems courses and one Theory course. One course can be taken from outside the department.~~in one of the following patterns:
(a) Two Theory courses, one Systems course, one Software course
(b) Two Systems courses, one Theory course, one Software course
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Furthermore, a course from outside the department must be approved by the students' thesis advisor and the graduate advisor. At most one (1) of the four courses can be at the 600-level. Additional courses may be required for students with gaps in their background. Students are required to successfully defend a thesis. All programs of study are subject to the approval of the Department ~~Chair~~.

Contact information for the recommended change:

Name: Jacques Carette Email: carette@mcmaster.ca   Date submitted: Feb. 7, 2024

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DEPARTMENT	Electrical and Computer Engineering
NAME OF PROGRAM and PLAN	Electrical and Computer Engineering
DEGREE	M.A.Sc.

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*

Is this change a result of an IQAP review? ☐ Yes ☒ No

Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	X
Change in the Description of a section of the Graduate Calendar	X	**EXPLAIN:** **General Requirements:** ~~Candidates for the degrees of M.A.Sc. and Ph.D. must present a seminar on a topic approved by the Department at least once during the course of their programs. Grading will be restricted to~~ *~~Pass/Fail~~*~~. The thesis or report submitted by the candidate must be defended orally at the conclusion of the study~~. The thesis submitted by PhD and M.A.Sc candidates must be defended orally at the conclusion of the**ir** study. All M.A.Sc. and Ph.D. graduate students are required to satisfy a seminar requirement by registering in either			

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<td>of ECE 7XX Advanced Communication Skills for Graduate Research in Electrical and Computer Engineering or ECE 790 Foundational Communication Skills for Graduate Research in Electrical and Computer Engineering. M. Eng. students registering for ECE 701, with the exception of those registered in the combined B. Eng./M. Eng. Biomedical Engineering program, must register for either ECE 7XX or ECE 790 as well. Under special circumstances, and subject to the Department approval, the students may alternatively enroll in an equivalent course from another program in the Faculty of Engineering to satisfy the seminar requirement. PhD candidates who have passed ECE 7xx or ECE 790 during their Master's degree may apply for an exemption from this requirement. The seminar course requirement is in addition to the regular graduate program course requirements described elsewhere in the calendar.</td>
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Other Changes:	**Explain:**

Describe the existing requirement/procedure:

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

The Department is planning to offer an enhanced course in Research Communication that builds on our existing ECE 790. The existing course focuses on oral communication of

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research to a non-technical audience in Three Minute Thesis (3MT) format. This satisfies basic requirements in development of the students' communication skills. The new course offers opportunity for further development of the communication skills by including additional components on technical writing, technical presentation, and active participation in ECE seminar series. The students will have the option of enrolling in one of these two courses in satisfaction of their degree requirements. In special circumstances and considering a student's research area, the Department may grant approval for enrollment in a similar course from another program in the Faculty of Engineering in satisfaction of this degree requirement.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

Fall 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Please see above.

Contact information for the recommended change:

Name: Shahin Sirouspour Email: sirous@mcmaster.ca   Date submitted: March 5, 2024

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

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DEPARTMENT	Electrical and Computer Engineering
NAME OF PROGRAM and PLAN	Electrical and Computer Engineering
DEGREE	M.Eng.

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No
Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	X
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Other Changes:	**Explain:**

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Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Please see above.

Contact information for the recommended change:

Name: Shahin Sirouspour Email: sirous@mcmaster.ca   Date submitted: March 5, 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

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Please read the following notes before completing this form:

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

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

NAME OF PROGRAM and PLAN	Electrical and Computer Engineering

DEGREE	PhD

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*

Is this change a result of an IQAP review? ☐ Yes ☒ No

Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	X
Change in the Description of a section of the Graduate Calendar	X	**EXPLAIN:** **General Requirements:** ~~Candidates for the degrees of M.A.Sc. and Ph.D. must present a seminar on a topic approved by the Department at least once during the course of their programs. Grading will be restricted to~~ *~~Pass/Fail~~*~~.~~ ~~The thesis or report submitted by the candidate must be defended orally at the conclusion of the study~~. The thesis submitted by PhD and M.A.Sc candidates must be defended orally at the conclusion of the**ir** study. All M.A.Sc. and Ph.D. graduate students are required to satisfy a seminar requirement by registering in either			

of ECE 7XX Advanced Communication Skills for Graduate Research in Electrical and Computer Engineering *or* ECE 790 Foundational Communication Skills for Graduate Research in Electrical and Computer Engineering. M. Eng. students registering for ECE 701, with the exception of those registered in the combined B. Eng./M. Eng. Biomedical Engineering program, must register for either ECE 7XX or ECE 790 as well. Under special circumstances, and subject to the Department approval, the students may alternatively enroll in an equivalent course from another program in the Faculty of Engineering to satisfy the seminar requirement. PhD candidates who have passed ECE 7xx or ECE 790 during their Master's degree may apply for an exemption from this requirement. The seminar course requirement is in addition to the regular graduate program course requirements described elsewhere in the calendar.

Other Changes: **Explain:**

Describe the existing requirement/procedure:

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

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The Department is planning to offer an enhanced course in Research Communication that builds on our existing ECE 790. The existing course focuses on oral communication of research to a non-technical audience in Three Minute Thesis (3MT) format. This satisfies basic requirements in development of the students' communication skills. The new course offers opportunity for further development of the communication skills by including additional components on technical writing, technical presentation, and active participation in ECE seminar series. The students will have the option of enrolling in one of these two courses in satisfaction of their degree requirements. In special circumstances and considering a student's research area, the Department may grant approval for enrollment in a similar course from another program in the Faculty of Engineering in satisfaction of this degree requirement.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

Fall 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Please see above.

Contact information for the recommended change:

Name: Shahin Sirouspour Email: sirous@mcmaster.ca   Date submitted: March 5, 2024

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

SCHOOL OF GRADUATE STUDIES

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM: 1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.   2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	W Booth SEPT	
NAME OF PROGRAM and PLAN	Engineering Design	
DEGREE	**M.Eng.**	

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*			
Is this change a result of an IQAP review? ☐ Yes ☐ No			

CREATION OF NEW MILESTONE ☐					
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**		**CHANGE IN COURSE REQUIREMENTS**	X
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR		**EXPLAIN:**			
OTHER CHANGES	**EXPLAIN:**				

1

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

1. SEP 771 is a 0-unit seminar series that is required for all full-time students in all W Booth Grad programs.
2. Strongly recommended technical electives include SEP 757 <u>OR</u> SEP 758
3. Currently there are 7 cross-disciplinary elective options
4. Currently there are two streams in MED – Product Design and Digital Reality

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

1. Removal of SEP 771 as a requirement from MED program
2. Remove the "OR" from the strongly recommended electives. Both SEP 757 and SEP 758 can be taken as electives.
3. Add two cross-disciplinary electives – SEP 6xx3 Entrepreneurial Thinking & Innovation & SEP 6xx3 Fundamentals of Marketing (courses approved in October 2023 GCPC Meeting)
4. Removal of Digital Reality Stream
5. Adding EHEALTH 703, 746, 745 and SEP 7xx – Introduction to Virtual Care (assuming it is also approved by GCPC) to recommended electives. Removing SEP 714, 715 and 792 from the same list, as there are no plans to offer these courses in the future.
6. Changing "Associate Director" to "Program Lead" as the one who reviews elective selections

RATIONALE FOR THE RECOMMENDED CHANGE (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

1. Removal of SEP 771:
   The Practitioner's Forum is a zero-unit mandatory course, and it comes with a set of unique challenges. The initial challenge arises from the fact that students pay no tuition for this course due to the newly adopted credit-based tuition system. The second challenge revolves around the instructor's compensation, as they cannot receive regular payment based on teaching load or overload, primarily because this course carries no credit units. The third one lies in the course's Pass and Fail grading mechanism, which can be challenging to assess comprehensively. Thus, we suggest to remove this requirement.

2. SEP 757 AND SEP 758 as recommended electives:
   Both of these courses are now recommended as some projects involve both hardware and software and the breadth of skills provided by the two courses helps students explore a wider range of solutions for project clients.

3. Adding two new Cross-disciplinary courses:
   The two new entrepreneurial and marketing courses, "SEP 6xx3 Entrepreneurial Thinking & Innovation" and "SEP 6xx3 Fundamentals of Marketing," offer students an excellent opportunity to delve into the mindsets of entrepreneurial thinking and market analysis. These aspects are currently missing from our cross-disciplinary courses.

4. Removal of Digital Reality Stream:
   The Digital Reality stream has never been officially offered to applicants. Unfortunately, the MED program was unable to implement this stream and there is no intention to offer it in the future.

5. Recommended Elective Update:
   In the MED program each year students undertake eHealth and Virtual Care projects, often in collaboration with clinicians and researchers at St. Joseph's Healthcare Hamilton. These courses have been identified as providing support for these projects and being complementary to existing courses in SEPT. We have received approval from the eHealth department to include these courses on our elective list (see attached email form Nicole Wagner). Related, SEP 714, 715 and 792 have not been offered for several years and are not being planned to be offered in the future.

6. Changing "Associate Director" to "Program Lead" as the one who reviews elective selections:
   The Program Lead reviews the elective selections of their respective students, and determines whether they are appropriate and can be approved.

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

Fall 2024

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 (please include a tracked changes version of the calendar section affected if applicable):

Engineering Design, M. Eng

Innovative new designs and the ability to improve performance of existing systems have become a basis for a competitive advantage in the marketplace. Innovativeness, performance, environmental sustainability, safety, usability, desirability, viability and efficiency are integral parts of the requirements in the design of industrial products, healthcare products, large-scale systems, or software solutions. Within this complex set of constraints, successful engineers and engineering managers must be able to lead transformation of an idea to a complete design by working in interdisciplinary teams and with stakeholders. The Master of Engineering Design program provides its participants with technical expertise and leadership capabilities required to innovate and to lead technically-oriented organizations. The M.Eng. Design program emphasizes development of competencies in Design Thinking and innovations methodologies, as well as leadership, collaboration, and management skills to lead diverse teams. These competencies are combined with advanced technologies to enable design and

implementation of solutions which integrate digital reality with the physical world to deliver solutions for daily living or for complex IT or industrial systems.

The following streams are currently offered in the Program:

Product Design: Design Thinking approach to development of products and services.
Digital Reality: Design of augmented-, virtual-, and mixed-reality immersive experiences.

Admission

In addition to the general requirements for entry into a graduate program in Engineering, students must hold a four-year engineering undergraduate degree or equivalent, with at least a B- average (equivalent to a McMaster 7.0 GPA out of 12) in the final year in all courses in the discipline, or relating to the discipline, in which the applicant proposes to do graduate work. Students with a degree in Science, Technology or Mathematics will also be considered.

Strong letters of recommendation are also required. Applicants will be required to complete an online interview.

Professional work experience will be desirable, but not essential.

Candidates may be enrolled on a full- or part-time basis. Full-time students will complete the degree in 24 months with an accelerated path to complete in twelve consecutive months. Students are admitted for September. Part-time students will normally be expected to complete the program in three years and one term (40 months).

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 Program Lead. If the experience is deemed sufficient, the Program Lead may then recommend a live interview. Evidence of ability to do graduate work will still be required. (See Sections 2.1.1 Admission Requirements for Master's Degree and 2.1.5 Admission of Students with Related Work Experience or Course Work beyond the Bachelor's Degree in the Graduate Calendar.)

McMaster Undergraduate Students may receive advanced standing for up to two 400-level courses taken at the 600-level (note that a maximum of two 600-level courses can count towards a SEPT graduate program) with the approval of the Associate Dean of Graduate Studies.

Curriculum

The curriculum has three main components:

1. Professional Development courses that will enable M.Eng. Design graduates to deal with complex situations in the work environment, to lead teams, and to manage projects.
2. Courses Relevant to the selected stream: some courses are mandatory for a given stream while others are elective.
3. An M.Eng. project that requires synthesis of knowledge from various disciplines.

Product Design Stream

Innovative and creative systems, solutions, and product designs are emphasized through design in a collaborative design studio environment. The interdisciplinary nature of the program enables its participants to work on a variety of design work, such as industrial machinery, consumer products, automotive, etc.

The following course requirements need to be fulfilled by the candidates:

- 10 courses (30 units)

- 5 mandatory courses
- 4 technical elective courses
- 1 cross-disciplinary elective course

Mandatory Courses

Candidates are required to take the following five half courses (15 units):

- SEP 700 / M.Eng. Project in Engineering Design Part I
- SEP 700 / M.Eng. Project in Engineering Design Part II
- SEP 760 / Design Thinking
- SEP 761 / Design Thinking II
- SEP 773 / Leadership for Innovation
OR
- SEP 6EL3 / Leading Innovation

All full-time students must also register for the seminar series courses (attendance is mandatory), which are:
- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part I
  (full time students only)

- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part II
  (full-time students only)

SEP 771 is a seminar series presented by guest speakers, invited by the School, of relevance to all M. Eng. programs at the School. All full-time students are required to take these courses. Course grades are either 'pass' or 'fail'. In order to pass the course, the student must attend a minimum of 80% of the seminars.

Technical Electives

Candidates are required to take four half courses (12 units) which should be selected from graduate courses offered by departments within the Faculty of Engineering. Candidates are required to have their elective course selection approved by the Design Program Lead Associate Director of Graduate Studies in SEPT.

Strongly recommended:

- SEP 757 / Rapid Prototyping

OR

- SEP 758 / Software Design Tools and Methods

Other recommended electives include:

- SEP 6CG3 / Fundamentals of computer graphics and animation development
- SEP 6VE3 / Visual effects and animation production technology
- SEP 714 / Workflow Management for Animated Prototypes
- SEP 715 / Rendering techniques
- SEP 791 / Augmented Reality, Virtual Reality and Mixed Reality
- SEP 792 / GPU Intensive applications for real-time projects
- SEP 7xx / Introduction to Virtual Care
- EHEALTH 703 / Virtual Care & Telemedicine for eHealth
- EHEALTH 745 / eHealth Innovations and Trends
- EHEALTH 746 / Healthcare Analytics

Cross-Disciplinary Electives

Candidates are required to take one half course (3 units) which should be selected from the following approved cross-disciplinary elective list.

- SEP 6xx3 / Entrepreneurial Thinking & Innovation

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- SEP 6xx3 / Fundamentals of Marketing
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- SEP 729 / Manufacturing Systems
- SEP 731 / Lean Six Sigma for Engineering
- SEP 770 / Total Sustainability Management
- SEP 777 / Cyber-Physical Systems and Industry 4.0
- SEP 790 / Emerging Technologies for Engineering Enterprise Innovation
- SEP 793 / Entrepreneurial Opportunity Identification

Digital Reality Stream

Graduates from Digital Reality stream develop competencies required to work on MR/AR/VR applications in e.g. autonomous vehicles, games design, entertainment, architecture, medicine, etc.,. All candidates will complete a project and an optional co-op with an organization which develops products in the digital reality space.

Mandatory Courses

Candidates are required to take the following three half courses (9 units):
- SEP 700 / M.Eng. Project in Engineering Design Part I
- SEP 700 / M.Eng. Project in Engineering Design Part II
- SEP 760 / Design Thinking

All full-time students must register for the seminar series courses (attendance is mandatory), which are:
- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part I
  (full time students only)
- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part II
  (full-time students only)

SEP 771 is a seminar series presented by guest speakers, invited by the School, of relevance to all M. Eng. programs at the School. All full-time students are required to take these courses. Course grades are either 'pass' or 'fail'. In order to pass the course, the student must attend a minimum of 80% of the seminars.

Technical Electives

Six courses (18 units) from the following list must be completed by the candidates:
- SEP 6CG3 / Fundamentals of computer graphics and animation development
- SEP 6VE3 / Visual effects and animation production technology
- SEP 714 / Workflow Management for Animated Prototypes
- SEP 715 / Rendering techniques
- SEP 791 / Augmented Reality, Virtual Reality and Mixed Reality
- SEP 792 / GPU Intensive applications for real time projects

Cross-Disciplinary Electives

- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- SEP 729 / Manufacturing Systems
- SEP 730 / Reliability and Risk Management
- SEP 770 / Total Sustainability Management
- SEP 777 / Cyber Physical Systems and Industry 4.0

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Zhen Gao   Email: gaozhen@mcmaster.ca   Extension: Date submitted: March 2024

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

SGS/2013

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SCHOOL OF GRADUATE STUDIES

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	W Booth SEPT
NAME OF PROGRAM and PLAN	Manufacturing – All streams
DEGREE	**M.Eng.**

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*				
Is this change a result of an IQAP review? ☐ Yes ☐ No				
CREATION OF NEW MILESTONE ☐				
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	**CHANGE IN COURSE REQUIREMENTS**	X
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR		**EXPLAIN:**		
OTHER CHANGES	**EXPLAIN:**			

1

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

1. In Biomanufacturing, currently there are two required core courses (SEP 744 & SEP 767) along with four other core courses students can choose from (SEP 764, 745, 743 & 765)
2. Currently MEME Discrete Manufacturing has 5 recommended technical electives
3. SEP 771 is a 0-unit seminar series that is required for all full-time students in all W Booth Grad programs.
4. The MEME program has both a professional development requirement (two courses needed) and cross-disciplinary requirement (one course needed).

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

1. Addition of the new course *SEP 7xx - The Application of Computation Modelling for Biomanufacturing* (approved in Oct 2023 GCPC) to the "other core course" section for Biomanufacturing
2. Addition of new recommended electives in the Discrete Manufacturing stream
3. Removal of SEP 771 as a requirement of <u>all streams</u>
4. Combining Professional Development (PD) and Cross-disciplinary (CD) Requirements. The CD courses will be added into the PD list
5. Addition of two new courses to the new combined PD requirement list
6. Addition of a new recommend elective SEP 7xx – Signaling (assuming approval from March GCPC)

RATIONALE FOR THE RECOMMENDED CHANGE (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

1. **Addition of the new course SEP 7xx - The Application of Computation Modelling for Biomanufacturing (approved in Oct 2023 GCPC) to the "other core course" section for Biomanufacturing:**

The addition of SEP 7xx - The Application of Computational Modeling for Biomanufacturing as a core course option is driven by its direct alignment with the Biomanufacturing program's learning outcomes:

a. Comprehensive Understanding of Biomanufacturing Processes: This course is essential to provide students with a deep understanding of how computational modeling can be applied to optimize and analyze biomanufacturing processes. It allows students to grasp the intricacies of bioprocessing and how computational tools can be leveraged to improve efficiency and quality.

b. Interdisciplinary Knowledge: The course integrates principles from biology, engineering, mathematics, and computer science, thereby enhancing the students' interdisciplinary knowledge. Biomanufacturing is inherently interdisciplinary, and this course equips students to bridge the gap between various fields, making them well-rounded professionals.

c. Problem-Solving and Critical Thinking Skills: Computational modeling encourages critical thinking and problem-solving. By offering this course, students can develop these skills, which are crucial in the biomanufacturing industry, where complex challenges often require innovative solutions.

d. Industry Relevance: The inclusion of computational modeling reflects the industry's growing demand for data-driven decision-making and optimization. This directly addresses the learning outcome of ensuring that graduates are industry-ready and equipped with the skills and knowledge currently in demand.

e. Career Preparedness: Graduates need to be prepared for the demands of the job market. Offering this course as a core option ensures that all students have access to the skills and knowledge necessary for a successful career in biomanufacturing. It prepares them for a wide range of roles within the industry, from research and development to manufacturing and quality control.

2. **Addition of new recommended electives in the Discrete Manufacturing stream:**

- SEP 736 - Railway Electrification Infrastructure and Technology

This course covers principles of railway electrification, overhead catenary and third rail systems, power supply and distribution for electric trains, and control and protection systems. It delves deep into the advanced technology behind electrification systems, their design, operation, and safety measures. The students gain insights into high-voltage electrification and sustainable solutions for modern railways. This course is essential for engineers and professionals in the railway industry seeking expertise in electrification systems.

The addition of a course on "Railway Electrification Infrastructure and Technology" to the MEME program is justified by its alignment with industry demands, its interdisciplinary nature, its contribution to existing Program Learning Outcomes (PLO), and its relevance to sustainable transportation solutions. This change enhances the educational experience of MEME students and equips them with valuable knowledge and skills for careers in the railway electrification field.

It can contribute to the development of PLOs related to problem-solving, technical knowledge, and application of engineering principles. Students who complete this course will gain a deeper understanding of railway electrification systems, contributing to their overall engineering knowledge and skills.

PLO 1 Systematic understanding of knowledge including relevant inside or outside the field of discipline and a critical awareness of current problems.

PLO 2 Enable a conceptual understanding and methodological competence that enable a working comprehension and critical evaluation of current and advanced manufacturing engineering field

PLO 3 Competence in the applied research process by applying an existing engineering knowledge in the critical analysis of a specific problem or in a unique setting.

- SEP 756 - Future electric networks, simulation challenges, and automation

This course will introduce the most recent challenges in power system operations with high penetration of renewable energy resources such as Wind, Solar, and Energy Storage. The course will present the basic concept of power system studies in Electro Magnetic Transient (EMT) environment.
This course not only enriches the educational experience of MEME students but also equips them with skills and knowledge relevant to the evolving field of electrical engineering in the context of renewable energy and power system automation.

PLO 1 Systematic understanding of knowledge including relevant inside or outside the field of discipline and a critical awareness of current problems.

PLO 3 Competence in the applied research process by applying an existing engineering knowledge in the critical analysis of a specific problem or in a unique setting.

PLO 5 The ability to communicate ideas, issues and conclusions clearly, orally and in writing, to a range of audiences.

PLO 6 Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.

- SEP 762 - Introduction to Railway Engineering

This course blends theory and practical expertise to provide a strong foundation in railway engineering. We begin with a historical exploration of railway systems, then delve into diverse topics each week: from

track engineering to rolling stock, signaling, systems, subway elements, tunneling, operations, project management, predictive maintenance, and future innovations like high-speed trains and autonomous systems. The course offers vital insights into the dynamic railway industry, preparing the students to excel in this field by addressing its challenges and seizing its opportunities.

This course provide valuable insights into the broader context in which manufacturing operates. It connects manufacturing engineering to the transportation industry, materials science, quality control, and interdisciplinary problem-solving. This exposure can enhance the skillset of manufacturing engineers and make them more versatile and adaptable in their careers.

PLO 1 Systematic understanding of knowledge including relevant inside or outside the field of discipline and a critical awareness of current problems.

PLO 3 Competence in the applied research process by applying an existing engineering knowledge in the critical analysis of a specific problem or in a unique setting.

PLO 4 The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research.

PLO 5 The ability to communicate ideas, issues and conclusions clearly, orally and in writing, to a range of audiences.

- SEP 797 - System Assurance

This course offers an in-depth exploration of system assurance principles, focusing on their application in railways and critical infrastructure. Topics covered include assurance concepts, systems engineering, standards and regulations, physical and cyber security, software safety, fire/life safety, and reliability. Students will learn safety and security planning, hazard and threat analysis, and safety case development. The course concludes with certification processes and a practical case study. Graduates will be well-prepared to apply system assurance in the railway industry and other critical sectors, ensuring the integrity and safety of complex systems.

This course is closely related to manufacturing as it addresses core principles of quality, safety, reliability, and interdisciplinary systems thinking. It equips MEME students with the knowledge and tools to ensure the smooth operation of manufacturing processes and the production of high-quality, safe products in a safety critical application such as railway industry. IT directly enhances the following PLOs in MEME:

PLO 2 Enable a conceptual understanding and methodological competence that enable a working comprehension and critical evaluation of current and advanced manufacturing engineering field.

PLO 3 Competence in the applied research process by applying an existing engineering knowledge in the critical analysis of a specific problem or in a unique setting.

PLO 4 The ethical behavior consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research.

PLO 5 The ability to communicate ideas, issues and conclusions clearly, orally and in writing, to a range of audience.

PLO 6 Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines.

3. **Removal of SEP 771 as a requirement of <u>all streams</u>:**
   The Practitioner's Forum is a zero-unit mandatory course, and it comes with a set of unique challenges. The initial challenge arises from the fact that students pay no tuition for this course due to the newly adopted credit-based tuition system. The second challenge revolves around the instructor's compensation, as they cannot receive regular payment based on teaching load or overload, primarily because this course carries no credit units. The third one lies in the course's Pass and Fail grading mechanism, which can be challenging to assess comprehensively. Thus, we suggest to remove this

requirement.

4. **Combining Professional development and cross-disciplinary requirements:**
The cross-disciplinary requirements will be combined into the professional development requirement. Specifically, the PD collection will be the aggregate of the pre-existing Professional Development Series, and a revised collection of Cross-disciplinary elective courses. This revision was required to adjust for the recent pausing of the Master of Engineering/Technology Entrepreneurship programs. After this combination, students will be allowed to take 2 or 3 courses in this new category.

The cross-disciplinary elective requirement is the replacement of an older course SEP 772 Innovation Studio. That older course attempted bring instructors from all programs into a single course framework to be offered to all Booth grad students. In 2022, GCPC approved the deletion of that course due to basic challenges in efficacy and delivery logistics. The then new cross-disciplinary elective requirement replaced the blended course with choices from a selection of high-quality generalist courses recommended by each of the programs

5. **Adding two new courses to the combined PD list options – SEP 6xx3 Entrepreneurial Thinking & Innovation & SEP 6xx3 Fundamentals of Marketing (courses approved in October 2023 GCPC Meeting**)

The two new entrepreneurial and marketing courses, "SEP 6xx3 Entrepreneurial Thinking & Innovation" and "SEP 6xx3 Fundamentals of Marketing," offer students an excellent opportunity to delve into the mindsets of entrepreneurial thinking and market analysis. These aspects are currently missing from our cross-disciplinary courses.

6. **Addition of SEP 7xx -Signaling to recommended electives in Discrete Manufacturing**

This course will be offered as a technical elective course to MEME students who are interested in pursuing a career in the railway industry. This course helps our graduate students to be competitive in the job market. Many companies in Canada showed interest in hiring our graduates who has knowledge in railway engineering as coop students. The course strengthens our school's commitment to fostering innovation and staying at the forefront of the industry trends. The student will learn about safety and industry standards in a public system. This course will open new doors and let our school shine as the only school training Master of Engineering students in Manufacturing Engineering with knowledge in railway systems enhancing their competitiveness in the job market.

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

Fall 2024

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 (please include a tracked changes version of the calendar section affected if applicable):

Engineering in Manufacturing Engineering, M.E.M.E.

Program Description

The Master of Engineering in Manufacturing Engineering is a 24 month program for full time students with an accelerated path to complete the program in 12 months of study. Part time students will normally be expected to complete the program in 3 years, one term, (40 months). The program attracts highly motivated students seeking advanced training in the discrete manufacturing.   Students design their own program of studies by selecting (with approval of their academic advisor) courses of interest to them.   Applications for admission to the program are made through the W Booth School of Engineering Practice and Technology. Applicants will be required to complete an online interview.

The program accepts full-time and part-time students.

In addition to the general requirements for entry into a graduate program in Engineering, students must hold a degree in Engineering or Technology with at least a B average (equivalent to a McMaster 8.0/12 GPA) in the penultimate and final years.

Delivery of the program includes a strong emphasis on project-based experience within the Manufacturing Industry, which is obtained through an industry-based project and through projects defined within courses. Requirements for these are outlined below. Due to the strong practical orientation of the project components of the program, successful completion requires that students have strong interpersonal and communication skills. Students completing the Program on a course-only basis will be required to complete 10 courses from the approved list of courses. Course selection must be done in consultation with the program lead.

Students completing the Program via course and project work will be required to complete eight courses from the approved list of courses and also successfully complete the M.Eng. project. Course and project selection must be done in consultation with the program lead.

McMaster undergraduate students may receive advanced standing for up to two 400-level courses taken at the 600-level (note that a maximum of two 600-level courses can

count towards a SEPT graduate program) with the approval of the Associate Dean of Graduate Studies.

Project

Students wishing to pursue the course plus project-based option must submit a project proposal for approval by both the faculty lead as well as the Associate Director of Graduate Studies in SEPT. If the project is not approved by either individual, students will be reverted to the course based option. Students are encouraged to develop their own ideas and find industrial sponsors. Projects are ideally undertaken at local companies but may be conducted at locations inside Canada or abroad with the Program Lead's approval and provided that none of the work on the project was done prior to admission into the program. Project groups or individuals will have an industry-based supervisor (stakeholder) with whom the student team can discuss progress, arrange trials, etc. Students will also have an academic supervisor who will normally have expertise in the subject area. It is expected that the teams will meet with their supervisors on a regular basis to discuss their progress.

The project team will orally defend their final project report to an examination committee comprised of their academic supervisor and the second reader (faculty member).

Streams

Students enrolling in the MEME program can tailor their program of studies according to their career interests. Students can choose from the following streams:

- Discrete Manufacturing
- Biomanufacturing and Industrial Biotechnology

Each stream has a set of core courses and a set of recommended elective courses. Students can take maximum of 2 half courses (one term courses) at 600 level. Courses can be selected
from WBooth SEPT, Chemical, Materials or Mechanical Engineering departments. Students wishing to take an elective course outside of the recommended electives need to obtain a permission from their graduate advisor.

Students should note that not all courses are offered every year.

Discrete Manufacturing Courses

Students enrolling in the program can tailor their program of studies according to their career interests. Students can take maximum of 2 half courses (one term courses) at 600 level.
Courses can be selected from WBooth SEPT, Chemical, Materials or Mechanical Engineering departments. Students wishing to take an elective course outside of the recommended
electives need to obtain a permission from their program lead.

Students should note that not all courses are offered every year.

There are 2 pathways towards the degree:

- 8 courses (24 units) + project (6 units)
- 2 or 3~~2~~ professional development courses
- 3 to 4 core courses
- 1 to 2 technical elective courses
- ~~1 cross-disciplinary elective~~
- 2 project courses

Students pursuing this option, in addition to taking 8 courses specified above, must register for the project-courses:

- MANUF 701 / Project, Part I
- MANUF 701 / Project, Part II

10 courses (30 units)

- 2 or 3~~2~~ professional development courses
- 4 to 6 core courses
- 1 to 3 technical elective courses
- ~~1 cross-disciplinary elective~~

~~All full-time students must register for the seminar series courses (attendance is mandatory), which are:~~

- ~~SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part I~~
- ~~SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part II~~

~~(seminar series, full-time students only)~~

~~SEP 771 is a seminar series presented by guest speakers, invited by the School, of relevance to all M.Eng. programs at the School. All full-time students are required to take these courses. Course grades are either 'pass' or 'fail'. In order to pass the course the student must attend a minimum of 80% of the seminars.~~

Professional Development Courses

Professional Development courses in MEng of Manufacturing Engineering, are listed below:

- ~~SEP 6TC3 / Technical Communications~~
- ~~SEP 725 / Practical Project Management for Today's Business Environment~~
- ~~SEP 760 / Design Thinking~~
- ~~SEP 773 / Leadership for Innovation~~
- ~~SEP 741 / Project Management for High Tech Projects~~
- SEP 6TC3 / Technical Communications
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 6xx3 / Entrepreneurial Thinking & Innovation
- SEP 6xx3 / Fundamentals of Marketing
- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- SEP 725 / Practical Project Management for Today's Business Environment
- SEP 760 / Design Thinking
- SEP 770 / Total Sustainability Management
- SEP 773 / Leadership for Innovation

Core Courses

The following are core courses:

- SEP 6I03 / Sustainable Manufacturing Processes /MATLS 6I03
- SEP 726 / Discrete Manufacturing Processes I
- SEP 727 / Discrete Manufacturing Processes II
- SEP 738 / Artificial Intelligence Methods in Advanced Manufacturing
- MECH ENG 729 / Manufacturing Systems /SEP 729
- CHEM ENG 720 / Lean Six Sigma for Engineers /SEP 731
- SEP 757 / Rapid Prototyping /MECH ENG 759
- SEP 780 / Advanced Robotics and Automation

Technical Elective Courses

Recommended technical elective courses are:

- MATLS 6T03 / Properties and Processing of Composites SEP 6T03
- SEP 767 / Multivariate Statistical Methods for Big Data Analysis and Process Improvement
- SEP 718 / Industrial Automation

- SEP 776 / Manufacturing Systems 2 - System Engineering, Process Integration and Simulation
- SEP 777 / Cyber-Physical Systems and Industry 4.0
- SEP 7xx / Electrification
- SEP 7xx / Future Electric Networks, Simulation Challenges and Automation
- SEP 7xx / Introduction to Railway Engineering
- SEP 7xx / System Assurance
- SEP 7xx / Signaling
- Other elective courses available.

Cross-Disciplinary Elective Courses

Candidates are required to complete one half course (3 units) which should be selected from the following approved cross-disciplinary elective list.

- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 793 / Entrepreneurial Opportunity Identification
- SEP 770 / Total Sustainability Management

Biomanufacturing and Industrial Biotechnology Courses

Students enrolling in the program can tailor their program of studies according to their career interests. Students can take maximum of 2 half courses (one term courses) at 600 level. Courses can be selected from WBooth SEPT, Chemical, Materials or Mechanical Engineering departments. Students wishing to take an elective course outside of the recommended electives need to obtain a permission from their program lead.

Students should note that not all courses are offered every year.

There are 2 pathways towards the degree:

- 8 courses (24 units) + project (6 units)
- 2 mandatory courses
- 2 or 32 professional development courses
- 2 to 3 core courses
- 0 to 1 technical elective courses
- 1 cross-disciplinary elective course

Students pursuing this option, in addition to taking 8 courses specified above, must register for the project-courses:

- MANUF 701 / Project, Part I
- MANUF 701 / Project, Part II

- 10 courses (30 units)
- 2 mandatory courses
- 2 or 32 professional development courses
- 3 to 5 core courses
- 0 to 2 technical elective courses
- ~~1 cross-disciplinary elective course~~

~~All full-time students must register for the seminar series courses (attendance is mandatory), which are:~~

- ~~SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part I~~
- ~~SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part II~~

~~(seminar series, full-time students only)~~

~~SEP 771 is a seminar series presented by guest speakers, invited by the School, of relevance to all M.Eng. programs at the School. All full-time students are required to take these courses. Course grades are either 'pass' or 'fail'. In order to pass the course the student must attend a minimum of 80% of the seminars.~~

Professional Development Courses

Professional Development courses in MEng of Manufacturing Engineering, are listed below:

- ~~SEP 6TC3 / Technical Communications~~
- ~~SEP 725 / Practical Project Management for Today's Business Environment~~
- ~~SEP 760 / Design Thinking~~
- ~~SEP 773 / Leadership for Innovation~~
- ~~SEP 741 / Project Management for High Tech Projects~~
- SEP 6TC3 / Technical Communications
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 6xx3 / Entrepreneurial Thinking & Innovation
- SEP 6xx3 / Fundamentals of Marketing
- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability

- SEP 725 / Practical Project Management for Today's Business Environment
- SEP 760 / Design Thinking
- SEP 770 / Total Sustainability Management
- SEP 773 / Leadership for Innovation

Core Courses

The following are core courses:

2 required core courses:

- SEP 744 / Biomanufacturing
- SEP 767 / Multivariate Statistical Methods for Big Data Analysis and Process Improvement
-

Other core courses:

- SEP 764 / Current Good Manufacturing Practice Upstream Operations
- SEP 745 / Fermentation of Recombinant Microorganisms
- SEP 743 / Animal Cell Culture Engineering
- SEP 765 / Current Good Manufacturing Practice Downstream Operations
- SEP 7xx / The Application of Computation Modelling for Biomanufacturing

Technical Elective Courses

Recommended technical elective courses are:

- SEP 749 / Biomedical Engineering
- SEP 766 / Membrane-Based Bioseparation
- BIOMED 799 / Independent Study in Biomedical Engineering
- SEP 6BI3 / Bioinformatics
- SEP 6BS3 / Biotechnology Regulations
- SEP 729 / Manufacturing Systems

Cross-Disciplinary Elective Courses

Candidates are required to complete one half course (3 units) which should be selected from the following approved cross-disciplinary elective list.

- SEP 709 / Emerging Issues, Technology and Public Policy

- ~~SEP 710 / International Governance and Environmental Sustainability~~
- ~~SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT~~
- ~~SEP 793 / Entrepreneurial Opportunity Identification~~
- ~~SEP 770 / Total Sustainability Management~~

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Zhen Gao   Email: gaozhen@mcmaster.ca   Extension: Date submitted: March 2024

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

SGS/2013

SCHOOL OF GRADUATE STUDIES

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	W Booth SEPT	
NAME OF PROGRAM and PLAN	Public Policy	
DEGREE	**M.Eng.**	

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*			
Is this change a result of an IQAP review? ☐ Yes ☐ No			

CREATION OF NEW MILESTONE ☐					
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**		**CHANGE IN COURSE REQUIREMENTS**	X
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR		**EXPLAIN:**			
OTHER CHANGES	**EXPLAIN:**				

1

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

1. SEP 771 is a 0-unit seminar series that is required for all full time students in all W Booth Grad programs.
2. Currently there are 7 cross-disciplinary elective options

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

1. Removal of SEP 771 as a requirement from MED program
2. Add two cross-disciplinary electives – SEP 6xx3 Entrepreneurial Thinking & Innovation & SEP 6xx3 Fundamentals of Marketing (courses approved in October 2023 GCPC Meeting)
3. Replacing SEP 773 with SEP 6PM3 – Project Management, as a required course in MEPP
4. Changing "Associate Director" to "Program Lead" as the one who reviews elective selections

RATIONALE FOR THE RECOMMENDED CHANGE (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

1. Removal of SEP 771:
   The Practitioner's Forum is a zero-unit mandatory course, and it comes with a set of unique challenges. The initial challenge arises from the fact that students pay no tuition for this course due to the newly adopted credit-based tuition system. The second challenge revolves around the instructor's compensation, as they cannot receive regular payment based on teaching load or overload, primarily because this course carries no credit units. The third one lies in the course's Pass and Fail grading mechanism, which can be challenging to assess comprehensively. Thus, we suggest to remove this requirement.

2. Adding two new Cross-disciplinary courses:
   The two new entrepreneurial and marketing courses, "SEP 6xx3 Entrepreneurial Thinking & Innovation" and "SEP 6xx3 Fundamentals of Marketing," offer students an excellent opportunity to delve into the mindsets of entrepreneurial thinking and market analysis. These aspects are currently missing from our cross-disciplinary courses.

3. **Replacing SEP 6EL3/773 with SEP 6PM3 – Project Management, as a required course in MEPP:**

   MEPP faculty is recommending that a current required course in "leadership" be replaced with "project management." It is believed that the inclusion of a project management course will provide more relevant and immediately applicable skills for early career graduates. Additionally, its inclusion will have greater resonance with potential employers, a consequence of the expectation that early career personnel are expected to plan and complete projects rather than lead others.

4. **Changing "Associate Director" to "Program Lead" as the one who reviews elective selections:**
   The Program Lead reviews the elective selections of their respective students, and determines whether they are appropriate and can be approved.

PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)*
Fall 2024

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 (please include a tracked changes version of the calendar section affected if applicable):

Engineering and Public Poli M.E.P.P.

In today's complex world engineers and scientists are called upon to design technical systems that provide goods and services to society in a safe, efficient and environmentally sound manner. In this context, engineers and scientists can serve as key advisors to and take the lead as decision makers in both the public and private sectors. Therefore, engineers and scientists need more than extensive technical skills; they also need an enhanced understanding of public policy and the role of engineering and science in sustainable technological, social, ecological and economic systems.

A professional Master's degree in Engineering and Public Policy (MEPP) is offered within the W Booth School of Engineering Practice and Technology. Engineers and applied scientists from a wide cross-section of organizations who want professional graduate training will find our program goes well beyond a conventional technical Master's to develop candidates as leaders in the public policy area.

Admission

Students must hold an aundergraduate degree in STEM or a 4-year non-STEM degree in a public policy-related field including, for example, political science, public policy, public administration or global studies. Applicants must have at least a B- average (equivalent

to a McMaster 7.0 GPA out of 12) in the final year in all courses in the discipline, or relating to the discipline, in which the applicant proposes to do graduate work. Applicants will be required to complete an online interview. Professional work experience is desirable but not essential.

The W-Booth School of Engineering Practice and Technology has the following program objectives for the Master's degree in Engineering and Public Policy (MEPP):

- to provide a high quality educational experience to graduate engineers and scientists in the areas of engineering, science and public policy;
- to foster applied research in the areas of engineering, science and public policy through the successful completion and dissemination of a research paper;
- to develop viable, working linkages between engineering, science and fields of study within social sciences and the humanities (public policy, economics, society, and others);
- to produce graduates who will provide inspired leadership in the engineering, science and public policy areas within the public, private and NGO sectors.

Candidates may be enrolled on a full- or part-time basis. Full-time students will complete the degree in 24 months with an accelerated path to complete the program in 12 months of study, beginning in September or January. Part-time students will normally be expected to complete the program in 3 years, one term (40 months).

McMaster undergraduate students may receive advanced standing for up to two 400-level courses taken at the 600-level (note that a maximum of two 600-level courses can count towards a SEPT graduate program) with the approval of the Associate Dean of Graduate Studies.

Curriculum

The curriculum has the following components:

1. Core courses that provide the content and methodological skills necessary for understanding and analyzing societal issues for which engineering and science can contribute to public policy solutions;
2. Focus elective courses that allow students to deepen their knowledge of a range of engineering, science and social science applications;
3. The completion of a substantive research paper on a problem at the interface of engineering, science and public policy

Research Project - Thesis in Engineering and Public Policy

Students select a research topic at the interface of engineering, science and public policy which is of interest to them and carries out inquiry-driven research; completes a formal research paper and prepares to publish their results for broad dissemination.

Candidates for the MEPP degree will follow a program consisting of the following and will need to complete 30 units to meet the degree requirements:

Required Courses

Candidates are required to take the following six half courses (18 units):

- SEP 6PM3 / Project Management
- SEP 701 / Theory and Practice of Policy Analysis: Frameworks and Models
- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 6EL3 / Leading Innovation
  OR
- SEP 773 / Leadership for Innovation
- SEP 778 / Circular Economy - Engineering Perspectives and Application
- SEP 704 / Public Policy Research Project, Part 1
- SEP 704 / Public Policy Research Project, Part 2

In addition students are required to take:
- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part I (zero units)
  (full-time students only)
- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part II (zero units)
  (full-time students only)

Focus Elective Courses

Three half-courses (9 units) are required for electives. Recommended electives include but are not limited to:

- SEP 6I03 / Sustainable Manufacturing Processes
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 702 / Systems Engineering and Public Policy
- SEP 705 / Green Engineering, Sustainability and Public Policy
- SEP 706 / Energy and Public Policy
- SEP 708 / Special Topics in Engineering and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- POL SCI 784 / Quantitative Political and Policy Analysis

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- POL SCI 785 / Public Sector Management
- POL SCI 790 / The Politics of Economic Policy in Market Economies

Cross-Disciplinary Elective Courses

Candidates are required to take one half course (3 units) which should be selected from the following approved cross-disciplinary elective list.

- SEP 6xx3 / Entrepreneurial Thinking & Innovation
- SEP 6xx3 / Fundamentals of Marketing
- SEP 770 / Total Sustainability Management
- SEP 790 / Emerging Technologies for Engineering Enterprise Innovation
- SEP 760 / Design Thinking
- SEP 777 / Cyber-Physical Systems and Industry 4.0

Additional Courses

- Up to two graduate engineering half courses from departments within the Faculty of Engineering
- Other courses in other departments and Faculties with approval of the Public Policy Program Lead Associate Director of the Graduate Studies in SEPT.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Zhen Gao   Email: gaozhen@mcmaster.ca   Extension: Date submitted: March 2024

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

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SCHOOL OF GRADUATE STUDIES

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	W Booth SEPT	
NAME OF PROGRAM and PLAN	Systems and Technology	
DEGREE	**M.Eng**	

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*		
Is this change a result of an IQAP review? ☐ Yes ☐ No		

CREATION OF NEW MILESTONE ☐				
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	**CHANGE IN COURSE REQUIREMENTS**	X
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	**EXPLAIN:**			
OTHER CHANGES	**EXPLAIN:**			

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

1. SEP 752 (Systems Modeling and Optimization) is not part of the curriculum for streams of Digital Manufacturing, and Automation & Smart Systems in MEST program.
2. SEP 720 (cloud Computing) / 721 (Data Analytics, Machine Learning and AI on Cloud Platforms) and SEP 786/787 (Artificial Intelligence and Machine Learning Fundamentals, Machine Learning: Classification Models) are 1.5 unit pairs offered in the MEST program.
3. SEP 771 (W Booth School of Engineering Practice and Technology Practitioner's Forum,) is a 0-unit seminar course that is a requirement for all W Booth programs.
4. The MEME program has both a professional development requirement (two courses needed) and cross-disciplinary requirement (one course needed).

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

1. Add SEP 752 as <u>core course</u> to both the Digital Manufacturing Stream and Automation & Smart Systems stream in MEST.
2. Replace SEP 720/721 and SEP 786/787 with SEP 7xx Cloud Computing (3 units) and SEP 7xx Machine Learning (3 units), respectively.
3. Remove SEP 771 as a requirement for all MEST streams.
4. Combining Professional Development and Cross-disciplinary Requirements
5. Addition of two new courses to the new combined requirement list
6. Addition of SEP 7xx - Management and Control of Electric Vehicle Batteries (offered via Mechanical Engineering) as an (optional) core course in the Automotive Stream

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RATIONALE FOR THE RECOMMENDED CHANGE (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

1. **Add SEP 752 as <u>core course</u> to both the Digital Manufacturing Stream and Automation & Smart Systems stream in MEST.**

SEP 752 Systems Modeling and Optimization is a course focused on simulation software architecture and solution methods. It is featured with plant data analysis and model building which essential for Cyber-Physical-System and Industry 4.0. The topic of evolutionary optimization including differential evolution, genetic algorithms, and particle swarm, is an important part of AI that students should comprehend.

With the addition of this course into our curriculum, it will definitely enhance the following two PLOs:

PLO #2. Apply system engineering tools and methods to monitor, analyze, and improve performance of the cyber-physical systems based on data and models.
PLO #3. Integrate electro-mechanical components, IT hardware and software infrastructure and software applications into a functioning cyber-physical system and control its operation.

2. **Replace SEP 720/721 and SEP 786/787 with SEP 7xx Cloud Computing (3 units) and SEP 7xx Machine Learning (3 units), respectively.**
2.1 **Replace SEP 720/721 with SEP 7xx Cloud Computing (3 units)**

Cloud computing is one of the highly demanded courses in MEST programs. Due to the legacy, this course was offered as two quarter (1.5 units) courses, i.e., SEP 720 and 721 (the second part is a continuation of the first part), which brought some issues such as 1) assigning more challenging projects, 2) incompleteness in terms of overall learning outcomes if students will finish one quarter course, 3) admin and logistics issue. By organically integrating SEP 720 and 721 as a single 3-unit course, both the course quality and the popularity will be increased.

This new Cloud Computing course will contribute to the following Program Learning Outcomes of the Systems and Technology Program:

PLO #1. Communicate effectively engineering content, work in teams, manage projects, assess risks, and assure quality.

PLO #2. Apply system engineering tools and methods to monitor, analyze, and improve performance of cyber-physical systems based on data and models.

PLO #5. Approach holistically domain specific problems and apply system engineering methods (software/hardware, data analysis, control and optimization and others) to solve them.

After completing this course, the students are capable of:
- comprehending the mechanism of cloud computing.
- gaining experience of the major cloud platforms including GCP, AWS and Azure.
- knowing how to use the big data tools in cloud.
- analyzing and comparing the performances of AWS, GCP and Azure.

2.2   Replace SEP 786/787 with SEP 7xx Machine Learning (3 units)

Machine learning is the core of AI. This topic has high-demand in MEST and MEME programs, and a good portion of students in other departments. This course was offered as two quarter (1.5 units) courses, which brought some issues such as 1) assigning more challenging projects, 2) incompleteness in terms of overall learning outcomes if students will finish one quarter course. By organically integrating SEP-786 and 787 as a single 3-unit course, both the course quality and the popularity will be increased.

This course will help students acquire the knowledge and skills to:
1. [PLO #5] Approach holistically domain specific problems and apply system engineering methods (machine learning and data mining) to solve them.
2. [PLO #2] Apply system engineering tools and methods to monitor, analyze, and improve performance of the cyber-physical systems based on data and models.
3. [PLO #1] Communicate effectively engineering content, work in teams, manage projects, assess risks, and assure quality.

After completing this course, the students are capable of:
- knowing how to handle machine learning data properly and efficiently.
- gaining experience to design, evaluate and improve machine learning algorithms for real-world problem solving such as object classification/recognition and system prediction.
- coding and debugging independently of machine learning and data mining methods.
- analyzing and comparing the behaviors and performances of various well-known algorithms and models.
- designing multiple solutions to machine learning and data mining problems using different approaches.

3.   Remove SEP 771 as a requirement for all MEST streams

The Practitioner's Forum is a zero-unit mandatory course, and it comes with a set of unique challenges. The initial challenge arises from the fact that students pay no tuition for this course due to the newly adopted credit-based tuition system. The second challenge revolves around the instructor's compensation, as they cannot receive regular payment based on teaching load or overload, primarily because this course carries no credit units. The third one lies in the course's Pass and Fail grading mechanism, which can be challenging to assess comprehensively. Thus, we suggest to remove this requirement.

4.   Combining Professional development and cross-disciplinary requirements:

The cross-disciplinary requirements will be combined into the professional development requirement. Specifically, the PD collection will be the aggregate of the pre-existing Professional Development Series, and a revised collection of Cross-disciplinary elective courses. This revision was required to adjust for the recent pausing of the Master of Engineering/Technology Entrepreneurship programs. After this

combination, students will be allowed to take 2 or 3 courses in this new category.

The cross-disciplinary elective requirement is the replacement of an older course SEP 772 Innovation Studio. That older course attempted bring instructors from all programs into a single course framework to be offered to all Booth grad students. In 2022, GCPC approved the deletion of that course due to basic challenges in efficacy and delivery logistics. The then new cross-disciplinary elective requirement replaced the blended course with choices from a selection of high-quality generalist courses recommended by each of the programs

5. **Adding two new courses to the combined list options – SEP 6xx3 Entrepreneurial Thinking & Innovation & SEP 6xx3 Fundamentals of Marketing (courses approved in October 2023 GCPC Meeting**)

The two new entrepreneurial and marketing courses, "SEP 6xx3 Entrepreneurial Thinking & Innovation" and "SEP 6xx3 Fundamentals of Marketing," offer students an excellent opportunity to delve into the mindsets of entrepreneurial thinking and market analysis. These aspects are currently missing from our cross-disciplinary courses

6. **Addition of SEP 7xx - Management and Control of Electric Vehicle Batteries (offered via Mechanical Engineering) as an (optional) core course in the Automotive Stream**

If the new course is approved by GCPC in March, this cross-listed section of MECHENG 754 has a good coverage of battery management and control for electric vehicles and hybrid electric vehicles. Currently, the Automotive stream in MEST program has no course offered in this area. Thus, this course will give students a good exposure of battery technologies of electric vehicles in aspects such as battery modeling, analysis, and optimization, which makes this course as a reasonable addition of Automotive stream.

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

September 1, 2024

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 (please include a tracked changes version of the calendar section affected if applicable):

Systems and Technology, M.Eng.

The Master of Engineering in Systems and Technology is a 24-month program for full time students with an accelerated path to complete the program in 12 months of study. Part time students will normally be expected to complete the program in 3 years,

one term (40 months). The program attracts ~~t~~ highly motivated students seeking advanced training in the area of cyber-physical systems. Students design their own program of studies by selecting (with the approval of their academic advisor) courses of interest to them in one of the following streams: (i) Automation and Smart Systems, (ii) Automotive, and (iii) Digital Manufacturing.   Application for admission to the program ~~are~~ is made through the W-Booth School of Engineering Practice and Technology. The program accepts full-time and part-time students.

In addition to the general requirements for entry into a graduate program in Engineering, students must hold a Bachelors degree in Engineering, Technology, Sciences, or Software with at least a B average (equivalent to a McMaster 8.0/12 GPA) in the penultimate and final years.

Delivery of the program includes a strong emphasis on project-based experience within the Manufacturing Industry, which is obtained through an industry-based project during the coursework portion of the program. Requirements for these are outlined below. Due to the strong practical orientation of the project components of the program, successful completion requires that students have strong interpersonal and communication skills. Applicants will be required to complete an online interview.

Students completing the Program on a course-only basis will be required to complete 10 courses from the approved list of courses. Course selection must be done in consultation with the program lead.

Students completing the Program through course and project work will be required to complete eight courses from the approved list of courses, plus successful completion of the project. Course and project selection must be done in consultation with the program lead.

McMaster students may receive advanced standing for up to two 400-level courses taken at the 600-level (note that a maximum of two 600-level courses can count towards a SEPT graduate program) with the approval of the Associate Dean of Graduate Studies.

Project

Students wishing to pursue the project-based option must submit a project proposal for approval by both the faculty lead as well as the Associate Director of Graduate Studies in SEPT. If the project is not approved by either individual, students will be reverted to the course-based stream. Students are encouraged to develop their own ideas and find industrial sponsors. Projects are ideally undertaken at local companies but may be conducted at locations inside Canada or abroad with the Program Lead's approval and provided that none of the work on the project was done prior to admission into the program. Project groups or individuals will have an industry-based supervisor (stakeholder) with whom the student team can discuss progress, arrange trials etc.

Commented [TM1]: Undergraduate

Students will also have an academic supervisor who will normally have some expertise in the subject area. It is expected that the teams will meet with their supervisors on a regular basis to discuss their progress.

The project team will orally defend their final project report to an examination committee comprised of their academic supervisor and the second reader (faculty member).

Curriculum

Students enrolling in the program choose their courses in one of the following streams:

- Automation and Smart Systems,
- Automotive, and
- Digital Manufacturing
- Process Systems

Each stream has a set of core courses and a set of recommended elective courses. Students can take a maximum of 2 half courses (one term courses) at the 600 level.

Students wishing to take an elective course outside of the recommended electives need to obtain a written permission from their graduate advisor and by the Associate Dean of Graduate Studies if outside of the program list.

Students have to complete the minimum required number of core courses in order to complete the program. There are 2 pathways towards the degree:

- 8 courses (24 units) + project (6 units)
  - 1 required course
  - 2 or 3 professional development courses
  - 3 to 4 core courses
  - 0 to 1 technical elective courses
  - 1 cross-disciplinary elective

  Students pursuing this option, in addition to taking 8 courses specified above, must register for the project courses:

  - SEP 799 / M.Eng. Project in Systems and Technology Part 1
  - SEP 799 / M.Eng. Project in Systems and Technology Part 2

- 10 courses (30 units)
  - 1 required course

- 2 or 3~~2~~ professional development courses
- 4 to 6 core courses
- 0 to 2 technical elective courses
- ~~1 cross-disciplinary elective~~

~~All full-time students must register for the seminar series courses (attendance is mandatory), which are:~~

- ~~SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part I (seminar series, full-time students only)~~
- ~~SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum Part II (seminar series, full-time students only)~~

~~SEP 771 is a seminar series presented by guest speakers, invited by the School, of relevance to all M. Eng. programs at the School. All full-time students are required to take these courses. Course grades are either 'pass' or 'fail'. In order to pass the course, the student must attend a minimum of 80% of the seminars.~~

Students should note that not all courses are offered every year.

Required core courses for all streams:

- SEP 769 / Cyber Physical Systems

Professional Development Courses

Professional Development courses, common to all streams in MEng S&T, are listed below:

- ~~SEP 6TC3 / Technical Communications~~
- ~~SEP 725 / Practical Project Management for Today's Business Environment~~
- ~~SEP 773 / Leadership for Innovation~~
- ~~SEP 760 / Design Thinking~~
- ~~SEP 741 / Project Management for High Tech Projects~~
- SEP 6TC3 / Technical Communications
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 6xx3 / Entrepreneurial Thinking & Innovation
- SEP 6xx3 / Fundamentals of Marketing
- SEP 705 / Green Engineering, Sustainability and Public Policy
- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability

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- SEP 725 / Practical Project Management for Today's Business Environment
- SEP 760 / Design Thinking
- SEP 770 / Total Sustainability Management
- SEP 773 / Leadership for Innovation

Courses- Automotive Stream

Core Courses

- SEP 6AE3 / Internal Combustion Engines
- SEP 6DV3 / Vehicle Dynamics
- SEP 711 / Electric Powertrain Components Design
- SEP 716 / Automotive Safety Design
- SEP 722 / Electric Drive Vehicles / MECH ENG 760 / Electric Drive Vehicles
- SEP 724 / Intelligent Transportation Systems
- SEP 734 / Issues in Vehicle Productions
- SEP 740 / Deep Learning
- SEP 742 / Visual Perception for Autonomous Vehicles
- SEP 775 / Introduction to Computational Natural Language Processing
- SEP 7xx / Management and Control of Electric Vehicle Batteries

Recommended Technical Electives

- MECH ENG 6Z03 / CAD/CAM/CAE
- SEP 780 / Advanced Robotics and Automation
- SEP 783 / Sensors and Actuators
- SEP 791 / Augmented Reality, Virtual Reality and Mixed Reality

Cross-Disciplinary Elective Course

Candidates are required to complete one half course (3 units) which should be selected from the following approved cross-disciplinary elective list.

- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 793 / Entrepreneurial Opportunity Identification
- SEP 770 / Total Sustainability Management
- SEP 705 / Green Engineering, Sustainability and Public Policy

Courses- Automation and Smart Systems

Core Courses

- SEP 720 / Cloud Computing
- SEP 721 / Data Analytics, Machine Learning and AI on Cloud Platforms
- SEP 7xx / Cloud Computing
- SEP 728 / Internet of Things (ioT) and industrial Internet of Things (ioT) Systems
- SEP 752 / Systems Modeling and Optimization
- SEP 767 / Multivariate Statistical Methods for Big Data Analysis and Process Improvement / CHEM ENG 765 / Multivariate Statistical Methods for Big Data Analysis and Process Improvement
- SEP 780 / Advanced Robotics and Automation
- SEP 786 / Artificial Intelligence and Machine Learning Fundamentals / CHEM ENG 786 / Artificial Intelligence and Machine Learning Fundamentals
- SEP 787 / Machine Learning : Classification Models / CHEM ENG 787 / Machine Learning : Classification Models
- SEP 7xx / Machine Learning
- SEP 791 / Augmented Reality, Virtual Reality and Mixed Reality
- CAS 771 / Introduction to Big Data Systems and Applications
- SEP 740 / Deep Learning
- SEP 775 / Introduction to Computational Natural Language Processing
- SEP 742 / Visual Perception for Autonomous Vehicles
- SEP 758 / Software Design Tools and Methods
- SEP 759 / Prototyping Web and Mobile Applications

Recommended Technical Electives

- SEP 718 / Industrial Automation
- SEP 723 / Industrial Components, Networks, and Interoperability / MECH ENG 761 / Industrial Components, Networks, and Interoperability
- SEP 783 / Sensors and Actuators
- SEP 6CS3 / Computer Security
- SEP 6DA3 / Data Analytics and Big Data
- SEP 6DM3 / Data Mining

Cross-Disciplinary Elective Courses

9

Candidates are required to complete one half course (3 units) which should be selected from the following approved cross-disciplinary elective list.

- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 793 / Entrepreneurial Opportunity Identification
- SEP 770 / Total Sustainability Management
- SEP 705 / Green Engineering, Sustainability and Public Policy

Courses- Digital Manufacturing

Core Courses

- SEP 718 / Industrial Automation
- SEP 723 / Industrial Components, Networks, and Interoperability / MECH ENG 761 / Industrial Components, Networks, and Interoperability
- SEP 728 / Internet of Things (ioT) and industrial Internet of Things (ioT) Systems
- SEP 735 / ADDITIVE MANUFACTURING / MECH ENG 735 / Additive Manufacturing
- SEP 740 / Deep Learning
- SEP 752 / Systems Modeling and Optimization
- SEP 758 / Software Design Tools and Methods
- SEP 759 / Prototyping Web and Mobile Applications
- SEP 780 / Advanced Robotics and Automation
- SEP 783 / Sensors and Actuators
- SEP 791 / Augmented Reality, Virtual Reality and Mixed Reality

Recommended Technical Electives

- SEP 6FM3 / Computer Integrated Manufacturing (CIM) and Flexible Manufacturing
- SEP 742 / Visual Perception for Autonomous Vehicles
- SEP 767 / Multivariate Statistical Methods for Big Data Analysis and Process Improvement / CHEM ENG 765 / Multivariate Statistical Methods for Big Data Analysis and Process Improvement

- SEP 775 / Introduction to Computational Natural Language Processing
- SEP 786 / Artificial Intelligence and Machine Learning Fundamentals / CHEM ENG 786 / Artificial Intelligence and Machine Learning Fundamentals
- SEP 787 / Machine Learning : Classification Models / CHEM ENG 787 / Machine Learning : Classification Models
- SEP 7xx / Machine Learning

Cross-Disciplinary Elective Courses

Candidates are required to complete one half course (3 units) which should be selected from the following approved cross-disciplinary elective list.

- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 793 / Entrepreneurial Opportunity Identification
- SEP 770 / Total Sustainability Management
- SEP 705 / Green Engineering, Sustainability and Public Policy

Courses - Process Systems Stream

Core Courses

- SEP 750 / Model Predictive Control Design and Implementation
- SEP 751 / Process Design and Control for Operability CHEM ENG 764 / Process Control and Design for Operability
- SEP 752 / Systems Modeling and Optimization
- SEP 767 / Multivariate Statistical Methods for Big Data Analysis and Process Improvement
- SEP 718 / Industrial Automation
- SEP 783 / Sensors and Actuators
- SEP 739 / Distributed Computing for Process Control
- SEP 754 / Process Design and Integration for Minimal Environmental Impact
- SEP 740 / Deep Learning

Recommended Technical Electives

- SEP 730 / Reliability and Risk Management
- CHEM ENG 773 / Advanced Concepts of Polymer Extrusion

- CHEM ENG 740 / Advanced PSE Tools and Methods
- SEP 6IT3 / Internet Technologies and Databases

Cross-Disciplinary Elective Courses

Candidates are required to complete one half course (3 units) which should be selected from the following approved cross-disciplinary elective list.

- SEP 709 / Emerging Issues, Technology and Public Policy
- SEP 710 / International Governance and Environmental Sustainability
- SEP 6X03 / LIVABLE CITIES, THE BUILT AND NATURAL ENVIRONMENT
- SEP 793 / Entrepreneurial Opportunity Identification
- SEP 770 / Total Sustainability Management
- SEP 705 / Green Engineering, Sustainability and Public Policy
- Students can take other elective courses with permission of their program lead.

Moreover, a maximum of two courses can be selected from the following list as technical electives

Electrical Engineering

- ECE 710 / Engineering Optimization
- ECE 732 / Non-linear Control Systems
- ECE 736 / 3D Image Processing and Computer Vision
- ECE 744 / System-on-a-Chip (SOC) Design and Test: Part I - Methods
- ECE 778 / Introduction to Nanotechnology

Software Engineering

- SFWR ENG 6HC3 / The Human Computer Interface
-

Computer Science

- COMP SCI 6F03 / Distributed Computer Systems
- COMP SCI 6TE3 / Continuous Optimization
-

Computing and Software

- [CAS 767 / Information Privacy and Security](#)
- [CAS 771 / Introduction to Big Data Systems and Applications](#)

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Zhen Gao   Email: gaozhen@mcmaster.ca   Extension: Date submitted: March 2024

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

To : Graduate Council

From : Christina Bryce
Assistant Graduate Secretary

_____

Via e-ballot on November 30th and at its meeting on February 15th, 2024, via e-ballot on March 6th, and at it's meeting on March 20th the Faculty of Health Sciences Graduate Policy and Curriculum Committee approved the following graduate curriculum recommendations.

Please note that these recommendations were approved by the Faculty of Health Sciences.

For Approval of Graduate Council:

    a. **Global Health***
        i. **Change to Course Requirements**

    b. **OT/PT/SLP**
        i. **Change to Program Requirements - New Milestone**

    c. **Rehabilitation Sciences**
        i. **Addition of Program to Dual Degree Option**
        ii. **Change to Admission Requirements**

    d. **Health Policy****
        i. **Change to Comprehensive Exam Requirements**

    e. **Child Life**
        i. **Change to Calendar Copy**

    f. **Health Research Methodology**
        i. **Change to Course Requirements**

    g. **Occupational Therapy**
        i. **Change to Course Requirements**

For Information of Graduate Council:

    h. **Biomedical Innovation**
        i. **Course Change**

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1. 701 Project Course
    ii. **New Courses**
        1. 712 Navigating Complexity: Implementing Innovation in Healthcare
        2. 713 Artificial Intelligence in Healthcare: Foundations & Applications

i. **Neuroscience**
    i. **New Courses**
        1. 720 Lab Rotation in Neuroscience
        2. 723 Independent Study in Neuroscience
        3. 724 Statistical Methods in Neuroscience
    ii. **Course Cancellations**
        1. 709 Clinical Neuroanatomy
        2. 711 Psychoneuroimmunolgy
    iii. **Change to Course Description**
        1. 722 Independent Study in Neuroscience
    iv. **Change to Unit Count**
        1. 721 Lab Rotation in Neuroscience

j. **Occupational Therapy**
    i. **Change to Prerequisites**
        1. 791 Occupational Therapy Practicum I
        2. 792 Occupational Therapy Practicum II
        3. 795 Occupational Therapy Practicum III
        4. 796 Occupational Therapy Practicum IV
    ii. **Change to Course Title**
        1. 751 Complexities of Practice II: Enhancing Evidence-Based Practice Skills
    iii. **New Courses**
        1. 752 Capstone Course - Advanced Research Skills for Occupational Therapists
        2. 753 Capstone Course - Equity and Social Justice
        3. 754 Capstone Course - Innovation and Entrepreneurship
        4. 755 Capstone Course - Leadership in Occupational Therapy

k. **Child Life**
    i. **Change to Course Title and Description**
        1. 709 The Vulnerable Child and Youth

l. **Health Research Methodology**
    i. **New Course**
        1. 731 Writing and Publishing in Health Sciences
    ii. **Course Cancellation**

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    1. 700 Philosophy of Science for Health Research

    m. Physiotherapy
       i. Change to Course Description
          1. 763 Society, Health, Innovation: Foundational Knowledge for the Physiotherapy Practitioner (PTPrac) III

*Also approved by the Faculty of Business and Social Sciences
**Also approved by the Faculty of Social Science

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

<table>
<tr><td colspan="2"><u>Please read the following notes before completing this form:</u>

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

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

DEPARTMENT	Global Health
NAME OF PROGRAM & PLAN	Global Health,
DEGREE	PhD

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No
Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	x
Change in the Description of a section of the Graduate Calendar		**EXPLAIN:** Required methods courses not always offered and wording for electives is unclear			
Other Changes:	**Explain:** Because business methods course not offered every year, methods requirements need to change. Wording on elective courses is confusing.				

Describe the existing requirement/procedure:

Students are required to two research methods courses both of which are specified in the calendar and two additional courses to complete their coursework. The wording in the calendar suggests the students must design two independent studies courses

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Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*
Wording in calendar needs to change to remove requirement for Business methods course and wording of elective choices for doctoral students needs to change to remove confusion.
Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):
Changes are consistent with PLOs and reflect interdisciplinarity of Global Health
Provide implementation date: *(Implementation date should be at the beginning of the academic year)*
September 2024
Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:
No.
Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):
Students must take the Global Heath research methods course and a <u>second advanced research methods</u> course. The wording for electives changes from 'must' to 'may' take two elective courses
Contact information for the recommended change:
Name: Christy Gombay Email: gombayc@mcmaster.ca   Date submitted:

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

Existing Text in Calendar

The following research methods courses, or equivalent advanced research methods course(s) if those bellow have already been completed, are required:

1. GLOB HTH 713 Research Methods: A Global Health Perspective (3.0 Units), or equivalent level advanced research methods course in the event the course was previously completed.

2. BUSINESS C755 Analytics and Decision Making in Healthcare (3.0 Units)

For students who have taken these courses as part of the MSc in Global Health, acceptable alternative courses in advanced research methods are determined by the supervisory committee in consultation with the program.

Students are also expected to design and complete two independent study courses on separate topics based on consultation with their supervisory committee:

Suggested text

The following research methods course is required:

1. GLOB HTH 713 Research Methods: A Global Health Perspective (3.0 Units), or equivalent level advanced research methods course in the event the course was previously completed.

Students who have taken this course may complete an acceptable alternative course in advanced research methods as determined by the supervisor in consultation with the program.

2. A second advanced research methods course as determined by the supervisory committee in consultation with the program (3.0 Units):

Students must also take two other courses from a pre-approved list of electives or can complete up to two independent studies courses under the guidance and approval of their supervisor:

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:
1. This form must be completed for all changes involving degree program requirements/procedures. All sections of this form must be completed.
2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	School of Rehabilitation Sciences
NAME OF PROGRAM and PLAN	Master of Science (Occupational Therapy); Master of Science (Speech Language Pathology); Master of Science (Physiotherapy)
DEGREE	**MSc(OT); MSc(PT); MSc(SLP)**

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No
Creation of a New Milestone ☒

Change in Admission Requirements	N	Change in Comprehensive Examination Procedure	N	Change in Course/Program Requirements	Y
Change in the Description of a section of the Graduate Calendar	Y	**EXPLAIN:** The OT, PT, and SLP Assistant Deans are proposing this interprofessional milestone to provide students with: • more interprofessional educational activities earlier in the program, • deeper knowledge in content areas that are shared across the professional programs, and • greater consistency in content provided across programs and over time (e.g. involvement of the Assistant Dean for Education and Instructional Assistants will provide consistency from year to year).				

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The milestone also will

- be resource-efficient, so guest presenters only need to do one session vs. three for the different professions, and
- provide opportunities for professional program and research students to interact, as RS students are interested in joining some sessions.
- be required for degree completion

The following should be added to the Program Requirements section for each of the MSc(PT), MSc(OT) and MSc(SLP) Programs:

The Introduction to EDI-IR in the Interprofessional Context in Rehabilitation Science milestone will include six sessions and will be offered in a combination of virtual and in-person sessions. All students must complete the milestone, or equivalency in extenuating circumstances, as a requirement for degree completion.

Other Changes:	**Explain:**

Describe the existing requirement/procedure:

Currently students in each of the three professional programs receive content related to equity, diversity, inclusion and Indigenous Health and ways of knowing in a uni-professional context. At times, the same speakers are being approached to do two to three different sessions. The content being proposed for this milestone is also being delivered at different times throughout the curriculum and evaluated in different ways. As such, this proposal will ensure all students receive the same foundational information as they start their educational journeys in their professional programs.

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

Please see the attached pages.

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

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Please see above and the attached pages
Provide implementation date: *(Implementation date should be at the beginning of the academic year)*   September 1, 2024.
Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain: The three professional programs will continue to scaffold on the information introduced in the milestone course as students transition / progress throughout the respective curriculums. Additionally, students from the Rehabilitation Sciences (RS) course will be extended an invitation to join the sessions as observers if / or as space and resources allow/
Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):   The Introduction to EDI-IR in the Interprofessional Context in Rehabilitation Sciences will provide learners from the Master of Science Occupational Therapy, Physiotherapy, and Speech-Language Pathology programs as well as the Graduate Program in Rehabilitation Sciences (RS) (i.e., masters, PhD) the opportunity to engage in active learning sessions that provide foundational knowledge related to EDI-IR. The milestone will cover a variety of topics relevant for learners across the programs and will include: - Understanding professionalism and discriminatory behaviours in clinical and academic settings (e.g., Student Code of Conduct, responding to microaggressions).   - Introduction to Indigenous Ways of Knowing and the history of Indigenous People in Canada.   - Exploring Perspectives on Disability (EPOD), and critical reflexivity related to equity, diversity, and inclusion.   The milestone will include six sessions and will be offered in a combination of virtual and in-person sessions. All students must complete the milestone, or equivalency in extenuating circumstances, as a requirement for degree completion.
Contact information for the recommended change: Name: Sarah Wojkowski Email: wojkows@mcmaster.ca   Date submitted: February 2024

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

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Proposal for New Milestone in the SRS for the OT / PT / SLP/ Programs
February 2024

TITLE: Introduction to Equity, Diversity, Inclusion, and Indigenous Reconciliation (EDI-IR) in the Interprofessional Context in Rehabilitation Science

The OT, PT, and SLP Assistant Deans are proposing an interprofessional milestone to provide students with:

- more interprofessional educational activities earlier in the program,
- deeper knowledge in content areas that are shared across the professional programs, and
- greater consistency in content provided across programs and over time (e.g., involvement of the Instructional Assistants (IA) and Assistant Dean for Education will provide consistency from year to year).

The course also will

- be resource-efficient, so guest presenters only need to do one session for the combined cohorts vs. one for each professional program, and
- provide opportunities for professional program and research students to interact, as RS students are interested in joining some sessions.

A draft proposal follows.

Proposal for New Milestone in the SRS for the OT / PT / SLP/ ?RS Programs
February 2024

TITLE: Introduction to Equity, Diversity, Inclusion, and Indigenous Reconciliation (EDI-IR) in the Interprofessional Context in Rehabilitation Science

Course Start Date: Week of September 16th, 2024 (or second week of September annually)

Weight / Value:
Milestone (no grade – complete / incomplete)
- Completion of the course requires
  - 80% attendance (i.e., students must attend 5/6 sessions)
  - Written, audio, or video-recorded reflection on milestone experience, to answer the question: How has your experience in the milestone course impacted your personal learning and knowledge?
    - 2 Pages double spaced, 12-point font with 1-inch margins OR no more than 2-minute audio or video-recorded submission
    - Graded as complete or incomplete
    - Reviewed by Instructional Assistants for common themes / feedback.

Brief Description:
The Introduction to EDI-IR in the Interprofessional Context will provide learners from the Master of Science Occupational Therapy, Physiotherapy, and Speech-Language Pathology programs as well as the Graduate Program in Rehabilitation Sciences (RS) (i.e., masters, PhD) the opportunity to engage in active learning sessions that provide foundational knowledge related to EDI-IR. The course will cover a variety of topics relevant for learners across the programs, including:
- Understanding professionalism and discriminatory behaviours in clinical and academic settings (e.g., knowing the Student Code of Conduct, responding to microaggressions).
- Introduction to Indigenous Ways of Knowing and the history of Indigenous Peoples in Canada.
- Exploring Perspectives on Disability (EPOD), and critical reflexivity related to equity, diversity, and inclusion.

The course will include six sessions and will be offered in a combination of virtual and in-person delivery methods. All students must complete the milestone, or equivalency in extenuating circumstances, as a requirement for degree completion.

Course Objectives

By the end of the course students will be able to:
1. Create personal goals for their own behaviours, using the domains in the Faculty of Health Science Student Code of Conduct..

2. Identify common microaggressions and two to three strategies that students can implement to respond:
   a. as a witness / bystander, and
   b. as an individual who is on the receiving end of the microaggression.
3. Reflect on their own positionality and potential for bias, and how to establish inclusive spaces.
4. Discuss Indigenous Ways of Knowing and Indigenous Experience in Canada.
5. Identify ways in which Indigenous Experiences may impact health, and the role of Indigenous identity and allyship for future health providers.
6. Discuss different perspectives on disability and how these perspectives can inform future interactions with peers, clients, and others.

Proposed Delivery Model:
- Sessions will be 4:30 – 6pm one evening per week (Mon – Thurs) in the Fall term.
- An Assistant Dean will be the Course Coordinator (e.g., Assistant Dean, Education).
- The course will be delivered by Instructional Assistants (IAs), Full-Time Faculty, and Sessional Faculty from Across the SRS, with oversight by the IAs.
- Each session will be constructed using an active learning approach (i.e., vs. didactic lectures).
- All students will need to complete this milestone prior to graduation. If they are unable to complete this in year 1 of their respective Programs they will be required to complete this in year 2.

Proposed Sessions (Specific Objectives to be determined):

Week	Topic(s)	Potential Lead / Speaker	Notes
1	Introduction to Student Code of Conduct & FHS Introduction to Appropriate Behaviours in Academic and Clinical Settings	Instructional Assistant	Ideally would include an individual from former Professionalism Office (new ORRCA)
2	Reflection on Positionality and Bias EPOD Prep	Jas Dhir / Michelle Phoenix / Steph Lurch Instructional Assistants	IAs to facilitate for EPOD
3	EPOD Experience (with Community Members) Critical Reflexivity on Disability	Instructional Assistants Shami Dhillon	IAs to facilitate for EPOD
4	Identifying and Responding to Micro and Macro Aggressions	Jas Dhir / Michelle Phoenix / EDI office	

5	Indigenous Ways of Knowing and Experience in Canada	Lori Davis Hill and Katie Gasparelli	
6	"ReconciliAction": Creating Action for Beyond the TRC Milestone Wrap up	Lori Davis Hill and Katie Gasparelli Instructional Assistants	½ hour for milestone wrap up

McMaster University

School of Graduate Studies
Curriculum Changes - Program
Updated July 2022

Recommendation for change in graduate curriculum – for change(s) involving degree program requirements/procedures/milestones

Important: Please read the following notes before completing this form
1. This form must be completed for **all** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form (must be in MS Word **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	Rehabilitation Science
Name of Program and Plan	Rehabilitation Science PhD Dual Degree / REHSCPHD
Degree	PhD / GHSPH

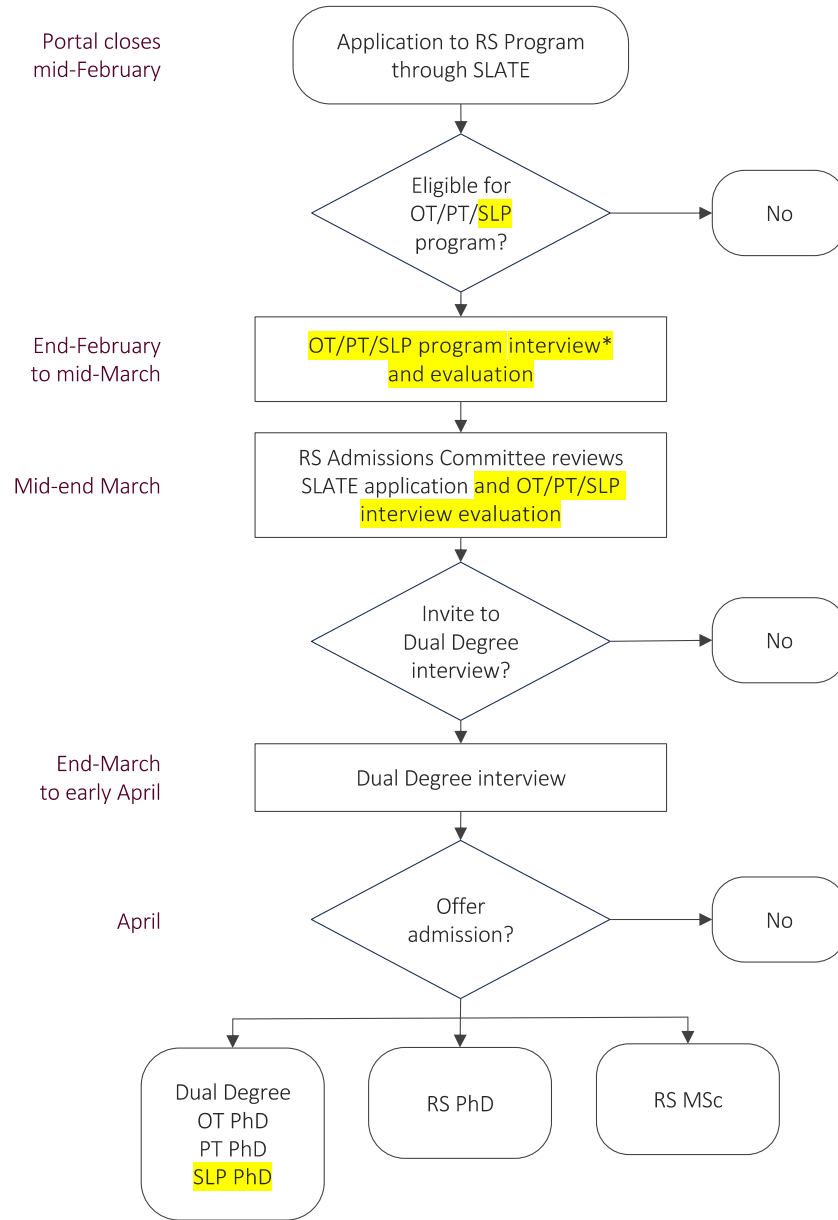| Nature of Recommendation (please check appropriate box)	
Is this change a result of an IQAP review? ○ Yes ◉ No	
○ **Creation of new milestone**	
◉ **Change in admission requirements**	
○ **Change in comprehensive**	
○ **Change in course requirements**	
◉ **Change in the description of a section in the graduate calendar**	**Explain: 1) Add Master of Science in Speech-Language Pathology (SLP) and Doctor of Philosophy in Rehabilitation Science (RS) Dual Degree option; 2) Supplement the RS Dual Degree admission process with online interviews currently used for OT, PT and SLP program admissions**
○ **Other changes**	**Explain:**

Describe the existing requirement/procedure	**Please see attached document**
Provide a detailed description of the recommended change (Attach additional pages if space is not sufficient.)	**Please see attached document**
Rationale for the recommended change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):	**Please see attached document**
Provide implementation date: (implementation date should be at the beginning of the academic year)	**September (Fall) 2024 as the implementation date of the online interview assessments for intake into the September 2025 admission cycle**
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 (please include a tracked changes version of the calendar section affected if applicable):	**Please see attached document**

Contact information for the recommended change:

Name: Ada Tang   Email: Extension: Date submitted: 9 January 2024

atang@mcmaster.ca

Rehabilitation Science
ADMISSIONS TO DUAL DEGREE OPTION
GPCC Program Change - Attachment

Describe the existing requirement/procedure

The McMaster Rehabilitation Science Dual Degree option allows students to obtain the established Master of Science in Occupational Therapy (OT) and Doctor of Philosophy in Rehabilitation Science (RS) OR the Master of Science in Physiotherapy (PT) and Doctor of Philosophy in Rehabilitation Science (RS) offered within the School of Rehabilitation Science in 5 years. The Dual Degree option provides students with advantages through integrated scholarship training and professional development and stream-lined time efficiency. Completing the two degrees, an OT or PT professional degree and Ph.D., concurrently rather than sequentially develops clinician scientists who have an understanding of the issues facing the professions, the potential contributions they can make and research expertise to undertake these roles.

Applications to the RS Dual Degree option are screened for eligibility for the professional programs by the OT and PT Program Coordinators, then reviewed and assessed by the RS Admissions Committee (~March). Select applicants are invited for a 45-minute interview with the RS, OT, and PT Assistant Deans (March-April). The objective of the interview is to better understand their potential fit with the program, the anticipated challenges of the program, and strategies they can utilize to manage these challenges. Applicants must fulfill admission requirements for both the Rehabilitation Science PhD program and the professional MSc programs to be considered for the Dual Degree option.

There is no Dual Degree option for Master of Science Speech-Language Pathology (SLP) and Doctor of Philosophy in Rehabilitation Science (RS).

Provide a detailed description of a recommended change

We propose to:

1)   Add Master of Science in Speech-Language Pathology (SLP) and Doctor of Philosophy in Rehabilitation Science (RS) Dual Degree option

2)   Supplement the RS Dual Degree admission process with online interviews currently used for OT, PT and SLP program admissions (typically end-February to early March). The online interview platform will have text and video questions. Results of the OT, PT and SLP interviews will be used as a pre-screen for applicant fit with the respective professional program. The OT, PT or SLP interview will precede and be in addition to the Dual Degree interview that is part of current RS process (typically in April, in-person or via videoconference) which can focus on applicant fit for the Dual Degree option.

These changes will take effect for the September 2025 admission cycle.

The proposed changes are summarized in the following figure (highlight) and detailed in the next section:

Portal closes
mid-February → **Application to RS Program through SLATE**

Eligible for OT/PT/SLP program? → No

End-February to mid-March → **OT/PT/SLP program interview* and evaluation**

Mid-end March → **RS Admissions Committee reviews SLATE application and OT/PT/SLP interview evaluation**

Invite to Dual Degree interview? → No

End-March to early April → **Dual Degree interview**

April → **Offer admission?** → No

Dual Degree OT PhD / PT PhD / SLP PhD — **RS PhD** — **RS MSc**

*NOTE: No fees to complete the Dual Degree option online interview. Applicants who also apply for admission to OT, PT or SLP alone (though ORPAS, Ontario Rehabilitation Professional Admission Service) will pay any online interview fee(s) per usual process

Rationale for the recommended change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the IQAP cyclical review?

1) The McMaster SLP program started in 2017 and received full 7-year term of accreditation by the Council for Accreditation of Canadian University Programs in Audiology and Speech-Language Pathology in April 2022. The SLP program is supported by 4 tenured or tenure-track faculty; all with full graduate supervisory privileges. This is the opportune time to add SLP-PhD Dual Degree option to our menu of options for admissions into the RS program.

LIMITATIONS OF CURRENT PROCESS

There is no current pathway for applicants interested in pursuing integrated scholarship training and professional development in SLP. The McMaster SLP program was new at the time the RS Dual Degree option started in 2017 and not yet accredited.

ANTICIPATED BENEFITS OF PROPOSED CHANGE

Adding the Dual Degree option for Master of Science Speech-Language Pathology (SLP) and Doctor of Philosophy in Rehabilitation Science (RS) will allow the School of Rehabilitation Science to offer the full complement of dual degree training for all professional programs and develop clinician-scientists in SLP.

2) Applicants for the RS Dual Degree option must meet eligibility requirements for both the professional (e.g. OT or PT or SLP) and the thesis program (RS). Currently, they are screened for eligibility for both programs for minimum GPA and pre-requisites but evaluated in depth only through a 30–40-minute Dual Degree interview with Assistant Deans of OT, PT and RS. The current interview process aims to assess the applicant for fit with the Dual Degree option with respect to future career goals as a clinician-scientist, anticipated challenges of managing dual degree learning and planned strategies to manage challenges.

In contrast, applicants to the professional programs as a 'single stream' are assessed through an in-depth online interview for fit with the clinical programs (Kira Talent interview platform for OT and PT; online multiple mini-interviews for SLP). Professional program interviews are comprised of verbal and written response questions. Information regarding the online interviews are provided on the OT, PT and SLP program websites.

LIMITATIONS OF CURRENT PROCESS

The current Dual Degree interview format assesses applicants for the integrated learning of RS combined with professional education, but it is limited in allowing us to fully assess the applicant for fit with the clinical programs. We do not access OT or PT interviews or interview scores when adjudicating applications to the Dual Degree option.

ANTICIPATED BENEFITS OF PROPOSED CHANGE

We propose that supplementing the RS Dual Degree application with professional program online interviews will provide specific information first regarding fit within the professional programs, and is aligned with our requirement that applicants must fulfill admission requirements for both the Rehabilitation Science PhD program and professional MSc programs to be considered for the Dual Degree option. This will also allow the Dual Degree interview to focus discussion on the integrated learning option. Information from both interviews will be helpful in informing our decision to offering admission to the high-demand and highly competitive Dual Degree option.

We note that many applicants to the Dual Degree option apply to the professional program alone as well. While we screen for GPA and program pre-requisite eligibility for both professional and research programs, the interview processes differ in assessment for fit with the professional programs. Including the professional program online interviews would also standardize the admissions process for applicants for both 'single stream' and Dual Degree programs.

There will be no additional interview fees for applicants to Dual Degree option only. Applicants who also apply for admission to OT, PT or SLP alone (though ORPAS, Ontario Rehabilitation Professional Admission Service) will pay the program online interview fee(s) per usual process.

The online interview will serve as a pre-screen for applicants to the Dual Degree option. Results from the online interview will be considered in the assessment for admission to the Dual Degree option, in addition to current application materials and interview.

Provide implementation date

These changes will take effect for the September 2025 admission cycle.

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable)

From
https://academiccalendars.romcmaster.ca/preview_program.php?catoid=48&poid=24727&returnto=9561

The dual degree option offered by McMaster University will lead to an MSc (Occupational Therapy) and a Ph.D. in Rehabilitation Science or MSc(Physiotherapy) and PhD Rehabilitation Science degree or MSc (Speech-Language Pathology) and PhD Rehabilitation Science degree. This integrates the established programs in Occupational Therapy (OT), Physiotherapy (PT), and Speech-Language Pathology (SLP) and the doctoral (Ph.D.) Rehabilitation Science graduate program offered within the School of Rehabilitation Science (SRS). This degree program option provides the opportunity for training of clinician-scientists who will play an important role in linking research and evidence investigation to clinical applications of new approaches in the treatment of health problems. This dual degree option will be five years in length, the first two years the student will enter the Ph.D. program and complete their course work and the comprehensive exam and will develop the plan for their thesis. The next two years will be spent in the selected professional program and during the fifth and final year the student will complete their research and undertake their Ph.D. Defense.

Requirements

Students in either the MSc (OT) and Ph.D. OR the MSc (PT) and Ph.D. OR the MSc(SLP) and Ph.D. program will complete the professional curriculum requirements (eligible for either the Occupational Therapy, or the Physiotherapy, or Speech-Language Pathology programs), and the Ph.D. curriculum requirements. The requirements for both the professional programs and the Ph.D. program are outlined in the relevant sections of the SGS Calendar. One to two students will be accepted into the Dual Degree option on a yearly basis, and reach approximately 10 students in the program at a steady state.

Program Information

The dual degree option of the Masters of Science (Occupational Therapy) and Ph.D or Masters of Science (Physiotherapy) programs and PhD or Masters of Science (Speech-Language Pathology) and PhD is offered with specific blocks of time provided for activities in full time studies in either program. It utilizes the established curriculum in either of the professional programs and the Rehabilitation Science doctoral program.

Program Fulfillment

Fulfillment within the Occupational Therapy, Program or the Physiotherapy, or Speech-Language Pathology Program (in the dual degree MSc (OT) and Ph.D. programs or the dual degree MSc (PT) and Ph.D. programs or dual degree MSc (SLP) and Ph.D. programs)

Students in the dual degree option must successfully undertake complete the requirements for either the Masters of Science (Occupational Therapy), or the Masters of Science (Physiotherapy) or Masters of Science (Speech-Language Pathology) outlined in the School of Graduate Studies Calendar. They will complete both the academic and the clinical education courses in either the Occupational Therapy Program, OR the Physiotherapy Program OR Speech-Language Pathology Program. Students who enter this dual degree option will be exempt the course requirements for evidence based practice in both the OT, and PT or SLP programs. The activities of the evidence based practice course will be replaced by coursework in research methods and analyses in the first two years followed by independent data collections and analyses during the doctoral program. This will allow students to continue with their thesis work during their professional program.

Ph.D. Program Fulfillment

(in the dual degree programs in Occupational therapy or Physiotherapy or Speech-Language Pathology and Ph.D.)

Students must complete the requirements of the Ph.D. (RS) program, as outlined in the relevant section of Graduate Calendar, including the comprehensive examination and the submission and defense of a research thesis (the research proposal should be completed prior to entering the professional program). Students are expected to attend departmental rounds and senior seminars.

From:
https://academiccalendars.romcmaster.ca/preview_program.php?catoid=48&poid=24617&returnto=9561

Admission

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/PT/SLP or other health professional 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 (2) 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.

Applicant On-line Video Interview for Dual Degree Applicants

All applicants who meet the required GPA admission requirements and pre-requisite courses will be invited to participate in an on-line, video-based interview comprised of a series of 'mini interview' questions. Once applicants have submitted their online application and paid the video interview fee, the Program will notify applicants of the link to the video interview questions, instructions on how to complete the interview and the due date for completion of this component of the application. Please refer to the Program website for more details. Applicants will require an internet connection, a computer/laptop with a functioning webcam and microphone to complete the on-line, video-based interview.

Degree Requirements

The degree requirements for the Ph.D. are:

- The general regulations for the *Degree Doctor of Philosophy* appear earlier in the Calendar.
- REHAB 725 / Knowledge Exchange and Translation (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 and SGS #201 Accessibility for Ontarians with Disabilities Act (AODA) Training (online modules taken by all graduate students)
- The School of Rehabilitation Science has a series of research rounds, workshops and seminars given by rehabilitation scientists. Regular attendance at these seminars is required.
- The student's Supervisory Committee may require students to take additional courses. Ph.D. 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 REHAB 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 two components: 1) a scholarly paper prepared for publication and 2) a research protocol prepared for submission to a funding agency. 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.

From:
https://academiccalendars.romcmaster.ca/preview_entity.php?catoid=48&ent_oid=6505&returnto=9561

Rehabilitation Science

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, Speech-Language Pathology or other health-relevant program; 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 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 or employment. 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 an on-campus course. Courses emphasize evidence-based practice, clinical measurement/evaluation, critical thinking, qualitative and quantitative methods, 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 study and apply theory, research design and analysis methods both qualitative and quantitative, to a Rehabilitation Science research thesis.

The Ph.D. in Rehabilitation Science provides training to develop rehabilitation scientists who will 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.

The McMaster Rehabilitation Science Dual Degree option allows students to obtain the established Master of Science in Occupational Therapy (OT) and Doctor of Philosophy in Rehabilitation Science (RS), OR the Master of Science in Physiotherapy (PT) and Doctor of Philosophy in Rehabilitation Science (RS), or Master of Science in Speech-Language Pathology (SLP) and Doctor of Philosophy (RS), offered within the School of Rehabilitation Science (SRS) in 5 years. The Dual Degree option provides students with advantages through integrated scholarship training and professional development and stream-lined time efficiency. Completing the two degrees, an OT, or PT, or SLP professional degree and Ph.D., concurrently rather than sequentially develops clinician scientists who have an understanding of the issues facing the professions, the potential contributions they can make and research expertise to undertake these roles.

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:
1. This form must be completed for all changes involving degree program requirements/procedures. All sections of this form must be completed.
2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	HEI
NAME OF PROGRAM and PLAN	Health Policy

DEGREE	PhD

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No

Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure	X	Change in Course/Program Requirements	

Change in the Description of a section of the Graduate Calendar	**EXPLAIN:** Current wording Comprehensive examinations are completed during the first and second years of full time study, as the relevant coursework requirements are completed. Students complete three required comprehensive examinations in the following areas:

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Two breadth fields outside the student's specialty area (health systems and society, political studies, and health economics);

One chosen specialty area (health systems and society, political studies, or health economics); and

Research methods (qualitative and quantitative empirical approaches).

Proposed New Wording

Comprehensive examinations are completed during the first and second years of full-time study, as the relevant coursework requirements are completed. Students complete three required comprehensive examinations in the following areas:

One Breadth exam addressing all of the interdisciplinary program's three fields of specialization (health systems and society, political studies, and health economics);

One Research Methods exam (qualitative and quantitative empirical approaches); and

One chosen Specialty Field exam (health systems and society, political studies, or health economics).

Explanation

The Breath exam text is re-phrased to indicate that this exam covers all three Specialty Fields, and not only the two fields other than the chosen Specialty Field. Two key issues are: first, including all three fields allows exam questions that require the integration of knowledge across all three fields and, second, although not common students sometimes change Specialty Fields so addressing all three in the Breadth exam adds flexibility. Also, covering the basics of all three fields in the Breath exam allows

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		Specialty Field exam to address more advanced material.
		The ordering of the text discussing the three fields is revised to mirror the order in which students most commonly take the exams. Other small changes are made to the text.
Other Changes:	X	**Explain:** Change in comprehensive exam procedure beyond proposed change in calendar copy.

Describe the existing requirement/procedure:

Historically, students have completed 3 written comprehensive exams (Breadth, Methods and one of three Specialty Fields). Exams were normally in-person prior to COVID-19, and subsequently virtually; we plan on returning to in-person/on-campus exams in 2024. Students are allowed 7 or 7.5 hours to complete each exam. The exams are normally completed on computers, are "open book" (students may bring and books/notes they wish), and they have had access to the internet during the exam – though in 2023 they were forbidden to use Generative AI. Students are not allowed to communicate with other humans during the exam, with the usual exceptions for emergencies, speaking to the invigilator, and the like.

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

We are looking to modify the procedure. The change is motivated by the technological change that is Generative AI. We would like to permit students to use Generative AI during the exam.

There is no change to the total duration of the exam, but the activities during the allotted time will change.

a. The first six hours or so of the exam (the length may vary a little depending on circumstances, esp. the number of exam writers) will, like the previous 7.5 hours, culminate with students submitting their exam answers as an electronic file. The written questions and expected responses will be modified in light of the new approach but will be very similar to historical norms.

b. There will then be an approximately half-hour break while the examiners review the students' responses.

c. Subsequently, each student will meet with the faculty marking the exams (typically 2 faculty members) for a brief (typically 15 minute) oral defence of what each student

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wrote/submitted. Each oral component will be independent/individual – so for some students the break may be longer than half an hour as they wait for other students to go first.

Since students are permitted to use Generative AI, this oral defence is meant to verify that students understand the written component of their comprehensive exam. The oral component will not ask new questions but will require students to explain (i.e., demonstrate that they understand) and defend what they wrote in response to the questions on the written exam. (This mirrors what happens with a PhD thesis where there is a written document and a subsequent oral defence.)

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

In light of the availability of Generative AI, the proposed additional oral component will ensure that students are able to defend choices they made in the exam and verify that the answers represent the student's own intellectual work and not the exclusive product of generative AI.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

May 1, 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

NO

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Track change version

Comprehensive examinations are completed during the first and second years of full--time study, as the relevant coursework requirements are completed. Students complete three required comprehensive examinations in the following areas:

- ~~Two b~~One Breadth exam addressing all of the interdisciplinary program's three fields of specialization ~~fields outside the student's specialty area~~ (health systems and society, political studies, and health economics);
- One Research Methods exam (qualitative and quantitative empirical approaches); and~~One chosen specialty area (health systems and society, political studies, or health economics); and~~

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- One chosen Specialty Field exam (health systems and society, political studies, or health economics)~~Research methods (qualitative and quantitative empirical approaches)~~.

Clean Version

Comprehensive examinations are completed during the first and second years of full-time study, as the relevant coursework requirements are completed. Students complete three required comprehensive examinations in the following areas:

One Breadth exam addressing all of the interdisciplinary program's three fields of specialization (health systems and society, political studies, and health economics);

One Research Methods exam (qualitative and quantitative empirical approaches); and

One chosen Specialty Field exam (health systems and society, political studies, or health economics).

Contact information for the recommended change:

Name: Arthur Sweetman

Email: Arthur.sweetman@mcmaster.ca

Date submitted: February 9, 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:
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2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	Pediatrics
NAME OF PROGRAM and PLAN	Child Life and Pediatric Psychosocial Care

DEGREE	MSc.

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No
Creation of a New Milestone ☐

Change in Admission Requirements		**Change in Comprehensive Examination Procedure**		**Change in Course/Program Requirements**	
Change in the Description of a section of the Graduate Calendar	X	**EXPLAIN:** The Child Life and Pediatric Psychosocial Care program includes two Streams. Stream 1 provides academic and clinical training to prepare students to practice as entry level child life specialists. This Stream has earned graduate endorsement through the Association of Child Life Professionals with curriculum aligned to child life competencies. Graduates of this stream meet child life professional certification eligibility requirements. Stream 2 provides health professionals with advanced practice skills in pediatric psychosocial care to enhance			

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	practice in their already established fields/roles. There are health professionals working in pediatrics who have had limited training in working with children making this degree plan of interest. Students in Stream 2 have required courses and elective options so they can take those of interest based on their professional development needs and clinical interests. This Stream does not require placements/internships or seminar courses, as they are already working health professionals. Stream 2 does not therefore provide entry to child life practice or meet certification eligibility requirements.

Program information (e.g. website, program FAQs, open houses, etc.) includes the distinction that individuals interested in becoming a certified child life specialist should apply to our ACLP endorsed Stream 1 program as Stream 2 does not provide all requirements needed to certify. Including this within the graduate calendar is a formality to ensure the same messaging is highlighted across all program related materials. |

Other Changes:	**Explain:**

Describe the existing requirement/procedure:

Stream 2 students must hold qualifications as a health professional and messaging is provided in varied formats to differentiate the differences between the two Streams. The Stream 2 program plan enables both required and elective course options so individuals can take those of interest for their professional development needs and/or clinical interests. Only Stream 1 leads to child life certification eligibility and prepares for entry to practice where students must successfully complete all required courses and clinical internship placements. Upon successful completion, only Stream 1 students receive required documentation to submit for their eligibility to sit for the child life professional certification exam.

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

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Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

This recommended inclusion aligns with existing requirements and is meant to ensure consistent messaging across all program related materials.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

09/01/2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

MSc degree - Stream 1 option

Stream 1 of the Child Life and Pediatric Psychosocial Care program provides academic and clinical training including two clinical internships to prepare students with knowledge, clinical skills and professional behaviours to practice as entry level child life specialists. Graduates of this Stream 1 will meet child life professional certification eligibility requirements. This stream is only offered full-time. The anticipated completion of all program requirements for students enrolled in stream 1 is 2 years from initial enrollment.

MSc degree - Stream 2 Option

Stream 2 of the Child Life and Pediatric Psychosocial Care program provides advanced practice skills in pediatric psychosocial care. It is offered on both a full and part-time basis to applicants who already hold qualifications as a healthcare professional with an interest in pediatric psychosocial care to enhance their practice. Clinical internships and clinical skills seminars are therefore not required. The

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anticipated completion time of all Stream 2 program requirements for full-time students is 1 year, and 2-4 years from initial enrollment for part-time students.

Individuals interested in becoming a certified child life specialist (CCLS) should apply to the Stream 1 program. Stream 2 does not provide all requirements needed to certify. Students admitted as a Stream 2 student are not permitted to transfer to Stream 1. Changing streams requires reapplication.

Contact information for the recommended change:

Name: Cathy Humphreys Email: humphrc@mcmaster.ca   Date submitted: March 7, 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:
1. This form must be completed for all changes involving degree program requirements/procedures. All sections of this form must be completed.
2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	HEI
NAME OF PROGRAM and PLAN	Health Research Methodology HRMMAS and HRMCRMSC
DEGREE	**MSc**

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No

Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	
Change in the Description of a section of the Graduate Calendar	x	**EXPLAIN:** To clarify the requirements for fields in the Table in the graduate Calendar and to remove asterisk notations as this notation is no longer required – unit counts are now included for courses.			
Other Changes:					

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Describe the existing requirement/procedure:

A. M.Sc. by Thesis

Field of Specialization	Common Courses	Field Specific Courses
HRM Classic		n/a
Clinical Epidemiology	*721 and *702	*743, *730 or *751
Health Technology Assessment		*737, *741

B. M.Sc. by Course Work

Field of Specialization	Common Courses	Field Specific Courses
HRM Classic		*730 or *751, one of: *723, *727, *731, *733, *737, *743, *745
Clinical Epidemiology	*721 and *702	*743, *730 or *751
Health Technology Assessment		*737, *743, *741

Provide a detailed description of the Recommended Change

Remove asterisk beside the course numbers.

Add And to clarify the requirements.

A M.Sc. by thesis:

Field of Specialization	Common Courses	Field Specific Courses
HRM Classic		n/a
Clinical Epidemiology	721 and 702	743, AND 730 or 751
Health Technology Assessment		737, AND 741

B. M.Sc. by Course Work

Field of Specialization	Common Courses	Field Specific Courses
HRM Classic		730 or 751, AND one of: 723, 727, 731, 733, 737, *743, 745
Clinical Epidemiology	721 and 702	743, AND 730 or 751
Health Technology Assessment		737, AND 743, AND 741

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Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

Clarifies requirements for students and removes out of date notations.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

September 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Contact information for the recommended change:

Name: Dr. Mitchell Levine   Email: levinem@mcmaster.ca Date submitted: Feb. 21, 2024

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

January 31, 2024

Re: Summary of Changes to the MSc Occupational Therapy Program Curriculum

Dear McMaster GPCC,

Please find enclosed our package of proposed curriculum course changes. We are proposing two types of changes:

1. **Changes to the pre-requisite requirements for our clinical placement courses (OCCUPTH 791, 792, 795, 796):** We propose establishing a prerequisite for our placement courses which requires students to pass the *Objective Structured Clinical Evaluation (OSCE)* in the preceding term's Professional Reasoning and Skills (PRS) course. This ensures that students possess a minimum 70% proficiency in knowledge and skills before embarking on placement, ensuring both their safety and the safety of those around them (i.e. patients, clients, preceptors, colleagues).

2. **Addition of new learning opportunities in Year 2 of the 2-year (5 Term) OT Program:**
   The McMaster University Master of Science (Occupational Therapy) Program is structured to provide students with a knowledge and skills to work as a generalist. Upon review of the curriculum the faculty concluded that there was the ability to provide opportunities for more content and depth in several important emerging areas in occupational therapy practice (advances research, equity and social justice, innovation and entrepreneurship, and leadership), especially since some of our faculty are leaders in these areas. With the adjustment of some of the Year 2 courses to accommodate the learning, we were able to develop elective Capstone Courses. The adjustments are:
   - Provide opportunity for content learning earlier in the Program to give students time to better understand the Capstone Course topic areas. In Term 4, the Evidence-Based Practice course culminates in a final assignment where students choose their own topics. For those in Capstone Courses, their chosen topic will align with their Capstone Course topic. Although assessment weighting is uniform, assessments for students in the Capstone Courses will emphasize specific aspects tied to the Capstone Course topic/content.
   - Provide five elective course options in Year 2, Term 5 of the OT Program. Students must take one of the following:
     i. OCCUPTH 751: Complexities of Practice II: Evidence-Based Project. This is the same course that has always been available (OCCUPTH 746). This course will be

taken by those who would like to take this course, or who may not be successful in being accepted into a Capstone Course.
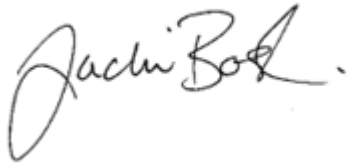
 ii. OCCUPTH 752: Capstone Course - Advanced Research Skills for Occupational Therapists

 iii. OCCUPTH 753: Capstone Course - Equity and Social Justice

 iv. OCCUPTH 742: Capstone Course - Innovation and Entrepreneurship

 v. OCCUPTH 755: Capstone Course - Leadership in Occupational Therapy

Students who are interested in taking one of the Capstone Courses will apply to take the course at the end of their first year in the OT Program (application process yet to be determined). At least initially, there will be a minimum enrollment limit of 4 and a maximum enrollment limit of 6 in the Capstone courses with no enrollment limit in OCCUPTH 751.

Finally, we have included an updated version of the "Program Requirements" for the SGS Calendar.

Thank you for your time and consideration. If you have any questions, please feel free to contact me.

Regards,

Jackie Bosch, PhD, MSc, O.T. Reg (Ont)

Assistant Dean, Occupational Therapy Program & Professor, School of Rehabilitation Sciences
Investigator, Population Health Research Institute
McMaster University

Program Requirements Revisions

Program Requirements

The Master of Science in Occupational Therapy is a full-time course-based accredited professional Master's program. It prepares students with knowledge, skills, and professional behaviours to practice as entry level occupational therapists. The program utilizes a problem-based self-directed learning philosophy. Students will complete course work, clinical practica, and ~~an independent evidence-based practice~~ a culminating project during their two extended study years. All courses are required* with the exception of the Term 5 elective courses (OCCUPTH 751, 752, 753, 754, 755) of which one must be taken, and ~~OT 798 and~~ OCCUPTH 799 which ~~are~~ is an elective courses offered to students who have failed a required course and are eligible for remediation.

**NOTE: The MSc(OT) Program offers a dual degree option in collaboration with Rehabilitation Sciences. For program fulfillment requirements for students enrolled in the dual degree option please see the Rehabilitation Science - Dual Degree Option section of the Graduate Calendar.

The University reserves the right to cancel academic privileges of a student at any time should the student's scholastic record or conduct warrant ~~so~~ doing so. For details on procedures and requirements related to university-based courses, clinical practica courses, remediation, and required withdrawals for the Occupational Therapy Program, students should consult the relevant sections of Graduate Calendar and ~~,~~ the Occupational Therapy Program Handbook.~~, Clinical Education Handbook, and Term handbooks.~~ In the event of a discrepancy between these documents and the Graduate Calendar, the Graduate Calendar represents the official policy.

Review of Student Progress

The progress of graduate students enrolled in the Master's Program in Occupational Therapy is overseen by a team of McMaster faculty and community ~~registered~~ occupational therapists. Student progress in the program is regularly reviewed by a Program Academic ~~Study~~ Standing Sub-Committee (PASSC). The committee is responsible for, but not limited to, ~~determining if a~~ making recommendations regarding student eligibility for progression to clinical practicum or ~~student may proceed~~ to the next term of study.

The program may, in appropriate circumstances, defer or remove a student from a clinical practicum if the student, including but not limited to, fails to maintain communication with the program, exhibits behaviours that place clients or others at risk, or fails to comply with other academic or non-academic (e.g., obtain and receive clearance for mandatory health screening, mask fit testing, police records check etc.) requirements. Deficits in matters pertaining to work in clinical settings, research ethics, or professionalism may result in restrictions or termination of the work in a clinical practicum or research project. Unsatisfactory standing or deficits in matters pertaining to professional~~s~~ skills, which include, but are not limited to: patient safety, professionalism, ethical behavior, and technical skills, as articulated in the ~~Essential Competencies of Practice for Occupational Therapists in Canada and Occupational Therapy Standards of Practice (available at www.coto.org)~~ Competencies for Occupational Therapists in Canada 2021 (https://www.coto.org/docs/default-source/competencies/competencies-for-occupational-therapists-in-canada-2021---final-en-

web.pdf?sfvrsn=e4f10c52_2), may result in a decision to terminate the clinical placement or research project.

In most cases termination of the clinical placement or research project constitutes a failure and will result in the student receiving a grade of F in the course and may result in dismissal from the program.

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To   :   Graduate Council

From   :   Christina Bryce
                        Assistant Graduate Secretary
_____

At its meetings on January 31st and February 27th and via e-ballot on March 1st the Faculty of Humanities Graduate Curriculum and Policy Committee approved the following graduate curriculum recommendations.

Please note that these recommendations were approved by the Faculty of Humanities.

For Approval of Graduate Council:
- **Cognitive Science of Language**
  - **Change to Program Requirements**
  - **Change to Calendar Copy**

- **Communication Management**
  - **Change to Course Requirements**

- **Gender and Social Justice**
  - **Updates to Approved Electives**

- **Greek and Roman Studies**
  - **Program Name Change**

- **English and Cultural Studies**
  - **Program Name Change**
  - **Program Merger**
  - **Change to Calendar Copy – M.A.**
  - **Addition of Approved Electives**

- **History**
  - **Change to Program Requirements**

- **Philosophy**
  - **Change to Program Requirements**

For Information of Graduate Council:
- **English and Cultural Studies**
  - **Course Cancellations**
    - 711 Celebrity/Culture
    - 731 Anxiety Disorders: The Cultural Politics of Risk

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- o 747 Discourses of Empire 1700-1820
- o 749 Getting and Spending: The Birth of Consumer Culture
- o 762 Queer Historicisms and British Cultural Memory
- **Change to Course Title,**
  - o 717 Global Sex
- **Change to Course Description and Title**
  - o 712 Queer, Two-Spirit, & Trans- Indigenous Writings
  - o 757 Gender, Civility and Courtliness in Early Modern Europe
- **Change to Course Description and Grading Basis**
  - o 733 Problems in Cultural Studies
- **Change to Course Title and Description**
  - o 729 Cultural Studies and the Politics of Cultural Pedagogy
- **Change in Course Description and Title** (effective fall 2025)
  - o 733 Problems in Cultural Studies
  - o 799 Critical and Creative Approaches to Literary Studies: Sharing Knowledges in/with/for Communities
- **New Courses**
  - o 786 The Novel of Now: Or, How Artists Speak Back to States of Civil Violence and War
  - o 792 Life Writing & Health in the 21st C

- ▪ **Communication Management**
  - **New Course**
    - o 745 Organizational Change Communications

- ▪ **Cognitive Science of Language**
  - **Change to Course Description**
    - o 721 Fundamentals of the Cognitive Neuroscience of Language
  - **Course Cancellations**
    - o 722 Contemporary Issues in the Cognitive Neuroscience of Language

- ▪ **History**
  - **New Courses**
    - o 742 Applied History
    - o 745 Canada's Racial State

- ▪ **Philosophy**
  - **New Courses**

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- o   768 Philosophy of Race
- o   773 Feminist Philosophy

- **Gender and Social Justice**
  - **New Course**
    - o   725 Social Justice Frameworks of Prison Abolition
  - **New Cross-listed Course**
    - o   773 Feminist Philosophy

- **Wilson College**
  - **New Course**
    - o   700 Studies in Leadership in Civic Engagement - Selected Topics

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:
1. This form must be completed for all changes involving degree program requirements/procedures. All sections of this form must be completed.
2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	Linguistics and Languages
NAME OF PROGRAM and PLAN	Cognitive Science of Language
DEGREE	**MSc + PhD**

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No

Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	X
Change in the Description of a section of the Graduate Calendar	X	**EXPLAIN:** Remove COGSCIL 722 from list of required courses for COGSCIL MSc and PhD			
Other Changes:	**Explain:**				

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Describe the existing requirement/procedure:

COGSIL MSc and PhD students were required to take a set of four required courses (within the framework of 7 courses for PhD and 4 courses for MSc; plus one pass/fail module). COGSCIL 722 is being deleted from this list of four courses and is therefore no longer required.

This is the existing list:

- [COGSCIL 721 / Fundamentals of the Cognitive Neuroscience of Language](#)
- [COGSCIL 722 / Contemporary Issues in the Cognitive Neuroscience of Language](#)
- [COGSCIL 730 / Language Analysis Methods: Phonology and Morphology](#)
- [COGSCIL 731 / Language Analysis Methods: Syntax and Semantics](#)

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

COGSCIL MSc and PhD student are still required to take the number of required courses (7 PhD, 4 MSc), but 722 is no longer on the list of four required courses (i.e. now a list of three required courses for MSc and PhD), thus student are able to take other another offered graduate course from the program or other relevant areas. We offer a sufficient number of available graduate courses each year to provide that possibility for each student.

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

Due to the retirement of two faculty members who are the experts in this area, we are unfortunately no longer able to offer this course and have to downsize the two course required course offerings in the Neuroscience area of our programs. One graduate course (COGSCIL 721) remains on this topic, offered by a new faculty member. Students will benefit by having room to take other elective courses. We have a sufficient number of graduate elective courses available for students each year so that this cancellation does not create a problem.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

September 1, 2024

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Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

No.

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Marked Document is attached (marking used in the document is grey highlighting of the relevant changes and strikethrough for the proposed deletions)

Contact information for the recommended change:

Name: Daniel Pape   Email: paped@mcmaster.ca Date submitted: February 9, 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:
1. This form must be completed for all changes involving degree program requirements/procedures. All sections of this form must be completed.
2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	Linguistics and Languages
NAME OF PROGRAM and PLAN	Cognitive Science of Language
DEGREE	**Ph.D Degree**

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No
Creation of a New Milestone ☐

Change in Admission Requirements		**Change in Comprehensive Examination Procedure**		**Change in Course/Program Requirements**	
Change in the Description of a section of the Graduate Calendar	**X**	**EXPLAIN:** Adding a sentence in the description of the "Language Requirement" section to address native speakers of other languages than English			
Other Changes:		**Explain:**			

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Describe the existing requirement/procedure:

The current description of a language requirement does not take into account the language knowledge of native speakers of other languages (other than English) and that these speakers already have extensive knowledge of another languages (as this language requirement section asks for as the aim of this milestone).

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

We propose adding the following sentence within the "Language Requirement" section: **Native speakers of languages other than English who continue to actively use their native languages are considered to have fulfilled the second-language requirement.**

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

Native speakers of a different language than English who use their native language actively have extended knowledge of this language and thus pass the Second-Language Requirement without the need to take courses in other languages (which would otherwise result in a third-language requirement for these speakers).

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

September 1, 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

No.

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

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The revised section will now read (proposed changes highlighted in bold; original text in normal font):

In order to ensure language diversity and breadth, the Department has a second-language requirement for the Ph.D. degree, in addition to the general Graduate School requirement of English proficiency. Candidates should have, as a minimum, intermediate knowledge of a language other than English, defined as having passed the equivalent of two (2) full year courses. Candidates admitted without this requirement will be expected to pass the equivalent of two (2) full year courses or to pass a Qualifying Exam. **Native speakers of languages other than English who continue to actively use their native languages are considered to have fulfilled the second-language requirement.** The Department will evaluate each student's language preparation at the Admission stage.

Contact information for the recommended change:

Name: Daniel Pape   Email: paped@mcmaster.ca Date submitted: February 9, 2024

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

Cognitive Science of Language, M.Sc.

M. Sc. Degree

Applicants will be eligible for admission if they hold a four-year Honours undergraduate degree in one of the following disciplines, and fulfill McMaster's School of Graduate Studies general requirements (http://www.mcmaster.ca/graduate): Linguistics; Psychology, Neuroscience; Speech Sciences; Health Sciences; Communication Studies; Multimedia; Computer Science; and Engineering. Some applicants may require additional courses in core areas (e.g., linguistics or psychology) in order to be eligible for admission. Each application will be evaluated on an individual basis.

Coursework

4 half courses plus one pass/fail modules

Required Courses:

Students are required to take ~~3 of~~ the following ~~four~~ courses:

- COGSCIL 721 / Fundamentals of the Cognitive Neuroscience of Language
- ~~COGSCIL 722 / Contemporary Issues in the Cognitive Neuroscience of Language~~
- COGSCIL 730 / Language Analysis Methods: Phonology and Morphology
- COGSCIL 731 / Language Analysis Methods: Syntax and Semantics
-
- plus additional courses approved by the student's supervisory committee to a total of four half courses

Additional Requirements

(this is a **Pass/Fail** course):

- [COGSCIL 725 / The Cognitive Science of Language Master's Lecture Series](#)

M.Sc. Thesis.

The M.Sc. Thesis is a work of original research (empirical or theoretical) under the supervision of a participating faculty member and evaluated by a thesis committee established by the department. The thesis must be submitted by August of the second year of the M.Sc. program.

Lecture Series

All students are expected to attend the talks in the Cognitive Science of Language Lecture Series, where scholars from around the world in the fields of Linguistics, Psychology, and Cognitive Neuroscience discuss their research.

Return to: [Faculty of Humanities](#)

Cognitive Science of Language, Ph.D

Ph.D. Degree

The M.Sc. in the Cognitive Science of Language or an equivalent Master's degree is required for entrance into the Ph.D. program. Some applicants may require additional courses in core areas (e.g., linguistics or cognitive science) in order to be eligible for admission. Each application will be evaluated on an individual basis.

A. For students holding an M.Sc. in the Cognitive Science of Language

Required Courses:

Students entering with the M.Sc. in the Cognitive Science of Language are required to complete three half courses plus one pass/fail module. If the following courses were not completed in the M.Sc. program, they must be included in the Ph.D. program of study:

- COGSCIL 730 / Language Analysis Methods: Phonology and Morphology
- COGSCIL 731 / Language Analysis Methods: Syntax and Semantics
- plus additional courses approved by the student's supervisory committee to total three half courses

Additional Requirements

(this is a **Pass/Fail** course):

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

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

Coursework

(seven half courses plus one pass/fail module)

Required courses:

- COGSCIL 721 / Fundamentals of the Cognitive Neuroscience of Language
- COGSCIL 722 / Contemporary Issues in the Cognitive Neuroscience of Language
- COGSCIL 730 / Language Analysis Methods: Phonology and Morphology
- COGSCIL 731 / Language Analysis Methods: Syntax and Semantics
- plus additional courses approved by the student's supervisory committee to total seven half courses.

Additional requirements

(this is a *Pass/Fail* course):

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

Comprehensive Examination

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

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

The Comprehensive Director identifies at least one other faculty member; together, the Director and these other faculty members constitute the Comprehensive Exam Committee. (Comprehensive Directors are encouraged to recruit Comprehensive Examiners from beyond the Department of Linguistics and Languages.) The Comprehensive Director advises the student

on the preparation of the paper. The Comprehensive Exam Committee determines whether the paper is ready for an oral defense, and conduct the oral examination. The oral examination consists of a brief presentation by the student of the content of the paper followed by questions from the Committee.

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

Language Requirement

In order to ensure language diversity and breadth, the Department has a second-language requirement for the Ph.D. degree, in addition to the general Graduate School requirement of English proficiency. Candidates should have, as a minimum, intermediate knowledge of a language other than English, defined as having passed the equivalent of two (2) full year courses. Candidates admitted without this requirement will be expected to pass the equivalent of two (2) full year courses or to pass a Qualifying Exam. The Department will evaluate each student's language preparation at the Admission stage.

Milestones

Presentation at annual Student Research Day
Students in the PhD program in Cognitive Science of Language are required to give a presentation at the annual Student Research Day departmental conference at the end of the Winter term of their second year of study. The topic of the presentation can, but does not have to, be thesis-related.

Thesis proposal
Students in the PhD program in Cognitive Science of Language are required to submit a thesis proposal to their supervisory committee in the first term of their second year (Term 4). The format of the proposal should follow the guidelines for a SSHRC research proposal for doctoral scholarships. They will also give an oral presentation of this proposal to their committee. The thesis proposal milestone should be passed during the second year of study.

Quantitative Methods Requirement

To ensure a solid command of quantitative research methods, the Department of Linguistics and Languages has a quantitative methods requirement for the PhD degree in Cognitive Science of

Language. This requirement is evaluated as Pass/Fail, and can be fulfilled by providing evidence of knowledge equivalent to the content of two undergraduate-level courses (or one graduate-level course) in quantitative research methods and/or statistics, or by taking an examination administered by the department. Students should complete this program requirement within the first 24 months of their studies.

Lecture Series

All students are expected to attend the talks in the Cognitive Science of Language Lecture Series, where scholars from around the world in the fields of Linguistics, Psychology, and Cognitive Neuroscience discuss their research.

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:
1. This form must be completed for all changes involving degree program requirements/procedures. All sections of this form must be completed.   2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	Communication Studies and Media Arts
NAME OF PROGRAM and PLAN	Master of Communications Management
DEGREE	MCM

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No
Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	x
Change in the Description of a section of the Graduate Calendar	x	**EXPLAIN:** We are proposing to remove COMMGMT 724 Marketing Management from our list of required courses and replace it with COMMGMT 742 Digital and Social Media: Strategy and Management.			
Other Changes:	**Explain:**				

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Describe the existing requirement/procedure:

COMMGMT 724 is currently a required course. This change will move it to an elective. COMMGMT 742 is currently an elective and will move to a required course.

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

We have heard from our students that after taking both courses (724 required and 742 elective), they believe that the content of 742 covers the basics of 724 and is more relevant to the work that they do as communicators. They believe that 724 is a more traditional approach to marketing while 742 is more reflective of the digital and social marketing and communications landscape in organizations today.

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

COMMGMT 724 was one of our original courses (2007) and hasn't gone through the changes and upgrades that other courses have received. Our current PLOs do not mention the marketing function and yet our PLO3 – Technology and Digital Media speaks about the importance of courses like COMMGMT 742.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

Fall 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

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Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

COMMGMT 742 will move to the required courses and 724 will move to the elective courses.

Contact information for the recommended change:

Name: Dr. Terry Flynn   Email: tflynn@mcmaster.ca   Date submitted: 6 February 2024

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

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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	Gender & Social Justice				
NAME OF PROGRAM and PLAN	MA in Gender and Social Justice				
DEGREE	**Master of Arts**				
NATURE OF RECOMMENDATION					

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*

Is this change a result of an IQAP review? ☐ Yes ☒ No

Creation of a New Milestone ☐

Change in Admission Requirements		**Change in Comprehensive Examination Procedure**		**Change in Course/Program Requirements**	
Change in the Description of a section of the Graduate Calendar		**EXPLAIN:**			
Other Changes:	X	**Explain:** Updates to the list of approved electives			

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Describe the existing requirement/procedure:

GSJ maintains a list of courses that are pre-approved to count as electives towards the MA. This reduces the need to file individual forms for each course taken by each student.

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

Please add the following courses to the existing list of approved electives:

- GendrSt 725: Social Justice Frameworks of Prison Abolition
- GendrSt/PHIL 773: Topics in Feminist Philosophy

- CMSTMM 721: Alternative Media Forms in Africa
- CMSTMM 726: Media, Sustainability and Climate Justice
- English 712: Queer, Two-Spirit, & Trans- Indigenous Writings
- English 780: Engendering the (Queer, Trans, Non-Binary) Early Modern Stage: Then and Now
- English 792 Life Writing & Health in the 21st C
- Global St 702 Urgent Global Issues: Interdisciplinary Perspectives
- HLTH AGE 719: Health Equity: Interdisciplinary Perspectives
- PHIL 722 A/B: Design Thinking, Innovation and Collaboration in Philosophical Research (and Beyond)
- WILSON 700: Studies in Leadership and Civic Engagement

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

Providing our students with a broad and diverse list of electives aligns with our ethic of transdisciplinarity, and allows our students to explore their many diverse interests beyond what we're able to provide within our small program resources.

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Provide implementation date: *(Implementation date should be at the beginning of the academic year)* September 2024
Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain: n/a
Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable): n/a
Contact information for the recommended change: Name: Catherine Anderson   Email: gsj_dir@mcmaster.ca Date submitted: 1 February 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

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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	Greek and Roman Studies
NAME OF PROGRAM and PLAN	Classics
DEGREE	**MA and PhD**

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*				
Is this change a result of an IQAP review? ☐ Yes ☒ No				
Creation of a New Milestone ☐				
Change in Admission Requirements		**Change in Comprehensive Examination Procedure**		**Change in Course/Program Requirements**
Change in the Description of a section of the Graduate Calendar		**EXPLAIN:**		

Other Changes:	X	**Explain:** We are requesting a change to the name of the graduate programs (MA and PhD) to reflect the department name change, which was approved last year (2022-2023).

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Describe the existing requirement/procedure:

Current program names: MA in Classics; PhD in Classics

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

Program names would be: MA in Greek and Roman Studies; PhD in Greek and Roman Studies, in accordance with the new department name (Greek and Roman Studies).

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

The change will reflect the department's name change to Greek and Roman Studies. This change was made to better reflect the department's areas of teaching and research. The name 'Classics' was decreasingly familiar to undergraduate students and we strive to reach as many students as possible; a name that is more explicit about what we do will give students a better understanding of the department and could help with recruitment. Furthermore, the change is consistent with a trend in the discipline throughout North America of moving away from the name 'Classics' to more descriptive, inclusive department names. We would like the graduate program names to be consistent with the department name and the undergraduate program names.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

September, 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

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Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Program names would appear as MA in Greek and Roman Studies; PhD in Greek and Roman Studies.

Contact information for the recommended change:

Kathryn Mattison: mattisk@mcmaster.ca; x24577

Name: Kathryn Mattison Email: mattisk@mcmaster.ca   Date submitted: November 8, 2023

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

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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	English and Cultural Studies
NAME OF PROGRAM and PLAN	PhD in English and Cultural Studies *(change of program name)*
DEGREE	

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☒ **Yes** ☐ **No**
Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	
Change in the Description of a section of the Graduate Calendar		**EXPLAIN:**			
Other Changes:	X	**Explain:** Changing name of the English doctoral program to PhD in English & Cultural Studies			
Describe the existing requirement/procedure:					

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Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

This new name for the PhD will:

- Align with our departmental name and the new name for our MA in English and Cultural Studies.
- Accentuate the interdisciplinarity that is a hallmark of our department.

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

This name change will help us as a department to proactively address tensions noted in our last IQAP report related to the relationship between literary studies and cultural studies. In that report, external reviewers report confusion amongst students regarding how these two modes of inquiry speak to one another, as well as worries among faculty members that both approaches are not valued equally within our departmental culture.

The current name for our English PhD inadvertently reinforces divisions eschewed by our departmental name change from over a decade ago. Renaming the PhD (simultaneously with renaming our newly merged MA programme with two streams) will address this unintended problem, affirming our commitment to productive synergies across literary and cultural studies.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

Fall 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

N/A

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

N/A

Contact information for the recommended change:

Name: Dr. Melinda Gough   Email: goughm@mcmaster.ca   Date submitted: Dec. 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

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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	English and Cultural Studies
NAME OF PROGRAM and PLAN	MA in English and Cultural Studies *(change of program name)*
DEGREE	MA

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*

Is this change a result of an IQAP review? ☒ Yes ☐ No

Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	
Change in the Description of a section of the Graduate Calendar		**EXPLAIN:**			

Other Changes:	X	**Explain:** **Overview:** We propose merging our existing programs into one MA with two possible streams alongside a program name change to reflect the merged degrees, with no other significant changes to the degree and PLOs. One stream will be a coursework stream that includes 799, our existing cohort-building project-centred core course in the Public Humanities. The other will be an

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MRP stream that includes ECS 733, a cohort-building core course in research methods, organization, writing and time management strategies geared toward the successful development and completion of the MRP.

This proposed change will:

- Harmonize requirements, offering all MA applicants the flexibility to apply for either stream;
- Retain existing learning outcomes of our current MA programmes;
- Accentuate the interdisciplinarity that is the hallmark of our department;
- Consolidate our offerings and service commitments to reflect shrinking resources;

Describe the existing requirement/procedure:

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

In 2021, the department eliminated the thesis option for the English MA due, among other factors, to lack of supervisory capacity. However, many of our strongest English MA applicants propose well-defined independent research projects; indeed, those who apply for SSHRC CGS-M are required to propose such a project. Currently, our English MA students cannot pursue these projects as an MRP; their only option is the public-facing independent project option embedded in English 799. They also do not usually have access to CultrSt 732, which offers an important introduction to key Cultural Studies terms and readings.

CSCT MA students, by turn, are required to complete MRPs but do not have the option to take English 799. However, 799's Public Humanities focus and space for research-creation work are strongly relevant to many of these students. Indeed, many CSCT MA students might well prefer 799's options for research-creation and/or public facing projects, as opposed to the more traditional writerly, academic-community focused MRP.

Learning outcomes will remain the same between the existing programs and the new merged program, as will almost all of the requirements (please see charts below).

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Current Cultural Studies and Critical Theory MA programme

Fall	Winter	Summer
CULTRST 732 (mandatory)	CULTRST 733 (mandatory)	Major Research Project
Elective 1	Elective 3	
Elective 2	Elective 4	Including proposal (1,000 words plus bibliography) + work-in-progress colloquium

Merged English and Cultural Studies MA programme -- MRP stream

Electives may include ECS 732

Fall	Winter	Summer
Elective 1	ECS 733 (mandatory)	Major Research Project
Elective 2	Elective 4	
Elective 3	Elective 5	Including proposal (500 words plus bibliography) + work-in-progress colloquium

Current English MA programme

Option 1: Electives cannot include CultrSt 733

Fall	Winter	Summer
Elective 1	English 799A (mandatory)	English 799B (mandatory) includes independent project colloquium
Elective 2	Elective 4	
Elective 3	Elective 5	Elective 6

Option 2: Electives cannot include CultrSt 733

Fall	Winter	Summer
Elective 1	English 799A (mandatory)	English 799B (mandatory) Includes independent project colloquium
Elective 2	Elective 4	
Elective 3	Elective 5	
	Elective 6	

Merged English and Cultural Studies MA programme -- coursework stream

Option 1: Electives can include ECS 732

Fall	Winter	Summer
Elective 1	English 799A (mandatory)	ECS 799B (mandatory) includes independent project colloquium
Elective 2	Elective 4	
Elective 3	Elective 5	Elective 6

Option 2: Electives can include ECS 732

Fall	Winter	Summer
Elective 1	English 799A (mandatory)	English 799B (mandatory) Includes independent project colloquium
Elective 2	Elective 4	
Elective 3	Elective 5	
	Elective 6	

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As indicated in the charts above, we propose to keep CultrSt 732 under the revised course code ECS 732. Instead of this being a mandatory seminar for CSCT MA students it will be an elective course open to students in both the MRP and the course-based streams (as well as to students in our PhD programmes).

To ensure that students in both streams are adequately supported as they move toward independent work, each stream will also retain one mandatory Winter term course designed to act as a hub for cohort building and a supportive community for students to begin pursuing independent research. For the course-based stream, this hub will remain 799; for the MRP stream, the hub will be ECS 733, a revised iteration of what is currently CultrSt 733. Each core course will include a module designed to introduce students to key terms, frameworks, and practical skills designed to help anchor independent project/MRP work. The colloquium for each stream will also provide all MA students with professionalization skill-building opportunities in knowledge mobilization: each student will present their own research/research in progress for an interdisciplinary audience of peers and faculty members, and participate as an audience member for their fellow presenters.

The English and Cultural Studies MRP proposal, due in early February, will now be 500 words (down from the 1,000 word length of our current CSCT MRP proposal) plus bibliography, to better enable timely and constructive (peer) workshopping within ECS 733, focused around fundamental questions of scope, scale, and how to situate the research. The MRP length itself will be 30-40 pages plus bibliography (rather than 50 pages with bibliography). This reduction in final project length matches current practice in the CSCT MA programme introduced temporarily in response to the pandemic. Regularizing this practice has the added value of supporting MA MRP-stream students in producing journal-article length essays.

The proposed merger resulting in a two-stream degree titled MA in English and Cultural Studies will help us as a department to proactively address tensions noted in our last IQAP report related to the relationship between literary studies and cultural studies. In that report, external reviewers report confusion amongst students regarding how these two modes of inquiry speak to one another, as well as worries among faculty members that both approaches are not valued equally within our departmental culture. The current organization of our MA offerings, with two separate and separately named MA programs in which only elective courses are shared, inadvertently reinforces divisions eschewed by our departmental name change from over a decade ago. Reorganizing our MA programme offerings under a shared name will help to ameliorate this unintended problem by affirming the department's shared commitment to emphasizing productive synergies between literary and cultural studies and will better reinforce what is distinct about our department. (Indeed, we are also proposing to change the programme name for our PhD to English and Cultural Studies, so that all degree programmes within the department will now match the department name.)

Within the newly merged programme, each stream will have a core course that brings together student researchers working across literary and cultural studies frameworks. Each course will thus recognize and foster multiple approaches, and both streams will include student presentations at colloquia to which faculty members will be invited. These colloquia have the capacity to foster more richly interdisciplinary conversations amongst graduate students and faculty members alike.

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Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

Fall 2025

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Proposed Programme Calendar Description

The MA in English and Cultural Studies offers students valuable opportunities to exchange ideas in graduate coursework and to pursue independent research in literary studies, cultural studies, and/or critical theory.

Candidates for the M.A. in English and Cultural Studies will complete one of two possible streams.

Course-based stream: Students in the course-based stream complete six elective one-term graduate courses or their equivalent, with grades of at least B- in each, and one required core course (ECS 799), assessed on a pass/fail basis, that extends across the winter and spring/summer terms. ECS 799 acts as a hub for student-centred community and discussion regarding the Public Humanities, with a particular focus on writing with/in/for communities. Students in this course devise individual public-facing research or research-creation projects and present their projects at a colloquium in early August.

MRP stream: Students in the MRP (Major Research Project) stream complete five elective one-term graduate courses (or their equivalent) over the fall and winter terms, with grades of at least B- in each. They also take one required core course (ECS 733) assessed on a pass/fail basis, in the winter term. ECS 733 focuses on research methods in English and Cultural Studies and acts as a hub for supporting students as they begin planning independent work on their MRPs. Students are welcome to pursue Major Research Projects that engage literary studies, cultural studies, critical theory, and/or synergies between these fields. In late spring students present MRP work in progress at a colloquium and during the summer write a Major Research Project of 7,500 to 10,000 words (30 to 40 pages).

The M.A. degree normally requires one full year to complete.

The minimum admission requirement is a four-year undergraduate degree in a relevant discipline or disciplines, and with an average of B+ in at least six full or twelve half courses beyond the introductory level.

Contact information for the recommended change:

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Name: Melinda Gough   Email: goughm@mcmaster.ca   Date submitted: January 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

<table>
<tr><td colspan="2" align="center"><u>Please read the following notes before completing this form:</u></td></tr>
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3. A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</td></tr>
</table>

DEPARTMENT	English and Cultural Studies
NAME OF PROGRAM and PLAN	Master's program in English

DEGREE	**English MA**

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☐ No
Creation of a New Milestone ☐

Change in Admission Requirements		**Change in Comprehensive Examination Procedure**		**Change in Course/Program Requirements**	
==Change in the Description of a section of the Graduate Calendar==	X	**EXPLAIN:** Change to the wording of the English MA "program options" for fall 2024			
Other Changes:	**Explain:**				

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Describe the existing requirement/procedure:

A candidate for the M.A. in English will complete seven one-term graduate courses or their equivalent, three courses in each of the fall and winter terms and one required core course that extends across the winter and spring/summer terms, with grades of at least B- in each. The core course requires students to complete an independent project in the spring/summer, which will be assessed on a pass/fail basis by the course instructor.

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)* Reword the above paragraph to:

A candidate for the M.A. in English will complete seven one-term graduate courses or their equivalent, including one required core course that extends across the winter and spring/summer terms, with grades of at least B- in each. The core course requires students to complete an independent project in the spring/summer, which will be assessed on a pass/fail basis by the course instructor.

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):
No substantive change.

Proposal calendar wording matches that of our graduate program handbook, which clarifies that English MA students complete 6 elective courses in one of two possible schedule configurations: (1) 3 elective courses fall term, 3 elective courses winter term, 1 required course extending across winter and spring/summer terms, OR (2) 3 elective courses fall term, 2 elective courses winter term, 1 elective course spring/summer term, 1 required course extending across winter and spring/summer terms.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

Fall 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

no

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Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

A candidate for the M.A. in English will complete seven one-term graduate courses or their equivalent, ~~three courses in each of the fall and winter terms and~~ including one required core course that extends across the winter and spring/summer terms, with grades of at least B- in each. The core course requires students to complete an independent project in the spring/summer, which will be assessed on a pass/fail basis by the course instructor.

Contact information for the recommended change:

Name: Dr. Melinda Gough   Email: goughm@mcmaster.ca   Date submitted: Dec. 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

Please read the following notes before completing this form:	
1. This form must be completed for all changes involving degree program requirements/procedures. All sections of this form must be completed.	
2. An electronic version of this form (must be in MS WORD not PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@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	English & Cultural Studies		
NAME OF PROGRAM and PLAN	English MA, Cultural Studies & Critical Theory MA, and English PhD		
DEGREE	**ENGLPHD, ENGLMA, and CSCTMA**		
NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)* **Is this change a result of an IQAP review? ☐ Yes ☒ No**			
Creation of a New Milestone ☐			
Change in Admission Requirements	**Change in Comprehensive Examination Procedure**	**Change in Course/Program Requirements**	X
Change in the Description of a section of the Graduate Calendar	**EXPLAIN:**		
Other Changes: X	**Explain:** Approved electives for CMSTMM and GSJ grad courses, for the masters (including some 600 level) and the doctoral ECS programs (excluding 600 level courses)		

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Describe the existing requirement/procedure:

1) Approved electives for CMST&MM courses for the **PhD and both MA programs:**
- CMST&MM 702 / Media and Social Issues
- CMST&MM 703 / New Media Studio Topics
- CMST&MM 705 / Digital Media and Cultural Exchange
- CMST&MM 706 / Technologies of Communication
- CMST&MM 707 / Theoretical Issues in Media, Culture and Communication
- CMST&MM 708 / Selected Topics in Communication and New Media
- CMST&MM 710 / International Communication
- CMST&MM 714 / Feminism, Technology and Science
- CMST&MM 715 / Cultural Memory, the Media, and "Us"
- CMST&MM 716 / Critical Perspectives on Documentary
- CMST&MM 717 / Youth, New Media, and Culture
- CMST&MM 718 / Critical Approaches to Communication Policy & Law
- CMST&MM 719 / Media and Mimesis: Installation and Performance Media
- CMST&MM 720 / Data Cultures
- CMST&MM 721 / Alternative Media Forms in Africa
- CMST&MM 722 / Beyoncé Studies: Creativity, Celebrity, and Activism
- CMST&MM 723 / Islam, Feminisms and Global Media
- CMST&MM 724 / Visions of Extinction: What the End Looks Like From Here
- CMST&MM 725 / Theory, Race, and Power
- CMST&MM 726 / Media, Sustainability, and Climate Justice
- CMST&MM 727 / Cultural Production and the Environment
- CMST&MM 728 / Critical Hope in Times of Protracted Crises

2a) Approved electives for Gender Studies & Social Justice courses for **both MA programs:**
- GENDR ST 700 / Theorizing Gender and Social Justice
- GENDR ST 6G03 / Language, Sex and Gender
- GENDR ST 6QA3 / Queerness in the Archives: Lesbian and Gay Writing, Art and Activism in Canada, 1969-1989
- GENDR ST 6RI3 / Colonialism and Resistance in Representations of Indigenous Womanhood
- GENDR ST 702 / Gender and Social Justice in Community
- GENDR ST 703 / Topics in Gender and Social Justice
- GENDR ST 705 / Disability, Subjectivity, and Visual Representation
- GENDR ST 706 / From There to Here: Refugee Women in the World and in Our Community
- GENDR ST 708 / Creating and Embodying Theory
- GENDR ST 721 / Social Justice Perspectives on Gender and Health
- GENDR ST 722 / Stories, bodies, archives: un/Learning in Movements
- GENDR ST 723 / Islam, Feminisms and Global Media
- GENDR ST 728 / Critical Hope in Times of Protracted Crises

2b) Approved electives for GSJ courses for the **PhD program:**
- GENDR ST 700 / Theorizing Gender and Social Justice
- GENDR ST 702 / Gender and Social Justice in Community
- GENDR ST 703 / Topics in Gender and Social Justice

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- GENDR ST 705 / Disability, Subjectivity, and Visual Representation
- GENDR ST 706 / From There to Here: Refugee Women in the World and in Our Community
- GENDR ST 708 / Creating and Embodying Theory
- GENDR ST 721 / Social Justice Perspectives on Gender and Health
- GENDR ST 722 / Stories, bodies, archives: un/Learning in Movements
- GENDR ST 723 / Islam, Feminisms and Global Media
- GENDR ST 728 / Critical Hope in Times of Protracted Crises

The approval of these electives – to be **automatically included as required degree courses** *on the academic advisement reports for ECS grad students and in the* Graduate Calendar course listings page*.*

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

To be applicable for the fall 2024 clear to graduate session

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Contact information for the recommended change:

Name: Dr. Melinda Gough   Email: goughm@mcmaster.ca Date submitted: January 2024

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

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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	History			
NAME OF PROGRAM and PLAN	MA			
DEGREE				
NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)* **Is this change a result of an IQAP review?** ☒ Yes ☐ No				
Creation of a New Milestone ☐				
Change in Admission Requirements		**Change in Comprehensive Examination Procedure**	**Change in Course/Program Requirements**	X
Change in the Description of a section of the Graduate Calendar	X	**EXPLAIN:** We are adding a required course (742) in the winter term		
Other Changes:	**Explain:**			

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Describe the existing requirement/procedure:

At the moment students must choose five electives as well as the required HISTORY 741: Historiography in the fall term and the MRP (Master's Research Paper) in the summer.

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

Students take HIST 741 (Historiography) as a required course in the fall term. We would like to add 742 (Applied History) as a required course in the winter term. This course is a proposed mandatory term-two course for the MA cohort that focuses on public-facing writing, presentation, and organization using the tools of the historian. It emphasizes collaborative work and engagement with the members of the department and beyond.

1.   **STATEMENT OF PURPOSE (How does the course fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review (if applicable)?)**
At the moment, the MA cohort has one required course on Historiography (HIST 741) in term one. There is considerable interest among students to have a course in second term where the entire cohort remain together. The last IQAP review --and a great deal of discussion in the History profession recently -- has focused on the dearth of academic positions for graduate students. This course is designed to highlight the aspects of history- graduate training that might appeal to potential employers: research, the ability to synthesize a mass of information, the ability to write reports and talks, public speaking, digital literacy, organization of events, publicity, teamwork, AI, and logistics. Moreover, the course could be taught by any member of the faculty, which is a boon in a rapidly shrinking department. We face at least five retirements by 2027.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

2025-2026

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

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No

Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Requirements

Candidates for the M.A. degree normally complete degree requirements in one calendar year of continuous work. Candidates must obtain at least B- standing in all seminars. Any grade below a B- is considered a failing grade. Only graduate seminars (courses numbered 700) may be counted for graduate credit. Failure on any course in the M.A. program may mean students are asked to withdraw from the M.A. program.

A. Requirements for M.A. by Course Work

Students will complete six half courses, plus the M.A. Project course (HISTORY 797). Detailed requirements are as follows:

1. Four seminar courses from those offered by the Department in any given year. Master's candidates may choose one half course seminar from those offered by another Department, subject to approval of the History Department.
2. Plus two mandatory courses HISTORY 741 Historiography in the fall term (term 1) and HISTORY 742 Applied History in the winter term (term 2).
3. Plus M.A. Project Course (Master's Research Paper): HISTORY 797 in the summer term.

Contact information for the recommended change:

Name: T. McDonald   Email: tmcdon@mcmaster.ca   Date submitted: 28 Feb 2024

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

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Recommendation for Change in Graduate Curriculum – For Change(s) Involving Degree Program Requirements / Procedures / Milestones

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DEPARTMENT	Department of Philosophy
NAME OF PROGRAM and PLAN	GHMPH - PHILPHD

DEGREE	PHILPHD

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)*
Is this change a result of an IQAP review? ☐ Yes ☒ No
Creation of a New Milestone ☐

Change in Admission Requirements		Change in Comprehensive Examination Procedure		Change in Course/Program Requirements	X
Change in the Description of a section of the Graduate Calendar	X	**EXPLAIN:** Reflecting the change in requirements			
Other Changes:	X	**Explain:** Revised Area Requirements			

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Describe the existing requirement/procedure:

All PhD students in Philosophy must demonstrate competence in 5 of 8 possible areas of Philosophy before taking the Qualifying Exam, normally by completing two graduate courses in each area. Graduate coursework completed elsewhere, including before starting the PhD Program at McMaster, can count. Refer to attachment.

Provide a detailed description of the Recommended Change *(Attach additional pages if space is not sufficient.)*

These area requirements are being simplified. Under the new proposed policy, all PhD students in Philosophy must complete one course in each of three broad areas of Philosophy as part of their PhD Program coursework. Refer to attachment.

Rationale for the Recommended Change (How does the requirement fit into the department's program and/or tie to existing Program Learning Outcomes from the program's IQAP cyclical review?):

The current area requirements are complicated and hard to administer and understand; significantly restrict the ability of many PhD students to select the courses they most wish to take; and reflect an idiosyncratic and outdated division of Philosophy into 8 areas. The proposed new requirements will be simpler and easier to administer and understand; will give PhD students more freedom and flexibility in their course selection; and reflect a division of Philosophy into three broad areas that is widely used by other Philosophy programs.

Note that this proposal involves no change to the number of courses PhD students in Philosophy are asked to take – it merely removes some restraints on what they may choose.

Provide implementation date: *(Implementation date should be at the beginning of the academic year)*

Fall 2024

Are there any other details of the recommended change that the curriculum and policy committee should be aware of? If yes, please explain:

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Provide a description of the recommended change to be included in the calendar (please include a tracked changes version of the calendar section affected if applicable):

Refer to attachment

Contact information for the recommended change:

Name: Alice Pinheiro Walla   Email: phdphil@mcmaster.ca   Date submitted: Feb 12, 2024

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

Requirements

Courses:

Ph.D. students take six one-term courses, one of which is the PhD Seminar.. In special circumstances this load may be reduced, but all candidates must take at least four courses.

Comprehensive/Qualifying Exam:

McMaster University regulations require that Ph.D. candidates take a Comprehensive Examination; in the Philosophy Department, this consists in candidates successfully completing Area Requirements and passing the Ph.D. Qualifying Exam (QE) by the end of their second year in the program. Candidates are required to demonstrate to the Program Committee's satisfaction, a comprehensive knowledge of the central areas of philosophy by demonstrating competence in 5 areas of philosophy from the 2 lists below. No more than three areas may be selected from one list:

Historical	Systematic
Ancient and Medieval Philosophy	Ethics and Value Theory
Modern Philosophy 1600 to 1800	Metaphysics and Epistemology
Continental Philosophy from 1800	Social, Political, and Legal Philosophy
British and American Philosophy from 1800	Logic, Philosophy of Language, and Philos

To satisfy their area requirements, all students must complete, as part of their PhD Program coursework, at least one graduate course, with at least a B+ or equivalent in each course, in each of the following three broad areas of philosophy:

1. Value Theory: broadly construed to include moral, social, political, and legal philosophy, and aesthetics.
2. Metaphysics and Epistemology: broadly construed to include metaphysics, epistemology, language, mind, logic, and science.
3. History of Philosophy: broadly construed to include all periods and traditions in the history of philosophy.

The Department's PhD Advisor will determine, in consultation with the student, towards which of these three broad areas of philosophy each graduate course may count.

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Competence in a given area may be demonstrated by completing two graduate semester courses in the area with at least a B+ or equivalent in each course. Graduate courses completed before commencing the Ph.D. program may be counted towards satisfying the area requirements, with permission of the Ph.D. Advisor. A Major Research Paper, completed by a student fast-tracking from the MA program may count as the equivalent of a single course for this purpose at the discretion of the Ph.D. Advisor. Normally, the following are recognized as equivalents of two one-semester courses:

1. A three hour written examination on selected primary texts in the area. The examination may be repeated only once.

2. The candidate's MA thesis, if it was on a topic in the area.

3. The written portion of the QE on a topic in the area, conditional on its passing in the exam.

4. A published paper in the area, subject to approval by the Program Committee, provided that it appear in a peer-reviewed professional journal in philosophy (graduate student edited journals are specifically excluded).

Competence in a discipline other than philosophy relevant to the student's research may substitute for competence in an area of philosophy - reducing the number of areas of philosophy required by (at most, typically) one - with permission of the Ph.D. Advisor. Such competence may be demonstrated in any of the ways specified immediately above.

Candidates are required to successfully complete the QE, in which a written dissertation proposal is presented and defended in an oral exam. To be eligible to take the QE, the student must complete all their course requirements and have achieved (by the end of the 20th month in the program) a GPA on five graduate courses taken towards the Ph.D. of at least 9.5. Additionally, prior to taking the QE, some students may be required to demonstrate competence in one or more skills, which their supervisory committee, in consultation with the Ph.D. Advisor, decides is needed for their dissertation (e.g., a language other than English, logic). The supervisory committee, in consultation with the Ph.D. Advisor, decides what constitutes a demonstration of competence in the required skill. Should an exam (e.g., a translation exam in a language other than English) be required, the Ph.D. Advisor will help arrange it.

Dissertation

Students must also write a satisfactory dissertation and defend it at an Oral Examination.

A detailed description of the doctoral program is available at http://philos.humanities.mcmaster.ca/graduate-programs/ph-d-program/.

Sessional Dates ~~2023~~2024-~~2024~~2025

DEADLINE DATES FOR GRADUATE PROGRAMS	FALL TERM	WINTER TERM	SUMMER TERM
	September - December ~~2023~~2024 September - October, ~~2023~~ 2024 (1HF) November - December ~~2023~~ 2024 (2HF)	January - April, ~~2024~~2025 January - February, ~~2024~~ 2025 (1HF) March - April, ~~2024~~2025 (2HF)	May - August, ~~2024~~2025 May - June ~~2024~~ 2025 (1HF) July - August ~~2024~~2025 (2HF)
On-Time Registration	Tuesday, June 25~~July 4~~ to ~~Tuesday~~Thursday, August 1	Thursday, November ~~23~~ 21 to Thursday, December ~~7~~5	Thursday, March ~~28~~27 to Thursday, April ~~11~~10
Class Start Dates *	Classes begin on or after September 1, ~~2023~~2024 - check with program for details	Classes begin on or after January 2, ~~2024~~2025 - check with program for details	Class start dates vary - check with program for details
Late Registration (late fees apply)	August 2 to September 6	December ~~8~~6 to January 2	April ~~12~~11 to April ~~27~~25
Final Dates to Add Courses:			
Multi-term Courses	September ~~22~~20		
Single-term or 1HF Courses	September ~~22~~20	January ~~19~~24	May ~~10~~9
2HF Course	October ~~20~~18	February ~~23~~28	June ~~21~~20
Final Dates to Drop Courses: **			
Multi-term Courses	February ~~23~~21	July ~~26~~25	
Single-term Courses	November ~~10~~8	March ~~15~~21	July ~~12~~11
1HF Courses	October ~~6~~4	February ~~9~~7	June ~~6~~7
2HF Courses	December ~~8~~6	April ~~5~~4	August ~~2~~1
Final Dates to Submit Grades:			
Multi-term Courses		May 1	September 1
Single-term Courses	January ~~5~~3	May 1	September 1
1HF Courses	October ~~20~~18	February ~~23~~21	September 1
2HF Courses	January ~~5~~3	May 1	September 1

Final Date to Submit Results of Incomplete (INC) Grades for Previous Term with Permission of Associate Dean	March ~~1~~3	July ~~5~~4	November ~~1~~3
Deadline for Term Work to Be Submitted	December ~~22~~21	April ~~26~~25	August ~~30~~29

Thesis

	FALL ~~2023~~2024 Convocation	SPRING ~~2024~~2025 Convocation	FALL ~~2024~~2025 Convocation
Final Date to Initiate Thesis Defence in Mosaic***	June ~~23~~21	January ~~19~~17 (*Health Sci.*) February ~~2~~7 (*All others*)	June ~~21~~27
Final Date to Submit Master's Theses to Departments (Prior to Defense)	August ~~4~~2	March ~~1~~3	August ~~2~~1
Final Date to File Theses with Graduate Studies and Complete Degree Requirements****			
- Faculty of Health Sciences	September ~~29~~27	April ~~5~~4	September ~~27~~26
- All Other Faculties	September ~~29~~27	April ~~26~~25	September ~~27~~26

The University welcomes and includes students, staff, and faculty from a wide range of cultural, traditional, and spiritual beliefs. As per the Policy on Academic Accommodation for Religious, Indigenous and Spiritual Observances, the University will arrange reasonable accommodation of the needs of students who observe religious holy days other than those already accommodated by ordinary scheduling and statutory holidays. For more information, please refer to https://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-Observances.pdf

Graduate students may only enroll in undergraduate courses with the approval of their supervisor or graduate program. Students are responsible for meeting the deadlines and requirements of the undergraduate course as presented in class and in the undergraduate calendar. Graduate students will be graded under the graduate grading scale.

Programs may establish earlier deadlines to add/drop courses but these dates must clearly be communicated to students. Students taking courses outside of their home program of study, must follow the rules of the program in which the course is offered. Please note that the last date to cancel a course or registration with no academic penalty is not the same as the last date to be eligible for a refund.

*The precise dates of commencement of courses are determined by the program; students are urged to contact their program for details. SGS maintains the 13-week graduate instruction period; however, if a course does not fall into the traditional 13-week period, the graduate program will inform students of important dates and deadlines in the course syllabus. There is no official fall break or reading week for graduate students (except MBA). Students should check with their program and their course instructor(s) as to whether classes will be held during these periods. Please see

sections 1.3 (Responsibilities of Graduate Students to the University) and 2.5.8 (Vacations) of the calendar for more information.

**All courses on a student's record after these dates will require a grade. Exceptions require submission of a Late Add Form ~~n In-Program Request Form.~~ Graduate programs may establish earlier deadlines for completion of course work and may prescribe penalties for late completion of work and for failure to complete work, provided that these penalties are announced at the time the instructor makes known to the class the methods by which student performance shall be evaluated.

***Please note the following black-out periods in which standard Ph.D. defences cannot be scheduled: December 16~~14~~th to January 10~~8~~th inclusive and August 1~~8~~6th to 22nd~~0th~~ inclusive. Please refer to the SGS website for information about the timeline for scheduling your defence with these dates in mind. There is more flexibility with respect to when accelerated defences are initiated but they still ~~should~~must be scheduled with the Final Date to File Theses with Graduate Studies and Complete Degree Requirements in mind.

****A final thesis is the corrected, approved version of the thesis which is uploaded to MacSphere following the Final Oral Examination. Note there is no grace period at the end of December or April for final thesis submission and completion of degree requirements.

Convocation Dates

Please consult the link below for convocation dates:

https://registrar.mcmaster.ca/dates-and-deadlines/#tab-6~~2~~0

Graduate Study at McMaster University

When McMaster moved to its current graduate organization, the aims of graduate work were described as "the highest development of the powers of reasoning, judgment, and evaluation in intellectual concerns; specialized training in professional skills; initiation into research or scholarly work and development of a capacity for its successful and independent pursuit; the fruitful pursuit of research and scholarly work". This description remains as valid today as it was then.

Research is central to graduate work, and McMaster's strong research orientation has a pronounced effect on the character of its graduate programs. The numerous research achievements of McMaster faculty members have been recognized by grants, prizes, medals, and fellowships in academic societies. Such distinctions attest to the qualifications and dedication of faculty members in developing and disseminating knowledge. The education that McMaster faculty provide is valuable not only for the graduate student's career but also for the student's development as a person.

The following sections outline the general graduate academic regulations of the University. Students must read and comply with both these regulations and those set out by their Program elsewhere in this Graduate Calendar, as applicable.

Since the Academic Regulations are continually reviewed, the University reserves the right to change the regulations in this section of the Calendar. The University also reserves the right to cancel the academic privileges of a student at any time should the student's scholastic record or conduct warrant so doing.

Faculties are authorized to use discretion in special situations by taking into account past practice, the spirit of the regulations, and extraordinary circumstances. Students who believe their situations warrant special consideration should consult the appropriate Program Office.

1.1 ~~Programs of~~ Degree and Enrollment Options ~~Study~~

In addition to the ~~traditional~~ Masters and Ph.D. degrees McMaster University offers graduate programs that lead to one of the following ~~degrees or diplomas, academic certificates and academic microdentials~~credentials. ~~:~~

~~Types:~~

~~PhD~~

~~Research Masters~~

~~Professional/Clinical Masters~~

Graduate Diploma

A Graduate Diploma is based on Graduate Degree Level Expectations (GDLEs) and prepares Students for employment requiring sound judgment, personal responsibility and individual initiative, in complex and unpredictable professional environments. Graduate Diplomas must include academic content equivalent to a minimum of four, three-unit (half) graduate courses at McMaster.

Academic Microcredentials

A designation of achievement of a coherent set of skills, competencies, or knowledge, specified by a statement of purpose, learning outcomes, and potential need by employers and/or in the community.

Academic Certificates

 Graduate Academic Certificate is a microcredential consisting of a program of study coherently organized around clear learning objectives. Graduate Academic Certificates must include academic credit courses equivalent to at least two, three-unit (half) graduate courses at McMaster.

Specialized Pathways

Dual Degree

A program of study offered by two or more universities or by a university and a college or institute, including Institutes of Technology and Advanced Learning, in which successful completion of the requirements is confirmed by a separate and different degree/diploma document being awarded by each of the participating institutions.

Combined Degree

A program of study that combines two existing degree programs of different types. The combination may, for example, consist of two existing graduate programs, or a graduate and an undergraduate program. In most cases, the combination will involve at least one professionally oriented program. As students normally pursue one degree program at a time, and if two qualifications are sought, the degree programs would best be pursued consecutively.

Concurrent Registration

Normally students are enrolled in a single full-time or part-time program of study. These programs can be offered in standard formats as well as combined, collaborative specialization, joint or dual programs or streams.

Additionally, with the permission of the graduate unit(s) and SGS, students may be simultaneously registered in more than one program. . These are stand alone programs and not approved as combined options.YOuA student may enroll in one program as full-time and the other as part-time, or in both programs on a part-time basis. Enrollment in two full-time programs will be considered on a case-by-case basis. Students are responsible for the fees charged for both programs. Students may not be enrolled concurrently in more than one program that are also offered in a combined or joint format (MD/PhD, PhD/OT, PT, SLP)

Concurrent enrollment is different than combined, dual, joint and collaborative specialization programs as the two programs are pursued and distinct from one another. Academic work from one program may not be used to satisfy the requirements of another program and progression (or lack of progression) in one program does not impact the progression or standing of the other.

Cotutelle

A customized program of doctoral study developed jointly by two institutions for an individual student in which the requirements of each university's doctoral program are upheld, but the student working with supervisors at each institution prepares a single thesis which is then examined by a committee whose members are drawn from both institutions. The student is awarded two degree documents, though there is a notation on the transcripts indicating that the student completed his or her thesis under Cotutelle arrangements.

Joint Degree

A program of study offered by two or more universities or by a university and a college or institute, including an Institute of Technology and Advanced Learning, in which successful completion of the requirements is confirmed by a single degree document.

Collaborative Specialization

An intra-university graduate field of study that provides an additional multidisciplinary experience for students enrolled in and completing the degree requirements for one of a number of approved master's and/or PhD programs within the collaborative specialization. Students meet the admission requirements of and register in the participating (or "home") program but complete, in addition to the degree requirements of that program, the additional requirements specified by the Collaborative Specialization.

Graduate Diplomas in Critical Leadership in Social Services and Communities, Clinical Behavioural Sciences, Clinical Epidemiology, Community and Public Health, Community Engaged Research, Gender Studies and Feminist Research, Nuclear Engineering, Primary Health Care Nurse Practitioner (PHCNP), Professional Accountancy, Water Without Borders

Master of Arts in Anthropology, Classics, Communication and New Media, Cultural Studies and Critical Theory, Economics, Economic Policy, English, French, Gender Studies and Feminist Research, Geography, Globalization, Health and Aging, History, Global Politics, Labour Studies, Philosophy, Political Science, Religious Studies, and Sociology;

Master of Biomedical Discovery and Commercialization

Master of Biomedical Innovation

Master of Business Administration

Master of Applied Science in Biomedical Engineering, Chemical Engineering, Civil Engineering, Computational Science and Engineering, Electrical and Computer Engineering, Engineering Physics, Materials Engineering, Mechanical Engineering, Software Engineering

Master of Communications Management

Master of Engineering in Civil Engineering, Computational Science and Engineering, Computing and Software, Electrical and Biomedical Engineering, Electrical and Computer Engineering, Engineering Physics, Manufacturing Engineering, Nuclear Engineering (UNENE), Systems & Technology

Master of Engineering Design

Master of Engineering Entrepreneurship and Innovation

Master of Engineering and Public Policy

Master of Finance

Master of Financial Math

Master of Health Management

Master of Public Health

Master of Public Policy

Master of Science in Biochemistry, Biology, Chemical Biology, Chemistry, Child Life and Pediatric Psychosocial Care, Cognitive Science of Language, Computational Science and Engineering, Computer Science, Earth and Environmental Sciences, eHealth, Geography, Global Health, Health and Radiation Physics, Health Research Methodology, Health Science Education, Kinesiology, Materials Science, Mathematics, Medical Sciences, Midwifery, Neuroscience, Nursing, Occupational Therapy, Physics and Astronomy, Physiotherapy, Psychology, Psychotherapy, Radiation Sciences (Radiation Biology), Radiation Sciences (Medical Physics), Rehabilitation Science, Speech Language Pathology, and Statistics.

Master of Social Work

Master of Technology Entrepreneurship and Innovation

MD/Ph.D. in Medicine and Biochemistry, Medicine and Biomedical Engineering, Medicine and Health Policy, Medicine and Health Research Methodology, Medicine and Medical Sciences, and Medicine and Neuroscience.

Doctor of Philosophy in Anthropology, Biochemistry, Biology, Biomedical Engineering, Business Administration (Accounting; Finance; Health Management; Information Systems; Management of Organizational Behaviour and Human Resources; Management Science; Marketing), Chemical Biology, Chemical Engineering, Chemistry, Civil Engineering, Classics, Cognitive Science of Language, Computational Science and Engineering, Computer Science, Earth and Environmental Sciences, Economics, Electrical and Computer Engineering, Engineering Physics, English, French, Geography, Global Health, Health Policy, Health Research Methodology, Health Studies, History, Kinesiology, Labour Studies, Materials Science and Engineering, Mathematics, Mechanical Engineering, Medical Sciences, Neuroscience, Nursing, Philosophy, Physics and Astronomy, Political Science, Psychology, Radiation Sciences (Radiation Biology), Radiation Sciences (Medical Physics), Rehabilitation Science, Religious Studies, Social Gerontology, Social Work, Sociology, Software Engineering and Statistics.

1.2 Responsibilities to Graduate Students

The principal responsibilities that McMaster University has for the academic endeavours of its graduate students are shared by the School of Graduate Studies, the Faculty, the Department, the Supervisory Committee, and the Faculty Advisor. The following summarizes the responsibilities of each of these bodies.

1.2.1 The School of Graduate Studies

The name "School of Graduate Studies" refers to the Vice-Provost & Dean and Associate Deans of Graduate Studies, the Graduate Council, and the registrarial duties associated with graduate administration.

The Vice-Provost & Dean of Graduate Studies provides leadership in maintaining and improving the standards of graduate scholarship in the University. These responsibilities include: being the School's voice in graduate matters concerning research and its funding, scholarships and assistantships, the development of graduate programs and policy statements affecting graduate work; being the designated chair of Ph.D. dissertation oral examinations; approving the nomination of external examiners for Ph.D. theses and receiving the examiners' reports. The Associate Deans of Graduate Studies routinely act as the Dean's delegates. They recommend revision or development of regulations or policies affecting graduate work, refer matters of policy and curriculum to the Graduate Curriculum and Policy Committees, and deal with student appeals. In addition to acting on behalf of the Graduate Admissions and Study Committees as described below, the responsibilities of the Associate Deans include the awarding of McMaster Graduate Scholarships by acting on recommendations received from departments offering graduate work.

The Associate Registrar and Graduate Registrar and Secretary of the School administers the academic affairs of students enrolled in the School of Graduate Studies. These responsibilities include: registering graduate students; assessing tuition fees; maintaining records and files for applicants and new or in-course students and arranging Ph.D. oral examinations.

1.2.2 The Faculty

Either a Faculty Graduate Admissions and Study Committee or an Associate Dean Graduate Studies Faculty are responsible for matters concerning both incoming and in-course graduate students. For each Faculty there is a Graduate Admissions and Study Committee, which is chaired by an Associate Dean of the School of Graduate Studies. This committee, or the Associate Dean on its behalf, is responsible for matters concerning both incoming and in-course graduate students. More specifically, these responsibilities include:

- determining the admissibility of applicants;
- receiving reports on the progress of students and making decisions thereon, including recommendations to require a student to withdraw;
- ensuring that program requirements have been met prior to the awarding of degrees, where applicable;
- approving off-campus courses and leaves of absence; and
- deciding on applications from students for special consideration with respect to academic regulations.

In all of these matters, the Committee or the Associate Dean acts on recommendations made by departments.

1.2.3 The Department (or Graduate Program)

Typically, many of the duties of the Department in regard to graduate students are carried out by the Department Chair and the Graduate Advisor (in some programs these are referred to as Graduate Coordinators or Area Coordinators) for the Department. For some programs (e.g. interdisciplinary graduate programs), these duties are carried out by the Program Director, Co-Director or Associate Director and for some Health Science programs, the Assistant Dean. For purposes of graduate studies policies stated in sections 1 through 6 of the Graduate Calendar, all reference to Department Chair shall mean, in the graduate programs of the Faculty of Health Sciences, the Program Director, Co-Director, Associate Director or appropriate Assistant Dean. The departmental duties include making recommendations to the Graduate Admissions and Study Committee of the Faculty or to the Associate Dean Graduate Studies of the Faculty as noted above. The Department is responsible for matters such as:

- ensuring that every student has, at all times, a faculty advisor or supervisor or a properly constituted supervisory committee;
- reviewing annually each student's academic progress and reporting thereon;
- conducting comprehensive examinations and language examinations, when these are required;
- preparing and distributing guidelines and departmental regulations for supervisors and students;
- ensuring that each student is properly trained in all safety practices, guidelines, and policies for the use of any resources required in carrying out their work, where appropriate.

In performing those duties that relate to individual students, the Department relies on advice from the Supervisory Committee or the faculty advisor.

In those cases in which a Supervisory Committee or faculty advisor determines that a student's progress is unsatisfactory, and recommends that the student be required to withdraw, the Department is expected to verify the reasons for the recommendation in accordance with the regulations established for degree progression. If the recommendation is confirmed, the Department will forward the recommendation to the Associate Dean of Graduate Studies, who will receive it and act on behalf of the Faculty Admissions and Study Committee.

If the Department is not convinced that the recommendation is appropriate, the Department may attempt to mediate between the supervisor and student, or may attempt to find an alternate Supervisory Committee or faculty advisor. If that is not possible because all members with expertise in the student's topic are already on the Supervisory Committee, then the Department may find it best to encourage the student to transfer elsewhere. If the student is very close to completion, the Department may advise the student to continue in the program despite the lack of Supervisory Committee support.

1.2.4 The Supervisory Committee or Supervisor

The Supervisory Committee, or supervisor or the faculty advisor (Section 1.2.5) when no such committee is required, provides advice to the Department as noted above. Additional responsibilities include, where applicable:

- to assist in planning and to approve the student's program of courses and research;
- to approve the thesis proposal;
- to decide within departmental regulations, on the timing of the comprehensive examination (for doctoral students) and, where applicable, of the language and other examinations;
- to maintain knowledge of the student's research activities and progress;
- to give advice on research;
- to provide the student with regular appraisals of progress or lack of it;
- to perform such other duties as may be required by the department;
- to report on the above matters annually, in writing, on the approved form to the department, which in turn will report to the Faculty Graduate Committee on Admissions and Study where applicable;
- to initiate appropriate action if the student's progress is unsatisfactory, including any recommendation that the student withdraw, for approval by the department and the Faculty committee on Graduate Admissions and Study;

- to decide when the student is to write the thesis and to give advice during this process;
- to act as internal examiners for the thesis; and
- to act as members of the examination committee for the final oral defence when so appointed.

In FHS, committees may also include an Associate Member who would have a formal advisory role on the committee. Please click here for more details.

1.2.5 The Faculty Advisor

When a supervisory committee or supervisor is not required, a faculty advisor will be assigned by the Department. Like the supervisory committee, the advisor will provide advice to the Department as noted in Section 1.2.3 above. Their responsibilities will include: planning and approving the student's program of courses and research; deciding within departmental regulations, on the timing of the comprehensive examination, and language and other examinations; maintaining knowledge of the student's research activities and progress; giving advice on research; providing the student with regular appraisals of progress or lack of it (i.e., the student and student advisor have a mutual obligation to meet on a regular basis); initiating appropriate action if the student's progress is unsatisfactory, including any recommendation that the student withdraw. In course-based, professional or clinical programs, a program committee or the department chair for the program acts as the faculty advisor. The faculty advisor is expected to respond in a timely fashion to requests for clarification by the student on elements of academic and research progress.

1.2.6 The Graduate Course Instructor

As noted in the *Policy on Graduate Course Outlines*, the course instructor is responsible for providing each student with evaluations of the student's academic performance at various stages during the course, and, whenever possible, a list of due dates. Although instructors are required to provide written course outlines at the beginning of courses, the Policy on Graduate Course Outlines also provides instructors with the opportunity to alter a course's content to reflect shifting research interests as long as the students are informed of such changes promptly and in writing. Even in the case of changing content, best practice is for instructors to adhere to the original course outline in terms of the amount of work expected from the students, the schedule of assignments, due dates, and the evaluation scheme.

The graduate course instructor may decide to recruit one or more faculty members or field experts to give special lectures during the course. Such an invitation should be made well in advance of the lecture date. Invited instructors usually are not expected to evaluate the students. However, there may be rare cases in which an invited instructor contributes some aspect of course evaluation. In that event, the official course instructor still bears ultimate responsibility for overall evaluation and course outcome. Students should be informed of the mechanism and mode of evaluation under these circumstances.

At the graduate level, students normally are expected to actively participate in courses (i.e., contribute to discussion, be encouraged to ask questions), and instructors often award marks for participation. The ultimate aim of any graduate course is not only to convey information to and exchange information with students, but also to equip students with the confidence and ability to exchange information with others, both in the spoken word and in writing.

Instructors shall calculate and provide grades to the School of Graduate Studies for all students by the date stipulated in the Graduate Calendar, as a final mark or as an "incomplete". Final marks shall be provided to the students in a timely manner. Although there may be rare instances in which the instructor may need to report grades before all work is complete for a student, instructors should be aware that a grade of "incomplete" will be converted to an "F" and recorded on the student's transcript after the stated sessional date: "Final Date to Submit Results of Incomplete (INC) Grades for Previous Term".

1.3 Responsibilities of Graduate Students to the University

Just as the University has responsibilities to graduate students, they have responsibilities to the University.

The student's responsibilities include, but are not limited to:

- Maintaining current contact information with the University, including address, phone numbers, and emergency contact information.

- Maintaining status as an active student including enrolment in the academic year or following any necessary procedures for an authorized break or leave of absence
- Using the University provided e-mail address or maintaining a valid forwarding e-mail address.
- Regularly checking the official University communications channels. Official University communications are considered received if sent by postal mail, by fax, or by e-mail to the student's designated primary e-mail account via their @mcmaster.ca alias.
- Accepting that forwarded e-mails may be lost and that e-mail is considered received if sent to the student's @mcmaster.ca account.
- Be geographically available and visit the campus regularly which normally means multiple times per week; written permission from the department/supervisor is required for studies to normally be off campus. In all such cases, Full Time Off Campus status must be formally submitted to SGS. Note, sSome programs may have different requirements (e.g., online, clinical placements) .and may be conducted fully on-line or have clinical placements and FTOC is not required..

Where applicable, students are responsible for complying with such conditions as indicated in the offer of admission. Students are also responsible for complying with the regulations governing graduate students at McMaster University with respect to full- and part-time status (see sections 2.5.2 and 2.5.3). Students are further responsible for informing the School of Graduate Studies within two weeks, which acts as the official keeper of student records, within two weeks of any change in personal information such as address, name, telephone number, etc. Students are also responsible for reporting through the department any change in student status, course registration, or withdrawal.

Courses

To receive credit for a course, each student is responsible for confirming in the Mosaic Student Center that their enrollment status is appropriate for that course. Students are responsible for ensuring that they have formally enrolled for the course through their department or graduate program.

Research-Based Programs

With regard to research and study, students are responsible for maintaining contact and meeting regularly with the faculty advisor, thesis/project supervisor or supervisory committee, for observing departmental guidelines, and for meeting the deadlines of the department and the School of Graduate Studies. If there is a problem with supervision, it is the student's responsibility to contact the Department Chair or Graduate Advisor. It is also the expectation that students will seek clarification when necessary on questions regarding elements of academic and research progress. The provisions for changing a supervisor are outlined in Section 3.1.

Students who undertake to write a master's or doctoral thesis assume responsibility both for creating drafts of the thesis, upholding copyright and intellectual property rights including any research agreements between the university and outside partners, and for responding to direction from the Supervisory Committee. The student shall have the responsibility to write and ultimately to defend the thesis, and the Supervisory Committee has the responsibility to offer guidance in the course of the endeavour, and to recommend or not recommend the completed thesis for defence.

Since enrollment permits access to libraries and certain other academic facilities (including off-campus facilities), it also implies a commitment on the part of each graduate student to use such facilities in accordance with applicable rules, including all safety practices, guidelines and policies. Inappropriate behaviour that is deemed to be in violation of such practices and/or policies may lead to denial of access to the facility. If such a denial of access to facilities means that a student can no longer fulfill their academic obligations, the student will be required to withdraw involuntarily from their academic program. (see also Section 5.2)

Full-time students are obliged to be on campus, except for vacation periods or authorized off-campus status, for all three terms of the university year. Vacation entitlement is discussed in Section 2.5.8. If this period of time exceeds two weeks, the approval of the department chair is also required. In accordance with government regulations (see Section 2.5.2 students who will be away from campus for more than four weeks require not only permission from the Department but also that of the appropriate Associate Dean of Graduate Studies and must submit a Request to be Full Time Off Campus. Note that this permission is needed for conferences, field work or studies elsewhere in the world, in order to allow the University to comply with the regulation requiring that a written explanation for such absences be lodged in the Graduate School office. Students may arrange, through the Department and the Associate Dean of Graduate Studies, to be "full-time off-campus" for periods of up to a year. Students will also be required to complete the Risk Management Manual (RMM) 801 forms and gain approval through EOHSS. In cases of unauthorized absence the student will be deemed to have withdrawn voluntarily from graduate study and will have to petition for readmission and pay the readmission fee. No guarantee of readmission or of renewal of financial arrangements can be made and a decision on readmission is not subject to appeal. An exception to this policy would be programs described in the calendar as delivering their curriculum either partially or fully in on-line formats. Please refer to details in individual program descriptions.

In order to receive a degree, the student must fulfill all departmental or program requirements and all University regulations, including those of the School of Graduate Studies. Students who have outstanding financial accounts at the end of the academic year will not receive their academic results, diplomas, or transcripts

General Regulations of the Graduate School

Please note: if there is any discrepancy between a department or program handbook and the School of Graduate Studies Calendar, then the School of Graduate Studies Calendar shall prevail.

Collection of Personal Information

Under the authority of the McMaster University Act, 1976, and by applying to McMaster or by enrolling in a program at the University, students expressly acknowledge and agree that the collection, retention, use and disclosure of relevant personal information is necessary for McMaster University to:

- establish a record of the student's performance in programs and courses;
- to assist the University in the academic and financial administration of its affairs;
- to provide the basis for awards and government funding; and
- to establish the student's status as a member of relevant student governmental organization.

Similarly, and in compliance with McMaster University's access to information and protection of privacy policies and Canadian and Ontario privacy laws, the University provides personal information to:

- the Canadian and Ontario government for the purposes of reporting purposes; and
- to appropriate student government organizations for the purposes of allowing such organizations to communicate with its membership and providing student government-related services consistent with the enrolment by a student at the University.

By applying and/or enrolling at McMaster University the student expressly consents to this collection, retention, use and disclosure of such personal information in this manner. Questions regarding the collection or use of personal information should be directed to the University Secretary, Gilmour Hall, Room 210, McMaster University.

All documentation submitted in support of an application for admission (including original transcripts) becomes the property of the University and is not returnable.

If an applicant is not accepted, or fails to enroll following acceptance, their documentation (including original transcripts) will be destroyed at the end of the admissions cycle.

2.1 Admission Requirements

McMaster University seeks candidates for graduate study who show high scholarly promise. Admission to a graduate program is based on a judgement by the University that the applicant can successfully complete the graduate degree program. The University's minimum requirements are identified in this section. Degrees and grades from foreign universities are evaluated for their equivalency to McMaster's. Departments or programs may establish additional requirements, such as scores on the Graduate Record Examination (GRE). Applicants should read the admission statement for the program or department, as well as the section here. Admission is competitive: meeting the minimum requirements does not guarantee admission. Final decisions on matters of admission rest with the Graduate Admissions and Studies Committee for each Faculty or the Associate Dean Graduate Studies. Associate Dean acting on the committee's behalf. The admission decision is not subject to appeal. Deferralsring the starting term of an offer once issued areis not normally permitted, please check with the program of application for more information.

2.1.1 Admission Requirements for a Graduate Diploma, Graduate Academic Certificate and Academic Microcredential

Students who wish to enter a Graduate Academic Certificate or Graduate Diploma program must meet the admission requirements of a Master's level program.

Students who wish to begin an academic microcredential must meet its specified admission requirements.

2.1.2 Admission Requirements for Master's Degree

The majority of graduate programs at McMaster University require the holding of an Honours bachelor's degree from a recognized university with at least a B+ average (equivalent to a McMaster 8.5 GPA out of 12) in the final year in all courses in the discipline, or relating to the discipline, in which the applicant proposes to do graduate work. Programs which consider applications with a mid-B average identify this in the relevant section of the calendar. In a Master's program in the Faculty of Engineering the requirement is at least a B- average (equivalent to a McMaster 7.0 GPA). In the absence of a clear framework, a P for a P/F course will be considered a 51 percent when calculating the admission average. Strong letters of recommendation are also required. Some programs may have different admission requirements, for example, some programs may consider professional practice or experience within the application process so please consult the program section of the calendar for details.

In recognition of the changes taking place in the structure of university education as a consequence of the Bologna Accord, three-year, first-cycle degrees that meet the criteria of the "Framework for Qualifications of the European Higher Education Area" will be accepted in place of a four-year Honours degree. Standard admission requirements will still apply. A Diploma Supplement should accompany the official transcript [item (a) under Section 2.2].

Prospective applicants who lack some background in the discipline they wish to enter should consult the Undergraduate Calendar with regard to Continuing Student status. A continuing student is a university graduate who is not currently enrolled in a degree program, but who wishes to take one or more undergraduate classes.

2.1.3 Admission Requirements for Ph.D. Degree

Applicants may be admitted to a regular Ph.D. program at one of three stages in their academic work: (1) after completion of a Master's program; (2) Directly from a Master's program at McMaster without completing the Master's degree; (3) in exceptional cases, directly from a Bachelor's program. Students still enrolled in a Master's with thesis program beyond 22 months must complete the degree requirements including the thesis prior to admission to the Ph.D. program.

1. For applicants who hold a Master's degree, the primary requirements are distinction in their previous graduate work (equivalent to at least a McMaster B+, In the absence of a clear framework, a P for a P/F course will be considered a 51 percent when calculating the admission average.), and strong letters of reference.
2. Students enrolled in a Master's program at McMaster University may be transferred to the Ph.D. at McMaster program prior to completion of the Master's degree. Not sooner than two terms and no later than 22 months after initial registration in the Master's program here, students may request to be reclassified as Ph.D. students. After proper review, the department will recommend one of the following:
    a. admission to Ph.D. studies following completion of the requirements for the Master's degree;
    b. admission to Ph.D. studies without completion of a Master's program;
    c. admission to Ph.D. studies but with concurrent completion of all requirements for a Master's degree within one term from the date of reclassification;
    d. refusal of admission to Ph.D. studies.
In no case does successful completion of a Master's degree guarantee admission to Ph.D. studies.

For students in (b), the recommendation for admission to Ph.D. must identify which if any courses taken as a Master's student can be credited toward the requirements for the Doctoral program.

A student in (b) may re-register as a candidate for the Master's degree, provided that work to date has met the standards for the Master's program.

Students in (c) who do not complete the requirements for the Master's degree within the one term will lose their status as a Ph.D. candidate and be returned to Master's status.

3. In certain programs, applicants with a Bachelor's degree only, may be admitted directly to Ph.D. studies. Such students must show sufficient promise, including at least an A average. Within one calendar year the progress of students admitted to Ph.D. studies directly from a Bachelor's degree will be reviewed by their supervisory committee and the program. The program then will recommend one of the following:
    a. proceed with Ph.D. studies;
    b. not proceed with Ph.D. studies but re-register as a Master's candidate;
    c. withdraw from the University.
A student admitted to a Ph.D. program who re-registers as a candidate for a Master's degree must meet all of the requirements for the Master's degree in order for it to be awarded.

There are no other pathways to Ph.D. admission.

2.1.4 Transfer to Ph.D.

Transfers to a Ph.D. program take effect at the start of the next term, or are retroactive to September 1st for students whose request to transfer is received by the School of Graduate Studies by the end of the second week of October. Students are encouraged to transfer early (i.e., well before the end of the 5th term of their Masters) given that the time-limit on transfers described in 2.1.3 above.

2.1.5 Admission Requirements for Part-Time Ph.D. Degree

Admission to a part-time Ph.D. program is possible only for an individual holding a Master's degree whose circumstances preclude uninterrupted full-time doctoral studies. Because of the divergent nature of academic disciplines, part-time doctoral work is not feasible in some areas. Accordingly, no Department or Program is obligated to offer part-time doctoral work. As part of their applications prospective part-time students are required to provide a plan of study, including a clear account of when and where the thesis research is to be conducted. If facilities at the place of employment are to be used for the research, the signed agreement of the employer, recognizing the conditions surrounding graduate work, is also required. In addition, departments may have other requirements for admission to a part-time doctoral program. A part-time doctoral student must be geographically available on a regular basis, and must be able to participate regularly in departmental seminars and colloquia.

2.1.6 Admission of Students to a Cotutelle Ph.D. Degree

A cotutelle is a single Ph.D. awarded by two post-secondary institutions, typically from different countries. A cotutelle degree promotes and structures research collaborations in a way that allows students access to a broader range of research experience than would be available at a single institution.

Partner university arrangements may vary and students must investigate what is required to fulfill that institution's cotutelle requirements. For information on how to apply please view the Cotutelle Policy and the information available on the School of Graduate Studies website.

2.1.7 Admission of Students with Related Work Experience or Course Work Beyond the Bachelor's Degree

Some potential applicants may not satisfy our admission requirement. However, work experience and/or completed course work beyond the Bachelor's degree, may have some bearing on the applicant's ability to complete a graduate program. The admissions process will recognize these accomplishments as follows.

Admission to graduate studies for a student with related work experience and/or course work beyond the Bachelor's degree will be based on the following criteria:

1. References from reliable sources, which specifically identify the applicant's aptitude for research and graduate education.
2. University 4-year undergraduate degree or equivalent, completed more than 4 years ago, together with additional course work taken since that time.
3. Significant record of workplace experience, the relevance of which will be assessed by the graduate program of choice.

Submission of a complete resume is required to determine eligibility as a mature student. Such recommendations must be approved by the Graduate Associate Dean of the Faculty in question and evidence of ability to do graduate work will still be required.

2.1.8 Admission Requirements for Post-Degree Students

A Post-degree Student is one who has not been admitted to a graduate degree or diploma program but who holds a university degree and has been given permission to take a specific graduate course. Permission to take a course as a post-degree student requires the approval of the course instructor, the Department Chair, and the School of Graduate Studies. An application is required for each course. Students are allowed to take up to three courses as post-degree.

Although acceptance as a post-degree student carries no implications with respect to acceptance for a degree program in the School of Graduate Studies, the level of academic achievement expected for admission under this category is the same as that required of students admitted to a Master's program (Section 2.1.1). Courses taken as a post-degree student may be eligible for credit toward a Master's degree in a related program, to a maximum of one-half of the degree's course requirement, subject to the recommendation of the department or program to the relevant Faculty Graduate Admissions and Study Committee.

A student who has completed a relevant undergraduate degree and is not admissible to a program under current standards, may be admitted as a post-degree student with the approval of the Associate Dean to demonstrate admissibility. In such cases, any courses taken as a post-degree student will not be available for credit in a subsequent graduate program, should they be eventually considered to be admissible.

The deadline for registration is the same as for graduate degree programs (see Sessional Dates, Registration).

Post-degree students are not allowed to take graduate courses for Audit.

(Note: A Graduate Diploma is distinct from a baccalaureate, undergraduate diploma, Master's or Ph.D. degree, or diplomas and certificates awarded by the Centre for Continuing Education at McMaster University).

2.1.9 Non-Credit Participants in Graduate Courses

Graduate courses are not normally open to "auditors" who attend a course without the usual qualifications and without seeking academic credit. Under some circumstances, however, people who are not registered graduate students and who do not meet the requirements for admission as Post-degree (see Section 2.1.8 above) may attend a graduate course. This requires the written permission of the course instructor, the Department Chair, and the School of Graduate Studies.

A fee is charged for each course taken as a non-credit participant (by persons who are not registered graduate students or for graduate students in a course-charged program). See Section 4.1, Fees for Graduate Students, for more information about fees.

2.1.10 Visiting Students

Visiting Students are individuals who are currently registered in a graduate degree program in another university, and who have made arrangements through both their home university and a graduate program at McMaster to spend some time at McMaster as part of their degree program at the home university. While they are visiting students, they will not be enrolled in a degree program at McMaster. They are not part of any official exchange agreement including Ontario Visiting Graduate Student (OVGS) arrangement, although there may be an agreement between the McMaster program and their home institution. For more information on Ontario Visiting Graduate Student arrangements please consult Section 5.10. McMaster currently allows out-of-province and international students to visit in one of three ways: to take course work in a specific program; to conduct research in a specific lab; or to participate in an internship with a specific

program or faculty member. In any case, students will be enrolled as full-time students for a maximum of one year. Visiting students do not normally pay tuition unless taking courses but in all cases, are expected to pay supplementary fees (see Section 4.1 Fees for Graduate Students). Visiting students must submit a visiting student application and be considered for admission to a host program or department. Acceptance is on the recommendation of the department or program at McMaster. For every term that the student is here in residence they must register in the appropriate course: SGS 302 for Visiting Student with Course or SGS 303 Visiting Research Student. . In cases where the student will only be conducting research, they must enroll in SGS 303. In cases where the student will be conducting research and taking a course, enrollment is SGS 302 is required. SGS 302. Visiting students are not permitted to audit courses.

It is necessary for international visiting students to enroll in the UHIP program to ensure adequate health insurance coverage during their stay.

It is the responsibility of all iInternational visiting students to must obtain the appropriate immigration status to conduct their intended activities. Their immigration status must allow them to carry out their intended activities (e.g. research, taking courses, etc.) for the specified time they are an active visiting student at the university. It is the student's responsibility to abide by all necessary government processes and regulations.

Research conducted while visiting at McMaster cannot normally then be used towards a subsequent McMaster degree program.

2.1.11 Incoming Exchange Students

Exchange students are individuals who much like visiting students, are enrolled in a graduate degree program in another university and are paying fees to that university. The difference between a visiting student and an exchange student is that the exchange student participates in a formal exchange program between McMaster University and their home institution. A complete list of exchange agreements that McMaster participate in can be found on the Office of International Affairs webpage (http://globaloia.mcmaster.ca). For every term that the student is here in residence the must register in SGS 702.

Students participating in a formal exchange program are not assessed supplementary, or course fees, and are entitled to take a full course load (assuming they are registered for a full course load at their home institution). It is necessary for them to enroll in the UHIP program to ensure adequate health insurance coverage during their stay.

Courses taken on exchange at McMaster cannot normally then be counted towards a subsequent McMaster degree program.

2.1.12 English Language Requirements

English is the language of instruction and evaluation at McMaster, except in the M.A. and Ph.D. programs in French. Hence it is essential that all students (except in the French program) be able to communicate effectively in English.

Applicants whose primary language is not English will be required to furnish evidence of their proficiency in the use of the English language. Such applicants are required to supply this evidence as part of their application. At the discretion of the graduate program, applicants may be exempted from this requirement if they have completed a university degree at which English is the language of instruction.

The most common evidence is a score on the International English Language Testing System (IELTS) or the Test of English as a Foreign Language (TOEFL). Equivalent scores on other recognized tests may also be considered. A full list of accepted language testing systems and their minimum requirements are given on the School of Graduate Studies website.

Students taking the IELTS are required to achieve a minimum score of 6.5 with a minimum score of 5.5 in each category.

TOEFL minimum requirements per Faculty are listed below, while individual programs may have higher published requirements.

- In most Faculties a minimum of 92 IBT (internet-based test) is required.
- In Business, Ph.D. and MBA programs require a minimum score of 100 with a minimum of 22 in the reading component, 22 in the listening component, 26 in the speaking component and 24 in the writing component on the IBT. The Master of Finance Program Requires a minimum score of 92.
- In Engineering the faculty requires a minimum score of 88 TOEFL (internet-based) or 6.5 IELTS. Please check with the program to see specific requirements, which may be higher.

Students who have completed an Academic ESL program through Canadian academic institutions may petition to have this considered in lieu of TOEFL.

2.2 Application for Admission

Enquiries about graduate work should be made directly to the department of interest. Our online application system (SLATE) is located at

https://gs.mcmaster.ca/future-students/how-to-apply/

Applications may be submitted at any time but Aapplicants should refer to the department or program to which they are applying for department specific deadlines. However, most University scholarships and awards are adjudicated in late March or early April, so students applying later than March cannot be considered for these awards.

Applications from outside Canada should be completed at least five months before the desired date of entry in order to allow for any delays and for completing the necessary government processes such as obtaining a Canadian study permit.

Application Fee

Applications must be accompanied by the required application fee. This fee is non-refundable and must be paid in Canadian dollars by means of a credit card payment or electronic transfer. The fee is assessed for each program requested to review the application. The application is only assessed for the term to which the applicant applied; for additional terms, a new application must be submitted with all documents entered again and the fee paid again for review.

The following items are required before your online application will be considered complete.

a. One official transcript of academic work completed to date, sent directly from the issuing institution. If the final transcript does not show that a completed degree has been conferred, an official copy of your diploma is also required. If the transcript is in a language other than English, official translations will be required.
b. Two confidential letters of recommendation from instructors most familiar with your academic work or appropriate relevant experience. Please note that McMaster University uses the Electronic Referencing System. By entering the email address of your referee through the online application, the system will automatically send an eReference request on your behalf.
c. see Section 2.1.12 - *English Language Requirements*
d. Statement of interest in pursuing graduate studies.

Programs may have additional admission requirements including, but not limited to, interviews. Please consult your program for details.

A graduate of a university outside Canada may also be required to submit a description of undergraduate and graduate courses taken in the field of specialization and in similar fields.

2.3 Transfer/Advance Credit and Determination of Course Equivalency

Transfer Credit

Application for transfer credit is normally done through the admissions process or via a Request for In-Program Course Adjustments before taking the course for in course students and in both cases requires an Associate Dean's approval. Credits from other institutions must have been received in the last 5 years with a minimum grade of B-. In general, no credits used towards a previous degree or used as a basis of admission will be approved as credit toward a McMaster graduate degree. Normally, a maximum of 50% of the course degree requirements only will be approved for transfer credit. Approved transfer credit appears as a course with a grade notation of T on the student's transcript. Official transcripts from the original institution are required to update the student's transcript.

Credits from other institutions can be used to substitute a specific McMaster University course requirement; however, the student is normally required to replace the course to meet the overall course requirement of the program. Students wishing to apply for advance credit or course requirement equivalency should normally inquire when they apply or accept an offer of admission. Requests after admission should be submitted to the program office for consideration using a petition for special consideration.

Advance Credit

Eligible students enrolled in a program with an advanced credit option may request advance credit for up to two courses based on courses taken in their undergraduate degree at McMaster. For full details, please refer to descriptions of the individual programs. Requests for advance credit are done by petition to the Associate Dean of the Faculty once enrolled in the graduate program.

In some cases, course taken for credit as part of a diploma program may be considered for advanced standing credit in subsequent master's programs.

Courses taken at the 500-level in a student's undergraduate career at McMaster may be considered for advanced credit.

2.4 Acceptance

Graduate programs perform the initial assessment of completed applications. Applicants may be accepted conditionally before completing their present degree programs. Conditions must be cleared by the deadline date specified in the offer letter.

Official offer letters are sent only by the School of Graduate Studies, and are valid only for the program and term stated in the admission letter. ~~Successful applicants are required to respond through the Applicant Portal to the offer of admission prior to the response deadline.~~Successful applicants must respond through the online application ~~system~~ Applicant Portal to the admission offer before the deadline. Some programs require a deposit fee. The value of the deposit fee will be deducted from the student's tuition fees. If circumstances develop making it impossible for a student to begin graduate work in the specified term, the department and the School reserve the right to revoke the offer of admission, and any financial aid offered.

The graduate program and the University reserve the right to revoke an offer of admission if any submitted materials are falsified, if a final transcript does not meet admission requirements or if it contains an annotation about an academic integrity or code of conduct matter.

2.5 Enrollment

Normally students are enrolled in a single full-time or part-time program of study. These programs can be offered in standard formats as well as combined, collaborative specialization, joint or dual programs or streams. Please see section 1.1 for more information.

Normally students are enrolled in a single full-time or part-time program of study. These programs can be offered in standard formats as well as combined, collaborative specialization, joint or dual programs or streams.

dditionallyAAdditionally, with the permission of the graduate unit(s) and SGS, students may be simultaneously registered in more than one program. . These are stand alone programs and not approved as combined options. . YOuA student may enroll in one program as full-time and the other as part-time, or in both programs on a part-time basis. Students are responsible for the fees charged for both programs. Students may not be enrolled concurrently in more than one program that are also offered in a combined or joint format (MD/PhD, PhD/OT, PT, SLP) but must instead, gain admission to the program approved for this combination.

Concurrent enrollment is different than combined, dual, joint and collaborative specialization programs as the two programs are pursued and distinct from one another. Academic work from one program may not be used to satisfy the requirements of another program and progression (or lack of progression) in one program does not impact the progression or standing of the other.

Normally students are enrolled in a single program of study. These programs can be approved as (single/traditional? Standard?) as well as combined, collaborative, joint or dual programs or streams.

With the permission of the graduate unit(s) and SGS, students may be simultaneously registered in two programs. Normally one program is a professional or clinical program and one is research. Ideally the student is registered in one full-time and one part-time program, or two part-time programs. Registration in two full-time programs will be considered on a case by case basis. Students are responsible for the fees charged for both programs.

Concurrent enrollment is different than combined, dual, joint and collaborative programs as the two programs are consumed separate and distinctly from each other. Work from one program may not be used to satisfy the requirements of another program and progression (or lack of progression) in one program does not impact the progression or standing of the other.

2.5.1 Continuity of Registration

All graduate students, in both the regular and part-time programs, are required to enroll and pay supplementary fees annually and tuition fees term by term (within the first month of the term) until they graduate or withdraw. If they fail to do so they do not retain the status of graduate student, will be withdrawn in good standing, and must apply for re-admission if they wish at a later date to continue their studies. If the department approves re-admission, a student may be allowed to begin graduate work in the winter or summer term (January or May), in which case they will first register at the start of that term, but in any following years will enroll in September for all three terms. A department's decision on readmission is not subject to appeal. A student can either be:

• readmitted to defend if all that remains is the thesis defence and student is readmitted for one term only
• if a student needs more than one term to complete - they should be readmitted to program and maintain continuous enrollment until they complete their studies

Progress is expected to be continuous and a student who does not enroll for each term of the academic year will be withdrawn in good standing unless the program has indicated that a one term break in study is permitted. Programs that include a scheduled break, will list it in the program-specific section of the calendar. Only one single term break per academic year is permitted and cannot be in the first or last term of the program. Scheduled breaks may be limited to a specific term in the academic year, or available in any of the three terms with approval of the program. Programs that are cohort based or which follow a specific course order, may not be suited to scheduled breaks. In these cases, students may be required to take a Leave of Absence for up to one year in order to return to the program at the appropriate time.

See also section 3 Regulations for Degree Progression for more information on program progression.

2.5.2 Definition of Full- and Part-time Status

Full-Time Status

A full-time graduate student must:

a.   have been admitted to a graduate program as a full-time student;
b.   be pursuing their studies as a full-time occupation;
c.   identify themself as a full-time graduate student;
d.   be designated by the university as a full-time graduate student;
e.   for most programs (and all research-based programs) be geographically available and visit the campus regularly which normally means multiple times per week; written permission from the department/supervisor is required for studies to normally be off campus. Other programs may have different requirements and may be conducted fully on-line. Please refer to section 2.5.6 for information on being full-time off campus and 2.5.8 for information on vacations. Without forfeiting full-time status, a graduate student, while still under supervision, may be away from the university (e.g. visiting libraries, doing field work, attending a graduate course at another institution, etc.) provided that, if any such period exceeds four weeks in any one term, written evidence shall be available in the Graduate Studies Office to the effect that this request has the approval of the department or program Chair and Graduate Associate Dean. For information on full time off campus please consult section 2.5.6.;
f.   be considered to be a full-time graduate student by their supervisor or equivalent (designated by the program office);
g.   understand that students who change status from full to part-time, do not receive any more time to complete their program and will continue to be charged tuition fees at the full-time level;
h.   understand that students who change part to full time will have their term count re-set on a ratio of 2:1.

All active graduate students other than full-time graduate students as defined above are part-time graduate students. See also section 3 Regulations for Degree Progression for more information on program progression.

Part-Time Status

Part-time studies may or may not be possible in a graduate program; where possible, it will be listed in the program entry in the SGS Calendar. Normally a student's status in the program (full or part-time) is determined at the time of admission.

Students who are registered as part-time are expected to be pursuing their studies on a part-time basis and making commensurate progress.

Transfer from part-time studies to full-time studies requires the approval of the graduate unit and may not be permitted in some programs. This will be described in the individual program section of the Graduate Calendar.

See also Section 3 Regulations for Degree Progression for more information on program progression and Section 4 for financial information.

2.5.3 McMaster University's Regulations for Full- and Part-time Status

In accordance with the above provincial regulations, McMaster requires students to register annually, and to confirm their status as a full-time graduate student. Only full-time graduate students are eligible for scholarship support.

Full-time graduate students are expected to pursue their graduate degree on a full-time basis and make satisfactory progress toward timely completion of all program requirements. It is not possible, or desirable, for the university to monitor and enforce the employment activities of its graduate students outside the university. However, it is both possible and desirable for the university to ensure that it does not itself create a structural situation that jeopardizes the ability of the graduate student to make full-time progress towards the completion of graduate program requirements. Accordingly, it is recommended that full-time students who are participating in McMaster-based paid employment should work no more than an average of 20 hours a week to a maximum of 1005 hours in the academic year. Full-time graduate students are responsible to ensure that any employment obligations do not interfere with academic progress and should be aware that employment obligations are not an acceptable basis for unsatisfactory progress.

As defined in Section 2.5.2, the University considers full-time students to be those that have their studies as their main activity. All full-time students must be available to conduct research (as appropriate), participate in courses and the other activities required by their program. In some cases, award holders may face employment restrictions, but it is the responsibility of the student to ensure their work arrangements are compliant with the terms of their awards.

Students admitted to a degree program on a part-time basis are responsible for maintaining close contact with faculty members and students in their field of study.

Transfers between full- and part-time status must be approved in the School of Graduate Studies based on a program recommendation

Normally, registration in a graduate program at McMaster and another institution is not allowed. Where there is no overlapping time component between two programs, (between the McMaster and other institutions program) an application for an exception can be made to the Associate Dean responsible for the McMaster program. Please note this regulation doesn't apply to students who are within one term of completing their masters and concurrently starting their Ph.D. (both degrees at McMaster), as outlined in 2.1.3, subsection 2c.

2.5.4 Employment Regulations

International students must abide by the employment conditions indicated by the Government of Canada on their study permit.

2.5.5 Enrolment - International Students on Study Permits

The Government of Canada requires foreign nationals to obtain a study permit for engaging in academic, professional, vocational or other education or training that is more than 6 months in duration in Canada. A valid government-issued

permit is required for employment on campus and to graduate from a degree program. A copy of your permit may be required by various offices at McMaster.

For the most up-to-date information about being an international student in Canada, visit the Immigration, Refugees and Citizenship Canada (IRCC) website. It is the student's responsibility to abide by all necessary government processes.

For information on status change to permanent resident status during the course of your study, please see section 4.1.14.

2.5.6 Full Time Off-Campus

On admission to a full-time program, the assumption is that a student will be full-time on-campus. This is known as being "in residence". If a student wants to spend a period of time away from the university in order to complete their research, they must apply to be full-time off campus and complete the form RMM 801. Requests for FTOC must be for the purpose of graduate study and research off-campus. Students who require to be off campus for personal reasons must request a leave of absence. A student who is conducting any part of their thesis work, including research, and writing, without visiting campus regularly (whether out of the country or while remaining in Canada/Hamilton) must request full-time off campus status.

Full-time students are obliged to be on campus, except for vacation periods or authorized off-campus status, for all three terms of the university year. Vacation entitlement is discussed in Section 2.5.8. If this period of time exceeds two weeks, the approval of the department chair is also required. In accordance with government regulations (see Section 2.5.2 students who will be away from campus for more than four weeks require not only permission from the Department but also that of the appropriate Associate Dean of Graduate Studies and must submit a Request to be Full Time Off Campus even if only leaving for a long vacation. Note that this permission is needed for conferences, field work or studies elsewhere in the world, in order to allow the University to comply with the regulation requiring that a written explanation for such absences be lodged in the Graduate School office. Students may arrange, through the Department and the Associate Dean of Graduate Studies, to be "full-time off-campus" for periods of up to a year. Students will also be required to complete the Risk Management Manual (RMM) 801 forms and gain approval through EOHSS. In cases of unauthorized absence the student will be deemed to have withdrawn voluntarily from graduate study and will have to petition for readmission and pay the readmission fee. No guarantee of readmission or of renewal of financial arrangements can beis made and a decision on readmission is not subject to appeal. An exception to this policy would be programs described in the calendar as delivering their curriculum either partially or fully in online formats. Please refer to details in individual program descriptions.

2.5.7 Leaves of Absence

Graduate students are required to be continuously registered to support the timely completion of their degree. Students may apply for a Leave of Absence in one of four categories (see below for the specifics for each type of leave):

1. Medical or disability leave;

2. Parenting leave;

3. Compassionate or personal leave; or,

4. No course available leave

General Notes for Leaves of Absence

Leaves of Absence ("LOA") are normally granted on a term-by-term basis. Whenever possible the LOA should start and end at the beginning of a term (i.e., January 1, May 1, or September 1). During an LOA the student will not receive supervision or be entitled to use the University's academic facilities for the purposes of academic progression. No tuition will be charged, nor will the student be eligible for any scholarship support. Please note students on an LOA have to pay applicable supplemental fees and will be able to use the services associated with those fees (please direct questions to Student Accounts). The length of time for completing the degree, and for scholarship support eligibility (see qualifier below), will be extended by the duration of the LOA on the resumption of studies. ~~If an LOA begins or ends in the middle of a term, term count will be determined upon return in consultation with the Associate Dean.~~

It is understood that when a student takes a LOA, the duration of the leave will not be counted as time towards the time limits in which the student is required to complete or make progress in his or her graduate studies program. On occasion a student may take a leave of absence starting mid-term. This may have impacts on tuition, pay and term count, students should contact their program office or the School of Graduate Studies for more information. It is the student's responsibility to check with the financial aid office to confirm any impact~~s~~ on OSAP.

Students should be aware that in the event of an LOA, continuation of the same research project and/or supervisor cannot be guaranteed. In order that the student's supervisor and/or program can make suitable arrangements to cover ongoing responsibilities during the student's LOA, students are expected to provide as much notice as possible of the intention to take a LOA.

Note: Students who hold fellowships, scholarships or grants from NSERC, SSHRC, CIHR, or OGS should be aware that these agencies or any other external funding source may have policies governing the interruption and continuation of awards that may differ from the University's policy on LOA. Students holding such awards and who intend to keep them are responsible for ensuring that any LOA taken does not conflict with the granting agency's regulations. The appropriate agency should be contacted for details.

Students returning earlier than planned from an LOA must ~~provide written~~provide written notice to the School of Graduate Studies a minimum of four weeks in advance of the new return date.

LOA affecting Teaching Assistantship duties are covered by the Collective Agreement with Local 3906 (Unit 1) of the Canadian Union of Public Employees. Please refer to the collective agreement for additional information: ~~http://www.workingatmcmaster.ca/elr/collective-agreements/cupe-unit1/~~ https://hr.mcmaster.ca/resources/collective-agreements-contracts/

Alternatively, the student may request to withdraw (Change of Status Form). Should the student opt to withdraw, they may be eligible for reinstatement at the University's discretion upon reapplication.

Please note in all cases leaves of absence have the potential to impact term counts. Students on a leave will have their term counts adjusted - if they are off more than 50 percent of the term, the term is counted toward the overall term count. Term length is defined in the sessional dates.~~for one or two months out of a term, the term is counted, in cases where they are off three or four month the term is not counted toward their overall term count~~.

For international students with study permits, an authorized leave longer than 150 days may impact their ability to fulfil the conditions of their study permit. For more information about conditions for study permit holder in Canada and the possible consequences of not meeting these conditions, visit the Government of Canada's website.

1. **Medical or disability leave:**

A medical or disability LOA is permitted for reasons of illness or disability, provided that the request is supported by adequate medical documentation. ~~Absences are approved for up to~~Students are limited to a cumulative total of 12 months ~~at a time~~of leave.

Students wishing to return from a medical LOA must provide a medical note indicating they are fit to continue with their studies.

2. **Parenting leave:**

A parenting LOA is intended to assist parents in successfully combining their graduate studies and family responsibilities with minimum financial and/or academic impact. The University will provide the following arrangement for parents requiring parenting leave from their studies at the time of pregnancy, birth or adoption and/or to provide care during the child's first year.

According to the Employment Standards Act 2000 - May 7, 2018 version Part XIV, a "parent" includes: "a person with whom a child is placed for adoption and a person who is in a relationship of some permanence with a parent of a child and who intends to treat the child as his or her own".

While students are not covered by the Employment Standards Act, McMaster grants students a Parenting Leave for a maximum of four consecutive terms. A student electing not to take the maximum amount of time available for Parenting Leave will not have the option of taking any unused portion at a later date. Students returning from a leave should consult with their programs and should note that course availability may be affected by the timing of their return.

Eligible students can also apply for a Parenting Grant. More information on this is available on the School of Graduate Studies Website at the following link: https://gs.mcmaster.ca/awards-funding/parenting-grant.

A parenting LOA or a portion thereof may be taken concurrently with a Pregnancy and/or Parental Leave from employment, in accordance with the Employment Standards Act, 2000, should the student also be an employee of the University.

3. **Compassionate or personal leave:**

Students who have successfully completed at least one full year in a graduate program may apply for an LOA once for up to one year for personal circumstances, or work experience provided that the student's supervisor and the department support the request.

An LOA will not be granted to pursue another program of study.

Under certain circumstances the Vice-Provost and Dean of Graduate Studies may allow for a special leave of absence. In this case, application should be made directly to the Vice-Provost and Dean of Graduate Studies.

4. **No course available leave:**

This leave is available only for graduate programs that have indicated on their website that the 'no course available leave' is an option. This leave is available to students who have yet to complete course work and no suitable course is offered in a given term; the student may petition for a 'no course available leave' for that term. This leave is not available if the student is registered in a program that requires a thesis/dissertation or a major research paper.

2.5.8 Vacations

Full-time graduate students are expected to be on campus for all three terms of the university year, as specified in Section 1.3. In addition to statutory holidays (see Sessional Dates) and the closure of the University normally late December until early January, normal vacation entitlement for a graduate student is two weeks of vacation during the year, to be scheduled by mutual agreement with the research supervisor. An exception to this allotment requires

approval from the supervisor or in the supervisor's absence a member of the supervisory committee. It is understood that any risks with travel taken during ~~that~~vacation time ~~it is~~are the student's responsibility to assess ~~the monitor level of risk and travel notations~~ and consider potential impacts to their degree progression.

Students who are also employees of the University must seek vacation approval from their employment supervisor and are entitled to vacation time pursuant to the terms of their employment contract.

Standard vacation allowance is 2 weeks and during this time a student is not progressing on the work for their degree or otherwise on university business.

Additional vacation can be up to four weeks but needs to be formally requested in writing. During this time a student is not progressing on the work for their degree or otherwise on university business.

A period of absence longer than 4 weeks that is not Full Time Off Campus requires the student to withdraw in good standing or go on a leave of absence.

2.5.9 ~~Appeals and~~ Petitions for Special Consideration

The University wishes to assist students with legitimate difficulties. It also has the responsibility to ensure that degree, program and course requirements are met in a manner that is equitable to all students. Please note that academic accommodation requests related to a disability are processed under the Academic Accommodation of Students with Disabilities policy. This includes accommodation requests for Permanent Disability, Temporary Disability, and Retroactive Accommodation.

In those instances where a student acknowledges that the rules and regulations of the University have been applied fairly, but is requesting that an exception be made because of special circumstances (compelling medical, personal, or family reasons) the student may submit, in a prompt and timely manner, a Petition for Special Consideration. The appropriate form is available on the School of Graduate Studies website. The student's supervisor and Associate Chair are normally required to provide their independent assessments of the student's statement in the petition. Supporting documentation will be required but will not ensure approval of the petition. The authority to grant petitions lies with the School of Graduate Studies and is discretionary. It is imperative that students make every effort to meet the originally-scheduled course requirements and it is a student's responsibility to write examinations as scheduled.

In accordance with the Student Appeal Procedures, decisions made on Petitions for Special Consideration cannot be appealed to the Senate Board for Student appeals. Where any student feels there may have been discrimination on grounds in a protected social area as outlined in the Ontario Human Rights Code, they may contact the Equity and Inclusion Office to discuss initiating a complaint ~~(Room 212 of the McMaster University Student Centre)~~. In Health Sciences, Graduate Students should also consult the Advisor on Professionalism in Clinically-Based Education.

For more information on Appeals please refer to section 5.4

2.6 Academic Progression and Graduate Curriculum

This section pertains to course and milestone requirements for both Master's and Doctoral studies. ~~A McMaster course is a body of work which is graded using the graduate student grading scale and consists of attending lectures, seminars~~

or other organized activities (e.g. online discussions, experiential learning, etc.). Normally the beginning and end dates for courses should coincide with the beginning and end dates of University sessions.

2.6.1 Definitions of 'Good Academic Standing'

Good Standing

To be considered to be in good academic standing a student must do the following as outlined in Section 1.3:

- enroll annually (excluding leaves of absence) until graduation, withdraw, or be withdrawn in good standing due to time limit;
- pay fees as required;
- comply with the regulations of the School of Graduate Studies as set out in this calendar and;
- make satisfactory progress toward the completion of the degree as outlined in section 2.6 Academic Progression.

Failure to maintain the good academic standing may impact the students' ability to receive scholarship funding and/or continue in the program. Students may be required to withdraw or may be prevented from registering for the subsequent academic year if they do not comply with the regulations outlined in this calendar, including failure to maintain satisfactory academic progress.

Under Review

A student with this standing has failed to progress as expected, this may include but is not limited to a failure in a course or a marginal or unsatisfactory on a supervisory committee report.

Suspension

This status notes that a student has been suspended from study. The suspension may be related to a code of conduct violation or academic integrity issue.

Withdrawn in Good Standing

This standing indicates that a student has opted to withdraw from program and may return if approved for readmission.

This standing may also be used in the case of a student who has been withdrawn due to time limit. In those cases in which a student does not manage to complete the degree before the end of the time limit in 3.3.2, the University has no further obligation to provide supervision. Upon consultation with the department and on its recommendation, the student will be shown as having been "withdrawn in good standing due to time limit".

Required to Withdraw

This standing indicates a student who was required to withdraw based on lack of expected progression and students with this standing are not normally permitted to return to studies.

Approved to Graduate

This standing is used when a student has completed all of their degree requirements and is awaiting degree conferral.

2.6.2 Milestones

Milestones are non-course requirements that are part of the curriculum and required in addition to course work (e.g. seminars, workshops and comprehensive examinations etc.) Milestones are considered formal components of a student's academic progress and if not successfully completed will normally prevent a student from graduating.

There are two types of Milestones: graded and non-graded. Both types of milestones may be viewed on student progression reporting tools but normally only graded milestones will appear on the student's transcript (once graded or otherwise completed).

Graded milestones may be reported as Pass/Fail, letter grades or in the case of supervisory committee reports using a five-level descriptive scale. If the student receives a failing grade (which includes Unsatisfactory or Marginal for supervisory committee reports) in a milestone they may be required to withdraw, particularly for comprehensive examinations. Normally, students receiving two or more failures in any combination of milestones and courses must withdraw from their degree program.

Please refer to individual program descriptions for further details of non-coursework requirements.

2.6.3 Course Levels and Unit Values

 A McMaster course is a body of work which is graded using the graduate student grading scale and consists of attending lectures, seminars or other organized activities (e.g. online discussions, experiential learning, etc.). Normally the beginning and end dates for courses should coincide with the beginning and end dates of University sessions.

Generally, graduate courses are numbered either at the 700- or 600-level and have a unit value, with the standard examples being 1.5 units (normally 12 to 19 hours of organized activity) for a course usually lasting for half a term, 3 units for a course usually lasting one term (normally 24 to 39 hours of organized activity), 6 units for a course usually lasting two terms (normally 48 to 78 hours of organized activity). Courses with zero-unit value are usually either core program requirements or meant for complementary learning activities. Courses are restricted in enrolment to graduate students, with the exception of undergraduate students enrolled in 500-level courses equivalent to graduate courses and those students registered for approved, accelerated Masters programs and with written permission of their department (or program) chair, director, or designate.

Graduate students may only enroll in undergraduate courses with the approval of their supervisor or graduate program and the host undergraduate department. Students are responsible for meeting the deadlines and requirements of the undergraduate course as presented in class and in the undergraduate calendar. Graduate students will be graded under the graduate grading scale. Students electing or required to take undergraduate courses may only register for a maximum of 12 units of such work. Students must provide should send their written approvals by email to sgsrec@mcmaster.ca so that enrolment can be added for them.

2.6.4 Course Requirement and Designations

Graduate students are normally required to complete their course degree requirements by taking courses from within their program. As a minimum, at least 50% of units taken for fulfillment of degree requirements must be listed or cross-listed in the calendar under the degree program. Those courses taken outside of the program and not listed as part of the degree requirements, require the permission of the Associate Dean of the faculty or their delegate to be counted towards the degree. No program may allow more than one-third of their course requirements to be filled at the 600 level.

Each program offers only a selection of its courses listed in the calendar in any given year. Students must select their courses for a term prior to the 'add course' sessional date and only after consulting with a program advisor or supervisor. The default for course enrolment is to assign the course towards the primary academic program of a student and as a Master's or Doctoral required course (described below). This process does not determine whether the course will exceed the requirements outlinedoutlined in the curriculum, and normally cannot be changed once a final grade is

reported. Where a student wishes to designate a particular course towards a program other than their primary academic program (ex. Diploma Course or Certificate Course) or designate a particular course as an Extra Course, a special request is required during the normal add period outlined in the sessional dates. The Request for In-Program Course Adjustment form is available on the School of Graduate Studies website.

Courses ~~are designated~~are designated as being in one of the five categories:

Master's (Count towards the primary academic program requirements of a Master's degree)
This category identifies the courses that are to count towards the Master's degree requirements (including any additional graduate requirements or undergraduate courses specified by the supervisory committee or Department Chair).

Doctoral (Count towards the primary academic program requirements of a Doctoral degree)
This category identifies the courses that are to count towards the Doctoral degree requirements (including any additional graduate requirements or undergraduate courses specified by the supervisory committee or Department Chair).

Extra Courses (Extra Course)
This category identifies courses that do not count towards degree requirements. The student ~~has received~~has received the approval of their supervisor or program advisor and to designate the course as extra, by submitting a course designation request during the normal add period of course enrollment in a particular term. Students may petition to change the designation of an Extra Course to a Master's or Doctoral course prior to the deadline to drop a course provided that this change is supported by the supervisor and program. Attempts to change the designation after the drop date will not be approved. For this category only, if a failing grade is received then the courses (and grade) will not appear on the student's transcript unless because of academic dishonesty.

Courses that are required by the supervisory committee or the Department Chair as additional requirements in excess of the stated minimum for the program must be designated as Master's or Doctoral.

Diploma Course
This category identifies courses that are to count towards the requirements for a diploma.

Certificate Course
This category identifies courses that the student is taking as individual courses not counting towards the requirements for a diploma. EDUCATN subject area courses are not normally counted toward degree requirements unless listed as an available elective in the program requirements.

Program Completion

When a student has completed all of the program requirements (including the thesis defence) they are not normally permitted to enroll in additional courses or activities.

2.6.5 Courses Taken at Another Institution

It is possible for a graduate student registered at McMaster University to take a graduate course at another university for credit towards a McMaster degree. In all cases, the student must make a request of the Associate Dean prior to enrolling in the course to determine if it is possible to use the course towards their degree requirements. For courses at another Ontario University, a student must complete the Ontario Visiting Graduate Student (OVGS) form (see Section 5.10). For courses not covered by the OVGS agreement, a student must submit a Request for In-Program Course Adjustments form and provide documentation on the course (~~eg.~~e.g. course syllabus), an official transcript as well as confirmation by the department that the course is suitable for degree requirements. If the course is passed per the grading scheme of McMaster University (B- or higher) then a grade of "T" will show on the student's transcript.

Students may not count a course taken at another institution while on a leave of absence or work term placement (co-op) or otherwise not have paid tuition at McMaster during the period that the course was ~~schedules~~scheduled and/or taken.

2.6.6. Audited Courses

Graduate Students may request to audit Graduate courses only; undergraduate courses may not be audited. Visiting students, exchange students, and post degree students may not audit a course. Audited courses have no academic credit and an audited course may not be retaken for credit. This requires a completed form, signed by the instructor and student's supervisor. Upon completion of the course, and subject to confirmation from the instructor that their expectations regarding the student's participation were met (i.e. that the student attended at least 80% of the class), a grade of "AUD" will be recorded on the transcript. No other grade will be assigned. Students in a course-charged program will be charged a fee to audit a course that is equivalent to the course charge of their program.

2.6.7 Required Supplementary Courses for All Graduate Students

All graduate students, including part-time students, exchange students and visiting students must complete and pass the course SGS 101 Academic Research Integrity and Ethics and SGS 201 Accessibility for Ontarians with Disabilities Act (AODA) within the first month of their first term after their admission to graduate studies at McMaster. All students are required to take and pass SGS 101 and SGS 201 in order to graduate. Students may not graduate or register in subsequent academic years without having successfully completed this course.

2.6.8 Placeholder Courses

To complete registration at least one course needs to be added for each term. If the student is not taking an academic course in a term, there are two different placeholder courses.

- SGS 700 - for students who are in programs that are costed on a per term basis
- SGS 711 - for students who are in programs that are costed on a per course basis

If a student does not add a course in each term the student will not have completed their enrollment. This will have impacts on all aspects of student life including scholarships, fee assessment and ordering transcripts.

If a student adds a placeholder course and subsequently adds an academic course the placeholder should be dropped. The placeholder will not be dropped if the only courses remaining include:

- SGS 101, and/or
- SGS 201, and/or
- Courses in the Education series - such as EDUCTN 750

For Visiting students there are two placeholder options: SGS 302 for Visiting Student with Course or SGS 303 Visiting Research Student. In cases where the student will only be conducting research, they must enroll in 303. In cases where the student will be conducting research and taking a course, enrollment is SGS 302 is required. ~~Students who are here as a visiting researcher~~visiting researchers ~~will need to enroll in SGS 302, students~~. Students on an exchange who are not enrolled in any academic courses will need to enroll in SGS 702.

2.6.9 Course Grading and Weighted Average Calculation

Instructors have the discretion of marking individual components of a course with either a letter or numerical grading scheme but final course grades taken at McMaster can only be reported as either Pass/Fail or letter grades. When numerical grading is used in a course, the final course average with decimal place of 0.5 or greater should be rounded up before conversion to a letter grade. The minimum passing grade for a graduate student in any course taken is a B-, including undergraduate courses or courses taken off campus.

Table (a): Graduate Student Grading Scale (except for MBA and Master of Finance):

Grade	Points	Equivalent Percentages	Pass/Fail
A+	12	90-100	P+
A	11	85-89	P
A-	10	80-84	
B+	9	77-79	
B	8	73-76	
B-	7	70-72	
F	0	69 and under	F

Note: Grades in graduate courses are reported as letter grades. Averaging of letter grades must be done using the McMaster 12-point scale.

MBA and Master of Finance Grading Scale:

Grade	Points	Equivalent Percentages	Pass/Fail
A+	12	90-100	P+
A	11	85-89	P
A-	10	80-84	
B+	9	75-79	
B	8	70-74	
B-	7	60-69	
F	0	59 and under	F

Example of Weighted Average Calculation, using the grade points and units for courses completed:

Course Grade	Grade Points		Course Units		

A-	10	x	6	=	60
B	8	x	6	=	48
B+	9	x	3	=	27
F	0	x	3	=	0
		Total	18		135

To calculate Average: 135 ÷ 18 =7.5

Note: Students are graded according to the type of course they are taking, for example non-MBA students who enlist in MBA courses are graded based on the MBA grading scale.

McMaster University's Policy on Graduate Course Outlines is available at:

http://www.mcmaster.ca/policy/faculty/Conduct/GraduateCourseOutlines.pdf
https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/

2.6.10 Incomplete Grades

For scheduled courses where the end date is known and aligns to the complies with to sessional dates, a grade must be supplied by the end of the course. Under exceptional circumstances a course instructor may approve an extension for the student for the completion of work in a course but must assign an Incomplete grade (INC) at the end of the course..course. Normally this extension is in the range of a few weeks. A student who receives an incomplete grade must complete the work as soon as possible, and in any case early enough to allow the instructor to report the grade by the sessional deadline noted as 'Final Date to Submit Results of Incomplete Grades'. If the INC grade is not cleared by the deadline, noramllynormally an F grade will be entered. Milestones are not generally scheduled according to sessional dates and therefore, there is no allowance for an INC grade for such learning activities.

2.6.11 Failing a Course or Milestone

Failure in either a course or a milestone is reviewed by the appropriate Faculty Committee on Graduate Admissions and Study or the Associate Dean Graduate Studies in the Faculty. The Faculty Committee on Graduate Admissions and Study or the Associate Dean Graduate Studies acting on its behalf requests a departmental recommendation regarding the student, and this recommendation is given considerable weight. In the absence of a departmental recommendation to allow the student to continue, the student will be required to withdraw. Those allowed to remain in the program must either repeat or replace the failed course or milestone, per the decision of the Faculty Committee on Graduate Admissions and Study. A failing grade in a Certificate, Diploma, Master's or Doctoral course remains on the transcript. Students who fail a second course or milestone will not normally be allowed to continue in the program.

2.6.12 Repeated Courses

Graduate students may not repeat courses for credit. The only cases when a repeated course will show on the student's transcript is when remediating a failing grade (see 'Failing a Course or Milestone') or taking reading/special topics courses. Reading or special topics courses generally have a generic name in the program's calendar, but students may only have a repeated course show on their transcript if each time the topic was distinctly different from others previously taken.

2.6.13 Withdrawal

A student may withdraw voluntarily from their program at any point and be considered to be in good standing. There are exceptions where a student is being investigated for a breach of university policy and may not be allowed to withdraw until concluded, such as an investigation of academic dishonesty. The withdrawal will be recorded on the student academic record and reflected on the transcript. Re-admission for a student who has withdrawn in good standing will be made in competition with all other applicants.

Students withdrawn involuntarily will normally not be permitted to seek re-admission to the same program at any future time.

2.6.14 Outgoing Exchange Students

Students on exchange programs may take graduate courses that with approved transfer credit may count towards completion of course curriculum. Any credit for these courses will depend on the student achieving a passing grade based on the Graduate Grading Scale outlined in Section 2.6.9. Students are required to maintain enrolment at McMaster by registering for SGS 702.

2.6.15 Transferring Programs

A student is accepted into a program through the admission process. With the exception of students transferring from Master's to PhD as outlined in 2.1.3 and 2.1.4 ,2.1.4, students do not normally change programs. This transfer from Master to Ph.D. happens within the program the student was originally accepted to. If a student wishes to transfer into a program from a different department or faculty, they must follow the corresponding admissions process for the new program and withdraw from their original program.

Regulations for Degree Progression

3.1 General Regulations on Supervision

It is the responsibility of the department/program to ensure that every graduate student has been assigned, at all times, a supervisor or a faculty advisor or a properly constituted supervisory committee, as appropriate. The supervisor must be declared within the first 5 months of registration into the program and for Ph.D. candidates, the supervisory committee must be declared within the first 12 months of starting the study. Master's candidate may or may not have a supervisory committee formed depending on the program.

The supervisory committee will consist of at least three members. Two, including the supervisor, must be from within the department/program. A third member, whose scholarly interests include the area of the student's main interest, may be from outside the department/program. One member may be appointed from outside the University with the permission of the Vice-Provost & Dean of Graduate Studies. For more information please consult the policy mentioned below on Supervision of Graduate Work. The department/program should ensure that the members of a supervisory committee are sufficiently competent and experienced to serve at the required level. In identifying a supervisory

committee, the department/program should consider the following, among other things: the balance of the committee by rank and experience; publications and other demonstrations of competence in scholarship or research on the part of the supervisor. Supervisory committees for Ph.D. candidates shall be reviewed annually by the department/program. Supervisory committee members must continue their participation on the student's committee, even while on sabbatical, unless otherwise replaced by the Department Chair or delegate.

From time to time it may be appropriate for non-McMaster faculty, e.g., industry experts to be considered for roles on the supervisory committee. In cases such as this, approval is required by the Vice-Provost and Dean of Graduate Studies or delegate. Please refer to the policy at the following link. Where is the link?

In excpetional cases, a FHS, committees may also include an Associate Member who would have a formal advisory role on the committee. In all such cases, approval must be sought from the Vice-Provost and Dean, Graduate Studies or their delegate. Please click here for more details.

While the supervisor and student have a mutual obligation to meet on an annualan annuala regular basis, the department/program shall ensure there is a formal regular meeting of each Ph.D. supervisory committee at least once within the reporting year (December 1-November 30), and possibly more often, to discuss the student's progress. Each Ph.D. supervisory committee must report at least annually on the student's progress and the department/program chair must forward such reports to the School of Graduate Studies for completion of the milestone. The report formally documents the supervisory committee's assessment of the progress of the student's program.

Ph.D. Supervisory Committee Meeting Timing

Ph.D. Students Transferring or Entering effective January 1st	Meeting no later than November 30th of the same calendar year
Ph.D. Students Transferring or Entering effective May 1st	Meeting no later than November 30th of the same calendar year
Ph.D. Students Entering September 1st	Meeting no later than November 30th of the next calendar year

The frequency of meetingmeetings is left to the discretion of the supervisory committee based on the progress of the student and provided that a minimum of one meeting occurs per year. A shorter duration between meetings is normal for students who are having difficulty in their academic progression and each meeting should involve an assessment of progress. Occasionally, an additional meeting that is not assessed may be requested by the supervisory committee, student, department, or Associate Dean when there is a major gap in supervision, for example upon returning from a leave of absence or if there is a change in supervisor. If a PhD student is returning from a Leave of Absence, it is suggested that the Supervisory Committee meet with the student upon their return and use the Non-Graded PhD Supervisory Committee form available on the SGS website as a tool to set goals for the coming term. A graded PhD Supervisory Committee meeting is required no later than 6 months upon their return to ensure that these goals are met or nearly completed.

The department/program should prepare a set of guidelines for supervisors and students. The guidelines should deal with the selection and functioning of supervisory committees and should cover the joint responsibilities of faculty members and graduate students. The guidelines may be attached to or incorporated in department/program handbooks which give regulations supplementary to those in the Calendar. Items relevant to graduate supervision should be approved by the appropriate Faculty Committee on Graduate Admissions and Study. A copy of the guidelines shall be given to each faculty member and each graduate student.

It is possible to change supervisors or the membership of a supervisory committee, although this is not the norm. If the direction of the research changes, membership can be changed by mutual consent of the parties involved. Supervisors and/or supervisory committee members may not resign without the department's/program's approval. A change in supervisor is at the discretion of the department/program, not the student or supervisor but if approved then the responsibility lies with the student to find the replacement, at which point a new thesis project commences. The duration of searching for a new supervisor is program specific but should not exceed more than one term in order to minimize the impact on degree progression. In such cases, any previous or on-going research involving shared

If a student feels that they are receiving unsatisfactory supervision, they should consult the Department/Program Chair or Graduate Advisor. If this avenue is not sufficient, the student is encouraged to speak with the appropriate Associate Dean of Graduate Studies about the problem. A student without supervision may be withdrawn due to the requirement of supervision to complete the degree.

Graduate students and supervisors are encouraged to familiarize themselves with the McMaster University Graduate Work Supervision Guidelines for Faculty and Students, which follow below and to list of policies, policies on accommodations available on the School of Graduate Studies website at https://graduate.mcmaster.ca/resources https://gs.mcmaster.ca/current-students/resources/.

3.2 Theses

This section pertains to the electronic thesis requirement for both research Master's and Doctoral studies. The oral examination is not described in this section and can be found in the corresponding sections for the specific degree, Master's (Section 3.3.3) and Doctoral (Section 3.4.4). Electronic theses (e-theses) are text-based PDF files and may contain non-text elements such as embedded videos and sounds. Normally, a printed paper version is no longer acceptable for degree completion.

No research for use towards the degree requirements of a Master's or Doctorate at McMaster may be treated as a secret or classified document indefinitely, but may be permitted to be embargoed for up to one year normally while the student seeks publication by a publisher or to patent their work. All e-theses will be available to readers through MacSphere.

3.2.1 Preparing a Thesis

A candidate must present a thesis which embodies the results of original research and mature scholarship. In some disciplines, the appropriate form of thesis is a book-length dissertation with chapters. In some disciplines, a "sandwich thesis" composed of journal length articles connected by general introductory and concluding chapters will be appropriate. In the case of sandwich theses involving papers with multiple authors, the student must make substantial and significant contributions to the composition of text in each paper, and to be judged to have an intellectual leadership role with respect to the overall body of work.

As a general rule, doctoral students are urged to limit their theses to no greater length than three hundred (300) pages of text (Master's thesis to less than 200 pages). Guidance documents on preparing acceptable theses are found on the School of Graduate Studies' website. McMaster University accepts both standard theses and 'sandwich' theses as formats for the dissertation. Doctoral students and their supervisors should keep in mind that theses of extraordinary length are to be discouraged. In cases where students and their supervisors believe that responsible scholarly treatment of the thesis topic requires substantially greater length than that specified above, a written approval from the appropriate Associate Dean of Graduate Studies must be obtained before the external examiner is contacted. – Guidance documents on preparing acceptable theses are found on the School of Graduate Studies' website. McMaster University accepts both standard theses and 'sandwich' theses as formats for the dissertation.

Individual Departments or graduate programs may issue special instructions concerning the expected forms of graphs, tables, maps, diagrams, and sound and video files which may be included within the e-thesis. Hypertext links should be discouraged due to the limited duration that they remain active. Accepted forms of bibliographical reference in the particular discipline and other matters of format should be discussed with the thesis supervisor.

All copyrighted materials added into the thesis (text, figures, images, tables, etc.) exceeding 'fair dealing' requires written permission from the owner prior to thesis submission. This includes any publications by the student who has transferred ownership rights to a publisher. Students should consult with campus resources for assistance. See Section 5.4 for regulations regarding ownership.

3.2.2. Response Time for Theses Review

Supervisory committees should respond to the draft of a Ph.D. thesis within 2 months. Providing comments on individual chapters will take proportionately less time. Very long theses or chapters may take more time. There are busy periods within the academic year when the time taken to provide comments might be a bit longer than this norm. However, in no case should the response time exceed 3 months.

For Master's theses the corresponding times are 1 month and 2 months. Master's students are entitled to defend within 2 months of providing the final draft of the thesis to the department/program.

All theses must be checked in accordance with the Research Plagiarism Checking Policy. This is expected to occur prior to coordination of the defence.

3.2.3 Submitting a Thesis for Defence

A completed draft of a thesis approved by the student's supervisor and/or supervisory committee for the defence may not be altered until till after the defence; see Section 3.3.3 and Section 3.4.4 for acceptable time limits on review and editing by supervisors.

In those instances where an examiner requests a printed copy of the thesis, it is the student's responsibility to produce a print version well before the oral examination.

3.2.4 Revision of a Thesis after Defence

It is generally common that a thesis will require some minor modification as a result of examiners' comments at the defence. A student has four 4 weeks after their defence date to complete these revisions and seek the approval of their supervisor and/or supervisory committee prior to submitting the final version to MacSphere. Fees may be levied past this period, but the student may still submit the document at any time afterwards.

3.2.5 Submitting a Final and Approved Thesis

All candidates for Master's or Doctoral degrees who have successfully completed their oral examinations and who have made all required revisions to the satisfaction of their supervisor must upload an electronic version of their final e-thesis to MacSphere. The e-thesis must be presented in a format acceptable to the School of Graduate Studies.

Please note that changes to an e-thesis will not be accepted after it has been uploaded to MacSphere and that the document uploaded should be the version approved by the supervisory committee after the defence. Theses may be embargoed normally for up to one year from the date of submission to MacSphere, if requested by the student and supervisor. This restriction on publication is meant to give the research team time to publish or secure the intellectual property related to their work.

Tuition fees continue to be assessed until all degree requirements are met, including the successful submission of the final approved thesis to MacSphere. If a student uploads their final thesis mid-term or -month, their tuition will be assessed to the end of that month and any future enrolment will be removed during the clear to graduate process (e.g.,

student uploads in February, they will be refunded for March and April). Note that there is no grace period at the end of December or April for final thesis submission and completion of degree requirements.

3.3 Regulations for Master's Degrees

Three types of Master's programs are available, although not all departments offer each type. The first is the thesis program, consisting of both course work and a research thesis. The second type entails a major research paper or project rather than a thesis, as well as course work. Finally, some programs offer a course work-only curriculum. The choice of curriculum for Masters students can either be determined at the time of application or after the student is admitted, please consult the departmental listings to see which options are available in a specific discipline.

If a department offers more than one of these types, the ability for a student to switch between them is not automatic, but is sometimes permitted. Approval of the supervisor and department chair (or graduate chair/advisor) is required. In many departments, there will be consequences for the level of financial support to the student. As well, there are likely to be consequences for the expected time to completion. Both financial support and expected time to completion should be clarified prior to approval of the change. If such a change is approved, notification should be sent to the School of Graduate Studies by the department or program, along with any change to the payroll authorization. Graduate Studies approval is not required.

Master's programs are designed for those students who can devote their full time to graduate studies. (See Section 2.5.2 for the definitions of a full-time student.) Some departments also offer part-time programs. Consult the departmental listing in this Calendar for part-time program availability.

3.3.1 Program Requirements

A Master's program involving a thesis will normally be somewhat more specialized and will involve fewer courses than is the case in a Master's program without a thesis. A course-based Master's program is constructed by departments to contain a sufficient number of courses to make possible a diversified experience, for the student.

Each graduate program establishes its own minimum course requirement, subject to the approval of the appropriate Graduate Curriculum and Policy Committee, and Graduate Council.

A student's Supervisory Committee, Supervisor, or Departmental Chair may also require those in thesis degree programs to take courses in addition to the minimum prescribed by the program's regulations. These additional courses must be relevant to the student's program. They may be taken in another academic unit/department and may be at either the undergraduate or the graduate level.

Students will be required to meet any additional requirements of the program, including special seminars or colloquia. All departmental assessment rules and practices are subject to consideration by the appropriate Faculty committee on Graduate Curriculum and Policy, and approval by Graduate Council.

Approved assessment procedures must be clearly communicated to graduate students at the earliest opportunity after registration, generally in the program handbook.

3.3.2 Program Progression

The amount of work in a regular (full-time) Master's program for a student with good preparation varies across the campus, but generally, programs involving a thesis are designed to take longer than those without a thesis. Programs with a thesis typically take sixteen to twenty-four months. Non-thesis programs are generally shorter in duration.

For students in a regular program, the permissible time for completion of a Master's degree program is limited to three years from their initial registration in the program. For those students admitted to a part-time Master's program, and who complete all degree requirements while registered part-time, the permissible time is limited to five years from their initial registration. Please note, students who ~~start as~~start full-time and move to part-time continue to pay full-time tuition and time to completion does not get extended. Students who ~~start as~~start part-time and move to full-time will then pay full-time tuition and the time to completion will be based on full-time status. The terms students spent as a part-time student will be adjusted for purposes of time to completion. For more ~~information~~information, please see Section 2.5.3 Definition of Full/Part-Time Status.

Students who run past the allotted time for program completion can be considered either Overtime or Out of Time and the terms counts for each are as follows:

Students are considered Overtime when they reach more than:

6 terms for a full-time Masters
9 terms for a part-time Masters

12 terms for a full-time Ph.D.
18 terms for a part-time Ph.D.

Students are considered Out of Time when they reach more than:

9 terms for a full-time Masters
15 terms for a part-time Masters

18 terms for a full-time Ph.D.
24 terms for a part-time Ph.D.

Each student's progress is reviewed annually by the department and on a more frequent basis by the supervisor. A student whose work is felt to be unsatisfactory (e.g., as determined by unsatisfactory or marginal or supervisory committee reports, failed courses, unsuccessful remediation ~~attempts ,~~attempts, failure to successfully complete other mandatory components of their program) may at any time be required to withdraw from the University. In those cases in which a student does not manage to complete the degree before the end of the time limit specified above, the University has no further obligation to provide supervision. Upon consultation with the department and on its recommendation, the student will be shown as having been "withdrawn in good standing due to time limit".

In the case of a student who had withdrawn in good standing, if a completed thesis is submitted, and is acceptable to the department, the student can be readmitted to defend the thesis. However, thesis program students who have been withdrawn in good standing should be aware that they may be required to complete additional course work before being permitted to proceed to a defence of the thesis. In all cases, the department must first declare that the submitted thesis is ready for defense before the student will be readmitted. Students can only be readmitted to defend at the beginning of the academic term. If a student needs more than one term to complete they should be readmitted to the program and pay regular fees until all the program requirements are complete.

At the time of readmission to defend, the student will be required to pay a fee (equivalent to one term's tuition at the current part-time level 5 rate - see Section 4.1) to compensate for the costs of the defence and subsequent processing of the thesis. If a student needs more than one term to complete they should be readmitted to program and pay regular fees until all the program requirements are complete. All requests for readmission should be directed to the program for approval by the supervisor and program lead. Once approval is received, students are directed to pay the readmission fee and the department should submit the request for approval by the Associate Dean. The readmission decision is not subject to appeal.

A student enrolled in a course work or project program may also be readmitted if this is deemed acceptable by the student's department. However, course work and project program students who have been withdrawn in good standing should be aware that they may be required to retake courses in which the content is judged by their department to have

changed significantly since first completion and/or may be required to take additional courses that are necessary to fulfill current program requirements.

See Section 2.5.1 for information on continuity of registration.

3.3.3 Thesis Defence

A thesis may be submitted at any time but a thesis defence may not be initiated until all other degree requirements are complete. The final date for submitting a thesis to the department for Fall or Spring Convocation is found in the Sessional Dates Section. The thesis will be examined by a committee of not fewer than three members (including the supervisor and an examiner external to the supervisory committee) who will be appointed by the department/program chair; the thesis will be defended by the candidate in an oral examination before this committee. An oral defence is a mandatory requirement for degree completion. The Vice-Provost & Dean of Graduate Studies may appoint members to these committees. The time of the defence will be set by the department/program chair; normally this will be about two weeks after the completed thesis (as an electronic file; see section 2.8) has been submitted to the department for examination.

~~DDefences can take place either completely remotely, hybrid or fully in-person. Students must discuss these options with their Supervisor prior to scheduling their defence fand the two must agree on the format of the defence. In cases where no consensus can be reached between the student and the supervisor, the defence shall occur in person.~~ Defences can take place either completely remotely, hybrid or fully in-person. Students must discuss these options with their Supervisor prior to scheduling their defence fand the two must agree on the format of the defence. In cases where no consensus can be reached between the student and the supervisor, the defence shall occur in person.

After a discussion of the examination, the student will be dismissed for the deliberation period and the Chair will ask for a vote on the success or failure of the defence. If the examiners approve the defence, the Chair will ask the examiners to complete the Examination Report by initialing appropriately. The student will be invited back into the exam for a decision. In the event that minor revisions are required to the thesis, the Chair of the examination committee is responsible for ensuring that (1) the candidate is advised of the revisions, (2) the candidate receives and understands the 'Final Thesis Submission form' to be used by the Supervisor to confirm that the revisions have been made, and (3) the supervisor is also aware of the form. The Chair will complete and sign the Examination Report and return it to the School of Graduate Studies.

However, if there are two or more negative or abstaining votes, with at least one of these votes being from a member of the supervisory committee, the candidate will be deemed to have failed the defence, and a reconvened oral defence must be held at a later date. The candidate should be told as clearly as possible by the Chair and the examining committee what he/she must do to improve the defence. The reconvened defence is the candidate's final opportunity to complete the degree. Membership on the reconvened examining committee should be the same as that for the original defense, except that one or two substitutions are permitted in order to expedite scheduling of the reconvened defence. If the defense fails a second time, that decision is final, and is not open to appeal.

Please note: when a thesis is submitted and published to MacSphere students must be aware that their name will appear as author of the document. In exceptional circumstances a pen name may be used subject to written approval of the Vice-Provost and Dean of Graduate Studies.

3.3.4 Project

In departments where there is the option of submitting a project, the department regulations must be observed. If the project is to be submitted to the University Library, preparation of the associated report shall follow the rules governing theses. Projects can be treated as courses or milestones rather than theses in this Calendar and their associated evaluation component is due by the end of term.

3.4 Regulations for the Doctor of Philosophy Degrees

The regular doctoral programs at McMaster have been designed for students who can devote full time to their studies. However, some departments at McMaster University will consider individual applicants to undertake Ph.D. studies on a part-time basis. No Department or Program is obligated to offer part-time Ph.D. work. Consult the department listings for information as to whether a part-time program is available in any particular department, or correspond with the department directly.

3.4.1 Program Requirements

Each graduate program has to establish its own minimum course requirement, subject to the approval of the appropriate Graduate Curriculum and Policy Committee, and Graduate Council.

A student's supervisory committee or Departmental Chair may also require a student to take courses in addition to the minimum prescribed by the program's regulations. These additional courses must be relevant to the student's program. They may be taken in another program and may be at either the undergraduate or the graduate level.

Students will be required to meet any additional requirements of the program, including special seminars or colloquia. All departmental assessment rules and practices are subject to consideration by the appropriate Faculty committee on Graduate Curriculum and Policy, and approval by Graduate Council.

Approved assessment procedures must be clearly communicated to graduate students at the earliest opportunity after registration, generally in the program handbook.

3.4.2 Program Progression

The minimum time in which to complete a Ph.D. program at McMaster is 9 terms beyond the bachelor's level or 6 terms beyond the master's level. However, the minimum time may be reduced by up to one year for graduate work beyond the Master's level taken in a university or research institution approved by the Faculty Committee on Graduate Admissions and Study or Associate Dean.

Completion of the Ph.D. degree is normally limited to 18 terms from initial registration in a regular doctoral program at McMaster. The time for completion of the Ph.D. program for those admitted to a part-time program is normally limited to -24 terms from initial registration at McMaster as a Ph.D. student.

Each student's progress is reviewed annually by the department and on a more frequent basis by the supervisory committee. The committee will assess the student's progress in their program. Students must receive a grade of at least satisfactory. If the committee reports that progress is marginal one or more times the student may be required to withdraw from the University. A student who encounters difficulties arranging a meeting of this committee should consult the chair, director, or graduate coordinator of the graduate unit in advance of the relevant deadline for doing so.

In those cases in which a student does not manage to complete the degree requirements before the end of the time limit specified above, the University has no further obligation to provide supervision. Upon consultation with the department and on its recommendation, the student will be shown as having been "withdrawn in good standing due to time limit".

Please note, students who choose to move from part-time to full-time or from full-time to part-time will be governed by the time to completion and fees associated with the degree to which they were admitted. For more information please see Section 2.5.3 - Definition of Full/Part-Time Status.

If a completed thesis is submitted, and is acceptable to the department, the student can be readmitted in order to defend the thesis. Students who have been withdrawn in good standing should be aware that they may be required to complete

additional course work before being permitted to proceed to a defence of the thesis. In all cases, the department must first declare that the submitted thesis is ready for defence before the student will be readmitted. Students can only be readmitted to defend at the beginning of the academic term.

At the time of readmission to defend, the student will be required to pay a fee (equivalent to one term's tuition at the current part-time level 5 rate - see Section 4.1) to compensate for the costs of the defense and subsequent processing of the thesis. If a student needs more than one term to complete they should be readmitted to program and pay regular fees until all the program requirements are complete. All requests for readmission should be directed to the program for approval by the supervisor and program lead. Once approval is received, students are directed to pay the readmission fee and the department should submit the request for approval by the Associate Dean. The readmission decision is not subject to appeal.

3.4.3 Comprehensive Knowledge

All Ph.D. candidates at McMaster are expected to acquire, during the course of their studies, a comprehensive knowledge of the discipline or sub-discipline to which their field of research belongs. The School of Graduate Studies does not prescribe any particular way to assess this knowledge, whether by a Comprehensive Examination or by some other format. All doctoral programs are expected to assess and provide feedback to the Ph.D. candidates, as early as possible and as frequently as possible, on the breadth or depth of their knowledge, critical thinking and independent research skills. This assessment and feedback will normally ~~begin~~ begin and be ~~completed~~ between the 12th and 20th month after the student begins doctoral-level work at McMaster University, with an upper limit of 24 months. For a part-time Ph.D. student the upper limit is 36 months. The approach to assessment and its administration are the responsibility of the program in which the student is registered, not of the student's supervisory committee.

A Comprehensive Examination or alternative assessment of comprehensive knowledge must include a provision for second opportunity for assessment should the student fail the first attempt. This second assessment is given in place of any "re-read" of a comprehensive evaluation, which is explicitly excluded from the Student Appeal Procedures. The second opportunity will normally occur between one to six months after the student was notified that they had failed the original assessment. It is preferred that it occur within the first month of a term. A failure at the second assessment will require the student to withdraw from the program. If the student decides not to take up the option of the second attempt then the failure stands.

Departments may hold transfer, qualifying, or entrance exams at the start of a student's doctoral program, but those exams are distinct from the assessment of comprehensive knowledge

3.4.4 Thesis Defence

An oral defence conducted by an examining committee is a mandatory requirement for degree completion. Normally the thesis will be distributed to committee members and examiners in an electronic format (see Section 3.2 - Theses). The oral defence will not be arranged until a majority of the supervisory committee has approved the thesis for defence and an agreed date of defense has been received.

Please note that thesis defences may not be initiated until all other degree requirements, including Comprehensive Examinations, have been completed .

Defences can take place either completely remotely, hybrid or fully in-person. Students must discuss these options with their Supervisor prior to scheduling their defence fand the two must agree on the format of the defence. In cases where no consensus can be reached between the student and the ~~supervisor, the~~supervisor, the defence shall occur in person.~~.~~

Selection of the Examining Committee

Normally the examining committee will consist of the following members: the student's supervisor, at least two members of the supervisory committee and an external examiner ~~The~~. The Examining Committee must not exceed five voting members. If there are more than four members on the student's supervisory committee, the additional members are welcome to attend the defence and ask questions in the time allotted for audience members. Ahead of the oral defence the external examiner will provide a written report to the Vice-Provost & Dean of Graduate Studies judging whether the written thesis is satisfactory for defence. . An Examining Committee Chair will also be present at the defence but is not considered part of the examining body. An eligible Examining Committee Chair is a tenured faculty member (or Professor Emeritus) who has supervised a doctoral student to completion, and who has also participated previously in the McMaster Ph.D. defence process.

Selection of an external examiner is the responsibility of the Vice-Provost & Dean of Graduate Studies or their delegate. To aid in that selection, the supervisory committee may be required to provide, through the student's supervisor or Chair of the Department (or equivalent), the names and contact information for potential examiner/s. In all cases the nominees must be approved by the Department Chair (or equivalent).

The nominees for external examiner must have no current primary appointments at McMaster University/affiliations or within the past 6 years, and must be at arm's length from all members of the supervisory committee and the student. The definition of 'arm's length' is as follows: The nominees should not have been a research supervisor or student of the supervisor or the student within the last 6 years; should not have collaborated with the supervisor or the student within the past 6 years, or have made plans to collaborate with these individuals in the immediate future. There also should be no other potential conflicts of interest (e.g., personal or financial).

If the external examiner, after agreeing to participate in the defence, can no longer attend the defence, the examining committee will appoint an internal examiner. An internal examiner is McMaster faculty that will read the thesis and attend the defence as an examiner. An internal examiner does not attend the defence as a proxy for the external examiner but as an ancillary examiner.

The external examiner will still provide a report and if their report includes questions for the candidate they will be assigned to someone on the committee to ask by the chair. The chair will normally assign these questions to the primary supervisor or the internal examiner who will ask them in addition to their own questions.

An internal examiner can be from the same department or another department but should have some breadth of knowledge on the topic in order to thoughtfully participate in the defence. The internal examiner must be at arm's length from the candidate and committee. The internal examiner must be selected no later than 48 hours prior to the defence for it to proceed.

Scheduling and Conducting the Oral Examination (Oral Defence)

There are blackout periods over the course of an academic year that affect defences coordinated by SGS. Please refer to the SGS sessional dates to prepare your defence appropriately.

Dates scheduled for doctoral defences assume that the external reviewer will conclude that the written thesis is acceptable and ready for oral examination. When the external reviewer concludes otherwise, the defence date may no longer be held on the planned date and the situation reviewed in accordance with the process around a negative external report as outlined below. Any travel and/or employment arrangements made by the candidate based on the original defence date are entirely at their own risk.

The external examiner must provide a report to the School of Graduate Studies with a written assessment of the thesis at least one week before the scheduled defence. The identity of the External Examiner should not be communicated to the student until the External Examiner Report has been received by the School of Graduate Studies to maintain the

integrity of the process, and the student may not contact the External Examiner unless granted permission by the School of Graduate Studies. If the report is not received in time, candidates will be given the option to postpone their defence. Whether the assessment is positive or negative, the School of Graduate Studies will send the report of the external examiner to the supervisory committee. The committee must provide a copy of the report to the student. Should the assessment be negative, the appropriate Associate Dean will communicate with the supervisory committee and student to discuss the outcome of the review. This is normally followed by a supervisory committee meeting to discuss the situation and proposed plan going forward if the external examiner indicates that the thesis is not acceptable for defence. The supervisory committee and candidate (in consultation with the Associate Dean) may wish to revise and resubmit the dissertation and proceed proceed to the defence with the participation of the same external examiner. A second possible outcome of the review is that the associate dean will recommend to the Vice-Provost & Dean of Graduate Studies that the thesis (in its original format or revised) be reviewed by a different external examiner. A candidate may revise and resubmit the thesis only once. In all cases, despite a negative assessment, a candidate has the right to proceed to a defence.

If the external report has not been received five business days before the defence, the candidate and the committee will be notified that the defence is at risk of being cancelled.

If the external report has not been received two business days before the scheduled examination, SGS will notify the candidate that the defence will be rescheduled.

Subsequent to the receipt of the external examiner's report, an oral defence will be convened by the Vice-Provost & Dean of Graduate Studies, chaired by themselves or their delegate and conducted by all members of the Examining Committee. Quorum for the examination will be the Chair of the examining committee and the supervisory committee plus one additional examiner. Normally, the presence of the external is mandatory at the defence, either in person or electronically. The oral defence will be open to members of the university community and the public who wish to attend as observers, unless the student requests a closed defence. The Ph.D. defence presents the culmination of a number of years of scholarly work which are publicly funded. It is important, therefore, that in all but exceptional circumstances the student presents the result of this effort to the public. The examination proper will be conducted only by the members of the examining committee. When they have completed their questions, the Chair may permit a few minutes of questioning by visitors. Normally the student will attempt to answer visitors' questions, but these are not to be considered part of the examination for the degree. Normally, examination of the candidate will not take more than two hours. In no case should it take more than three hours. The Candidate and observers will withdraw prior to the committee's deliberations on the student's performance at the defence. After a discussion of the examination, the Chair will ask for a vote on the success or failure of the defence.

If the examiners approve the defense, the Chair will ask the examiners to complete the Examination Report by initialing appropriately. The student will be invited back into the exam for afor a decision. In the event that minor revisions are required to the thesis, the Chair of the examination committee is responsible for ensuring that (1) the candidate is advised of the revisions, if any, (2) the candidate receives and understands the 'Final Thesis Submission form' to be used by the Supervisor to confirm that the revisions have been made, and (3) the supervisor is also aware of the form. The Chair will complete and sign the Examination Report and return it to the School of Graduate Studies.

On the other hand, if there are two or more negative or abstaining votes, with at least one of these votes being from a member of the supervisory committee, the candidate will be deemed to have failed the defence, and a reconvened oral defence must be held at a later date. The candidate should be told as clearly as possible by the Chair and the examining committee what he/she must do to improve the defence. The reconvened defence is the candidate's final opportunity to complete the degree. Membership of the reconvened examining committee should be the same as that for the original defence, except that one or two substitutions are permitted in order to expedite scheduling of the reconvened defence. If the defence fails a second time, that decision is final, and is not open to appeal.

After a successful defense, the candidate must make the revision suggested by the examining committee to the satisfaction of the Supervisor and then submit an electronic copy to the School of Graduate Studies via MacSphere (see Section 3.2.5). Students are normally expected to submit their final thesis within four weeks of a successful defence.

Tuition fees continue to be assessed until all degree requirements are met, including the successful submission of the final approved thesis to MacSphere. If a student uploads their final thesis mid-term or -month, their tuition will be assessed to the end of that month and any future enrolment will be removed during the clear to graduate process (e.g., student uploads in February, they will be refunded for March and April).

Please note: when a thesis is submitted and published to MacSphere students must be aware that their name will appear as author of the document. In exceptional circumstances a pen name may be used subject to written approval of the Vice-Provost & Dean of Graduate Studies.

Financial Matters

The full time/part time enrollment status stated in the offer letter, determines the amount of tuition and fees paid by the student. It also determines eligibility for funding and awards. Any changes to enrollment or status as a student may have impacts on tuition, funding and financial aid. It is the responsibility of the student to ensure that they are aware of these impacts prior to making any changes to their enrollment or status.

4.1 Fees for Graduate Students

(The Board of Governors reserves the right to amend fees after the printing of this statement.) These regulations apply to tuition and mandatory supplemental fees. They cover the various charges which would be incurred for reasons of late payment or late registration. The 2024̶3̶-2025̶4̶ fees schedule is in effect for a period of September 1, 2024̶3̶ to August 31, 2025̶4̶ and applies to all graduate students whether registered in regular or part-time degree programs. Please consult the Registrar's Office website for the official graduate fees.

Notes:

Students promoted to a Doctoral program from a Master's program will be considered as new admissions for the purpose of time limits for completion of the degree requirements, eligibility for financial assistance, and fee assessment.

Some international students may be eligible to pay Canadian fees depending on various immigration policies, and the Ministry Funding Manual.

Program Fees assessed on a term-by-term basis

Most students will pay regular tuition fees and these fees are assessed on a term-by-term basis. Part-time fees apply only to those students originally offered admission to a part-time program. If students change status from full-time to part-time, they will still be required to pay regular (full-time) fees. In most cases part-time fees will allow registration in up to 3 half courses per academic year, in programs where fees are costed on a term-by-term basis. Students registering in more than 3 half courses will be assessed full-time fees. In situations where a student in a part-time program completes the degree or withdraws from the university, fees for the academic session will be assessed by the number of terms or number of half courses (whichever is the greater). Term count is adjusted if student changes status from part-time to full-time at a ratio of 2:1.

If a full-time student wishes to change their status from full-time to part-time, they will still continue to pay full-time tuition fees for the entire program. The most common occurrence of this situation would be when a student gains full-time employment, changes in status to part-time will be effective at the start of term. Their mandatory supplementary fees however would be reduced to the part-time rate at the start of the next academic year.

<u>Program Fees assessed on a course basis</u>

Students enrolled in programs with course costed tuition will be assessed tuition fees for each course that they take. They will pay supplemental fees based on their status at the time of program entry. Course load restrictions may be required by the program based on status, please check the program handbook for these limitations.

Part-time students may not gain financial advantage over full-time students with respect to the overall cost of fees for their program as a function of their part-time status. The total cost of the part-time program cannot be less than the full-time.

Ph.D. students who have been registered as full-time for longer than the normal period of funding eligibility (as defined in 4.2.1 Financial Support for Graduate Students) will be assessed discounted tuition fees. <u>Discounted fees only apply to Ph.D. programs.</u>

A fee is charged for each course (including extra courses or audited courses) taken on the basis of Section 2.1.8 by persons who are not registered in a term-charged graduate program. The tuition fee for certain courses may be higher.

<u>Leave of Absence</u>

Students on leave of absence do not pay tuition fees for any complete months that they are on leave but do pay mandatory supplemental fees. Students who are on leave for a complete academic year do not pay mandatory supplemental fees.

<u>Readmission</u>

Students who have "withdrawn in good standing due to time limit" do not pay fees until readmission. Students must pay the readmission application fee to have their request considered for approval. Readmission will only take place at the start of a term for students being readmitted to program and tuition fees will be calculated based on the return date. Students readmitted to defend will be readmitted at the point that they are ready to defend. See Section 4.1.5 (Readmission Tuition Charges).

<u>Mid-Year Admissions</u>

Students admitted in January or ~~May,~~<u>May</u> will have a slightly different schedule of fees for tuition and mandatory supplemental fees.

Enquiries should be referred to Student Services: https://registrar.mcmaster.ca/fees/

4.1.1 Payment of Fees

 In order to register a student must pay their tuition balance and all additional fees by the deadline. Details for payment methods and due dates can be found on the Student Affairs website.

4.1.2 Non-payment of Fees or Charges

Students with outstanding accounts will:

a.   not receive academic results, including but not limited to exams, grades, transcripts, diplomas; and
b.   not be permitted to register for the next academic year until the account is settled.

4.1.3 Discounted Fees - Ph.D. Students

Full-time Ph.D. students (domestic and international), who have reached term 13 or greater of their Ph.D. studies, will be charged tuition at a discounted fee rate.

4.1.4 Change in Residency

Changes in residency that occur when a student becomes either a permanent resident or Canadian citizen will have an impact on fees. These changes can only be accepted at the start of term and cannot be applied retroactively.

4.1.5 Readmission Tuition Charges

Students who do not register and pay tuition fees for any academic session are deemed to have withdrawn. These students and those who have been withdrawn in good standing due to time limit are required to apply for readmission. Master's or Ph.D. students withdrawn in good standing who are being readmitted to defend their thesis pay fees at the "Readmission to Defend" rate and are not eligible for a refund. If students do not defend in the term in which they were readmitted, their tuition reverts to the typical charges for their term count in their program including charging supplemental fees.

Students who withdrew voluntarily or did not register for an academic session and wish to apply for readmission to their academic program are readmitted at the registration status they were at the time of withdrawal and charged the current calendar rate of tuition and supplemental fees accordingly. Readmissions in this category are not eligible for the part-time rate unless the student was registered in a part-time program at the time of withdrawal.

4.1.6 Refund of Tuition Fees

A student, who completes the degree requirements, withdraws from the program, or takes a leave of absence prior to the end of the academic year will be entitled to a refund, based on the method of payment per section 4.1.1 above. If a student uploads their final thesis mid-term or -month, their tuition will be assessed to the end of that month and any future enrolment will be removed during the clear to graduate process (e.g., student uploads in February, they will be refunded for March and April). (Note: a refund does not apply to students who are readmitted to defend.) Mandatory supplemental fees are not refundable.

4.2 Financial Assistance

4.2.1 Financial Support for Graduate Students

McMaster University aims to provide competitive funding offers to highly qualified candidates recommended for admission to our research-based graduate programs. Each program is responsible for determining the level of funding in their offers, although the School of Graduate Studies (SGS) sets a minimum level of funding for full-time doctoral studies for the first four years of full-time enrolment.

Financial support for Doctoral studies will normally be provided for the first four years of full-time enrolment, and will be comprised of funds from the admitting Faculty or graduate program, including departmental scholarships/awards, research scholarship support, and possibly employment (e.g. teaching assistant). The annual level of financial support

will meet or exceed the minimum level of support set by SGS, provided all conditions stated in the Financial Support subsections below are satisfied.

Funding for students enrolled in most research-based Master's programs will normally be provided for the nominal duration of the program. There is no minimum level of funding stipulated by SGS for Master's programs.

Teaching Assistantships (TA) (or Research Assistantship-in-lieu under the collective agreement between Canadian Union of Public Employees, Local 3906, Unit 1 and McMaster University) and contract employment income are offered to many graduate students registered in full-time programs. TA duties vary according to department but will normally consist of performance in connection with undergraduate teaching, such as leading tutorials, demonstrating labs, and marking assignments. The award of a TA may vary but should not exceed 10 hours per week, plus three hours of training per term. Multiple TAs can be taken in a term, normally not exceeding 20 hours per week.TA funding is contingent on fulfillment of the employment obligations and maintaining satisfactory work performance, as stated in the letter of offer or employment contract. Please refer to section 2.5.3 regarding guidelines for maximum hours of work. Employment is paid as earned over the period in which the work is performed.

4.2.1.1 Minimum Academic Requirement for Financial Support

Only registered full-time students who maintain regular attendance on campus and meet program conditions for progression towards their degree shall continue to receive the funding outlined in their offer of admissions.

4.2.1.2 Duration of Financial Support

Normal duration for financial support in a research-based Master's programs varies from two to six terms of full-time registration, depending on the program.

Normal duration for financial support in a Doctoral program is the first twelve terms of full-time registration.

Full-time students transferring from a Master's program to a Doctoral program are eligible for financial support at the level of their original offer or at the minimum funding level set by SGS, whichever is higher, for an additional twelve consecutive terms from the time of their transfer to PhD.

There is no obligation for continued financial support exists for full-time students transferring from a Doctoral program to a Master's program.

4.2.1.3 Minimum Level of Financial Support for Doctoral Students

All full-time Doctoral students who meet the stated criteria under Section 4 shall receive financial support of a minimum of full-time tuition plus $17,500. OSAP is excluded in the calculation of the financial support package. Examples of situations where the minimum financial support does not apply or ceases to apply are:

A student may decline all or part of the funding offer without prejudice to their admission. Where a newly enrolling student declines part of the funding package, the program must retain a copy of the written statement (either hardcopy or electronic) sent to the student acknowledging the change in financial support, which remains in effect for the length of the program. The program is not obligated to provide additional funding in compensation for the declined part(s) of the funding package.

In rare cases where a student is terminated from their employment duties (e.g. teaching assistantship), the program bears no obligation to compensate for the lost funding.

Where a successful applicant has been made an offer based on funding external to the university, the support committed to the student (by the university) for the nominal duration of their degree will be the difference between the funding minimum and the external scholarship value. In cases where an external scholarship ceases to be paid out in whole or in part, the university is not obliged to increase its financial support package.

4.2.2 Financial Payments to Graduate Students

International students must provide a clear demonstration of their means of financial support in order to obtain a study permit.

The University is required by law to deduct Canada Pension Plan and Employment Insurance premiums on all employment income and any appropriate union dues and deductions. Income Tax will be assessed on employment income only. Net earnings will be deposited bi-weekly, directly into a Canadian Bank account. A statement of your earnings is available online after each pay. The direct deposit method of payment is mandatory.

Enquiries about employment should be referred to Human Resource Services (https://~~www.workingatmcmaster.ca/~~hr.mcmaster.ca) 905-525-9140 ext. 22247.

If the student withdraws or graduates from the program part way through an academic year, the student is not entitled to any further portion of the award. Note that funding monies owing to McMaster, such as award/scholarship/bursary repayments, will show as an outstanding balance on their student account.

Additional University Regulations Affecting Graduate Students

5.1 Senate Policy Statements

The University has defined its expectations of students in both the academic and non-academic life of the University community and has developed procedures to ensure that all members of the community receive equitable treatment. Policies that govern academic and student life at McMaster can be found on the University Secretariat's Policies, Procedures and Guidelines webpage at the following address: https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/.

As policies are reviewed and revised on a regular basis, students are advised to check the *Policies, Procedures and Guidelines* webpage for the most up-to-date information (on the website select "students" in the Categories search field). Following are some of the policies most relevant to graduate students, available at the website above:

- Academic Accommodation of Students with Disabilities
- Academic Accommodation for Religious, Indigenous and Spiritual Observances (RISO)
- Academic Integrity Policy
- Alcohol Policy

5.2 Academic and Research Integrity

The following brief statements are excerpted in part from the McMaster University Academic Integrity and Research Integrity Policies. For guidance on how to proceed in the case of suspected academic dishonesty or research misconduct, please consult the Office of Academic Integrity and the complete policies at https://www.mcmaster.ca/academicintegrity/. The Associate Deans of Graduate Studies are available for confidential consultations on matters related to academic and research integrity.

Academic Work

Academic work includes any academic paper, term test, proficiency test, essay, thesis, research report, evaluation, project, assignment or examination, whether oral, in writing, in other media or otherwise and/or registration and participation in any course, program, seminar, workshop, conference or symposium offered by the University.

For graduate students, comprehensive/qualifying exams, any research work, and thesis work (a thesis proposal, or thesis draft, or draft of one or more chapters) also constitute academic work and must adhere to standards of academic integrity.

Academic Dishonesty

Definition

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage.

Wherever in this policy an offence is described as depending on "knowingly," the offence is deemed to have been committed if the person ought reasonably to have known.

Students and applicants to graduate programs are responsible for being aware of and demonstrating behaviour that is honest and ethical in their academic work. Such behaviour includes:

a.   adhering to the principles of academic integrity when submitting application materials

b. following the expectations articulated by instructors for referencing sources of information and for group work;
c. asking for clarification of expectations as necessary;
d. identifying testing situations that may allow copying;
e. preventing their work from being used by others, e.g., protecting access to computer files; and
f. adhering to the principles of academic integrity when conducting and reporting research.

Students are responsible for their behaviour and may face penalties under the Academic Integrity or Research Integrity policies if they commit academic dishonesty or research misconduct.

Graduate students, having been deemed admissible to higher studies, are expected to be competent in the acknowledgement of other people's work, whether that work is in print or electronic media.

Graduate students are expected to understand the demands of ethical conduct of research and reporting research results and behave ethically and responsibly in conducting and reporting research. All graduate students are responsible for familiarizing themselves with the definition of research misconduct in the University's policy, namely, "a researcher must be honest in proposing, seeking support for, conducting, and reporting research; a researcher must respect the rights of others in these activities."

Research Integrity

The University states unequivocally that it demands research integrity from all of its members. Research misconduct, in whatever form, is ultimately destructive to the values of the University and society; furthermore, it is unfair and discouraging to those who conduct their research with integrity. This Policy applies to all institutional personnel. The Office of Academic Integrity is the administrative office responsible for the receipt and processing of allegations of misconduct at the investigation stage. A complete list of Policy violations can be found within the Research Integrity Policy.

5.2 3 Code of ConductStudent Rights and Responsibilities

McMaster University is a community dedicated to furthering learning, intellectual inquiry, and personal and professional development. Membership in the community implies acceptance of the principle of mutual respect for the rights, responsibilities, dignity and well-being of others and a readiness to support an environment conducive to the intellectual and personal growth of all who study, work and live within it.

The *Code of ConductStudent code Code of Student Rights and Responsibilities* outlines the limits of conduct considered to be consonant with the goals and the well-being of the University community, and defines the procedures to be followed when students fail to meet the accepted standards.

Copies of theThe *Code of Conduct Student Rights and Responsibilities*may be obtained from the website at http://studentconduct.mcmaster.ca/student_code_of_conduct.html. https://secretariat.mcmaster.ca/app/uploads/Code-of-Student-Rights-and-Responsibilities.pdf

For Health Sciences graduate students, a supplementary guideline, Professional Behaviour Code of Conduct for Graduate Learners, applies to learners in health care professions and research. This guideline outlines the professional behaviours in all academic and clinical settings that must be understood and followed.

Copies of the Professional Behaviour Code may be obtained atfrom the website https://secretariat.mcmaster.ca/app/uploads/Professional-Behaviour-Code-for-Graduate-Learners-Health-Sciences-2014.pdf.

5.~~3~~ 4 Appeal Procedures

The University has a responsibility to provide fair and equitable procedures for the lodging and hearing of student complaints arising out of University regulations, policies and actions that affect students directly. The procedures described in the <u>Student Appeal Procedures</u> are intended to provide a mechanism to fairly address alleged injustices.

Students who wish to raise questions or who have a concern are strongly encouraged to communication informally with their instructors, the Chair of their Supervisory Committee (or the Department Graduate Advisor where no committee exists), the Department Chair and/or the Associate Dean of Graduate Studies, the University Ombuds, or the appropriate administrative officer *before* seeking a review under the formal procedures. Experience has shown that many complaints can be resolved satisfactorily through informal communication. Students are requested to speak with the University Secretary regarding a complaint before submitting an application.

Students should seek remedies for their grievances as promptly as possible and must do so within the time limitations set out in the Student Appeal Procedures.

A Master's or Ph.D. thesis, and a Ph.D. comprehensive exam are specifically excluded from the re-read procedures identified in the Student Appeal Procedures. If a student does poorly in any of these examinations, the original examining committee is required to allow the student a second opportunity at the examination after at least a week. If the student fails on that second attempt, no additional examinations are permitted.

The Student Appeal Procedures may be found at:

~~http://www.mcmaster.ca/policy/Students-AcademicStudies/StudentAppeal.pdf~~
https://secretariat.mcmaster.ca/university-policies-procedures-guidelines/

Students who seek special consideration should submit a Petition for Special Consideration. Petitions for Special Consideration ('Petition') and the decisions made on them are not part of this Policy. Students wishing to bring a Petition should consult the appropriate section 2.5.9 of the calendar.

5.~~4~~ 5 Ownership of Student Work

In Canada, the author is the immediate owner of the copyright in an original work, except when the author is employed to create such material. 'Copyright' is an exclusive property right to publish, produce, reproduce, translate, broadcast, adapt or perform a work, as defined in the Copyright Act (<u>R.S.C. 1985</u>, c. C-42, as amended). For work done by a graduate student, McMaster has the following policies related to the interpretation of copyright and other aspects of intellectual property rights. These policies distinguish in general between items done solely by the student and those undertaken as part of a joint research effort.

In the former case, the intellectual property is primarily the student's, but the University reserves certain rights as detailed in the remainder of this section. In the latter case, the intellectual property rights involve the student, the research supervisor, (and possibly other individuals as well), the University, and on occasion the financial sponsor of the research. If the work is anticipated to have commercial possibilities, it is recommended that the parties involved agree in writing beforehand on the sharing of any financial returns. The Associate Deans of Graduate Studies are available for confidential consultations on matters of ownership of student work involving faculty and/or other individuals.

5. ~~4~~5.1 Examinations, Reports and Papers Done as Part of Course Requirements

When work that is eligible for copyright is submitted to meet a requirement of a course, the University acknowledges the student's ownership of the copyright, but places the following conditions on the submission of the work to meet course requirements.

a. The original physical document becomes the property of the University. This applies particularly to examination answer scripts, and may also be applied to term papers and other course work.
b. Except for examination scripts, the University receives a royalty-free, non-exclusive licence to make copies of the work for academic purposes within the University, and to circulate the work as part of the University library collection.

5.45.2 Theses and Master's Project Reports

As with other papers, the University recognizes that the student holds copyright to the finished thesis. Copies of the thesis shall have on them in a prominent place on the title page the international copyright notice.

The student is required to sign a licence to the University library (and for Ph.D. students an additional licence to the National Library). (See Section 2.8.3) These licences grant the two libraries permission to reproduce the thesis and to circulate it, but do not affect ownership of the copyright.)

However, the University also recognizes that the ideas in the thesis will often arise from interaction with others. In some cases, this interaction will have been solely with the thesis supervisor; in other cases, a larger research team will have been involved. For this reason, it is understood that the copyright refers only to the written document of the thesis. The ideas, or commercial exploitation of the work may or may not be the exclusive property of the student. For the student who has worked closely with a supervisor, or as part of a research group, the rights to publish, the ownership of original and secondary research records, patent, or commercially exploit the results of the research are shared with the supervisor and/or the research group, and with the University. In those cases in which the work has been supported in part by research grants or contracts, there may be other conditions affecting any patent or commercial exploitation. (The student should be made aware of any such conditions before work begins.)

5.45.3 Computer Programs

Computer programs written as part of employment duties, as for example by a teaching assistant, are the property of the employer, as specified in the Copyright Act. Computer programs written as part of course work, a project or a thesis may also have value as a potentially marketable intellectual property. The University recognizes that such software may arise in two different ways, and accordingly has two policies. In setting forth these policies, it is understood that in those cases in which software development draws upon other software owned or licensed by the University, the terms and conditions of the licence or purchase must be followed.

a. Where a student develops such software at the direct request of a supervisor, and under supervision, it is assumed that there is joint ownership of the intellectual property rights. In such cases, it is recommended that the individuals involved co-author a working paper documenting the software, rather than including it as an appendix to a thesis or report. Prior agreement between the student and supervisor that this is to be the case would be helpful, but is not mandatory.
b. Where a student develops such software on their own, as for example for an independent project in a course, copyright remains with the student. As a condition of using University computing facilities, the student is required to grant the University a royalty-free licence to use the software. This includes the right of the University to distribute copies of the software to McMaster faculty, staff, and students for the University's administration education and research activities. This licence does not include the right to use the software for commercial purposes or to distribute the software to non-McMaster people.

5.45.4 Research Data

As with computer software, the University recognizes that research is conducted and data are acquired in two different fashions. When the data are acquired as part of a joint or collaborative effort, such as one relying on the equipment within a laboratory, they are not solely the property of the student, although some of the data may ultimately appear in tables or appendices in a completed thesis. As a general rule, such data are the joint property of the student and the research supervisor, either of whom has the right to make them available to other individuals as well. Both student and supervisor are responsible for insuring that proper acknowledgement of the contributions of the student, supervisor, and other members of the research team is made when the data are released in any form. Students are responsible for ensuring that there is adequate documentation of their research work and findings and that their records meet granting agency, program and supervisor expectations. While original research records are normally the property of the faculty supervisor overseeing the work, students are expected to generate and properly secure adequate, original documentation, in addition to keeping personal copies, in order to ensure the integrity of their records.

When the data are acquired through the student's individual effort, and without the use of University laboratories or funding, then they are usually the property of the student making that effort. However, exceptions may occur when the student collects data using research instruments, including interview schedules and questionnaires, developed wholly or in part by the research supervisor or by some other person or agency. In such instances the right to ownership and/or use of the data may be shared among the parties involved. Given the range of possible alternatives it is not possible to set absolute guidelines in advance covering all such situations. Consequently, it is recommended that students and supervisors make clear agreements in advance concerning the ownership and use of data collected in this fashion. Ownership of data may also be affected by the terms of a research contract that has supported the work.

5.~~4~~5.5 Equipment

If University resources have been applied to the construction or design of equipment, it is not the property of the student, but of the University. Equipment constructed or designed as part of course or thesis work is the property of the student if the work, materials, and workroom space have been provided by the student or other non-University source. Ownership of newly constructed equipment may also be specified in a research contract that has supported the work.

5.~~5~~ 5 McMaster University Policy for Academic Accommodation of Students with Disabilities

Below are excerpts from the Academic Accommodation of Student with Disabilities policy.

McMaster University is committed to excellence in teaching and learning. The University strives to ensure every student is afforded an academic environment that is dedicated to the advancement of learning and is based on the principles of equitable access and individual dignity. At McMaster we nurture and support a culture of acceptance, inclusion and the celebration of diversity. Creating a learning environment that is accessible to all students is a value embedded within the University's fabric as well as our policies, services and practices.

Students must meet University and program/degree requirements, including participation in classes, labs, clinical or practicum placements, tutorials, etc. Students seeking an Academic Accommodation are required to participate fully in the Academic Accommodations process. This participation includes: a) when the student is aware of their disability and the need for Academic Accommodation, contacting Student Accessibility Services before classes or academic work begins; b) providing the information required so that Student Accessibility Services can assess the duty to accommodate and develop Accommodation Plans; c) after the approval of the Accommodation Plan, should the student have any questions they may choose to speak with their instructor, SAS advisor or Faculty Office to review steps for the implementation of the Accommodation Plan; d) notifying Student Accessibility Services of any changes that may impact already established Accommodation Plans in a timely fashion.

Student Accessibility Services requires adequate time to review requests and coordinate needed arrangements. Some accommodations take longer to arrange than others (e.g. sign language interpreters and transcriptions), and students

with these types of requests should be particularly cognizant of the timing of their requests. Failure to make a request or supply the required documentation in a timely manner may delay the approval and/or implementation of the requested accommodation.

New students and transfer students are encouraged to contact Student Accessibility Services and submit their accommodation request as soon as possible after they receive their offers of admission, or by August 1st of the academic year, whichever comes first.

The complete Academic Accommodation of Student with Disabilities Policy, which includes Roles & Responsibilities, Guidelines and Procedures, Appeals and related legislation can be found here.

Workplace Accommodations for graduate students who have Teaching Assistantships and other campus employment are processed through Human Resources. For the related policy, requests, and procedures, refer to Human Resources.

5.6 7 Student/Faculty Non-Disclosure Agreements

The School of Graduate Studies encourages the cooperation of faculty with the private sector. Often cooperation will permit the involvement of graduate students. When this happens, it is not unusual for a company to protect its interests by asking the faculty member and the student to sign a confidential Non-disclosure Agreement. Such agreements are signed by the McMaster Industrial Liasion Office (MILO) and apply to all members of the university including students involved in the work. These agreements can restrict conditions for a number of matters important to students, such as their wish to publish research results, the thesis defence, and the deposit of the thesis with libraries. In all cases, the restrictions are reasonable and do not clash with academic principles that require the presentation of research findings for peer assessment.

Students should be advised to discuss any non-disclosure waivers or comparable agreements with the department chair, graduate advisor, or the School of Graduate Studies, if they are concerned with the conditions.

It has been common practice, in cases where a corporation wishes to protect its interests in a discovery, to delay placing copies of a thesis in libraries for up to twelve months after the oral defence, but not for longer periods.

It has not been common practice in these same cases to limit attendance at oral defences to only examination committee members; nor has it been common practice to have examination committee members agree to non-disclosure agreements. The pertinent guiding principle is that oral defences are public events.

Students in doubt about how these norms of academic activity apply to their circumstances should approach the Vice-Provost & Dean of Graduate Studies.

5.7 8 Conflict of Interest Guidelines, School of Graduate Studies

5.78.1 General

There shall be no prohibition on the grounds of family relationship against the admission of persons as full- or part-time graduate students or against the eligibility for financial awards of such persons. Faculty members normally shall not take part in any proceedings at any level which affect the graduate standing of a spouse or other relative (including admission, financial assistance, promotion, courses of instruction, supervisory, thesis and examining committees). It is understood that the merits of each individual shall be the overriding consideration in all such cases.

5.~~7~~8.2 Conflict of Interest in the Evaluation of Graduate Students

All faculty members responsible for the evaluation of graduate students have a general responsibility to the University to ensure that they are not in a position of conflict of interest (or the appearance of a conflict of interest) in their obligations to the University with regard to the nature of their relationships with graduate students. Specifically, a faculty member may not be involved in the evaluation of a graduate student if the faculty member has a close family relationship with the student (including spouse, parent, child, sibling, niece/nephew or spouses of the foregoing), if the faculty member is, or has been engaged to be married to the student, or if the faculty member has (or has had) an intimate personal relationship with the student. Evaluation includes grading course work or examinations (including the defence of a thesis) and supervision, whether as the principal supervisor or as a member of a supervisory committee.

A faculty member should question the propriety of evaluating a graduate student if there exists a distant family relationship with the student, or if the faculty member and the student maintain or have had a business relationship or any other relationship which should reasonably give cause for concern.

Questionable cases should be referred to the Vice-Provost & Dean of Graduate Studies for a decision.

5.~~8~~ 9 Student Academic Records

Student academic records are the property of the University. The University has developed procedures designed to protect the confidentiality of student records. A student may have access to their file, but documents received from a third party in confidence will not be disclosed.

Transcripts are issued only with the consent of the student.

5.~~9~~ 10 McMaster University Workplace and Environmental Health and Safety Policy

McMaster University is committed to provide and maintain healthy and safe working and learning environments for all employees, students, volunteers and visitors. This is achieved by observing best practices which meet or exceed the standards to comply with legislative requirements as contained in the Ontario Occupational Health and Safety Act, Environmental Protection Act, Nuclear Safety and Control Act and other statutes, their regulations, and the policy and procedures established by the University. To support this commitment both McMaster University and its employees are responsible jointly to implement and maintain an Internal Responsibility System directed at promoting health and safety, preventing incidents involving occupational injuries and illnesses or adverse effects upon the natural environment.

The University is responsible for the provision of information, training, equipment and resources to support the Internal Responsibility System and ensure compliance with all relevant statutes, this policy and internal health and safety programs. Managers and Supervisors are accountable for the safety of workers within their area, for compliance with statutory and University requirements, and are required to support Joint Health and Safety Committees. Employees are required to work in compliance with statutory and University requirements, and to report unsafe conditions to their supervisors.

Contractors and subcontractors undertaking to perform work for McMaster University must, as part of their contract, comply with all relevant workplace and environmental health and safety statutes and to meet or exceed the University's Workplace and Environmental Health and Safety Program requirements.

In addition to the ~~above stated~~above-stated managerial responsibilities, Deans, Directors, Chairs, Research Supervisors and other Managers are also accountable for the safety of students, volunteers and visitors who work and/or study within their area of jurisdiction. Students are required by University policy to comply with all University health, safety and environmental programs.

Implementation:

The authority and responsibility for the administration of procedures and programs to provide for the implementation of this policy is assigned to the Office of the Vice President, Administration.

The Risk Management Support Group is responsible for facilitating the development, implementation and auditing of the Health and Safety Programs effective under this policy. This is achieved through the implementation of a risk management system that is directed at supporting the Internal Responsibility System through the application of best practices for the management of occupational, environmental, public health and safety related risks.

The Office of the Vice President, ~~Administration~~Operations and Finance will provide reports to the University Board of Governors concerning the status and effectiveness of the Workplace and Environmental Health and Safety System and any notices of violation issued to the University regarding breaches of workplace health and safety or environmental protection statutes.

5.~~10~~ 11 Inter-University Cooperation - Ontario Visiting Graduate Student (OVGS)

It is possible for a graduate student registered at McMaster University to take a graduate course at another Ontario university for credit toward the McMaster degree. To do so, the student must review the Information Booklet, complete the form for an Ontario Visiting Graduate Student (OVGS) ~~(both available on the Council of Ontario Universities website http://cou.on.ca/key-issues/education/graduate-education/ontario-visiting-grad-students~~available on the SGS website under Current Students – Forms and Policies.~~)~~ Students must~~and~~ describe the course to be taken (including all relevant course codes), the term in which it will be taken, and the reasons for taking the course. Approval of the student's Department Chair and Supervisor are required before the form is submitted for approval to the School of Graduate Studies via Service Request, which will send it to the host university once approved by SGS. The course selected must be required for the student's program, must be a graduate level course, and must not be available at McMaster University. Auditing of courses or registration for "extra" courses is not permitted. The student is subject to any regulations of their Home University with respect to the maximum number of courses which may be taken at another Ontario university. At McMaster, there is a ~~two course~~two-course maximum over the duration of the student's program. Once complete, an official transcript must be sent to the student's program office so that it can be uploaded to the Service Request ~~SGS~~ for the student's record to be updated.

General Information

Counselling Services

Student Wellness Centre - https://wellness.mcmaster.ca/

Equity and Inclusion Office - https://equity.mcmaster.ca/
International Student Services - ~~https://iss.mcmaster.ca/~~ https://studentsuccess.mcmaster.ca/international-students/
Ombuds Office - http://www.mcmaster.ca/ombuds

Office of Academic Integrity - http://mcmaster.ca/academicintegrity/index.html
Student Accessibility Services - http://sas.mcmaster.ca/

Office of the Registrar - Student Services - https://registrar.mcmaster.ca/~~aid-awards/~~

Student Success Centre - http://studentsuccess.mcmaster.ca/

<u>Health Services</u>

~~Environmental and Occupational Health Support Services~~<u>University Health and Safety</u> - Tel . 905-525-9140 Ext. 24352

Ontario Health Insurance Card - Tel . 905-521-7825 (Service Ontario)

~~Student Wellness Centre - http://wellness.mcmaster.ca~~

University Health Insurance Plan - https://studentsuccess.mcmaster.ca/international-students/health-insurance; uhip@mcmaster.ca

Workplace Safety and Insurance Board Coverage for Graduate Students - ~~Working at McMaster~~<u>https://hr.mcmaster.ca</u>

<u>Housing and Conference Services and Hospitality Services</u>

Conference and Event Services - https://housing.mcmaster.ca/conference-event-services/

Hospitality Services - http://hospitality.mcmaster.ca

~~McMaster Community Homes Corporation - Tel . 905-578-3833; E-mail: receptionist@communityhomes.ca~~

Off-Campus Housing - http://macoffcampus.mcmaster.ca (Off-Campus Resource Centre)

On-Campus Housing - http://housing.mcmaster.ca (Housing and Conference Services)

<u>Student Associations</u>

Graduate Students Association (GSA) - https://gsamcmaster.ca

McMaster University Alumni Association - http://alumni.mcmaster.ca/

<u>Other University Services/Facilities</u>

Athletics and Recreation - http://www.marauders.ca

Bookstore ~~and Post Office~~ - https://campusstore.mcmaster.ca// ~~(Titles Bookstore)~~

Day Care Facilities at McMaster

- McMaster Children's Centre Incorporated - https://mcmasterchildrenscentre.wordpress.com
- McMaster Students' Union Child Care Centre - ~~https://www.msumcmaster.ca/services-directory/30-child-care-centre~~ <u>https://msumcmaster.ca/service/childcare/</u>

Parking Services - http://parking.mcmaster.ca

Security Services - http://security.mcmaster.ca

University Chaplain Centre - https://mcmasterchaplaincy.org/

<u>Special Resource Services/Facilities</u>

~~Centre for~~ <u>McMaster</u> Continuing Education - ~~http://www.mcmastercce.ca~~ <u>https://continuing.mcmaster.ca/</u>

MacPherson Institute - http://mi.mcmaster.ca

McMaster Media Production Services - ~~http://media.mcmaster.ca~~ <u>https://mps.mcmaster.ca/</u>

McMaster Museum of Art - https://museum.mcmaster.ca

Office of International Affairs - ~~http://oia.mcmaster.ca~~ <u>https://global.mcmaster.ca/</u>

University Library - http://library.mcmaster.ca

University Technology Services (UTS) - ~~http://www.mcmaster.ca/uts~~ <u>https://uts.mcmaster.ca/</u>

Graduate Scholarships, Bursaries and Other Awards

(https://gs.mcmaster.ca/current-students/scholarships/)

6.1 Overview

The University and the School of Graduate Studies supports the financial wellbeing of students in the delivery of aid and award programs, ensuring equity, consistency and transparency in administration.

The following information is intended to provide details about the various forms of scholarship support available at McMaster. Students with questions regarding financial support should contact their department or graduate program (hereafter referred to as the department) directly for assistance.

All efforts have been made to ensure the accuracy of information of awards on the School of Graduate Studies website. However, it is ultimately the responsibility of fellowship and award applicants themselves to verify program deadlines and/or requirements with external agencies. The School of Graduate Studies cannot be held responsible for any error or omissions, but would appreciate being informed of these, for correction or addition in the next edition.

6.1.1 General Regulations

Graduate students at McMaster University are expected to apply annually for external funding opportunities that may be available to them and as directed by their department.

Scholarships (including fellowships, prizes, medals and awards), academic grants and bursaries may be cancelled without notice if the conditions under which they are granted are not upheld. To hold an award at McMaster University, students must:

- Have been unconditionally admitted into the eligible graduate degree program for which funding was granted;
- Be registered full-time and progressing satisfactorily in the eligible graduate degree program; part-time students are normally not eligible to receive scholarship support;
    - A student who withdraws, is on approved leave, changes academic load from full to part-time, reduces course load or units, has approved to graduate status or otherwise alters their program of study may be required to forfeit all or part of their funding.
- Accept the terms and conditions of the award;
- Comply with all academic regulations of McMaster University and the requirements of the scholarship and/or award;
- ~~Not hold or accept full-time employment while holding the award; and~~
- Agree to have McMaster University administer the award in accordance with its policies and procedures.

In accordance with the *Freedom of Information and Protection of Privacy Act* and McMaster University's Statement on the collection of Personal Information and the Protection of Privacy, where notice is given, the University is permitted to publish an individual's name, Faculty, program and award information. McMaster University reserves the right to publish the names of recipients of most scholarships and awards. **Note:** If a student chooses to revise their consent, they must contact the School of Graduate Studies at graduatescholarships@mcmaster.ca. It is the School of Graduate Studies responsibility to update Mosaic and AwardSpring.

For the purpose of Aid and Award criteria and eligibility, references to "Woman" or "Female" include all students who identify as Woman or /Female and references to "Man" or "Male" include all students who identify as a Man or Male.

6.1.2 Value and Duration of Award

The value and duration of scholarships and awards are detailed in the terms of the letter of offer or award letter. Should a successful applicant receive an internal scholarship or external award subsequent to the letter of offer, McMaster's normal practice is to adjust the contributions to the applicant's offer in such a way that the applicant benefits from the additional award, but not to the extent that it simply adds the value of the award to the original offer. The fractional

financial benefit of an internal scholarship or external award varies by program but is consistent within a given program.

Any approved change in degree, program, registration, supervisor or research area must be reported to the School of Graduate Studies and may result in a change to the value and/or duration of the award. The value of some external awards must be refunded if conditions of the awards are not met.

6.2 Graduate Scholarships

Upon admission to McMaster, graduate students are automatically considered for funding by the various departments. Offers that include funding will state the amount and duration of funding, conditions for renewal (if any), terms of continued funding, and other relevant details. All funding for graduate students from the University or from individual programs will be based on satisfactory progress of the student in their program as determined by academic criteria or as specified in an offer of funding. If the student has been awarded a Graduate or Departmental Scholarship, they should be aware that the funds for this scholarship might come from funds awarded by the School of Graduate Studies and/or from the department. The student may also receive a Research Scholarship provided by funds from the supervisor. Students that have been awarded an Entrance Scholarship, should be aware that it is for the first term of study only and is not renewable. All funding is contingent on enrolment of the student.

6.2.1 Internal Awards

The University Senate, acting on behalf of generous benefactors and donors to the University, bestows academic awards, bursaries, academic grants, and travel awards on graduate students. In recognizing financial need and/or academic and/or research merit, the University requires all recipients of awards to fulfill a set of general conditions, in addition to meeting the particular terms attached to individual academic awards. The general conditions and terms have been established to ensure equity in competition and a high academic standing. Any interpretation of the conditions attach~~inged~~ to academic awards is solely the prerogative of the Graduate Council. The University reserves the right not to grant an award in the absence of a suitable candidate, or to limit the number of awards where too few suitable candidates exist. The University also reserves the right to withdraw, or amend the terms of, any award, and/or to suspend granting of an award or to adjust the stated value of an award in years in which insufficient investment income is available due to fluctuations in investment markets. Where the terms of such an award become impossible to fulfill through obsolescence, then the University may amend the terms to carry out the nearest possible intent of the donor while still ensuring that the benefit of the award continues.

Bursaries

Bursaries are granted on the basis of demonstrated financial need according to the principles of the Province of Ontario's Student Access Guarantee. They are intended to supplement a student's own financial contribution, parental assistance, government aid and personal loans/lines of credit to help the student to complete the academic year.

In order for students to be considered for any donor bursary, they must have completed a full-time OSAP application or another provincial government student aid application, or a standard university need profile, and they must apply to the Graduate General Bursary through AwardSpring.

Academic Grants

Academic Grants are granted on the basis of academic excellence and demonstrated financial need as stated above.

In order for students to be considered for an academic grant, they must have completed a full-time OSAP application or another provincial government student aid application, or a standard university need profile.

Internal Scholarships (including travel awards)

Internal scholarships support students registered in a specific program or Faculty through the generous contributions of our benefactors and donors, and initiatives from the School of Graduate Studies. Selection is based on academic merit and/or research excellence. Students can apply to most of the internal scholarships through ~~aid by application in~~ AwardSpring. A small number of scholarships don't have applications as they are awarded by departmental nomination as per the terms of the award. It is critical that students consult with their departments regarding eligibility, application procedures and deadlines as each department will have its own process for internal review. Departments forward their recommendations to the School of Graduate Studies for final approval.

6.2.2 External Awards Tenable at the University

External awards tenable at the University are given by federal and provincial government agencies and other private organizations that rely on McMaster University to recommend candidates, facilitate payments, and ensure compliance of terms and conditions of the award. Examples ~~of these agencies~~ include the Canadian Institute of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC), and the Ontario Graduate Scholarships (OGS).

The application process for the majority of these awards is usually held one year in advance of receipt of the award (for example, competitions are held in ~~October~~the fall for awards starting in May, September or January of the subsequent academic year). Applications and eligibility requirements are usually indicated on respective government agency web sites by late August. Deadlines vary by agency but normally occur in the ~~f~~Fall of each academic year.

As the recipient of a CIHR, NSERC, SSHRC, OGS or similar award, the student may be required to complete additional acceptance/refusal forms, and provide copies to their department and the School of Graduate Studies. If the student changes their status, or is granted a leave of absence, the student may be required to notify the external agency as outlined in the guidelines (or terms and conditions) of the award. It may also be the case that the external award is subject to restrictions that require altered terms of the original letter of offer, or forfeit the award.

6.3 Funding Application Deadlines

Students interested in applying for scholarships and awards should contact their home departments for specific details on the application process and department internal deadlines. Dates and information from external agencies may be updated periodically and without notice. Changes to internal due dates within departments or programs, and the School of Graduate Studies, will be updated accordingly.

6.4 Financial Planning

A financial plan is an essential part of a university career. It can be helpful to consult with family members, a banking representative or financial aid counsellor to research financial options. Graduate students who are eligible are encouraged to apply for OSAP. For more information about OSAP, please visit the following sites: Office of the Registrar, Aid & Award and Government of Ontario - OSAP.

Governing Bodies

7.1 Senate

The University Senate consists of approximately 65 members, including the Chancellor, the President (Chair), the Vice-Presidents and Vice-Provosts, the Vice-Provost & Dean of Graduate Studies, the Faculty Deans, three members

from the Board of Governors, four members from the Alumni Association, and 32 faculty members. In addition, there are 12 student members, one graduate and one undergraduate from each of the six Faculties. The students are elected by and from the students in their respective Faculties.

The Senate has ultimate responsibility for determining academic policy, which includes new academic programs, changes in curriculum, standards for admission to the University, matters arising in connection with the award of scholarships and prizes, examination policy, academic regulations, procedures for student appeals, criteria and procedures for granting tenure and promotion to faculty members, the codes of conduct for students and so on. Website: ~~http://www.mcmaster.ca/univsec~~ https://secretariat.mcmaster.ca/

7.2 Graduate Council

The Graduate Council is a deliberative, administrative, and executive body responsible directly to Senate but otherwise autonomous. Its membership consists of the Chancellor, the President and Vice-Chancellor, the Provost and Vice-President (Academic), the Vice-Provost & Dean of Graduate Studies (Chair), the Associate Deans of Graduate Studies, the Faculty Deans, the University Librarian, the University Registrar, the Secretary of Senate, the Vice-President (Research and International Affairs), Manger of Finance and Administration of the School of Graduate Studies, the Associate Graduate Registrar and Secretary of the School of Graduate Studies, eighteen faculty members (three from each faculty), and twelve graduate students (two from each faculty).

The responsibilities of the Graduate Council have been specified in some detail by Senate and are outlined in the By-laws of the Senate of McMaster University and the Senate Resolutions. The more significant ones may be summarized by noting that it regulates matters concerning graduate work of common concern to the entire University, acts upon recommendations concerning graduate work from each Faculty upon matters of particular concern to that Faculty, reports to Senate on graduate matters, recommends candidates for graduate degrees, stipulates conditions for the awarding of graduate scholarships, and stipulates the departments eligible to offer graduate work.

7.2.1 Executive Committee of Graduate Council

The Executive Committee of Graduate Council is composed of the Vice-Provost & Dean of Graduate Studies (who acts as Chair), the Associate Deans of Graduate Studies as Deputy Chairs, the President and Vice-Chancellor, the Provost and Vice-President (Academic), one faculty member from each Faculty, and the Associate Graduate Registrar and Secretary of Graduate Studies.

The Executive acts as nominating committee, academic policy committee, and on any other matters put before it by Graduate Council or the Vice-Provost & Dean. This body acts on behalf of Council in instances where there is some urgency (e.g., during the summer months when there are no regularly scheduled meetings).

7.2.2 Scholarships Committee of Graduate Council

The Scholarships Committee of Graduate Council is composed of the Associate Deans of Graduate Studies (who act as co-chairs) and faculty members (representing all six faculties). This committee is responsible for acting upon all recommendations and applications for internal endowed fellowships and scholarships, and external scholarships.

7.3 Standing Committees

7.3.1 Faculty Graduate Curriculum and Policy Committees

Each of the six Faculties has a Committee on Graduate Curriculum and Policy which is responsible for dealing with matters of policy and curriculum affecting the Faculty, including new developments, course changes, changes in degree requirements, and new programs and fields of study arising from departmental proposals. The Faculty then acts upon the recommendations of this committee.

7.3.2 Faculty Graduate Admissions and Study Committees

~~For each Faculty, there is also~~ AFaculty may have a Committee on Graduate Admissions and Study responsible for determining admissibility of any applicant on the recommendation of the department, approving each student's course program, reviewing annually the progress of each student, making necessary decisions thereon, recommending awarding of degrees, deciding upon applications from students for special consideration, and acts on the final decisions from a hearings committee for student appeals and cases of alleged academic dishonesty and research misconduct. In Faculties that do not have a Graduate Admissions and Study Committee ~~Normally,~~ the Associate Dean of Graduate Studies for the Faculty handles the matters listed above. ~~on behalf of the committee.~~ The Secretary of all Committees, to whom business items may be addressed, is the Associate Graduate Registrar and Secretary of Graduate Studies.

McMaster University

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I am pleased to make public the report produced by McMaster's Task Force on Graduate Funding. The efforts made by the Master's and PhD students, associate deans and senior university leaders on the Task Force to conduct a thorough and evidence-based examination of this complex topic are commendable.

Graduate funding is a challenge for the higher-education sector and for graduate students. The rising costs that continue to impact all Canadian society have exacerbated the need to better understand sources of graduate funding, as well as the role of students, the university and government.

The report's findings also make it clear that the level of support universities are able to provide graduate students is related to the financial supports available in the institution.

Early in their work, Task Force members presented immediate opportunities to support graduate students, which were ratified by Graduate Council and by the university's Senate at the end of the 2023 Spring Term. These actions included an increase to the minimum stipend for all full-time/in-time PhD students at McMaster, policy changes to remove limits to on-campus employment and a commitment to continually update and publicly share aggregated data on graduate student funding.

These initial actions and the subsequent report are the result of a comprehensive consultation process undertaken by the Task Force that underscored members' commitment to including as many voices as possible in the process.

I'm thankful to the students, faculty, staff and everyone else who attended the 19 round table meetings, the town hall on campus or used the online form to submit their thoughts. Their contributions led to the five themes identified in the report, which the Task Force used to focus their recommendations.

I look forward to reviewing the recommendations with other university leaders to advance graduate student success.

Once again, I extend my gratitude to all members of the Task Force and to everyone in our McMaster community who shared their thoughts and feedback throughout this process.

Together, we will continue to uphold McMaster's tradition of excellence in graduate education and providing the wraparound supports graduate students need to succeed.

Sincerely,

Susan F. Tighe

Susan Tighe
Provost and Vice-President (Academic)

Task Force on Graduate Funding Report
March 2024

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INTRODUCTION

Graduate students are at the heart of McMaster's mission to discover, communicate and preserve knowledge. They play a multifaceted role in our institution as learners, researchers, teaching assistants (TAs), research assistants (RAs), and as future leaders. Graduate students also fuel the university's commitment to creativity, innovation, and excellence, strengthening McMaster's global reputation. Graduate funding provided by the institution recognizes the important contributions graduate students make to our university and to society.

In recent years, graduate funding has become a challenge for both the Canadian higher-education sector and for graduate students. In response, McMaster's Provost and Vice-President (Academic) called for the creation of a task force in February 2023 to make recommendations to better support graduate students in the current context. The need to address the financial pressures impacting the sector was also acknowledged by the Ontario government, which convened an expert panel in March 2023 to provide advice and recommendations to ensure the financial stability of the education sector and a focus on providing the best student experience possible. The [Blue-Ribbon Panel on Financial Sustainability in the Postsecondary Education Sector report](#) was released on Nov. 15, 2023. On Feb. 26, 2024, the provincial government responded to the report by announcing that it will provide nearly $1.3 billion in funding to Ontario's 50 colleges and universities over the next three years. The funding is about half of the total amount recommended by the Blue-Ribbon Panel.

INITIAL IMPACT OF McMASTER'S TASK FORCE

During the course of the Task Force, it became clear to members that immediate opportunities to support graduate students were available. Informed by the Task Force's work, several new supports for graduate students were undertaken by the School of Graduate Studies (SGS) with the support of McMaster's six Faculties and subsequently ratified by Graduate Council and by the university's Senate at the end of the 2023 Spring Term – nearly halfway through the Task Force's mandate.

On June 7, 2023, the Vice-Provost and Dean of Graduate Studies, who served as the Task Force's chair, announced that starting on Sept. 1, 2023, all full-time/in-time PhD students at McMaster would see their minimum stipend rise to $17,500 plus tuition, up from $13,500 plus tuition. The change has benefited 7 per cent of PhD students. Other immediate actions were also announced:

- Policy changes to remove limits should students desire more on-campus employment.
- Increasing efforts to make students aware of emergency bursary funds for non-tuition issues.
- A review of offer letters to improve access to external information sources to help students make informed decisions considering the offered funding package.
- Commitment to develop a formal process and forum to communicate and discuss issues around graduate funding.

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- Commitment to continually update and publicly share aggregated data on graduate student funding.

POST-SECONDARY SECTOR

Across Canada, and particularly in Ontario, the financial sustainability of universities faces multiple challenges that cannot be ignored in any discussion around graduate funding. Federal and provincial scholarships for graduate students have been frozen for more than 20 years.

Provincial grant funding to universities has been frozen since 2017 and domestic tuition was cut by 10 per cent in 2019 and subsequently frozen. Tuition and government grants are not sufficient to cover the costs of graduate education for all graduate students. Within the sciences and engineering, the cost of supporting graduate students falls heavily to faculty supervisors, whose support is also greatly impacted by both the federal and provincial research funding environment.

In the midst of this uncertain financial time, McMaster has nonetheless taken actions to gather feedback, discuss, and to collaboratively seek creative solutions around graduate funding. In February 2023, McMaster's Graduate Council endorsed the Provost's call to form the Task Force on Graduate Funding. The group, which was chaired by the Vice-Provost and Dean of Graduate Studies, included six students, six Faculty Associate Deans and the Deputy Provost. The full list of members was posted online to the newly created Task Force on Graduate Funding website and can also be found below:

Task Force Membership

- Chair: Steve Hranilovic, Vice-Provost and Dean of Graduate Studies
- Steven Hanna, Vice-Dean & Associate Dean Graduate Studies, Faculty of Health Sciences
- Martin Horn, Associate Dean Graduate Studies and Research, Faculty of Humanities
- Manish Verma, Associate Dean, Graduate Studies, Faculty of Business
- Bhagwati Gupta/Bruce Newbold, Associate Dean Graduate Studies, Faculty of Science
- Melanie Heath, Associate Dean, Graduate Studies, Faculty of Social Sciences
- Michael Thompson, Associate Dean, Graduate Studies, Faculty of Engineering
- Matheus Grasselli, Deputy Provost
- Alisha Anand (M.Sc. Candidate), Graduate Council Student Representative, Faculty of Health Sciences
- Natasha Malik (PhD Candidate), Graduate Council Student Representative, Faculty of Humanities
- Shamik Pushkar (PhD Candidate), Graduate Council Student Representative, Faculty of Business
- Xiaobing Li (PhD Candidate), Graduate Council Student Representative, Faculty of Science
- Joseph Antwi-Boasiako (PhD Candidate), Graduate Council Student Representative, Faculty of Social Sciences

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- Hassan Abdulhussain (PhD Candidate), Graduate Council Student Representative, Faculty of Engineering

With support from

- Nancy McKenzie, Associate Director, Academic Projects and Reviews, Office of the Provost
- Fernando Carneiro, Communications Manager, Office of the Provost

The Task Force began its work by undertaking an analysis of the academic year 2021/22 graduate funding data to understand the sources and amounts of financial support provided to full-time, graduate students in research-based programs. A summary of the aggregate data on graduate funding was published online and these data formed the foundation for the extensive consultations that followed with McMaster's campus community.

The data showed that full-time/in-time PhD students across most Faculties had a median funding package in the range of $22,000 to $23,000 net of tuition. The exception was the Faculty of Business where the median is about $27,000. Only 3 per cent of in-time PhD students received near the minimum funding level net of tuition of between $13,500 and $15,500 in 2021-22. As noted earlier, this minimum stipend was raised for all full-time/in-time PhD students starting in the Fall 2023 term. This action stands as one of the first outcomes of the Task Force's work.

CROSS-CAMPUS CONSULTATIONS

Nineteen round table meetings were held with more than 90 individuals with representation from the Graduate Students Association (GSA), graduate students (Masters; PhD; domestic and international), faculty and staff, deans and associate deans, McMaster University Faculty Association (MUFA), CUPE Local 3906, which represents TAs and RAs in lieu, as well as members from the broader university community. The Task Force also solicited and collected feedback through an online feedback form. Between February to October 2023, 47 individuals submitted online feedback. Of those, 25 were graduate students, 15 were faculty members and 7 were staff. Together, they represented all six Faculties and other university areas.

To ensure broad-based consultation and to engage the widest audience possible, a town hall on graduate funding was also held on campus on June 7, 2023. It was attended by about 140 graduate students, faculty and staff. Members of the Task Force on Graduate Funding were on stage to receive comments and answer questions from the audience. This led to an open discussion involving graduate students, staff and faculty involved in graduate education. The 1.5-hour event was extended by more than 20 minutes to ensure everyone who wanted to ask a question or contribute a comment had the opportunity to do so.

Five overarching themes emerged from the round tables, online feedback and town hall: (1) Financial Struggles; (2) Clarity on Funding Packages; (3) International Student Barriers; (4) Graduate Funding Adjustments Following Major Scholarships; and (5) Four-Year Funding

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Model for PhD Students. This report addresses each of the five themes and provides recommendations herein.

THEMES AND RECOMMENDATIONS

1. Financial Struggles

Context

McMaster's institutional contributions toward graduate scholarship are provided in part through the SGS Scholarship Fund. The institutional budget allocates funds to SGS, which are then disbursed to departments and programs according to a formula based on enrollment. However, based on the 2021/22 data, in practice the SGS Scholarship Fund contributed no more than 25 per cent of the total support provided to graduate students in any Faculty.

The other sources of graduate support vary considerably between Faculties and can even vary between programs in a Faculty. For example, employment guarantees for many graduate students as TAs or RAs in lieu, constituted at least 35 per cent of support in Business and Science and is particularly important in Social Science (43 per cent) and Humanities (47 per cent). In contrast, contributions from research grants secured by supervisors (from government and industry sources) are particularly important in Health Sciences (35 per cent) and Engineering (50 per cent). Success in external competitive scholarships (primarily federal) is an important source of funding, however, these scholarships are merit-based and limited in scope and are thus distributed unequally.

Recommendations

1. Remove limitations on the number of hours that students can work for pay both inside and outside the university. [Implemented as of Sept. 1, 2023]

2. More clearly articulate that the financial supports provided to graduate students, which includes scholarships and bursaries, are only one component of a student's finances and are not intended to cover all living expenses.

3. Support efforts of graduate students to seek out affordable housing (in addition to recently increasing the number of housing units through the new *Graduate Student Residence*). This would be achieved by:
   a. Exploring opportunities for housing bursaries targeted to students who are most disadvantaged.
   b. Working with McMaster's Off-Campus Housing office to help identify housing options (raise awareness/help promote their services to graduate students).

4. Explore the introduction of an alternate funding payment schedules to create more predictability and account for the variability in support over different terms in an academic year.

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2. Clarity on Funding Packages

Context

Graduate students rely on information provided by the university to make important decisions. Throughout the roundtable discussions and the town hall meetings, Task Force members heard that the way funding information is shared with graduate students varies across McMaster's six Faculties. Concerns shared included unclear procedural details, uncertainty over how funds are allocated, confusion over scholarship adjustment practices, and descriptions and limitations of the various awards and bursaries available.

Recommendations

1. Share aggregated data on graduate funding annually with the McMaster community. This would make McMaster one of a few Ontario institutions to provide this level of transparency to existing and prospective students

2. Form a Subcommittee on Graduate Funding within Graduate Council, to oversee the analysis of funding data and generate a publicly available annual report. The committee would provide recommendations annually to Graduate Council and the six Faculties on matters related to graduate funding.

3. Introduce regular reviews of letters of offer to ensure that the funding information provided not only continues to be accurate and complete but is also understandable and accessible by students.

4. Increase awareness of descriptions of all awards and scholarships available to students, including eligibility and number of awards. The process of how scholarships and bursaries are adjudicated should be made transparent by each Faculty and SGS.

5. Inform graduate students of the array of sources from which funding is provided in each Faculty recognizing that these sources may differ substantially between Faculties.

3. International Student Barriers

Context

International graduate students face unique financial barriers. These barriers include paying for the University Health Insurance Plan (UHIP), which is mandatory for registered international and exchange students while they study in Canada; limited access to major scholarships; a study permit maximum 20 hours per week of off-campus employment; and a lack of credit history, which impacts their ability to secure loans and housing.

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Other financial issues brought up by international students may be applied equally to domestic students, particularly those coming to McMaster from outside the region or province. Those include a lack of familiarity with living costs in Hamilton, a lack of a social network to help navigate local housing, transit, and public services, and a lack of job-hunting skills appropriate to the local economy to secure employment to pay for living costs.

Task Force members also recognize the university's ongoing efforts to support international students. McMaster contributes significant financial resources to ensure that all international PhD students pay tuition fees equivalent to those of domestic students and in some Faculties, international research-based Master's students are provided scholarship support.

Recommendations

1. Provide a resource with links for up-to-date local information on housing (both on and off campus), transit, medical, social, and government matters targeted to international students.

2. Ensure international students are aware of scholarships, bursaries, and other resources to which they are eligible.

3. Develop opportunities through SGS and partner units to improve career readiness skills as well as advertise on- and off-campus employment opportunities for international students.

4. Offer workshops to help international students understand the rules on employment associated with their study permits.

5. Enlist support from University Advancement to seek out additional opportunities for scholarships that can be targeted to international graduate students.

4. Graduate Funding Adjustments Following Major External Scholarships

Context

The practice of adjusting the funding received by graduates who receive major external scholarships was raised often during consultations with the McMaster campus community. Graduate funding adjustment reduces the value of the scholarship provided to graduate students from McMaster when a student wins a major external scholarship. This practice is applied widely in the higher-education sector with funds that are reclaimed typically reallocated to support other graduate students and research activities. Graduate students who are recipients of major external awards expressed a desire to realize a greater personal financial benefit upon securing an external scholarship.

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At McMaster, there is no uniform graduate funding adjustment policy. In keeping with the decentralized nature of the university's organizational structure, the six Faculties, departments and programs establish their own practices on funding adjustment. Though some Faculties have overarching funding adjustment frameworks in place, such frameworks are absent or in development in other Faculties. The consequence is a patchwork of approaches that vary from program to program.

Recommendations

1. Ensure that graduate students who win major external scholarships are better off financially after winning such an award, regardless of the funding adjustment practice in effect.

2. Ensure there are strong incentives for graduate students to apply consistently to major external scholarships.

3. Communicate clearly to graduate students the funding adjustment practices that are in place in advance of being asked to prepare scholarship applications.

4. Develop uniform policies on funding adjustments for each Faculty and communicate them to their graduate students.

5. Four-Year Funding Model for PhD Students

Context

Canada's doctoral graduates are essential contributors to Canadian society, bringing cutting-edge knowledge and skills to many sectors. In the past decade, serious conversations have taken place about the need to reconsider the structure of the PhD to preserve and strengthen its core values. One element of this conversation is time-to-completion.

Financial support for doctoral studies will normally be provided for the first four years of full-time enrolment. However, across many disciplines, the average time to completion is above four years, which is also true for most universities across Canada. An important concern that was raised was the cause of the increase in time-to-completion beyond four years. Essential to this conversation is how to streamline PhD requirements while maintaining the highest quality and educational excellence of obtaining a PhD from McMaster.

PhD programs at McMaster exhibit significant variation in their requirements, both across different Faculties and even within departments of the same Faculty, leading to varying program durations. For some Faculties, the dissertation is predominantly a "sandwich" thesis, composed of at least three publishable journal papers, with a general introduction and general discussion. For other Faculties, the dissertation is predominantly in the standard style. These variations in programs have an impact on time to completion that needs to be thoughtfully addressed.

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The Task Force encourages Faculties and programs across the university to consider ways to improve the time to completion for doctoral students. An example of such an initiative is the Faculty of Humanities, which received funding from the Provost's Strategic Alignment Fund on the topic of "Shortening the PhD" to study possibilities for streamlining the PhD time to completion in the Humanities. This includes structural changes, such as consideration of curricular changes, changing the culture to support streamlining the PhD, and rethinking what constitutes the dissertation.

Recommendations

1. Review McMaster's PhD programs, examining curricular requirements to completion times, graduation rates, time to completion and employment prospects for its doctoral graduates, and compare these to other universities when possible.

2. Investigate disciplinary cultural expectations around scholarly work, publication and thesis format as there are some disciplines that may encourage projects in excess of four years in length.

3. Explore ways to enhance the time management and writing skills of PhD students through targeted activities such as workshops and dissertation-writing bootcamps delivered by SGS and partners in the Faculties, aiming to support timely program completion.

4. Encourage programs to think of creative ways to support timely completion. An example would be integrating field research placements, community-engaged projects, internships, and fellowships that provide experience and financial support as fulfilling partial requirements for the PhD degree.

5. Enlist Graduate Council and all Faculty Graduate Curriculum and Policy Committees to evaluate proposals for new program requirements in the context of completion times.

Conclusions

The Task Force is thankful to all members of the McMaster community who provided feedback, participated in the round table sessions and attended the town hall. The themes and recommendations in this report will provide a valuable opportunity for McMaster to critically reflect on the challenges and opportunities facing graduate students today.

With annual reporting of aggregated financial data, greater clarity on funding packages, enhanced supports for international students, clearer guidelines to funding adjustments after major external scholarships, and an analysis of the four-year PhD model, we are hopeful that graduate students will be better positioned for success and to continue our tradition of excellence in graduate education at McMaster University.

April 2024 Graduate Council

Terms Changes

The Mahmut Parlar Scholarship

Current terms:
Established in 2023 by Professor Mahmut Parlar. To be awarded by the School of Graduate Studies, on the recommendation of the DeGroote School of Business awards committee, to a <u>student entering level 3 of the PhD program in Business Administration in the field of Management Science</u> who, has demonstrated the highest degree of commitment, excellence, and integrity in scholarship, in both courses taken and in research. The scholarship will be awarded at the discretion of the awards committee and may not be awarded annually.

New terms:
Established in 2023 by Professor Mahmut Parlar. To be awarded by the School of Graduate Studies, on the recommendation of the DeGroote School of Business awards committee, to a student <u>entering level 3 or level 4 of the PhD program in Business Administration in the field of Management Science,</u> who has demonstrated the highest degree of commitment, excellence, and integrity in scholarship, in both courses taken and in research. The scholarship will be awarded at the discretion of the awards committee and may not be awarded annually.

Reason for Term Changes:
The donor wants to broaden the pool of eligible students.