



**School of Graduate Studies**

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To : Members of Graduate Council  
From : Christina Bryce  
Assistant Graduate Secretary

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The next meeting of Graduate Council will be held on **Tuesday May 14<sup>th</sup> at 9:30 am in Council Chambers (GH-111)**

Listed below are the agenda items for discussion.

Please email [cbryce@mcmaster.ca](mailto:cbryce@mcmaster.ca) if you are unable to attend the meeting.

## **A G E N D A**

- I. Minutes of the meeting of April 23<sup>rd</sup>, 2019**
- II. Business arising**
- III. Report from the Vice-Provost and Dean of Graduate Studies**
- IV. Report from the Graduate Associate Deans**
- V. Report from the Associate Registrar and Graduate Secretary**
- VI. Report from the Coordinator Postdoctoral Affairs and Research Training**
- VII. Working Group Reports**
  - a. Cotutelle
  - b. Graduate Program Structure
  - c. Student-Supervisor Relationship
- VIII. Graduate Calendar Administrative Section Changes**
- IX. Faculty of Business Graduate Curriculum and Policy Committee Report**
- X. Faculty of Health Sciences Graduate Policy and Curriculum Committee Report**
- XI. Spring 2019 Graduands (to be distributed)**
- XII. Final Assessment Reports**



Tuesday April 23<sup>rd</sup> at 9:30 am in Council Chambers (GH-111)

Present: Dr. D. Welch (Chair), Dr. C. Hayward, Dr. M. Thompson, Dr. M-A Letendre, Dr. A. Sills, Ms. S. Ramsammy, Ms. C. Mascotto, Dr. J. Carette, Dr. L. Wiebe, Ms. D. Jones, Mr. S. Peter, Dr. L. Chan, Dr. E. Grodek, Dr. L. Thabane, Mr. L. Greville, Mr. P. DeMaio, Dr. J. Gillett, Dr. B. Gupta, Ms. S. Oikawa, Dr. S. Raha, Dr. M. Parlar, Dr. P. Swett, Dr. J. Shedden, Ms. S. Baschiera (Associate Registrar and Graduate Secretary), Ms. C. Bryce (Assistant Graduate Secretary)

Regrets: Dr. K. Hassanein, Ms. V. Lewis, Dr. I. Bruce, Dr. B. Doble, Dr. I. Marwah, Dr. S. Bannerman

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**I. Minutes of the meeting of March 19<sup>th</sup>, 2019**

It was duly moved and seconded **‘that Graduate Council approve the minutes of the meeting of March 19<sup>th</sup>, 2019.’**

The motion was **carried**.

**II. Business arising**

There was no business arising.

**III. Report from the Vice-Provost and Dean of Graduate Studies**

**Dr. Welch reported on the following items:**

- The arrival provincial budget, with clear direction for graduate education;
- The announcement of another SMA;
- The delay on the announcement of the OGS;
- The Provincial Three Minute Thesis competition held at McMaster had been a great success.

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

**Dr. Sweet (Faculty of Humanities) reported on the following item:**

- Work continued on the Cotutelle Report.

**Dr. Gillet (Faculty of Social Sciences) reported on the following item:**

- Discussions around a variety of different professional degree programs.

**Dr. Gupta (Faculty of Science) reported on the following items:**

- Work within the Faculty on professional development, including a series of workshops being established;
- The development of a course instructors guide for Science based on the work that the Faculty of Health Science had recently completed.

**Dr. Thompson (Faculty of Engineering) reported on the following item:**

- The development of a policy on the use of iThenticate to review theses, manuscripts and research proposals, noting that they are close to implementing policy but have also discussed using it more broadly on campus.

**Dr. Hayward (Faculty of Health Sciences) reported on the following item:**

- The course instructor guide is posted on the Faculty of Health Sciences webpage, including some further revisions so that it will be applicable to both graduate and undergraduate.

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

Ms. Baschiera reported on the following items:

- The continuing efforts to improve workflow around how forms are processed and the accelerated thesis process;
- Reviewing how conditions of admission and how to improve that process.

**VI. Report from the Coordinator Postdoctoral Affairs and Research Training**

Ms. Mascotto reported on the following items:

- The provincial 3MT competition, noting that the winner was Alex Kjørven from Ryerson University and that a livestream was recording available online;
- SPICES projects being reviewed for funding;
- Thesis Bootcamp;
- Postdoc Orientation;
- The reactivation of the graduate parent network and the beginning of a moms group both spear headed by a graduate student and a post doc;
- A workshop on academic publishing;
- MITACS Globalinks, with more awards available than in previous years;
- MITACS has brought all professional development workshops back to McMaster campus.

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

Dr. Thompson presented the four points for approval. The School of Engineering Practice and Technology is introducing a number of streams to their design program and manufacturing program. Chemical Engineering proposed changing their admissions requirements, raising language requirements. Computing and Software introduced a Milestone for seminar attendance and their technical seminar. Mechanical Engineering streamlined their course requirements for transfer students and direct entry students.

It was duly moved and seconded, **‘that Graduate Council approve the changes proposed by the Faculty of Engineering as described in the documents.’**

The motion was **carried**.

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

Dr. Hayward presented the changes for approval and explained that Health Research Methodology was updating their comprehensive examination procedure to address two components and solve some issues they had a problem with. Health Science Education had a course for their thesis work, and they are removing that. Nursing changed a course requirement. Physiotherapy changed their calendar copy related to a new course. Rehabilitation Sciences created a new course and now students have an option to choose between two types of methods courses.

It was duly moved and seconded **‘that Graduate Council approve the changes proposed by the Faculty of Health Sciences as described in the documents.’**

The motion was carried.

#### **IX. Faculty of Humanities Graduate Curriculum and Policy Committee Report**

Dr. Swett presented the changes for approval. The first, from Cognitive Science of Language, included a change to decouple oral presentation from a course and make it a milestone and a change to formalize their thesis proposal process. The second change, from French, was to prioritize the MA by course and major project stream as opposed to thesis, to ensure students entering the thesis stream were prepared for the requirements. The final change, from Philosophy, was to allow students to count their five best courses for the GPA consideration related to their Qualifying Examination. They also proposed a change to allow one course credit equivalency for the MRP for students fast tracking to the Ph.D.

It was duly moved and seconded, **‘that Graduate Council approve the changes proposed by the Faculty of Humanities as described in the documents.’**

The motion was **carried**.

#### **X. Faculty of Science Graduate Curriculum, Policy, Admissions and Study Committee Report**

Dr. Gupta presented the three changes for approval. The first was from Biology and included changes to requirements and calendar copy to make course and committee requirements, seminar participation and comprehensive time frame clear. The second was a change to course requirements from Statistics. The third was a change to course requirements from Radiation Sciences, to reflect changes in course offerings and to note that students who don’t have the background in a particular area would be required to make up the deficit.

It was duly moved and seconded, **‘that Graduate Council approve the changes proposed by the Faculty of Science as described in the documents.’**

The motion was **carried**.

#### **XI. Faculty of Social Science Graduate Curriculum and Policy Committee Report**

Dr. Gillet presented the two changes for approval the first was the elimination of the field of linguistic anthropology from the Anthropology program and the second was a change to calendar copy within Social Work, noting that advanced credit would be considered for students who had taken a diploma and were looking to do Masters.

It was duly moved and seconded, **‘that Graduate Council approve the changes proposed by the Faculty of Social Science as described in the documents.’**

The motion was **carried**.

**XII. Faculty of Health Sciences Graduands**

It was duly moved and seconded, **‘that Graduate Council approve the list of the 2019 Faculty of Health Sciences Spring Graduands, with amendments/corrections to be made as necessary by the Associate Graduate Registrar.’**

The motion was **carried**.

## **Cotutelle Working Group (SGS)**

**Members:** Christina Bryce (SGS), Jacques Carette (ENG), Elzbieta Grodek (HUM) Vivian Lewis (Library), Pamela Swett (ADGS HUM), Lydell Wiebe (ENG)

**Consultation:** Stephanie Baschiera (SGS), Soren Harbel (Provost's Office), Ni Jadon (International Affairs); Spencer Pope (HUM)

### ***Recommendations:***

1. Changes to the Calendar Copy, as outlined in Appendix 1
2. Changes to the university policy, as outlined in Appendix 2 and the consideration of an additional interpretation bulletin to clarify points within the policy. A short example follows:
  - 6. A "qualified supervisor" is any person that the other institution deems qualified, by its own rules, to supervise Ph.D. students.
  - 8c) A "listing" can be understood as a direct link to the online policies, along with explicit mention of which policies are applicable.
3. Official recognition of the SGS International Student Life staff member as the coordinator of cotutelle arrangements.
4. Adoption of the cotutelle check-list as a user-friendly tool for arranging these plans of study.
5. The development of an inviting and informative web presence for cotutelle and other international research/study options for graduate students at McMaster, including:
  - a. Links to policy and downloadable forms
  - b. Clear instructions on the process for setting up a cotutelle degree
  - c. Contact info for the SGS International Student Life point person
  - d. FAQ page
  - e. Some examples of existing cotutelle programs
  - f. Student/supervisor testimonials on the advantages of such study
6. Further thought in the 2019-2020 academic year given to the following:
  - a. Tuition and fees for cotutelle arrangements in which students are coming from universities with far lower (or no) tuition.
  - b. Options for funds to support the added expenses encountered by McMaster students hoping to undertake a cotutelle degree.
  - c. Other promotional efforts beyond the website

## 2.1.5 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 ~~is a unique way to~~ promotes and structures research collaborations ~~and in~~ ~~a ways that~~ allow ~~s~~ students access to a broader range of research ~~supervision experience~~ than would be available at a single institution.

~~Students interested in a cotutelle Ph.D. degree must have finalized arrangements completed within the first 12 months of their Ph.D. study.~~ 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 on the McMaster Senate Secretariat's website~~:  
~~<http://www.mcmaster.ca/policy/index.html>~~



## Policies, Procedures and Guidelines

Complete Policy Title:  
Cotutelle Policy

Policy Number (if applicable):

Approved by:  
Senate

Date of Most Recent Approval:  
April 10, 2013

Date of Original Approval(s):

Supersedes/Amends Policy dated:

Responsible Executive:

[Vice-Provost and Dean of Graduate Studies](#)

General Enquiries:

[Policy \(University Secretariat\)](#)

**DISCLAIMER:**

*If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails.*

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## TABLE OF CONTENTS

|                         |          |
|-------------------------|----------|
| <b>SECTION I</b> .....  | <b>1</b> |
| INTRODUCTION .....      | 1        |
| REQUIREMENTS .....      | 1        |
| PROCEDURES .....        | 3        |
| <b>SECTION II</b> ..... | <b>4</b> |
| RELATED POLICIES .....  | 4        |

## SECTION I

## INTRODUCTION

1. A cotutelle is a ~~single~~ PhD jointly awarded by two post-secondary institutions, typically from different countries.
2. A cotutelle degree ~~is a unique way to promote~~s and structures ~~research international~~ collaborations ~~in ways that and s, and~~ allows students access to a broader range of research ~~experience and supervision~~ than would be available at a single institution.

## REQUIREMENTS

3. The student must meet McMaster's admission requirements.
4. The student must ~~apply to be in a~~ finalize the cotutelle ~~Memorandum of Understanding (program arrangements)~~MOU within the first ~~24-24~~ 24 months of their PhD study.
5. The student is required to be registered full-time at both institutions.
- ~~5-6. Each institution must have a qualified supervisor for the student.~~
- ~~6-7. The student must meet the degree requirements at both institutions, - as negotiated in the Memorandum of Understanding (MOU) or as negotiated in MOU.~~
- ~~7. Each institution must have a qualified supervisor for the student.~~
8. A cotutelle ~~Memorandum of Understanding~~MOU (MOU)-must be created between both institutions, ~~if it does not already exist~~. -At a minimum, the ~~MOU-Memorandum~~ will outline:
  - a) ~~which institution is the "Home Institution" and which is the "Host Institution";~~
  - a) ~~who the names and titles of the supervisors are;~~
  - b) ~~\_\_\_\_\_~~
  - b) ~~\_\_\_\_\_~~
  - c) a listing of degree requirements for each institution;  
~~\_\_\_\_\_ who the supervisors are; financial / tuition / funding details;~~
  - d) ~~\_\_\_\_\_~~
  - e) ~~d) the residency, class, exam, and research schedule for the student a timetable for residency and meeting degree requirements;~~
  - f) ~~a) financial / tuition / funding details;~~
  - g) ~~a) insurance coverage and visa requirements;~~

~~h)g) intellectual property and publication details;~~

e) a schedule for progress reports and committee meetings;

f) intellectual property and publication details;

g) financial / tuition / funding details;

~~the language of the thesis and defence (normally English), and details of the examination procedure; insurance coverage and visa requirements;~~

~~intellectual property and publication details;~~

~~j) —~~

h) options for completion if the supervisory relationship with either supervisor breaks down;

i) options for completion if the student fails to meet degree requirements;

the language of the thesis and defence (normally English), and details of the examination procedure;

j) —

~~and~~

k) agreement that both institutions will award a single doctoral degree designated as having been completed "in cotutelle" with the other institution.

l) insurance coverage and visa requirements;

9. The student must comply with regulations at both institutions (e.g., research ethics, etc.). The student can be processed under either university's regulations.

10. Generally, the student spends the majority of time at the Home Institution, with a minimum of 12 months and maximum of 24 months at the Host Institution.

11. Students enrolled in a cotutelle program will pay tuition only to one institution at a time, normally to the Home Institution; additional administrative or ancillary fees may be required. All tuition and fee requirements should be in the Cotutelle MOU.

Commented [A1]: To be confirmed.

~~12. The student will include an additional chapter in his/her thesis discussing the value added from the cotutelle work.~~

13.12. As dictated by McMaster's policies, there must be a formal thesis defence. The thesis defence normally will use the procedures of the Home Institution and be defended at the Home Institution with both thesis supervisors attending the defence (in person or by teleconference). The examining committee must be equally appointed by both institutions (generally 2 professors from each institution) and must include an external examiner independent of both institutions.

- ~~14.13.~~ Upon successful completion of the defence, ~~an~~ the final thesis (normally in English) ~~version of the final thesis~~ will be submitted to McMaster for dissemination through the eThesis program.
- ~~15.14.~~ Wording on transcripts and ~~degrees~~ parchments from both institutions must specify the degree was awarded as having been completed “in cotutelle” with the other institution.

## PROCEDURES

- ~~16.15.~~ The student will fill out the Cotutelle Letter of Intent with the program coordinator of the program in the School of Graduate Studies (SGS). This letter must be signed by the student and both supervisors.
- ~~17.16.~~ The Cotutelle Letter of Intent then will be reviewed and approved by the ~~appropriate~~ Associate Dean from SGS of Graduate Studies representing the student's Faculty.
- ~~18.17.~~ The Cotutelle Letter of Intent is forwarded to the Office of International Affairs for the creation of a Cotutelle MOU, in collaboration with the School of Graduate Studies. The Cotutelle MOU must be approved and signed by the Vice-Provost and Dean of Graduate Studies from McMaster University, and an authorized representative of the other institution, as well as by both supervisors and the student. Other signatories may be added as appropriate.
- ~~19.18.~~ The Cotutelle MOU must be completed and signed before the student attends the Host Institutione.

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## SECTION II

### RELATED POLICIES

~~20.19.~~ This Policy is to be read in conjunction with the following policies, statements, and collective agreements. Normally the policies listed below act independently of one another. However, they may intersect with the application of other University policies or procedures regarding the same matter.

~~21.20.~~ Any question of the application of this Code or related policies shall be determined by the Associate Vice-Provost and Dean of Graduate Studies from McMaster University, in consultation with the administrator of the other policy or policies. The University reserves the right to amend or add to the University's policies and statements from time to time (this is not a comprehensive list):

- [Academic Accommodation of Students with Disabilities](#)
- [Academic Accommodation for Religious, Indigenous and Spiritual Observances](#)
- [Academic Freedom, Statement on](#)
- [Academic Integrity Policy](#)
- [Alcohol Policy, University](#)
- [Conflict of Interest Guidelines: Undergraduate Studies and Graduate Studies](#)
- [Code of Student Rights and Responsibilities](#)
- [Discrimination, Harassment and Sexual Harassment: Prevention and Response, Policy](#)
- [Employee/Labour Relations – Collective Agreements](#) (students acting in their role as Teaching Assistants are acting as University employees and should refer to their collective agreement.)
- [Freedom of Information and Protection of Privacy Act](#)
- [Group Conflict and Senate Mediation Procedures](#)
- [Ontario Human Rights Code](#)
- [Personal Health Information Protection Act](#)
- [Research Integrity Policy](#)
- [Sexual Violence Policy](#)
- [Statement on Building an Inclusive Community with a Shared Purpose](#)
- [Statement and Guidelines on Inclusive Communications](#)
- [Tobacco & Smoke Free University Policy](#)
- [University Technology Services \(UTS\) – Policies and Procedures](#)
- [Violence in the Workplace, Policy on](#)



## Cotutelle Checklist

This agreement is with regard to the cosupervision of **NAME**, and is to be interpreted in accordance with the policies and procedures applicable at both institutions listed below.

*Note: Items in italics are instructions for the form and copies of the cotutelle policy for McMaster University ([LINK](#)). Where there is a difference between this form and the policy, the policy shall prevail.*

### A. Home and Host Institution

*For the purpose of interpreting McMaster Cotutelle policy, one institution is designated the Home Institution, and the other the Host institution.*

*McMaster Policy Article 5: The student is required to be registered full-time at both institutions.*

|   |   |   |  |
|---|---|---|--|
| McMaster University, 1280 Main Street West Hamilton, Ontario, Canada, L8S 4L8 | <input type="checkbox"/> Home Institution | <input type="checkbox"/> Host Institution | <input type="checkbox"/> Registered in PhD program on: <b>DATE</b> |
|   |   |   | <input type="checkbox"/> Not yet registered                        |

|                            |   |   |  |
|----------------------------|---|---|--|
| <b>PARTNER INSTITUTION</b> | <input type="checkbox"/> Home Institution | <input type="checkbox"/> Host Institution | <input type="checkbox"/> Registered in PhD program on: <b>DATE</b> |
|                            |   |   | <input type="checkbox"/> Not yet registered                        |

### B. List of Degree Requirements

*The requirements for a PhD degree at each institution should be summarized below, along with the agreed requirements for the program of study for this student. If these requirements meet or exceed the McMaster calendar requirements, check the last column. If more space is needed, provide the information in an attachment with a reference here.*

| Milestone Type                         | Home Institution Requirements                               | Host Institution Requirements                      | Agreement  | Meets or exceeds McMaster calendar requirements |
|--|---|--|--|---|
| <i>Example: Coursework</i>             | <i>minimum 4 half-courses, at least 2 in department</i>     | <i>minimum 6 courses, at least 3 in department</i> | <i>6 courses, 3 in each department</i>                             | <input checked="" type="checkbox"/>             |
| <i>Example: Department Seminar Day</i> | <i>attend and participate each year for first 48 months</i> | <i>none</i>  | <i>participate when at the Home Institution on the Seminar Day</i> | <input type="checkbox"/>                        |
|  |   |  |  | <input type="checkbox"/>                        |
|  |   |  |  | <input type="checkbox"/>                        |

C. Supervisors

Supervisor at Home Institution: **NAME**

Supervisor at Host Institution: **NAME**

D. Timetable

*McMaster Policy Article 10: Generally, the student spends the majority of time at the Home Institution, with a minimum of 12 months and maximum of 24 months at the Host Institution.*

The expected timetable and residency towards completion of degree requirements is:

| Dates | Location (Home or Host Institution) |
|-------|-------------------------------------|
|       |                                     |
|       |                                     |
|       |                                     |
|       |                                     |

Expected Date for Completion of all Degree Requirements: **DATE**

E. Financial / Tuition / Funding Details

*McMaster Policy Article 11: Students enrolled in a cotutelle program will pay tuition only to one institution at a time, normally to the Home Institution; additional administrative or ancillary fees may be required. All tuition and fee requirements should be in the Cotutelle MOU.*

F. Insurance Coverage and Visa Requirements

For the whole duration of their doctoral studies, the student must have a health and injury insurance scheme affording appropriate coverage in the country where they are staying. While at McMaster, all candidates must purchase UHIP.

Other:

G. Intellectual Property and Publication Details

1. Any Intellectual Property Right brought by one of the Parties for the implementation of the cooperation activities under this MOU shall remain the property of that Party. However, that Party shall warrant that the intellectual property right has not resulted from the infringement of any third party's legitimate rights. Further, that Party shall be liable for any claim made by any third Party on the ownership and legality of the use of the intellectual property right which is brought in by the aforementioned Party for the implementation of the cooperation activities under this MOU, and shall indemnify the other Party against any claim for loss of damage in respect of any alleged infringement of such right. And,

2. Any Intellectual Property Right, data and information resulting from research activities conducted under this MOU shall, except as may otherwise be provided by the specific agreement governing a particular research activity, be jointly owned by the two Parties, and both Parties shall be allowed to use such property for non-



commercial purposes free of royalty. Should the intellectual property right, data and information resulting from the cooperation activities under this MOU be used for commercial purpose by one Party, the other Party shall be entitled to the royalties obtained from the exploitation of such property on the basis of the principle of equitable contribution. In such a case, the object of the research activities conducted shall constitute a part of the contribution of the Party from which the object derives. And,

3. If either of the Parties wishes to disclose confidential data and/or information resulting from the cooperation activities under this MOU to any third Party, the disclosing Party must obtain prior consent from the other Party before any disclosure can be made.

Other:

#### H. Schedule for Progress Reports and Committee Meetings

| Date | Milestone | Location (Home or Host Institution) |
|------|-----------|-------------------------------------|
|      |           |                                     |

#### I. Language of Thesis and Defence, and Details of Examination Procedure

The thesis and defence will both be in English. Upon successful completion of the defence, it will be submitted to McMaster for dissemination through the eThesis program.

Other:

The thesis defence will use the procedures of the Home Institution and be defended at the Home Institution with both thesis supervisors attending the defence. The examining committee will be equally appointed with 2 professors from each institution, and will include an external examiner independent of both institutions. Participation by teleconference will be acceptable to both institutions.

Other:

#### J. Options for Completion if the Supervisory Relationship with Either Supervisor Breaks Down

DEFAULT – this is not addressed in templates received to date

Other:

#### K. Options for Completion if the Student Fails to Meet Degree Requirements

DEFAULT – this is not addressed in templates received to date ... should include whether completion date is a degree requirement.

Other:

#### L. Agreement that Both Institutions will Award a Single Doctoral Degree

Both institutions will award a single doctoral degree designated as having been completed “in cotutelle” with the other institution.

M. Signatures

The partner institution's template has been used, with key information reproduced here. All necessary signatures are provided on the partner's form, which is included as an attachment.

McMaster's template has been used. Signatures are below.

| Name | Date | Position  | Institution                |
|------|------|---|----------------------------|
|      |      | Doctoral Student  | N/A                        |
|      |      | Co-Supervisor   | McMaster University        |
|      |      | Co-Supervisor   | <b>PARTNER INSTITUTION</b> |
|      |      | Dean, Faculty of<br><b>FACULTY</b>                          | McMaster University        |
|      |      | Associate Vice-President<br>and Dean of Graduate<br>Studies | McMaster University        |
|      |      | President   | McMaster University        |
|      |      |   |                            |
|      |      |   |                            |

# Report from the Graduate Council

## Ad Hoc Committee on Program Structure

### Members:

Bhagwati Gupta – Chair  
Marc-Andre Letendre, Faculty of Social Science  
Cathy Hayward, Faculty of Health Science  
Dean Mountain, DeGroot School of Business  
Steve Hranilovic, Faculty of Engineering  
Michael Thompson, Faculty of Engineering  
Sara Bannerman, Faculty of Humanities  
Judy Shedden, Faculty of Science  
Sara Oikawa, Graduate Student Association, VP Internal

### Consultants:

Andrea Thyret-Kidd, Office of the Provost  
Stephanie Baschiera, Associate Registrar & Graduate Secretary, SGS  
Jacy Lee, Associate Vice-President, Institutional Research & Analysis  
Diana Kremer, Student Accounts & Cashiers, Financial Services  
Melissa Pool, Registrar  
Leanne Ruiz, Assistant Registrar, Student Financial Aid & Scholarship  
Ricki Wellstead, Financial Aid System Administrator – Government Aid  
Christina Bryce, Assistant Graduate Secretary, SGS

## Preamble:

The ad hoc committee was struck by Graduate Council to review the graduate academic regulations and make recommendations while considering the following questions:

- What are the differences and definitions for research-based and course-based Master's programs? Where are the boundaries between the two?
- Should different categories of graduate programs be created? For example: Ph.D., research-based Master's, course-based Master's, etc.
- Do graduate fees provide appropriate flexibility for students such as those who are fully employed, SAS students, etc.?
- What should happen to a student's status and fees charged when they take time off?
- Which of the related academic regulations should be re-written? Once identified, the committee will draft language changes to the academic regulations for Graduate Council and Senate approval.

## Discussion:

The committee began discussions in September 2018. Initially there were many interconnected issues that had to be understood, e.g., the graduate fee structure, leave of absence policy, definitions of full-time, part-time, milestones, courses, OSAP rules, etc. The committee compared McMaster's regulations and processes with other Ontario universities as well as reviewed the Ontario Council on Graduate Studies (OCGS) reference document 'Principles for Graduate Study at Ontario's Universities.'

There was a great deal of conversation regarding if and how course-based Master's programs are unique and if McMaster should create a separate set of regulations for them. The committee is proposing nine recommendations:

**RECOMMENDATION #1: That McMaster create two categories of graduate programs, with the primary differences being the type of research being conducted and the way fees are charged.**

The committee considered if Master's programs comprised primarily of coursework are different than other graduate programs and if they require a separate set of regulations. McMaster offers a great range and diversity of Master's programs which all meet Quality Council standards. All programs approved by Quality Council must include research elements.

The committee considered many academic regulations (leaves of absence, FT/PT status), processes (term count, OSAP eligibility, fees assessed, refund policies) and came to the conclusion that all regulations and processes are appropriate with the exception of one. Graduate fees at McMaster are charged on a per-term basis or on a per-course basis and currently there is no clear direction for which type of fee structure works best for which type of program. To address this issue, the committee is proposing two distinct categories for graduate programs at McMaster University.

### ***Category #1: Research expertise and discovery programs***

This category consists of all Ph.D. programs and most Master's programs at McMaster University. These programs include original research in addition to some form of research discovery activities. The discovery component relates to creation of a new body of knowledge. The learning occurs in a variety of ways (in person, on-line, blended learning) with a variety of streams:

- Thesis + courses
- Major research paper + courses
- All courses

For many Master's programs, the choice for how to earn the degree is made by the student and often occurs mid-way through the degree. The flexibility to allow students to switch between streams is desirable in many of the programs. The degree earned is the same regardless of which stream the student chooses and students in all streams should pay the same fees.

This category of programs is charged term fees on a yearly basis. Graduate term fees are a sliding scale, i.e., a defined amount is charged at the beginning of the study which steadily reduces over time. This approach recognizes that graduate work varies over the course of the degree and students in the same program can be doing different work at the same time, e.g. the collection of original research takes a variable amount of time. The term fee structure is purposeful and designed to encourage students to progress and to complete their studies on-time.

Programs that fall into this category will need to be explicit regarding research activities that incorporate discovery elements. This should be clearly articulated in the program proposal or self-study document as relevant.

Experiential opportunities can also occur in this category e.g., co-op, internships, etc. and there may be an additional fee for these opportunities.

### ***Category #2: Research Expertise***

This category currently includes a small number of Master's programs such as UNENE, Master of Communication Management, Master of Finance, and Master of Health Management. For these programs, the research component often takes the form of work experience or some other type of practical experience. The content can be delivered in a variety of ways (in person, on-line, blended learning, etc.) with two streams:

- All courses
- Courses + other component (internship, co-op, field work, etc.)

Students in this category of programs are charged a per-course fee to optimize flexibility and to recognize that they may earn their degree over different time frames. The fees reflect the number of units a student takes in each term. An additional fee may also be levied for the 'other' component, e.g., internship fee, co-op fee, field work fee, etc.

This category is quite inflexible for fees; students are charged per course and for the 'other' element. Programs in this category will be unable to introduce new fees for any additional activity beyond what was approved originally, e.g. if a student needs to go to a conference that wasn't part of approved fee then there would be no way to accommodate this activity. Category #1 is a term fee and reflects the fact that part of the academic work occurs outside of course work. Category #2 fees are not designed in this manner.

## **RECOMMENDATION #2: Re-write the definition for Course and Milestone in the Graduate Calendar.**

The current definitions for courses and milestones were found to be lacking and unhelpful for programs designing new courses or degrees. The sections of the Graduate Calendar related to Course (2.6.2) and Milestones (2.6.8) are adjusted accordingly. The definition of a course includes an explanation of what constitutes a unit. The 'organized activity' noted is often in-class time but can occur outside the classroom and in all cases contributes to learning outcomes.

The hours of organized activity defined for each unit amount are deliberately set as a range to reflect the reality of graduate courses, with the opportunity to create courses with a non-standard unit amount (e.g., 2, 4 units, etc.) if necessary. The working group noted it is a good idea for programs to evaluate their courses and see how much time students are spending towards completing them to ensure there is an appropriate unit value.

The Milestone section is adjusted to provide some examples of what a Milestone is and in particular the consequences for failing a Milestone, as they are required non-course academic components of the degree. The interaction between a failure in a Milestone and a course was also discussed and is now made explicit in section 2.6.4 Failing and Incomplete Grades.

See Appendix A for a track change version.

### **2.6.2 Course Levels and Types**

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., on-line discussions, experiential learning, etc.). Normally the beginning and end dates for courses should coincide with the beginning and end dates of University Sessional Dates. All Graduate courses have a unit value, with the standard examples being 1.5 units for a course usually lasting for half a term (normally 12 to 19 hours of organized activity), 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).

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 courses taken must be listed or cross-listed by the program in order to be counted towards the degree. 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.

Courses available for graduate credit are numbered either at the 700- or 600-level (e.g. 771 or 6D06). Courses are restricted in enrolment to graduate students, with the exception of those undergraduate students registered for an approved, accelerated Master's programs with written permission of their department (or program) chair, director, or designate. Programs may have additional restrictions on the number of 600-level courses allowed for graduate credit, though no program may allow more than one-third of their course requirements to be filled at the 600 level. Graduate students taking 600-level courses are regularly required

to do extra course work beyond that required of undergraduates in the corresponding 400-level course. Each program offers only a selection of its courses in any given year.

### **2.6.8 Milestones**

Milestones are non-course requirements that are part of the curriculum and required in addition to course work (e.g., seminars, workshops, or comprehensive examinations, etc.). Milestones are considered formal components of a student's academic progress and if not successfully completed can prevent a student from graduating.

There are two types of Milestones: graded and non-graded. Both types of Milestones can be viewed on the Mosaic 'student centre' but only graded Milestones appear on the student's transcript (once completed). If a student receives an F grade in a graded Milestone they may be required to withdraw.

Please refer to individual program descriptions for further details of non-coursework requirements.

## **RECOMMENDATION #3. Add a general section in the graduate calendar that discusses progression**

Section 2.6 (previously called Graduate Curriculum) is now titled 'Academic Progression and Graduate Curriculum' and text has been added to provide more explanation for how graduate students progress through their degree. This section is in addition to the Master's and Ph.D. specific sections on Academic Progression (3.6 and 4.5). Text is also added to Section 2.6.4 'Failing and Incomplete Grades' to address the interaction between a failure in a course and a milestone.

See Appendix B for a track change version.

### **2.6 Academic Progression and Graduate Curriculum**

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.

All degree students are admitted under the General Regulations of the School of Graduate Studies, described in the calendar. Respective degree regulations for the various degrees offered at McMaster University are specified in the program-specific sections of the calendar.

Each student is required to satisfy the program requirements of the academic year in which the student first registered in the graduate program. Failure to maintain good academic standing may impact the students' ability to 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.

#### **2.6.4 Failing Grades and Incomplete Grades**

The minimum passing grade in a graduate course is a B-. Failure in either a course or a milestone is reviewed by the appropriate Faculty Committee on Graduate Admissions and Study or the Associate Dean. The Faculty Committee on Graduate Admissions and Study or the Associate Dean 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. A failing grade in a Certificate, Diploma, Master's or Doctoral course or graded milestone remains on the transcript. Students who fail a second course or milestone will not normally be allowed to continue in the program.

Under exceptional circumstances a course instructor may approve an extension to a student for the completion of work in a course and assign an Incomplete grade (INC). The instructor will submit an incomplete grade with a 'Lapse To' grade, which is the grade that will default to at the date to clear incomplete grades. 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 'Final Date to Submit Results of Incomplete Grades'. If the INC grade is not cleared by the deadline, the lapsed grade will automatically be recorded.

**RECOMMENDATION #4: The School of Graduate Studies, with graduate programs, will lead a review of current courses and milestones to ensure compliance with the new definitions.**

Graduate programs should evaluate the unit count for each course, ensure that the total unit count for their degrees are clearly disclosed in their calendar descriptions and determine whether each milestone should be graded (and visible on the student's transcripts) or non-graded (and visible on the student's Mosaic advisement report). Each graduate program should have clear calendar language regarding how milestones factor into student progression. Changes should be approved as part of the 2019-2020 curriculum process and be implemented in the 2020-2021 graduate calendar.

**RECOMMENDATION #5: Explore the creation of a single course fee for Category #1 programs, to be implemented in 2020-2021.**

Category #1 programs charge term fees. This can be problematic for two situations:

- Students who have completed all degree requirements except one course are forced to pay a full-term of fees when they return to complete their last course.
- Students who are on co-op and want to register for a single course while on their co-op term are required to pay a co-op fee as well as a term fee in order to take the course.

The creation of a single course fee for Category #1 programs could alleviate these problems. The students would need permission to be able to qualify for this fee. In addition, they would continue to be responsible for supplemental fees.

It is recommended that SGS, Student Accounts, and IRA discuss how to implement this recommendation such that

- the correct course and grade is visible on the student's transcript,
- the correct fees and supplemental fees are charged, and



- the student is accurately included in enrolment counts for government reporting purposes.

**RECOMMENDATION #6. Review and change the refund policy for course-based fees in Category #2 programs.**

Currently, a graduate 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 number of full months remaining in the academic year. (Mandatory supplemental fees are not refundable.)

This refund schedule works well for Category #1 (term-costed) programs as the student pays tuition for time in program. However, for Category #2 programs, students who withdraw from a course are either refunded 100% or 0% based on the date they withdraw. This creates a variety of problems: to withdraw and receive the refund, the course must be removed completely from a student's transcript which could lead to an inaccurate record of their time at McMaster University. Additionally, the student consumes resources and a space within the program without paying any fees. This issue may also contribute to errors in enrolment counts that are reported to government. Conversely, if a student withdraws just after the drop date, they are responsible for 100% of the course fee. The School of Graduate Studies has received complaints from students about the fairness of the refund policy.

The Committee recommends a change to the refund process for students in Category #2 programs so that students will be charged a partial fee for courses that are dropped, based on the date on which the course is dropped, per the cancellation schedule. The cancellation schedule follows the undergraduate model, with adjustments based on graduate processes and timelines. The Appendix C table includes the proposed dates. Consultation will be required with stakeholders before implementing this policy, including the Category #2 programs, the Associate Deans, Fees Committee and the SGS Records Team.

**RECOMMENDATION #7: Create a 'no course offered' leave of absence.**

McMaster currently has four types of leaves of absence (compassionate/personal leave, parenting leave, paid work experience leave, and medical/disability leave). The committee carefully reviewed these categories and suggests placing the 'Work Experience' leave under the 'Compassionate/Personal Leave' category. The Committee also recommends creation of an additional type of leave of absence called 'No Course Available'. Such a leave would be available to students in Category #2 programs if no suitable course is available to them in any given term. Occasionally, students enrolled in Master's programs that are largely comprised of courses are unable to register in a course due to no applicable course being offered in the term. This especially happens in cohort programs when a student has failed a course and needs to wait to return to studies until the course is offered next time. In exceptional situations, students in Category #1 programs who are unable to make meaningful progress towards completion of degree requirements, other than by taking a course, may petition for a 'No Course Available' leave. This provision does not apply if the student received a grade of "INC" for a course at the end of the previous term or is working concurrently towards a thesis or major research paper.

The current LOA process takes too long to get LOAs approved and for the approval to be communicated. However, both programs and SFAS need the information sooner. This is a process problem rather than a regulation problem, and it is suggested that the process be reviewed and improved upon by the School of Graduate Studies.

See Appendix D for a track changes version.

### **2.5.7 Leave of Absence (LOA)**

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 an 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 their graduate studies program.

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 an 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 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 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/>

Alternatively, the student may request to withdraw (Withdrawal at the Request of the Student). Should the student opt to withdraw, they may be eligible for reinstatement at the University's discretion upon reapplication.

### **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 12 months at a time.

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 200 - 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 program 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, provided that the student's supervisor and the department support the request.

An LOA to obtain externally paid relevant work experience may be granted for one term for a Master's student and for two terms for a Ph.D. student. An LOA for purposes of obtaining relevant work experience cannot be for two consecutive terms.

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, or if the student has a grade of 'INC' (incomplete) recorded for a course at the end of the previous term.

**RECOMMENDATION #8. Strike a committee to consider the implications of changing the graduate part-time definition to 0.3 of the full-time program.**

Our full-time definition is clear and understood by the programs and by SFAS. However, there is confusion in McMaster's regulations about the part-time definition:

Section 2.5.2:

All active graduate students other than full-time graduate students as defined above are part-time graduate students.

Section 5.1:

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 to full time at a ratio of 2:1. .... Students enrolled in programs with course costed tuition will be assessed tuition fees for each course that they take. The limit of 3 half courses per year does not affect their status.

The OSAP definitions are different; part time is defined as 59% course load or less, 39% course load or less for students with disabilities.

The government funds students according to McMaster's full-time and part-time definitions, however, the government funds part-time students at 0.3 of the full-time rate. The committee recommends that McMaster consider changing the graduate part-time definition to 0.3 of the full-time program to match what the government will fund. We think this definition will work for students transitioning from full-time to part-time. However, this change may not fit well with some part-time programs which are currently designed as 0.5 of the full-time load. The committee did not have time to discuss the implications with programs and, therefore, more work needs to be done.

**RECOMMENDATION #9. Include the 'Definitions of Experiential Work as defined by OSAP' table in the New Program Proposal Guidebook and circulate the table to programs considering changes through the curriculum process.**

The committee felt it is important to ensure students in graduate programs are eligible to receive OSAP. There was confusion regarding the OSAP regulations for students doing experiential work, resulting in the following chart being developed during our discussions. When new graduate programs are being designed or when programs are adding an experiential element to their curriculum, the chart may be helpful to understand the OSAP definitions of experiential work and what is required to make students eligible to receive OSAP.

Definitions of Experiential Work as defined by OSAP

|    | Characteristics                  | Internship                                | Coop Work Term    | Placement (clinical, field, industrial)           |
|----|----------------------------------|---|-------------------|---|
| 1  | Practical Experience             | Yes                                       | Yes               | Yes   |
| 2  | Mandatory (part of curriculum)*  | No  | Yes               | Yes; combined with academic course work           |
| 4  | OSAP eligibility                 | No  | Yes               | Yes   |
| 5  | Work term enrolled in Mosaic     | Sometimes not                             | Yes               | Yes   |
| 6  | Students Status during Work Term |   | Full-time student | Enrolled student – part of course work or project |
| 7  | Work Term part of program        | Can be pause or combined with course work | Yes               | Yes   |
| 8  | Fees Payable                     |   |                   |   |
|    | - I/C/P Fee charged              | No  | Yes               | No  |
|    | - Work Term Fee                  | No  | Yes               | No  |
|    | - Tuition                        | No  | No                | Yes, because it is part of a course.              |
| 9  | Work Paid or Unpaid              | Can be either                             | Paid              | Unpaid  |
| 10 | Has mentor or advisor            |   | Yes               | Yes   |
| 11 | Work Term graded                 |   | Yes (pass/fail)   | Yes   |

\*In order to qualify for OSAP, the work must be a mandatory part of the degree for all students (meaning while the student is on an optional co-op work term, they are not eligible to receive OSAP during that term). ANY type of experiential work experience that is OPTIONAL is ineligible for OSAP funding.

**Summary:**

In summary, the committee is recommending the creation of two categories of graduate programs with the difference being how the programs are structured and how fees are charged. The definitions for 'course' and 'milestone' have been re-written which assists to clarify graduate progression rules. Graduate programs and SGS should work together to review offered courses and milestones to align with the new

definitions and to be clear regarding their program requirements. A new refund policy for Category #2 programs is proposed and the types of leaves have been updated by creating a new 'No Course Available' leave of absence. Calendar language showing the proposed changes can be found in the appendices. And, finally, the committee recommends further study of the part-time definition for graduate students.

## Appendix A

### 2.6.2 Course Levels and Types

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 Sessional Dates. All Graduate courses have a unit value, with the standard examples being 1.5 units for a course usually lasting for half a term (normally 12 to 19 hours of organized activity), 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).

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 courses taken must be listed or cross-listed by the program in order to be counted towards the degree. 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.

Courses available for graduate credit are numbered either at the 700- or 600-level (e.g. 771 or 6D06). Courses are restricted in enrolment to graduate students, with the exception of those undergraduate students registered for an approved, accelerated Master's programs with written permission of their department (or program) chair, director, or designate. (Departments-Programs may have additional restrictions on the number of 600-level courses allowed for graduate credit, though no program may allow more than one-third of their course requirements to be filled at the 600 level.) Graduate students taking 600-level courses are regularly required to do extra course work beyond that required of undergraduates in the corresponding 400-level course. Each department program offers only a selection of its courses in any given year.

All Graduate courses have a unit value, with the standard being 3 units for a one term course, 6 units for a two term course and 1.5 units for a course lasting half a term.

In all cases, the expectation is that the course will meet at least three hours per week (on average). For 600 level courses, the first character represents the level of the course (combined graduate undergraduate), the second character is a letter identifying the specific course within a department, the third character is a letter identifying the area of study within a program or simply a zero, and the fourth character indicates the number of units of course credit. For example 6D06 is a 600 level course worth 6 units. Generally, 3 unit and 4 unit courses are one term courses; 6 unit courses are full year courses.

### 2.6.8 Milestones

Milestones are non-course requirements that are part of the curriculum and required in addition to course work (e.g., seminars, workshops, or comprehensive examinations, etc.). Milestones are considered formal components of a student's academic progress and if not successfully completed can prevent a student from graduating.

There are two types of Milestones: graded and non-graded. Both types of Milestones can be viewed on the Mosaic 'student centre' but only graded Milestones appear on the student's transcript (once completed). If a student receives an F grade in a graded Milestone they may be required to withdraw. most graduate programs have a series of non-course academic requirements that are designated as part of the curriculum, examples—seminars, workshops and comprehensives. These requirements are tracked via a series of milestones and progress can be viewed on the student center, and once complete will appear on the student's transcript. Please refer to individual program descriptions for further details of non-coursework requirements. These milestones are considered formal components of your academic progress.

Please refer to individual program descriptions for further details of non-coursework requirements.

## Appendix B

### 2.6 Academic Progression and Graduate Curriculum

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.

All degree students are admitted under the General Regulations of the School of Graduate Studies, described in the calendar. Respective degree regulations for the various degrees offered at McMaster University are specified in the program-specific sections of the calendar.

Each student is required to satisfy the program requirements of the academic year in which the student first registered in the graduate program. Failure to maintain good academic standing may impact the students' ability to 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.

#### 2.6.4 Failing Grades and Incomplete Grades

The minimum passing grade in a graduate course is a B-. All instances of failures are reviewed by the Failure in either a course or a milestone is reviewed by the appropriate Faculty Committee on Graduate Admissions and Study or the Associate Dean acting on its behalf. The Faculty Committee on Graduate Admissions and Study or the Associate Dean 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. A failing grade in a Certificate, Diploma, Master's or Doctoral course or graded milestone remains on the transcript. Students who fail a second course or milestone will not normally be allowed to continue in the program.

Under exceptional circumstances a course instructor may approve an extension to a for the student for the completion of work in a course and assign an Incomplete grade (INC). At the same time the instructor will submit an incomplete grade they have to also submit a lapse to with a 'Lapse To' grade, which is the grade that will default to at the date to clear incompletes grades. Normally this extension is in the range of a few weeks. A student who receives an incomplete grade this permission must complete the work as soon as possible, and in any case early enough to allow the instructor to report the grade to the School of Graduate Studies by the 'Final Date to Submit Results of Incomplete Grades' date specified in the Sessional Dates near the beginning of this Calendar. If the INC grade is not cleared by the deadline, the a-lapsed grade will automatically be recorded.



## Appendix C

### Proposed Graduate Refund Schedule based on 2018/19 dates

| <b>Term 1</b>     | <b>Term 2</b>  | <b>Term 3</b>    | <b>Refund % Per Term</b> |
|-------------------|----------------|------------------|--------------------------|
| Sep 1 - Sept 12   | Jan 1 - Jan 15 | May 1 - May 9    | 100% of amt charged      |
| Sept 13 - 21      | Jan 16 - 25    | May 9 - 20       | 100% of amt charged *    |
| Sept 22 - Sept 28 | Jan 26 - Feb 1 | May 21 - June 2  | 70% of amt charged       |
| Sept 29 - Oct 5   | Feb 2 - Feb 9  | June 3 - 26      | 60% of amt charged       |
| Oct 6 - 16        | Feb 9 - 15     | June 27 - July 9 | 50% of amt charged       |
| Oct 17-19         | Feb 16 - 22    | July 9-15        | 40% of amt charged       |
| Oct 20-26         | Feb 23- Mar 1  | -                | 30% of amt charged       |
| Oct 27 to Nov 2   | Mar 2 - Mar 8  | July 16-17       | 20% of amt charged       |
| Nov 3-8           | Mar 9-14       | -                | 10% of amt charged       |
| Nov 9 onward      | Mar 15 onward  | July 18 onward   | No refund                |

\* Only difference from undergraduate refund schedule.

## Appendix D

### 2.5.7 Leaves of Absence (LOA)

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 Regulations 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 the period of an LOA the student will not receive supervision or be entitled to use the University's academic facilities for the purposes of academic progression. ~~During an LOA no~~ No tuition will be charged, nor will the student be eligible for any scholarship support. Please note, ~~S~~ 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 an 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 their graduate studies program.

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 an LOA. ~~Students applying for an LOA for personal reasons must normally have completed at least one year of full-time graduate studies. For additional information related to parenting leaves, please refer to the next section.~~

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 ~~a minimum of four week's~~ written notice to the School of Graduate Studies ~~in writing~~ 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/>

Alternatively, the student may request to withdraw (Withdrawal at the Request of the Student). Should the student opt to withdraw, they may be eligible for reinstatement at the University's discretion upon reapplication.

### **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 12 months at a time.

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 200 - 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 program 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, provided that the student's supervisor and the department support the request.

An LOA to obtain externally paid relevant work experience may be granted for one term for a Master's student and for two terms for a Ph.D. student. An LOA for purposes of obtaining relevant work experience cannot be for two consecutive terms.

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, or if the student has a grade of 'INC' (incomplete) recorded for a course at the end of the previous term.

### Reasons for Leaves of Absence

An LOA for up to one year is permitted for reasons of illness, provided that the request is supported by adequate medical documentation. 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 other personal circumstances, provided that the student's supervisor and the department support the request. Alternatively, the student may request withdrawal (Withdrawal at the Request of the Student). Should the student opt to withdraw, they may be eligible for reinstatement, at the University's discretion, upon reapplication.

An LOA to obtain externally paid relevant work experience may be granted for one term for a Master's student and for two terms for a Ph.D. student. An LOA for purposes of obtaining relevant work experience cannot be for two consecutive terms.

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.

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.

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.

## **2.5.8 Parenting Leave**

### Parenting Leave Policy

#### Intent

The Parenting Leave Policy (the "Policy") 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"

As closely as academic terms can align with any employment agreements, but not being held to match said agreements as a student, a Parenting Leave is at maximum for four consecutive terms.

The form to apply is available on the School of Graduate Studies Resources page ([https://gs.mcmaster.ca/sites/default/files/resources/parenting\\_leave\\_june\\_2018\\_june\\_2018.pdf](https://gs.mcmaster.ca/sites/default/files/resources/parenting_leave_june_2018_june_2018.pdf)). 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>.~~

~~It is understood that when a student takes a Parenting Leave, 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 their graduate studies program.~~

~~In order that the student's supervisor and/or program can make suitable arrangements to cover ongoing responsibilities during the student's absence, students are expected to provide as much notice as possible of the intention to take a Parenting Leave under this Policy.~~

~~A student is normally expected to give at least four weeks' notice of the date on which they intend to take their leave(s) and at least four weeks' notice of the date on which they intend to return from leave, should this date be different from the date agreed upon at the time the leave was granted.~~

#### Combination with Other Leaves

~~A Parenting Leave 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.~~

~~If a student is also an employee, it is incumbent upon the student to review their terms and conditions of employment and/or Collective Agreement (if any) and apply for the appropriate leave of absence from the employer.~~

~~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.~~

~~For questions on the administration of the Policy, contact the School of Graduate Studies.~~

## Sessional Dates ~~2018-2019~~2019-2020

| DEADLINE DATES FOR GRADUATE PROGRAMS                  | FALL TERM   | WINTER TERM  | SUMMER TERM  |
|---|---|--|--|
|   | Sept. - Dec., <del>2018</del> 2019<br>Sept. - Oct., <del>2018-2019</del><br>(1HF)<br>Nov. - Dec., <del>2018-2019</del><br>(2HF) | Jan. - April, <del>2019</del> 2020<br>Jan. - Feb., <del>2019-2020</del><br>(1HF)<br>March - April, <del>2019-2020</del><br>(2HF) | May - August, <del>2019</del> 2020                                     |
| On-Time Registration                                  | Tuesday, July <del>24-23</del> to<br>Tuesday, August <del>28</del> 27   | Thursday, November <del>29</del><br>28 to<br>Thursday, December <del>13</del> 12   | Thursday, April <del>24</del> to<br>Thursday, April <del>18</del> 16   |
| Class Start Dates *                                   | Classes begin on or after<br>September <del>43</del> , <del>2018-2019</del><br>- check with program for<br>details              | Classes begin on or<br>after January 2, <del>2020</del> 19 -<br>check with program for<br>details                                | Class start dates vary -<br>check with program for<br>details          |
| Late Registration ( <a href="#">late fees apply</a> ) | Wednesday August <del>29-28</del><br>to<br>Monday, September <del>10</del> 9  | Friday, December <del>14-13</del><br>to<br><del>Wednesday</del> Thursday,<br>January 2   | Friday, April <del>19-17</del> to<br>Tuesday, April <del>30th</del> 28 |
| Final Dates to Add Courses:                           |   |  |  |
| 6 Unit Courses  | Friday, September <del>28</del> 27  |  |  |
| 3 Unit Courses or 1.5 Unit<br>Courses (1HF)           | Friday, September <del>28</del> 27  | Friday, January <del>25</del> 24   | Friday, May <del>17</del> 15   |
| 1.5 Unit Courses (2HF)                                | Friday, October <del>26</del> 25  | Friday, <del>March 1</del> February<br>28 <sup>th</sup>  | Friday, June <del>28</del> 26  |
| Final Dates to Drop Courses: **                       |   |  |  |
| 6 Unit Courses  | Friday, January <del>4</del> 3  | <del>Friday, May 1</del>   | <del>Friday, August 23</del>   |
| 3 Unit Courses  | Friday, October <del>5</del> 4  | Friday, February <del>17</del>   | Friday, June <del>7</del> 5  |
| 1.5 Unit Courses (1HF)                                | Friday, September <del>28</del> 27  | Friday, January <del>25</del> 24   | Friday, June <del>7</del> 5  |
| 1.5 Unit Courses (2HF)                                | Friday, November <del>2</del> 1   | Friday, March <del>6</del> 8   | Friday, July <del>12</del> 10  |
| Final Dates to Submit Grades:                         |   |  |  |
| 6 Unit Courses  |   | Friday, May <del>3</del> 1   | Friday, August <del>23</del> 21  |
| 3 Unit Courses  | Thursday, January <del>3</del> 2  | Friday, May <del>13</del>  | Friday, August <del>23</del> 21  |

|   |   |  |  |
|---|---|--|--|
| 1.5 Unit Courses (1HF)  | Friday, October <del>26</del> <sup>25</sup> | Friday, <del>March 1</del> <sup>February 28<sup>th</sup></sup> | Friday, August <del>23</del> <sup>21</sup> |
| 1.5 Unit Courses (2HF)  | Thursday, January <del>32</del>             | Friday, May <del>13</del>                                      | Friday, August <del>23</del> <sup>21</sup> |
| Final Date to Submit Results of Incomplete (INC) Grades for Previous Term with Permission of Associate Dean | Friday, March <del>8</del> <sup>6</sup>     | Friday, July <del>12</del> <sup>10</sup>                       | Friday, November <del>8</del> <sup>6</sup> |

## Thesis

|  | <del>FALL 2018</del> <sup>FALL 2019</sup>                               | <del>SPRING 2019</del> <sup>SPRING 2020</sup>   | <del>FALL 2019</del> <sup>FALL 2020</sup>                               |
|--|---|---|---|
| Final Date to Initiate Thesis Defence in Mosaic***                                   | Friday, June <del>29<sup>th</sup></del> <sup>28<sup>th</sup></sup>      | Wednesday January <del>23<sup>rd</sup></del> <sup>22<sup>nd</sup></sup><br>(Health Sci.)<br>Wednesday February <del>6<sup>th</sup></del> <sup>5<sup>th</sup></sup><br>(All others.) | Friday, June <del>28<sup>th</sup></del> <sup>26<sup>th</sup></sup>      |
| Final Date to Submit Master's Theses to Departments (Prior to Defense)               | Friday, August <del>14</del> <sup>9</sup>                               | Friday, March <del>8</del> <sup>6</sup>   | Friday, August <del>9</del> <sup>7</sup>                                |
| Final Date to File Theses with Graduate Studies and Complete Degree Requirements**** |   |   |   |
| - Faculty of Health Sciences   | Friday, September <del>28<sup>th</sup></del> <sup>27<sup>th</sup></sup> | Friday, April <del>5<sup>th</sup></del> <sup>3<sup>rd</sup></sup>   | Monday, September <del>30<sup>th</sup></del> <sup>28<sup>th</sup></sup> |
| - All Other Faculties  | Friday, September <del>28<sup>th</sup></del> <sup>27<sup>th</sup></sup> | Friday, April <del>26</del> <sup>24</sup>   | Monday, September <del>30<sup>th</sup></del> <sup>28<sup>th</sup></sup> |

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. 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 2.5.6 (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 Petition for Special Consideration. 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 Ph.D. defences cannot be scheduled: December 16<sup>th</sup> to January 10<sup>th</sup> inclusive and August 17<sup>th</sup> to 21<sup>st</sup> inclusive. Please refer to the SGS website with information about the timeline for scheduling your defence with these dates in mind.

\*\*\*A final thesis is the corrected, approved version of the thesis which is submitted to SGS 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:

<http://registrar.mcmaster.ca/grad/convo-dates/>

## 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.

### 1.1 Programs of Study

McMaster University offers graduate programs that lead to one of the following degrees or diplomas:

Graduate Diplomas in Advanced Neonatal Nursing, Critical Leadership, Clinical Behavioural Sciences, Clinical Epidemiology, 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, ~~International Relations~~Global Politics, Philosophy, Political Science, Religious Studies, Sociology, and Work and Society;

Master of Biomedical Discovery and Commercialization

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 ~~Chemical Engineering~~, Civil Engineering, Computational Science and Engineering, ~~Computing and Software~~Computer Science, ~~ADMI Design and Manufacturing~~, Electrical and Biomedical Engineering, Electrical and Computer Engineering, Engineering Physics, Manufacturing Engineering, Mechatronics, Nuclear Engineering (UNENE), ~~Software Engineering~~, ~~Software Engineering and Virtual Systems Design~~

Master of Engineering in Manufacturing Engineering

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 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, Neuroscience, Nursing, Occupational Therapy, Physics and Astronomy, Physiotherapy, Psychology, 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 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, Health Policy, Health Research Methodology, Health Studies, History, Kinesiology, Labour

Studies, Materials ~~Engineering, Materials Science~~~~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, and Software Engineering.

## 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. The 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 Graduate Registrar and Secretary of the School administers the academic affairs of students enrolled in the School of Graduate Studies. This responsibility includes: 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

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; 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 as noted above. The Department is responsible for matters such as:

- ensuring that every student has, at all times, a faculty advisor 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. 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

The Supervisory Committee, or the faculty advisor when no such committee is required, provides advice to the Department as noted above. Additional responsibilities include, where applicable:

- planning and approving the student's program of courses and research;
- approving thesis proposals;
- 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;
- initiating appropriate action if the student's progress is unsatisfactory, including any recommendation that the student withdraw;
- deciding when the student is to write the thesis and giving advice during this process;
- acting as internal examiners for the thesis.

## 1.2.5 The Faculty Advisor

When a supervisory committee 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** **His/her** 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 Guidelines for Graduate Course Instructors

For most faculty members and graduate students alike, the graduate classroom offers a unique site of intellectual development, exploration, and exchange. The following guidelines are intended to highlight best practices to help instructors plan and run successful graduate courses, and to optimize the learning experience for graduate students. These guidelines supplement the official *Policy on Graduate Course Outlines*, to which all graduate courses must adhere.

In fields that include diverse knowledge bases or skill sets, the instructor may wish to meet with prospective students before the course starts, particularly with students who are from outside the home program or department. Such a meeting might include a discussion of the overall objectives and content of the course, an explanation of the methods of assessment, and a description of the expertise and skill level expected of the student.

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. Accordingly, best practice would be for the invited instructor to receive information, preferably in writing, about evaluation criteria and expectations that are consistent with the course outline. Students also should be informed of the mechanism and mode of evaluation.

To receive credit for a course, each student is responsible for confirming in the Mosaic Student Center that **his/hertheir** 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. Best practice suggests that the instructor should remind students of their responsibilities at the first meeting of the course. If the instructor becomes aware that a student is not listed on the class list/grade roster, or that the class list/grade roster includes the name of a student who has not been attending the class, the instructor should inform the department/graduate program.

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. It is best practice in graduate courses for each student to receive at least one written evaluation prior to the 'drop' date so that students can have the chance to withdraw from the course without academic penalty. Such an evaluation could take any of a number of forms (e.g., evaluations of a seminar presentation, a written assignment, or a collaborative work).

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. Some students, particularly those whose first language is not English, may be reluctant to participate in a discussion in class. Best practice suggests that these students should be recognized early and, whenever possible, tactfully drawn into the discussion by the instructor.

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.

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.

Best practice suggests that instructors should calculate and provide final grades to the School of Graduate Studies for *all students* by the date stipulated in the Graduate Calendar. Final marks also should 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.

## 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:

- enrolling annually until they graduate/graduation, withdraw/withdrawal, or are withdrawn in good standing due to time limit, except when a student is on a leave of absence;
- paying fees as required;
- complying with the regulations of the School of Graduate Studies as set out in this Calendar.
- make satisfactory progress toward the completion of the degree as outlined in section 2.6 Academic Progression.

Where applicable, students are responsible for complying with such conditions as may be laid out in an accepted letter of offer. 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, 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.

### 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 2.7.

Students who undertake to write a master's or doctoral thesis assume responsibility both for creating drafts of the thesis 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 [his/hers/their](#) academic obligations, the student will be required to withdraw involuntarily from [his/hers/their](#) academic program. (see also Section 6.2)

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 2.5.8. Any student who is away from campus for longer than one week, which is not part of the student's vacation entitlement, requires their supervisor's approval in writing. 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 [even](#) 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. No guarantee of readmission or of renewal of financial arrangements can be made. An exception to this policy would be programs that deliver 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

- 2.1 Admission Requirements
  - 2.1.1 Admission Requirements - Master's
  - 2.1.2 Admission Requirements - Ph.D.
  - 2.1.3 Transfer to Ph.D.
  - 2.1.4 Admission Requirements - Part-time Ph.D.
  - 2.1.5 Admission of Students - Cotutelle Ph.D.
  - 2.1.6 Admission of Students with Related Work Experience or Course Work Beyond the Bachelor's Degree
  - 2.1.7 Admission Requirements for Graduate Diploma Programs
- 2.5 Enrollment (continued)
  - 2.5.6 Full-Time on Campus
  - 2.5.7 Leaves of Absence
  - 2.5.8 Parenting Leave
  - 2.5.9 Vacations
  - 2.5.10 Appeals and Petitions for Special Consideration
- [2.6 Academic Progression](#)
- [2.6.7](#) Graduate Course Work
  - 2.6.1 Averaging of Letter Grades
  - 2.6.2 Course Levels and Types
  - 2.6.3 Course Categories
  - 2.6.4 Failing Grades and Incomplete Grades
  - 2.6.5 Required Course and Training for All Graduate Students
  - 2.6.6 Audited Courses
  - 2.6.7 Repeated Courses
  - 2.6.8 Milestones
  - 2.6.9 Placeholder Courses
  - 2.6.10 Outgoing Exchange Students

- 2.1.8 Admission Requirements for Post Degree Students
- 2.1.9 Non-Credit Participants in Graduate Courses
- 2.1.10\_Visiting\_Students
- 2.1.11 Incoming Exchange Students
- 2.1.12 English Language Requirements
- 2.2 Application for Admission
- 2.3 Transfer/Advance Credit and Course Equivalency
- 2.4 Acceptance
- 2.5 Enrollment
  - 2.5.1 Continuity of Registration
  - 2.5.2 Definition - Full- and Part-time Status
  - 2.5.3 McMaster University's Regulations for Full- and Part-time Status
  - 2.5.4 Employment Regulations
  - 2.5.5 Enrolment - International Students on Study Permits
- 2.7 Supervision
  - 2.7.1 Graduate Work Supervision Guidelines
- 2.8 Theses
  - 2.8.1 General
  - 2.8.2 Response Times for Theses
  - 2.8.3 Publication of Electronic Theses

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.

It is the student's responsibility to:

- Maintain current contact information with the University, including address, phone numbers, and emergency contact information.
- Use the University provided e-mail address or maintain a valid forwarding e-mail address.
- Regularly check 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.
- Accept that forwarded e-mails may be lost and that e-mail is considered received if sent ~~via~~to the student's @mcmaster.ca aliasaccount.

#### 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.

#### Retention of Documents

All documentation submitted in support of an application for admission becomes the property of the University and is not returnable.

If an applicant is not accepted, or fails to enroll following acceptance, their documentation will be destroyed at the end of the admissions cycle. If the applicant reapplies, they must submit any new academic information in addition to the documentation submitted previously.

## **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. The admission decision is not subject to appeal.

### **2.1.1 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). 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.

Prospective applicants who did not attain the required standing in their undergraduate degree, but who have five years of work experience that is relevant to the program they wish to undertake, may be admitted to a Master's program as mature students provided they are recommended by their program. 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.

## 2.1.2 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+), and strong letters of reference.
2. Students enrolled in a Master's program at McMaster University may be transferred to the Ph.D. 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 first 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.

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 prior to the start of the next term.

### 2.1.3 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 2.1.2.

### 2.1.4 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.

### 2.1.5 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 ~~is a unique way to promote~~ and ~~structure~~ research collaborations ~~and in ways that~~ allows students access to a broader range of research ~~supervision experience~~ than would be available at a single institution.

~~Students interested in a cotutelle Ph.D. degree must have finalized arrangements completed within the first 12 months of their Ph.D. study.~~ 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 ([embed link](#)) on the McMaster Senate Secretariat's website: <http://www.mcmaster.ca/policy/index.html>.

### 2.1.6 Admission of Students with Related Work Experience or Course Work Beyond the Bachelor's Degree

As noted in Section 2.1 of the Graduate Calendar, "Admission to a graduate program is based on a judgement by the University that the applicant can successfully complete the graduate degree program". Some potential applicants may not satisfy our admission requirement for a 4-year honours degree with a B+ average in the final year. 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.

## 2.1.7 Admission Requirements for Graduate Diploma Programs

The admission requirements for a graduate diploma are the same as are identified in Section 2.1.1 for admission to a Master's program.

Graduate Diploma students with at least a B+ average in their diploma course work may be eligible to transfer to a Master's degree in a related program, subject to the recommendation of the department or program to the relevant Faculty Graduate Admissions and Study Committee. If the diploma has not been completed, transfer credit may be given toward the degree requirements for all graduate courses completed successfully. Approval of the department is required for any such credit to be applied toward a degree; it is not automatic. Departmental or program approval is normally based on an assessment of the amount of additional coursework that will be required for the degree.

If a student wishes to enter a related Master's program after the diploma has been completed, credit may be granted towards the subsequent degree program for those courses completed successfully, with a limit of one full course or half of the course requirements for the degree, whichever is less.

## 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, ~~but who is currently in (or has had) full-time employment in the intended area of study~~ 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, ~~because they will have been necessary to demonstrate admissibility~~ [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) 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). See Section 5.1, Fees for Graduate Students, for the fee schedule.

## 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-Section 6.10](#). 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. 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 SGS 302.

The student is expected to pay the supplementary fees (see Section 5.1, Fees for Graduate Students) and the appropriate Canadian or international equivalent per course fee for the time that they are registered here. It is necessary for them to enroll in the UHIP program to ensure adequate health insurance coverage during their stay.

## 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 Students Affairs webpage (<http://oisa.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.

[For a list of types of exchange please visit the School of Graduate Studies website.](#)

## 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 native 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. 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.

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 requirements may vary across programs.

- 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 is located at

<https://gs.mcmaster.ca/academic-services/how-apply>

Applications may be submitted at any time but applicants 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 obtaining the necessary visa.

### 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 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.
- 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 as a petition for special consideration 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.

Credits from other institutions can be used to substitute a specific McMaster University course requirement; however, the student may be required to take additional courses. Students wishing to apply for advance credit or course requirement equivalency should normally inquire when they apply or accept an offer of admission. Requests 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 in Engineering 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, courses taken for credit as part of a diploma program may be considered for advanced standing credit in subsequent master's programs.](#)

## 2.4 Acceptance

Initial assessment of completed applications is the responsibility of departments. If that assessment is favourable, the department will recommend to the School of Graduate Studies Office of a favourable decision, or by the department of a negative decision. Applicants may be accepted conditionally before completing their present degree programs. Such conditions must be cleared at the time of registration.

Official letters of admission 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 in writing to the offer of admission within the interval identified in the offer letter. 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

## 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 a 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 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

A student who doesn't enroll for each term will be withdrawn in good standing unless there is a scheduled break in the program.

See also section 3.6 or 4.6 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 his or her studies as a full-time occupation;
- c. identify himself or herself 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) student be geographically available and visit the campus regularly. Other programs may have different requirements and may be conducted fully on-line. 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 ~~his/her~~their supervisor or equivalent (designated by the program office)
- g. 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. 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 3.6 or 4.6 for more information on program progression.

## 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.

McMaster University complies with the OCGS document "Principles for Graduate Study at Ontario's Universities" (March 2017) which, in Resolution 5, states the following:

"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, OCGS is committed to the principle that full-time graduate students are employed no more than an average of 10 hours per week on campus."

Full-time students who are participating in McMaster-based paid employment should work no more than an average of 10 hours a week to a maximum of 505 hours in the academic year. Normally students who exceed this limit are asked to drop down to part-time status, to stop working or reduce their hours of work. Changing student status from full-time to part-time will affect a student's scholarship funding, OSAP, and student visa

The University considers full-time students to be those that have their studies as their priority. 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.

All active graduate students other than full-time graduate students as defined above are part-time graduate students.

## 2.5.4 Employment Regulations

In the McMaster context, there are three terms in the School of Graduate Studies for purposes of interpreting the rule in Section 2.5.3 limiting employment with the University to ten hours per week on average: Fall (September through December); Winter (January through April); and Summer (May through August). These are deemed to have 17, 17, and 18 weeks respectively. The ten-hour limit includes but is not limited to work as a Teaching Assistant at McMaster.

## 2.5.5 Enrolment - International Students on Study Permits

International students admitted to graduate studies degree programs must have a valid Study Permit issued by Citizenship and Immigration Canada (CIC), provided that their program of study is longer than six months. A copy of the Study Permit must be submitted to the School of Graduate Studies (SGS) upon arrival at the University. International graduate students without valid Study Permits will not be allowed to enroll.

If a Study Permit expires prior to program completion, students must apply to CIC for renewal and submit a copy of the renewed Study Permit to the School of Graduate Studies (check the 'valid until' date on the Study Permit). Make sure you apply at least 30 days before your current permit expires. If your Study Permit expires and you have made an application to renew it, but have not had a decision yet, you can continue studying until you receive a decision. Proof of application for renewal must be submitted to the School of Graduate Studies to permit continuing enrolment.

There are additional rules for students whose program is delivered either partially or wholly on-line. Students whose program is delivered entirely on-line do not need a study permit. Students whose program is delivered partially on-line and is longer than six months will need a study permit for the period of time when they are required to be on campus - for example to attend a residency week.

For information on status change to permanent resident status during the course of your study, please see section 5.1.4.



## 2.5.6 Full Time Off-Campus

On admission to a full-time program, the assumption is that ~~you 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.

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.

## 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 Regulations/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 ~~the period of an~~ LOA the student will not receive supervision or be entitled to use the University's academic facilities for the purposes of academic progression. ~~During an LOA, no~~ tuition will be charged, nor will the student be eligible for any scholarship support. ~~SP~~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.

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 a minimum of four week's written notice to the School of Graduate Studies in writing, 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/>.

Alternatively, the student may request to withdraw (Withdrawal at the Request of the Student). Should the student opt to withdraw, they may be eligible for reinstatement at the University's discretion upon reapplication.

~~Students should be aware that in the event of an LOA, continuation of the same research project and/or supervisor cannot be guaranteed. Students applying for an LOA for personal reasons must normally have completed at least one year of full-time graduate studies. For additional information related to parenting leaves, please refer to the next section.~~

~~Students returning earlier than planned from an LOA must provide a minimum of four week's notice to the School of Graduate Studies in writing.~~

### **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 12 months at a time.

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 200 - 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 to obtain externally paid or unpaid relevant work experience may be granted for one term for a Master's student and for two terms for a Ph.D. student. An LOA for purposes of obtaining relevant work experience cannot be for two consecutive terms.~~

~~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 [apply](#)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, or if the student has a grade of 'I' (incomplete) recorded for a course at the end of the previous term.~~

#### **Reasons for Leaves of Absence:**

~~An LOA for up to one year is permitted for reasons of illness, provided that the request is supported by adequate medical documentation. 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 other personal circumstances, provided that the student's supervisor and the department support the request. Alternatively, the student may request withdrawal (Withdrawal at the Request of the Student). Should the student opt to withdraw, they may be eligible for reinstatement, at the University's discretion, upon reapplication.~~

~~An LOA to obtain externally paid relevant work experience may be granted for one term for a Master's student and for two terms for a Ph.D. student. An LOA for purposes of obtaining relevant work experience cannot be for two consecutive terms.~~

~~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.~~

~~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.~~

~~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.~~

## **2.5.8 Parenting Leave**

Parenting Leave Policy

### Intent

The Parenting Leave Policy (the "Policy") 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 200 – 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"

As closely as academic terms can align with any employment agreements, but not being held to match said agreements as a student, a Parenting Leave is at maximum for four consecutive terms.

The form to apply is available on the School of Graduate Studies Resources page ([https://gs.mcmaster.ca/sites/default/files/resources/parenting\\_leave\\_june\\_2018\\_june\\_2018.pdf](https://gs.mcmaster.ca/sites/default/files/resources/parenting_leave_june_2018_june_2018.pdf)). 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>.

It is understood that when a student takes a Parenting Leave, 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 their graduate studies program.

In order that the student's supervisor and/or program can make suitable arrangements to cover ongoing responsibilities during the student's absence, students are expected to provide as much notice as possible of the intention to take a Parenting Leave under this Policy.

A student is normally expected to give at least four weeks' notice of the date on which they intend to take their leave(s) and at least four weeks' notice of the date on which they intend to return from leave, should this date be different from the date agreed upon at the time the leave was granted.

### Combination with Other Leaves

A Parenting Leave 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.

If a student is also an employee, it is incumbent upon the student to review their terms and conditions of employment and/or Collective Agreement (if any) and apply for the appropriate leave of absence from the employer.

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.

For questions on the administration of the Policy, contact the School of Graduate Studies.

## **2.5.9 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.

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.

## 2.5.10 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.

## 2.6 Academic Progression and Graduate Curriculum

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.

All degree students are admitted under the General Regulations of the School of Graduate Studies, described in the calendar. Respective degree regulations for the various degrees offered at McMaster University are specified in the program-specific sections of the calendar.

Each student is required to satisfy the program requirements of the academic year in which the student first registered in the graduate program. Failure to maintain good academic standing may impact the students' ability to 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.

## 2.6 Graduate Curriculum

### 2.6.1 Averaging of Letter Grades

Grades in graduate courses are reported as letter grades. However, instructors may record grades for individual components of a course either as letter or numerical grades. The averaging of letter grades assigned to individual components of a course must be done by using the McMaster 12-point scale, as follows: A+ = 12, A = 11, A- = 10, B+ = 9, B = 8, B- = 7, C+ = 6, C = 5, C- = 4, D+ = 3, D = 2, D- = 1, F = 0. Further, all .5 marks should be rounded up. The passing grades for courses at the graduate level are A+, A, A-, B+, B, and B-. Graduate students enrolled in undergraduate courses will be subject to the grading scale as courses in the graduate level. The minimum passing grade is a B-. Final grades are normally converted to letter grades after the numerical grade is determined.

Graduate Student Grading Scale:

| 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.

Graduate Diploma in Professional Accountancy, 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: $135 \div 18$ |              |   |              |    |     |
| =7.5                                |              |   |              |    |     |

Note: McMaster University's Policy on Graduate Course Outlines is available at:

<http://www.mcmaster.ca/policy/faculty/Conduct/GraduateCourseOutlines.pdf>

## 2.6.2 Course Levels and Types

A McMaster course is a body of work which is graded using the graduate student grading scale and consists attending lectures, seminars or other of 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[Sessional Dates](#). All Graduate courses 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).

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 courses taken must be listed or cross-listed by the program in order to be counted towards the degree. Courses taken outside of the [faculty-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.

Courses available for graduate credit are numbered either at the 700- or 600-level (e.g. 771 or 6D06). Courses are restricted in enrolment to graduate students, with the exception of those ~~undergraduate~~-students registered ~~in-for~~ approved, accelerated Masters programs and with written permission of their department (or program) chair, director, or designate. (~~DepartmentsPrograms~~ may have ~~additional~~ restrictions on the number of 600-level courses allowed for graduate credit, ~~though no program may allow more than one-third of their course requirements to be filled at the 600 level~~). Graduate students taking 600-level courses are regularly required to do extra course work beyond that required of undergraduates in the corresponding 400-level course. Each ~~department-program~~ offers only a selection of its courses in any given year.

~~All Graduate courses have a unit value, with the standard being 3 units for a one term course, 6 units for a two term course and 1.5 units for a course lasting for half a term.~~

~~In all cases, the expectation is that the course will meet at least three hours per week (on average). For 600-level courses, the first character represents the level of the course (combined graduate-undergraduate), the second character is a letter identifying the specific course within a department, the third character is a letter identifying the area of study within a program or simply a zero, and the fourth character indicates the number of units of course credit. Generally, 3-unit and 4-unit courses are one-term courses; 6-unit courses are full-year courses.~~

## 2.6.3 Requirement Designations

The enrollment process will automatically assign a course towards the primary academic program that a student is enrolled in for a particular term. This process does not determine whether the course will exceed the requirements outlined in the curriculum. Where a student wishes to designate a particular course towards a program other than their primary academic program a special request is required during the normal add period outlined in the sessional dates. The requirement designation form is available on the School of Graduate Studies website.

Courses can be 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). The passing grades for a Master's course are A+, A, A-, B+, B, and B-.

**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). The passing grades for a Doctoral course are A+, A, A-, B+, B, and B-.

**Extra Courses** (Extra Course)

This category identifies courses that the student is taking with the approval of the supervisor but that are not necessary to the student's current degree program. In order to designate a course as extra, a student will have to submit a course designation request during the normal add period of enrollment in a particular term. The form is submitted to the program office and once approved will have the designation added to the enrollment record for that course only. If a failing grade (i.e. less than B-) is received in a course taken as Extra, the courses (and grade) will not appear on the student's transcript unless because of academic dishonesty. 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. Changes of designation after the drop date will not be approved. Courses designated as Extra Course may subsequently be counted towards graduate degree requirements and the course designation changed to Master's or Doctoral, if approved by the Faculty Admissions and Study Committee or the Associate Dean acting on its behalf. The passing grades for an Extra Course are A+, A, A-, B+, B, and B-.

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. The passing grades for a Diploma course are A+, A, A-, B+, B, and B-.

### Certificate Course

This category identifies courses that the student is taking as individual courses not counting towards the requirements for a diploma. The passing grades for a Certificate course are A+, A, A-, B+, B, and B-.

McMaster students enrolled in a program wishing to take a course at another institution need to apply online in the Student Centre (see section 6.10 - Inter-University Cooperation - Ontario Visiting Graduate Student).

## 2.6.4 Failing Grades and Incomplete Grades

~~The minimum passing grade in a graduate course is a B-. All instances of failures are reviewed by the Failure in either a course or a milestone are reviewed by the~~ appropriate Faculty Committee on Graduate Admissions and Study or the Associate Dean ~~acting on its behalf~~. The Faculty Committee on Graduate Admissions and Study or the Associate Dean ~~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~~. A failing grade in a Certificate, Diploma, Master's or Doctoral course ~~or graded milestone~~ remains on the transcript ~~or record~~. Students who fail a second course ~~or milestone~~ will not normally be allowed to continue in the program.

Under exceptional circumstances a course instructor may approve an extension ~~for the to a~~ student for the completion of work in a course and assign an Incomplete grade (INC). ~~The instructor will submit an incomplete grade with a 'Lapse To' grade, which is the grade that will default to at the date to clear incomplete grades. At the same time the instructor submits an incomplete grade they have to also submit a lapse to grade which is the grade that will default to at the date to clear incompletes.~~ Normally this extension is in the range of a few weeks. A student who receives ~~this permission 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 'Final Date to Submit Results of Incomplete Grades', to the School of Graduate Studies by the date specified in the Sessional Dates near the beginning of this Calendar.~~ If the INC grade is not cleared by the deadline, ~~a the~~ lapsed grade will automatically be recorded.

## 2.6.5 Required Course and Training 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* within the first month of their first term after their admission to graduate studies at McMaster. The purpose of this course is to ensure that the standards and expectations of academic integrity and research ethics are communicated early and are understood by incoming students. All students are required to take and pass SGS 101. Students may not graduate or register in subsequent academic terms without having successfully completed this course.

All graduate students are required to complete appropriate training required to complete their research and studies (health and safety training, ethics training, biosafety training, etc.), as determined by their home Department or Program. All graduate students also are required to complete and pass *SGS 201 Accessibility for Ontarians with Disabilities Act (AODA)*, which can be completed on-line [<http://accessibility.mcmaster.ca/>]. Having an understanding of how we can identify and reduce attitudinal, structural, information, technological, and systemic barriers to persons with disabilities is core to McMaster University's commitment to supporting an inclusive community in which all

**Commented [CB(S1):** Note for GC Members: this section will swapped with 2.6.8 so that the concept of Milestones is introduced before discussion of failures.

persons are treated with dignity and equality, and completion of AODA training is critical as McMaster's graduates move forward in their varied, chosen professions.

Students may not graduate or register for subsequent terms in their program until they have completed their required training.

## 2.6.6. Audited Courses

Graduate Students may request to audit Graduate courses only. 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.

Audited courses have no academic credit and an audited course may not be retaken for credit.

Graduate students are not allowed to audit undergraduate courses.

## 2.6.7 Repeated Courses

Graduate students may not repeat courses for credit. The only exceptions are: when remediating a failing grade (see 2.6.4) and reading/special topics courses (only where each topic taken by the student is distinct from others previously taken).

## 2.6.8 Milestones

**Commented [CB(S2)]:** Note for GC Members: this will become section 2.6.4

~~In addition to course work, most graduate programs have a series of non-course academic requirements that are designated as part of the curriculum, examples — 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.) as Milestones are considered formal components of a student's academic progress and if not successfully completed can will normally prevent a student from graduating.~~

~~There are two types of Milestones: graded and non-graded. Both types of Milestones can be viewed on the Mosaic student centre but only graded Milestones must appear on the student's transcript (once completed). If a student receives an F grade in their Milestone they may be required to withdraw. These requirements are tracked via a series of milestones and progress can be viewed on the student center, and once complete will appear on the student's transcript. Please refer to individual program descriptions for further details of non-coursework requirements. These milestones are considered formal components of your academic progress.~~

~~Please refer to individual program descriptions for further details of non-coursework requirements.~~

## 2.6.9 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

[Students who are here as a visiting or exchange student will need to enroll in SGS 302](#)

## 2.6.10 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 2.6.1.

## 2.7 Supervision

It is the responsibility of the department/program to ensure that every graduate student has, at all times, a faculty advisor or a properly constituted supervisory committee. *The supervisor must be declared within the first 5 months of study and the supervisory committee must be declared within the first 12 months of study.*

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 are assumed to continue their participation on student committees unless otherwise replaced by the Associate Chair or Graduate Advisor.

[From time to time it may be appropriate for non-McMaster faculty or 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. Please refer to the policy at the following link \(embed: \[https://www.mcmaster.ca/policy/faculty/Appointments/SPS\\\_A11-Supervision-GraduateWork.pdf\]\(https://www.mcmaster.ca/policy/faculty/Appointments/SPS\_A11-Supervision-GraduateWork.pdf\)\).](#)

While the supervisor and student have a mutual obligation to meet on a regular basis, the department/program shall ensure there is a formal regular meeting of each Ph.D. supervisory committee at least once within the [academic 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, ~~no later than November 30th.~~ [For PhD students who have entered or transferred into the PhD effective January 1st or May 1st, they must have a PhD Supervisory Committee meeting completed no later than November 30th of that same calendar year; those entering September 1st must have at least one meeting by November 30th of the next calendar year.](#) The report formally documents the supervisory committee's assessment of the progress of the student's program.

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.

If a student feels that ~~she/he/they are~~ receiving unsatisfactory supervision, ~~he/she/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 (see Section 4.5 - Supervision).

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>.

## 2.7.1 Graduate Work Supervision Guidelines for Faculty and Students

### Preamble

The relationship between the graduate student and supervisor/advisor is unique and provides a remarkable opportunity to guide and mentor the student engaged in advanced academic learning. What is considered 'good' supervision will vary from discipline to discipline, and it naturally evolves as the student advances through a graduate program. This document provides suggestions to initiate, promote, and sustain successful student-supervisor/advisor relationships.

### Guidelines for the Graduate Student

1. Commitment to scholarly activity is a pre-requisite for graduate success.
2. To support mentorship and guidance, the student must engage in effective, timely and on-going communication with the supervisor/advisor regarding the status of their project.
3. The student should discuss expectations with the supervisor/advisor to ensure that there is a mutual understanding of research goals and related activities, coursework, timelines and deadlines.
4. The student must manage their time, meet deadlines, and prepare for regularly scheduled meetings (e.g., with the supervisor/advisor and supervisory committee). Students should recognize that graduate program academic expectations will not be modified if they choose to engage in other activities, such as working outside of ~~his/her/their~~ graduate studies, studying for professional program entrance exams or applying for jobs or postdoctoral fellowships. Student-supervisor meetings for thesis work typically occur at least monthly, although meeting regularity will vary amongst disciplines and at various stages. Students are encouraged to discuss concerns about the type and amount of supervision needed for their work with their supervisor. Students are expected to inform the academic head of the graduate program if they are concerned about inadequate or inappropriate supervision.
5. The student is expected to develop effective communication and collaborative skills and to demonstrate respect for others. The student should carefully and earnestly consider advice, suggestions, comments and criticisms received from the graduate supervisor/advisor. The student should expect timely, but not immediate, responses (regarding meetings, feedback on written work, etc.) from the supervisor/advisor and supervisory committee.
6. The student is obliged to act ethically in conducting graduate work. This includes, but is not limited to, following McMaster University policies on the ethical conduct of research and academic integrity. The student is required to document and honestly report research data, to conscientiously cite information and data sources, and to seek guidance on any data exclusions. He/she must acknowledge contributions of the

supervisor/advisor, committee members and others, in accordance with the norms of their academic discipline.

7. It is the student's responsibility to carry out all work safely and in accordance with standard operating procedures. Potentially dangerous tasks should not be done while impaired and should not be done until properly trained. It is the student's duty to learn about safe practices, ask questions, and seek appropriate help and guidance on safety matters.
8. It is the student's responsibility to be aware of all the requirements, regulations, and guidelines outlined in the Graduate Calendar as well as all University policies pertaining to graduate work.  
See [http://graduate.mcmaster.ca/images/files/graduate/forms/Graduate Work Supervision Guidelines.pdf](http://graduate.mcmaster.ca/images/files/graduate/forms/Graduate%20Work%20Supervision%20Guidelines.pdf) (see Appendix).

#### Guidelines for Supervisors and Advisors of Graduate Students

1. The supervisor/advisor must be aware of the inherent power imbalance in the relationship with students, behave professionally, and communicate appropriately. He/she must provide a safe, healthy environment that fosters productive scholarly work, curiosity, and freedom of expression. The environment must be free from harassment, discrimination, and intimidation.
2. The supervisor/advisor is expected to have sufficient time and resources (as appropriate for the field) to support the student's work effectively. It is the supervisor's responsibility to ensure that students have appropriate safety training, and that they carry out all work safely, and in accordance with standard operating procedures, once properly trained.
3. The supervisor/advisor should help the student develop a realistic thesis/research plan with reasonable plans, that balance exploration with achievable, manageable and focused goals, and allow completion of scholarly work "in time."
4. The supervisory committee must approve thesis project plans, including those that are part of a larger collaborative project led by others (e.g. research team members or collaborators).
5. The supervisor/advisor may encourage the student to undertake some research that is not formally part of their scholarly paper project or thesis project, provided that it will not negatively impact the student's academic progress. If appropriate, the additional work can be supported by a research assistant stipend.
6. The supervisor/advisor should be aware that a student might experience changes in motivation and productivity. The supervisor/advisor should be prepared to adapt ~~his/hers~~their mentorship approach to promote success in a range of different situations.
7. The supervisor/advisor is expected to be aware of accommodation policies, procedures and support services, and to support students with temporary disabilities in designing and organizing accommodations. For students with identified permanent disabilities, the supervisor/advisor is expected to consult with Student Accessibility Services on accommodations. They are expected to be respectful of graduate students who are dealing with stressful situations and personal difficulties. When appropriate, the supervisor/advisor should direct the student to campus resources and other supports. The supervisor/advisor is responsible for promoting a culture of respect and collaboration and encouraging timely conflict resolution when disputes arise, which may require consultation with the supervisory committee or others (e.g. head of the graduate program).
8. The supervisor must regularly communicate and have face-to-face meetings with the student to provide feedback on the student's progress, strengths, weaknesses, gaps in knowledge, and how well the student is addressing deficiencies. Written summaries of feedback should be prepared when there are significant deficiencies. When a student is struggling with meeting graduate program/thesis work expectations, a supervisory committee meeting should be scheduled early to assess progress and plans, and to provide a clear statement of requirements to meet expectations.
9. The supervisor/advisor and supervisory committee are required to provide students with timely, but not instantaneous, feedback. As an example, corrections to a thesis chapter, major research project, or a manuscript optimally should occur within a few weeks. Faculty should be aware that they must respond to a draft of the thesis within the timelines outlined in the graduate calendar.
10. Supervisors/advisors who undertake a research leave or other leaves must communicate to their graduate students, and graduate student applicants, the plans to provide supervision during the leave. Supervisors/advisors who will be away from campus for extended periods of time must name an alternate

faculty member, with graduate supervisory privileges, who will have day-to-day responsibility and signing-authority for students.

11. The supervisor/advisor is expected to encourage increasing independence as the student progresses through graduate work. Although the supervisor/advisor is not expected to be a copy editor for the student's written work, he/she should review and provide feedback on materials that the student produces prior to external review or defence.
12. Students' contributions to research must be acknowledged in accordance with the University policies and the norms of the academic discipline.
13. When feasible and appropriate, supervisors/advisors are expected to encourage students to submit their graduate work for presentation at conferences and workshops, and for publication.
14. The supervisor/advisor should recognize that there are multiple career paths available to different students, and should be respectful of the student's choice of career path, providing advice, where appropriate, on the best way for the student to reach his/her/their career goals. The supervisor also should be aware of professional development opportunities for the student offered through the Department/Program, Faculty, or University, and should encourage the student to take advantage of such opportunities.
15. It is the supervisor/advisor's responsibility to be aware of all the requirements, regulations, and guidelines outlined in the Graduate Calendar and University policies. See [http://graduate.mcmaster.ca/images/files/graduate/forms/Graduate Work Supervision Guidelines.pdf](http://graduate.mcmaster.ca/images/files/graduate/forms/Graduate%20Work%20Supervision%20Guidelines.pdf) (see Appendix).

## 2.8 Theses

### 2.8.1 General

The thesis will be a coherent work prepared as an electronic document (an e-thesis) that provides a complete and systematic account of the research accomplished by the writer. A printed paper version is no longer acceptable for thesis defence or for storage in the university library after a successful defence. A Doctoral student may prepare and defend either a standard e-thesis (see 'GUIDE FOR THE PREPARATION OF MASTER'S AND DOCTORAL THESES') or a "sandwich" e-thesis at oral examination (also known as the 'thesis defence'). Normally, a Master's student may submit only a standard e-thesis (see 'Thesis Guide' section 5.2). Each department or program offering graduate work is wholly responsible for setting up oral examinations for Master's candidates (see 'Thesis Guide' Sections 6.1 and 6.2). The School of Graduate Studies assists with arranging all Ph.D. oral examinations (see 'Thesis Guide' Sections 6.3, 6.4, and Appendix 1).

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' (see section 2.8.3 below). 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. Having filed the e-thesis to MacSphere, the student may choose to purchase printed and bound copies for their personal use or for presentation. Details of selected companies who are organized to print and bind the thesis are listed on the School of Graduate Studies website (<http://www.mcmaster.ca/graduate>). The cost of printing and binding will be borne by the student.

No research for the Master's or Ph.D. degrees at McMaster may be secret or classified. All e-theses will be available to readers through MacSphere.

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. Accepted forms of bibliographical reference in the particular discipline and other matters of format should be discussed with the thesis supervisor. Students may also refer to the instructions set forth in Kate L. Turabian's [A Manual for Writers of Term Papers, Theses, and Dissertations](#). 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. Doctoral students and their supervisors should keep in mind that theses of extraordinary length are to be discouraged. The preparation of a lengthy Ph.D. thesis almost certainly extends the time that the student takes to complete his or her degree. 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). 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.

## 2.8.2 Response Times for Theses

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.

## 2.8.3 Publication of Electronic Theses at McMaster University

Every successfully-defended thesis for a Master's or a Ph.D. degree shall be published substantially as it was approved at the thesis defence, including any changes mandated by the defence committee, through the University Library's MacSphere and the Library and Archives of Canada. To this end, as a final requirement of the degree, each student must sign a license enabling such digital publication, and must upload the thesis to MacSphere in electronic form. Note that the student may request postponement of digital publication for up to one year at the time of uploading the thesis to MacSphere, and all such requests will be automatically granted. E-publication delays normally would be requested for the shortest amount of time required to facilitate publication with external organizations, to protect any right to immediate commercial gain, or to permit a patent application to be completed. Students wishing extensions of their initial postponement must apply directly to the Vice-Provost & Dean of Graduate Studies, at least 4 weeks before the termination of the initial e-publication postponement, with a full description of why an additional delay is requested and what steps have been taken to address the issues that required the initial delay. The Vice-Provost & Dean of Graduate Studies will determine whether further publication postponement is warranted, and, in no case will a publication delay of more than 2 years be permitted.

## Regulations for Master's Degrees

Master of Applied Science, Master of Arts, Master of Biomedical Discover and Commercialization, Master of Communications Management, Master of Engineering, Master of Engineering in Manufacturing Engineering, 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 Science, Master of Social Work, Master of Technology Entrepreneurship and Innovation. [Regulations for the M.B.A. program may be found in the M.B.A. Calendar, available from the DeGroot School of Business.](#)

## 3.1 General

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 project rather than a thesis, as

well as course work. Finally, some programs offer a course work-only curriculum. The decision on 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.

The regular 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 to see whether or not a part-time program is available in a particular department.

Prior to the 2001-2002 academic year, all Master's degrees awarded within the Faculty of Engineering were designated as Master of Engineering (M. Eng.) degrees. On April 11, 2001, the University Senate approved the use of the Master of Applied Science (M.A.Sc.) designation for thesis-based degrees in the Faculty of Engineering. Non-thesis Master's degrees in the Faculty of Engineering retain the M. Eng. designation.

## 3.2 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 Master's program is constructed by departments to contain a sufficient number of courses to make possible a diversified experience, for the student.

The student who is presenting a thesis as part of a program is required to complete, with at least B- standing, at least one full graduate course (or equivalent). Certain programs regularly prescribe additional graduate courses. In accordance with OCGS requirements, no more than one-third of the departmental minimum course requirements may be at the 600-level. The student may be required or permitted by the department to take courses in addition to those prescribed for graduate credit. In consultation with the programs concerned, one or more graduate courses in a related subject may be taken outside of the program.

Students will be required to meet any additional requirements of the program, including special seminars or colloquia. Such requirements are subject to approval by the appropriate Graduate Curriculum and Policy Committee.

Additional requirements for programs are found in program handbooks, please consult your program handbook's specific regulations.

## 3.3 Thesis

A candidate must present a thesis which embodies the results of original research and mature scholarship. In the case of sandwich theses, mature scholarship specifically includes substantial and significant contributions to the composition of text in papers with multiple authors. The student must be authorized by a majority of the supervisory committee before producing the final version of the thesis for oral defence. Normally the thesis will be distributed to committee members and examiners in an electronic format (see Section 2.8 - Theses).

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. 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.

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 defence, the Chair will ask the examiners to complete the Examination Report by initialing appropriately. The student will be invited back to the examination room for congratulations by the committee. 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 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 examination and all requested changes have been made, the student will upload the final e-thesis to MacSphere (see section 2.8). Students are normally expected to submit their final thesis within four weeks of a successful defence. The student may wish to have printed copies of the final thesis suitably bound for personal use or for presentation. The student will be responsible for the cost and distribution of any bound copies.

Tuition fees continue to be assessed until all degree requirements are met, including the successful submission of the final approved thesis to MacSphere.

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.

## **3.4 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, the rules governing Master's theses must be followed.

## **3.5 Supervision**

The general regulations regarding supervision, described earlier (Section 2.7, "Supervision"), apply to Master's students. If the student is registered in a thesis degree program, the thesis supervisor will have been identified by mutual consent, based on the nature of the thesis research. If the student is registering in a degree program without a thesis, a faculty advisor will be assigned. In either case, the advisor may be changed with the approval of the Department, as described in Section 2.7.

## **3.6 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 months. Twelve-month non-thesis programs occur in Anthropology, Biomedical Discovery and Commercialization, Classics, Cultural Studies and Critical Theory, Economics, Economic Policy, English, Finance, French, Global Health, History, Physics, Political Science, and Sociology.

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 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 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 please see Section 2.5.2 Definition of Full/Part-Time Status.

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, 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 in a thesis program, if a completed thesis is submitted, and is acceptable to the department, the student can be readmitted in order 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 5.1) to compensate for the costs of the defence and subsequent processing of the thesis

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.

## Regulations for the Doctor of Philosophy Degree

### 4.1 General

The regular doctoral programs at McMaster have been designed for students who can devote full time to their studies. Academically, full-time Ph.D. study is the best and most efficient way to undertake the degree. However, some departments at McMaster University will consider individual applicants holding a Master's degree whose circumstances preclude uninterrupted full-time graduate work to undertake Ph.D. studies. Because of the divergent nature of academic disciplines, part-time Ph.D. work is not feasible in some areas.

Accordingly, 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.

## 4.2 Program Expectations and Requirements

McMaster University does not have a minimum course requirement for the Ph.D. Instead, it is left to each graduate program to establish its own minimum requirement, subject to the approval of the appropriate Graduate Curriculum and Policy Committee, and Graduate Council. In accordance with OCGS requirements, no more than one-third of the program's minimum course requirements may be at the 600-level.

Students should consult that section of the Calendar applicable to the graduate program in which they are interested.

The supervisory committee 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. The student who is required to take undergraduate courses may register for a maximum of 12 units of such work.

Students will be required to meet any additional requirements of the program, including special seminars or colloquia. Such requirements are subject to approval by the appropriate Committee on Graduate Curriculum and Policy.

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 students for this breadth or depth of knowledge and the ability to integrate ideas. It is left to each program to decide if such knowledge is best determined by a Comprehensive Examination or by some other format instead. 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 between the 12th and 20th month after the student begins doctoral-level work at McMaster University, with an upper limit of 24 months. The assessment may consist of an examination, but it may also be achieved by other approaches, as appropriate for the field (portfolio, external evaluations such as a co-op work term report, completion of seminars, etc.). The approach taken, composition of faculty members involved in the assessment, and its administration are the responsibility of the program in which the student is registered, not of the student's supervisory committee.

Any assessment practice of comprehensive knowledge, including but not limited to the traditional comprehensive examination, must include a description of a 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, and in recognition of the fact that the failure may occur on oral or written parts of the assessment. The second opportunity will normally occur between one to six months after the student was notified that they had failed the original assessment. A failure at the second assessment will require the student to withdraw from the program.

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

There is no University-wide foreign language requirement for Ph.D. students. Many departments, however, do have such a requirement (see departmental regulations).

All departmental assessment rules and practices are subject to approval by the Faculty Committee on Graduate Curriculum and Policy, which may refer questions to Graduate Council.

Approved assessment procedures must be clearly communicated to graduate students at the earliest opportunity after registration.

## 4.3 Thesis

Please note that thesis defences may not be initiated until all other degree requirements, including comprehensive examinations, have been completed.

A candidate must present a thesis which embodies the results of original research and mature scholarship. In the case of sandwich theses, mature scholarship specifically includes substantial and significant contributions to the composition of text in papers with multiple authors. The student must be authorised by a majority of the supervisory committee before producing the final version of the thesis for oral defence. Normally the thesis will be distributed to committee members and examiners in an electronic format (see Section 2.8 - Theses).

When a majority of the supervisory committee have approved the final version of the thesis, it may be submitted to the School of Graduate Studies for examination. 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.

### Selection of the Examining Committee

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 Chair of the Department (or equivalent), the names and contact information for ~~up to three~~ potential examiners. The nominees must not have primary appointments at McMaster University, and they must be at arm's length\* from all members of the supervisory committee and the student. 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.

Normally, the examining body will consist of the following members: the student's supervisor, at least two members of the supervisory committee and an external examiner. A Chair will also be present at the defence but is not considered part of the examining body. 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. In unusual situations where the supervisor is not available to participate in the defense for an extended period, the program Chair may designate a different faculty member to serve on the examining committee in place of the supervisor.

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's PhD defence process.

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). External examiners should not have been employed by or affiliated with the student's or supervisors' Department within the past 6 years, nor expect to become employed in the Department in the immediate future.

### Scheduling and Conducting the Oral Examination (Oral Defence)

There are two ways that a PhD defence can be coordinated: through SGS or in cooperation with the supervisor via the Accelerated Model. There are blackout periods over the course of an academic year that affect defences coordinated by SGS. Please refer to the sessional dates in order 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 date as planned 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. 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, who will inform the candidate of any major criticisms of the thesis, must give a copy of the report to -so that the student can respond to these-. 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 specifically discuss the plan 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 withdraw the dissertation and defend 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 be reviewed by a different external examiner. A candidate may withdraw the thesis only once. In all cases, Despite-despite a negative assessment, a candidate has the right to proceed to a defence.

If an external report has not been received five business days before a defence, the candidate and 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. In the case of the Accelerated Thesis Defence Process 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. Observers will withdraw prior to the committee's deliberations on the student's performance at the defence. Normally, examination of the candidate will not take more than two hours. In no case should it take more than three hours.

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 to the examination room for congratulations by the committee. 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.

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 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 defence, the candidate must correct any errors detected by the readers to the satisfaction of the Supervisor and then submit an electronic copy to the School of Graduate Studies via MacSphere (see Section 2.8.3 - Publication of Electronic Theses at McMaster University). 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.

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.

**A final thesis is the corrected, approved version of the thesis which is submitted to SGS following the Final Oral Examination. Note that there is no grace period at the end of December or April for final thesis submission and completion of degree requirements.**

## 4.4 Supervision

The general regulations in regard to supervision, described earlier (Section 2.7), apply to doctoral students.

Students will be expected to confer with the Chair of the Department/Program and others in choosing a supervisor for their entire doctoral program, including the proposed research. As soon as possible, and in any case not later than six months following their arrival, a supervisory committee will be appointed by the department/program, on the recommendation of the students and their possible supervisors. 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 \(embed link https://www.mcmaster.ca/policy/faculty/Appointments/SPS\\_A11-Supervision-GraduateWork.pdf\)](https://www.mcmaster.ca/policy/faculty/Appointments/SPS_A11-Supervision-GraduateWork.pdf). If the need arises, the membership of a supervisory committee will be subject to change by the same procedures involved in its appointment (see Section 2.7 - Supervision). Supervisory committee members, including supervisors, may not resign without the department's/program's approval. The duties of the Ph.D. supervisory committee will be as follows:

- 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 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, usually through the student's supervisor;
- to provide the student with regular appraisals or 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;
- 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 give advice during this process;
- to act as internal examiners for the student's thesis;
- to act as members of the examination committee for the final oral defence when so appointed.

The supervisory duties of the department/program will be as follows: to provide all Ph.D. students in its doctoral program with copies of the complete departmental regulations of the program (such regulations are subject to approval by the Faculty Committee on Graduate Curriculum and Policy); to approve the membership and work of the supervisory committee; and, when necessary, to make changes in the membership; to report this membership to the Faculty Committee on Graduate Admissions and Study; at least once a year to review each student's course grades and research progress, as reported by the supervisory committee; to conduct comprehensive examinations; to conduct or

arrange for language examinations when these are required; to attest to the Faculty Committee on Graduate Admissions and Study that all departmental and University requirements for the degree have been satisfied; to name any departmental representatives to the examination committee for the final oral defence of the thesis; to replace any members of the supervisory committee, including the supervisor when on leave of absence or, if necessary, when on research leave.

Part-time students must have their course grades and research progress reviewed at least once a year by the supervisory committee.

## 4.6-5 Program Progression

The minimum time in which to complete a Ph.D. program at McMaster is three calendar years beyond the bachelor's level or two calendar years 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.

Completion of the Ph.D. degree is normally limited to six years 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 eight years 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. A student whose work is unsatisfactory may at any time 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 2.5.2 - 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 5.1) 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.

## Financial Matters

### 5

## 5.1 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 ~~2018-2019~~2019-2020 fees schedule is in effect for a period of September 1, 2018 2019 to August 31, 2019-2020 and applies to all graduate students whether registered in regular or part-time degree programs. Please consult the Accounts and Cashiers website (<https://student-accounts.mcmaster.ca/tuition-fees/undergraduate/#tab-content-graduate>) for the official graduate fees.

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### 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 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.

### Program Fees assessed on a course basis

Students enrolled in programs with course costed tuition will be assessed tuition fees for each course that they take. The limit of 3 half courses per year does not affect their status.

Ph.D. students who have been registered as full-time for longer than the normal period of funding eligibility (as defined in Section 5.2.1) will be assessed discounted tuition fees.

A fee is charged for each course taken on the basis of Section 2.1.8 by persons who are not registered graduate students. The tuition fee for certain courses may be higher.

### Leave of Absence



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.

#### Readmission

Students who have "withdrawn in good standing due to time limit" do not pay fees until readmission. Readmission will only take place at the start of a term for students being readmitted to program. Students readmitted to defend will be readmitted at the point that they are ready to defend. See Section 5.1.5 (Readmission Tuition Charges).

#### Mid-Year Admissions

Students admitted in January or May, will have a slightly different schedule of fees for tuition and mandatory supplemental fees.

Enquiries should be referred to Student Accounts and Cashiers (<http://www.mcmaster.ca/bms/student/>) 905-525-9140 ext. 24478

### **5.1.1 Payment of Fees**

In order to register a student must pay full tuition and all additional fees for the full year. Details for payment methods and due dates can be found on the Students Accounts and Cashiers websites ([http://mcmaster.ca/bms/student/SAC\\_payment\\_methods.html](http://mcmaster.ca/bms/student/SAC_payment_methods.html))

### **5.1.2 Non-payment of Fees or Charges**

Students with outstanding accounts at the end of the academic year 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.

### **5.1.3 Discounted Fees - Ph.D. Students**

Full-time Ph.D. students (Canadian and international), who have reached term 13 or greater of their Ph.D. studies, will be charged tuition at a discounted fee rate.

### **5.1.4 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.

### **5.1.5 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.

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.

## 5.1.6 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 5.1.1. The refund is based on the schedule set out by Student Accounts and Cashiering (<http://www.mcmaster.ca/bms/student/>). (Note: a refund does not apply to students who are readmitted to defend.) Mandatory supplemental fees are not refundable.

## 5.2 Financial Assistance

### 5.2.1 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. 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. No exceptions of more than 505 hours in a single academic year will be approved (see section 2.5.3). Employment is paid as earned over the period in which the work is performed.

#### **5.2.1.1 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.

#### **5.2.1.2 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.

### **5.2.1.3 MINIMUM LEVEL OF FINANCIAL SUPPORT FOR DOCTORAL STUDENTS**

All full-time Doctoral students who meet the stated criteria under Section 5 shall receive financial support corresponding to their offer for the stated financial support duration of the degree which meets or exceeds an annual minimum value equal to full-time tuition plus \$13,500. 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.

## **5.2.1 Financial Support for Full-time Students**

The University normally provides different types of financial support to full-time students: employment income, graduate/department, research, tuition scholarships, McMaster scholarships and awards, bursaries (financial need), and external awards tenable at the university. A student's letter of offer or award letter from the University will include all details of financial support. Students with questions regarding financial support should contact their department or graduate program directly for assistance.

The University provides graduate scholarship awards to most regular graduate students in Ph.D. programs and in many Master's programs. These students must be full-time as defined in section 2.5.2. Such scholarships are awarded annually. For students who are successful in winning an internal scholarship or external award (e.g. OGS, SSHRC, NSERC, CIHR), any change in Graduate and/or Research scholarships is at the discretion of your program for the duration of the award and the student will be provided with correspondence from the program reflecting the change in their financial support relative to the offer letter. Support for a Ph.D. student is normally eligible for the first four years. Students in Master's programs are usually supported for their first three to six terms depending on the department. Subsequent support is at the department or graduate program's discretion, unless the offer of admission guarantees otherwise.

Teaching Assistantships (TA) (or Research Assistantship in lieu under the collective agreement between Canadian Union of Public Employees, Local 3906, Unit I 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. 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. No exceptions more than 505

~~hours or more in a single academic year will be approved (see section 2.5.3). Employment is paid as earned over the period in which the work is performed.~~

~~The Faculties or departments may provide tuition scholarship funds to International Master's students to assist with tuition and fees.~~

## 5.2.2 Financial Payments to Graduate Students

International students must provide a clear demonstration of their means of financial support in order to obtain a student visa.

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 (<http://www.workingatmcmaster.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

### 6.1 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 [embed link https://www.mcmaster.ca/academicintegrity/http://www.mcmaster.ca/policy/faculty/Research/Research%20Integrity%20Policy.pdf](https://www.mcmaster.ca/academicintegrity/http://www.mcmaster.ca/policy/faculty/Research/Research%20Integrity%20Policy.pdf). 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.

## 6.2 Code of Conduct

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 Conduct* 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 the *Code of Conduct* may be obtained from the website at [http://studentconduct.mcmaster.ca/student\\_code\\_of\\_conduct.html](http://studentconduct.mcmaster.ca/student_code_of_conduct.html).

For Health Sciences graduate students, a supplementary guideline, Professional Behaviour Code of Conduct for 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 from the website.

## 6.3 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 Student Appeal Procedures 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 communicate informally with their instructors, the Chair of ~~his/her~~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>

## 6.4 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 (R.S.C. 1985, 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.

## 6.4.1 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.

## 6.4.2 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.)

## 6.4.3 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 ~~his/hers~~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.

## 6.4.4 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.

## 6.4.5 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.

## 6.5 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. (embed link: <https://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicAccommodation-StudentsWithDisabilities.pdf>)

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.

McMaster University is committed to ensuring that each 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. To this end, the University has a Centre for Student Development and is continuously making improvements to its facilities to maximize access for all students. The School of Graduate Studies, along with the relevant academic department(s) and the Centre for Student Development, encourages academically qualified students to investigate the full range of possibilities at McMaster.

As with all applicants, those with disabilities are expected to select graduate programs that are appropriate for their skills and abilities. Materials provided to applicants by departments should describe specific program requirements, including the nature of research and/or course work, to ensure that the applicant is aware of the expectations for successful completion of the program. Students with pre-existing disabilities, as well as students who become disabled after their admission to graduate studies, may require special support services and accommodations in order to complete their programs successfully. The University will take reasonable steps to provide such services and accommodations that do not compromise the quality and integrity of the student's academic program. Self-identification is voluntary and confidential, and access to information must be approved by the applicant. To facilitate accommodation, however, McMaster University urges applicants to declare any disabilities, as well as to provide details concerning accommodations provided by their previous educational institutions, at the time of application. Such declaration is encouraged particularly in cases where it is felt that the disability may have affected past academic performance, and/or where accommodation may be required in order for the student to complete his/her graduate

program. Applicants who have been identified and who are offered admission will need to consult with their Department/Program Chair and the Centre for Student Development as early as possible, and preferably prior to enrolment, to identify and implement an appropriate accommodation plan. At all times, concern for maintaining the dignity of the individuals involved will be paramount. Failure to disclose a disability at the time of admission, however, may delay or otherwise compromise the accommodation process.

Special services and accommodations are provided on an individual basis, are disability specific, and are consistent with the academic objectives of the course and program. McMaster University's *Policy for Academic Accommodation of Students with Disabilities* outlines the steps that must be taken in order to arrange for such services and accommodations (see Sections 31-34 inclusive). The full policy is available from the Centre for Student Development.

## 6.6 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 Liaison 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.

## 6.7 Conflict of Interest Guidelines, School of Graduate Studies

### 6.7.1 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.

## **6.7.2 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.

## **6.8 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 her or his file, but documents received from a third party in confidence will not be disclosed.

Transcripts are issued only with the consent of the student.

## **6.9 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 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 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.

## **6.10 Inter-University Cooperation - Ontario Visiting Graduate Student**

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 (both available on the Council of Ontario Universities website <http://cou.on.ca/key-issues/education/graduate-education/ontario-visiting-grad-students>) and describe the course to be taken, 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, which will send it to the host university. 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.

## **General Information**

### Counselling Services

Equity and Inclusion Office - <http://www.hres.mcmaster.ca>

International Student Services - Tel. 905-525-9140 ext.24700; [iss@mcmaster.ca](mailto:iss@mcmaster.ca) ext.

Ombuds Office - <http://www.mcmaster.ca/ombuds>

Office of Academic Integrity - <http://mcmaster.ca/academicintegrity/index.html>

Student Accessibility Services - <http://sas.mcmaster.ca/>

Student Financial Aid and Scholarships - <http://sfas.mcmaster.ca>

Student Success Centre - <http://studentsuccess.mcmaster.ca/>

### Health Services

Environmental and Occupational Health Support Services - 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 - Tel . 905-525-9140 Ext. 24748; [iss@mcmaster.ca](mailto:iss@mcmaster.ca)

Workplace Safety and Insurance Board Coverage for Graduate Students (Working at McMaster) - <http://www.workingatmcmaster.ca>

#### Housing and Conference Services and Hospital Services

Conference and Event Services - <https://housing.mcmaster.ca/conference-and-events-services>

Hospitality Services - <http://hospitality.mcmaster.ca>

McMaster Community Homes Corporation - Tel . 905-578-3833; E-mail: [receptionist@communityhomes.ca](mailto: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)

#### Student Associations

Graduate Students Association (GSA) - <https://gsamcmaster.org>

McMaster University Alumni Association - <http://www.mcmaster.ca/ua/alumni>

#### Other University Services/Facilities

Athletics and Recreation - <http://www.marauders.ca>

Bookstore and Post Office - <http://www.bookstore.mcmaster.ca> (Titles Bookstore)

Day Care Facilities at McMaster

- McMaster Children's Centre Incorporated - <https://mcmasterchildrenscentre.wordpress.com>
- McMaster Students' Union Child Care Centre - Tel. 905-526-1544 E-mail: [dthomson@msu.mcmaster.ca](mailto:dthomson@msu.mcmaster.ca)

Parking Services - <http://parking.mcmaster.ca>

Security Services - <http://security.mcmaster.ca>

University Chaplain Centre - <http://www.mcmaster.ca/chaplain>

#### Special Resource Services/Facilities

Centre for Continuing Education - <http://www.mcmastercce.com>

MacPherson Institute - <http://mi.mcmaster.ca>

McMaster Media Production Services - <http://www.media.mcmaster.ca>

McMaster Museum of Art - <https://museum.mcmaster.ca>

Office of International Affairs - <http://oia.mcmaster.ca>

Office of Sustainability - <http://www.mcmaster.ca/sustainability/index.html>

University Library - <http://library.mcmaster.ca>

University Technology Services (UTS) - <http://www.mcmaster.ca/uts>

## Graduate Scholarships, Bursaries and Other Awards

(<https://gs.mcmaster.ca/awards-funding/awards-funding>)

### 8.1 Overview

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.

## 8.1.1 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 the 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 publishes the names of recipients of most scholarships and awards, in the University's convocation program and other award publications.

## 8.1.2 Value and Duration of Award

The value and duration of scholarships and awards are detailed in the terms of 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.

## 8.2 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. Continued funding for graduate students from the University or from individual programs will be based on satisfactory progress of the student in ~~his/her~~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, he/she 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. If the student has been awarded an Entrance Scholarship, he/she should realize that it is for the first term of study only and is not renewable.

## 8.2.1 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 attaching 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 award become impossible to fulfill through obsolescence, then the University may amend the terms of same to carry out the nearest possible intent of the donor while still ensuring that the benefit of such 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 apply to the Graduate General Bursary through Mosaic. If you are not eligible to apply for the Graduate General Bursary, you may have the option of submitting a need assessment application through SFAS.

### 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 apply to the Graduate General Bursary through Mosaic. If you are not eligible to apply for the Graduate General Bursary, you may have the option of submitting a need assessment application through SFAS.

### 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 research excellence. Students can apply to most of the internal scholarships through aid by application in Mosaic. 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 recommendation to the School of Graduate Studies for final approval or for considered in the main competition.

## 8.2.2 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). In most cases applicants must be invited by

their department to submit an application to these competitions and verify eligibility requirements with the external agencies.

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 for awards starting in May, September or January of subsequent 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 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.

## 8.3 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.

## 8.4 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: <https://sfas.mcmaster.ca/category/government-aid/> and <https://www.ontario.ca/page/osap-ontario-student-assistance-program>.

## Governing Bodies

### 9.1 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>

### 9.2 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), the Assistant Dean (Graduate Student Life and Research Training), the Director of Finance 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.

## **9.2.1 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).

## **9.2.2 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.

## **9.3 Standing Committees**

### **9.3.1 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.

### **9.3.2 Faculty Graduate Admissions and Study Committees**

For each Faculty, there is also 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. Normally, the Associate Dean of Graduate Studies for the Faculty handles the matters 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.



**Judith A West-Mays**, PhD  
Professor, Pathology and  
Assistant Dean, Medical Sciences  
Graduate Program

OFFICE: (905) 525-9140 X26237 FAX: (905) 525-7400 Email: [westmayj@mcmaster.ca](mailto:westmayj@mcmaster.ca)

April 2, 2019

Dear GPCC Committee Members:

The attached curriculum form for program changes outlines our program's request to eliminate the current Transfer exam procedure requirements for students requesting to transfer from the MSc to the PhD program and instead have this request occur at the student's 2<sup>nd</sup> or 3<sup>rd</sup> committee MSc committee meeting. This change will help to streamline our processes and is in alignment with the recent, approved requests that other FHS programs have made. Please let me know if you have any concerns or questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'J West-Mays'.

Judith West-Mays



**School of Graduate Studies**

1280 Main Street West  
Hamilton, Ontario, Canada  
L8S 4L8

Phone 905.525.9140  
Ext. 23679  
<http://graduate.mcmaster.ca>

To : Graduate Council

From : Christina Bryce  
Assistant Graduate Secretary

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At its meeting on February 4<sup>th</sup> and via e-ballot on April 29<sup>th</sup> the Faculty of Business Graduate Curriculum and Policy Committee approved the following recommendations.

Please note that these recommendations were approved by the Faculty of Business at their meeting on March 28<sup>th</sup>, 2019 and/or have been submitted for approval at the May 23<sup>rd</sup>, 2019 meeting.

**For Approval of Graduate Council:**

- a. **Business Ph.D.**
  - i. **Change to Course Requirements and Calendar Copy**
- b. **Master of Finance**
  - i. **Change to Course Requirements and Calendar Copy**
- c. **Health Management\***
  - i. **Change to Admission Requirements and Calendar Copy**
- d. **M.B.A.**
  - i. **Change to Course Requirements and Calendar Copy**

**For Information of Graduate Council:**

- e. **Business Ph.D.**
  - i. **New Course**
    - 1. Q775 Optimization and Machine Learning with Big Data
- f. **Master of Finance**
  - i. **Change to Requisites**
    - 1. 701 Financial Econometrics I
    - 2. 705 Financial Econometrics II
    - 3. 706 Computational Finance
    - 4. 710 Financial Theory
  - ii. **Change to Course Title**
    - 1. 707 Financial Modeling Using Excel and VBA
  - iii. **New Course**
    - 1. 711 Mergers, Acquisitions, and Corporate Restructuring

2. 712 Risk Management – Principles and Practices

**g. Health Management**

**i. Change to Requisites**

1. 700 Health Systems and Policy Analysis
2. 705 Evaluating Sources of Evidence for Management and Evaluation
3. 706 Strategic Health Management Foundations
4. 707 Accounting & Financial Foundations for Healthcare Management
5. 708 Leadership in Health Organizations
6. 730 Scholarly Paper
7. 731 Economic Evaluation in Healthcare
8. 732 Strategic Writing for Healthcare Professionals
9. 733 Knowledge Translation in Healthcare Practice and Management
10. 734 Quality and Safety in Healthcare
11. 798 Health Management Independent Experiential Study

**h. M.B.A.**

**i. Prerequisite Changes**

1. BLPT Electives
2. M740 Corporate Reputation and Brand Management
3. P720 Strategic Management

**ii. Change in Course Descriptions**

1. A650 Accounting for Decision Makers
2. B733 Multidisciplinary Entrepreneurship
3. I601 Managing Financial Resources

**iii. New Courses**

1. BL700 Business, Government & Global Environment
2. BL720 Strategic Management
3. B734 International Entrepreneurship
4. BL651 Management Accounting for Decision Makers
5. BL751 Innovation and Design Thinking
6. BL752 Co-Creating Strategic Foresight
7. C755 Analytics and Decision Making in Healthcare
8. M752 Digital Marketing

\*also approved by the Faculty of Health Sciences



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

|  |                          |  |  |
|--|--------------------------|--|--|
| <b><u>IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:</u></b>  |                          |  |  |
| <p>1. This form must be completed for <b><u>ALL</u></b> changes involving degree program requirements/procedures. <b><u>All</u></b> sections of this form <b><u>must</u></b> be completed.</p> <p>2. An electronic version of this form (must be in MS WORD <b><u>not</u></b> PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).</p> <p>3. A representative from the department is <b><u>required to attend</u></b> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</p> |                          |  |  |
| <b>DEPARTMENT</b>  |                          | Business   |  |
| <b>NAME OF PROGRAM and PLAN</b>  |                          | PhD in Business Administration (GSBPH)               |  |
| <b>DEGREE</b>  | PhD                      |  |  |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>   |                          |  |  |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |                          |  |  |
| CREATION OF NEW MILESTONE <input type="checkbox"/>   |                          |  |  |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>  | <input type="checkbox"/> | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b> | <input type="checkbox"/>   |
|  |                          |  | <b>CHANGE IN COURSE REQUIREMENTS</b> <input checked="" type="checkbox"/>   |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>   |                          | <input checked="" type="checkbox"/>                  | <b>EXPLAIN:</b><br>Minor changes to text for consistency, clarity and removing duplication (like B790 in course list as well as at the top). See attached Calendar Copy changes. "Additional Information" section added to Health Management and heading added to Marketing field. |
| <b>OTHER CHANGES</b>   | <b>EXPLAIN:</b>          |  |  |

**DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:**

In Health Management, originally stating “one MBA HM course chosen from”, removed ‘MBA’ to give more flexibility to course selection.

**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?):**

Minor changes to text for consistency and clarifying expectations. Adding flexibility for Health Management to select required course from list and removing the language to restrict to only MBA courses.

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

September 1, 2019

**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*):**

See attached.

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Khaled Hassanein Email: hassank@mcmaster.ca Extension: 23956 Date submitted: April 25, 2019

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

SGS/2013



# Business Administration, Ph.D.

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The Faculty of Business offers a program leading to the Ph.D. in Business Administration, with fields in Accounting, Finance, Information Systems (IS), Health Management (HM), Management of Organizational Behaviour and Human Resources (MOBHR), Management Science (MS), and Marketing.

## Accounting

The Accounting field of study is designed to prepare students who are planning to assume an academic career in a university setting to become excellent accounting researchers and educators. The program of study provides students an exposure to issues and techniques of various research methods and designs in the context of accounting research. Typically, successful applicants will have a university degree in accounting or related fields. Applicants with other university programs of study, including Economics, Finance, Computer Science, Engineering, Engineering and Management, and [Mathematics](#) may also be qualified.

## Finance

The Finance field of study is designed to prepare and graduate students with theoretical and empirical training that is required to conduct significant academic research in finance. The topics of study include, but are not limited to, the pricing of securities, investment and risk management, corporate finance, and other financial decisions of individuals and firms. This field of study is intended for individuals who are interested in the field of Finance and in a career in university teaching and research, as well as research-based careers in the financial services sector. These may include fund management and investment banking. Typically, successful applicants will have a Master's degree in Business Administration, Economics, Finance, Mathematics or a related field.

## HM

The Health Management field is concerned with a broad range of business administration issues and topics within the health care sector such as leadership, change management, strategic resources allocation, as well as economic and policy analyses. The program design exposes students to a blend of theoretical and applied content that will support them to advance their careers in education, research and senior leadership positions within the health sector. Students are encouraged to gain exposure to content from one or more of the other business administration fields. The HM field is expected to be most attractive to students who currently hold a management position in the health sector and who want the flexibility of a program that is offered on both a full and part-time basis.

## IS

The IS field of study concerns the management, use and impact of information technologies in organizations. It is a multidisciplinary field by nature and draws upon theory and research from a wide variety of disciplines such as Organizational Behaviour, Strategy, Marketing, Psychology, Computer Science, and Information Studies. Recognizing the breadth of the field, students are free to adopt either qualitative or quantitative approaches to their research, as appropriate. The program is intended for students with a strong background and interest in information technology and an avid interest in managerial and behavioural aspects as opposed to technical orientations. It is intended for students with a Master's degree in Business Administration, Computer Science, and/or Information Systems.

## MOBHR

The MOBHR field is broad in scope and is concerned with all aspects of the employment relationship. The field has a strong research emphasis and is designed to prepare highly motivated individuals for academic careers as scholars in Organizational Behaviour, Human Resource Management, and/or Industrial Relations. A major strength of the field is that students can draw upon diverse faculty interests to develop a research program that suits their objectives. The MOBHR field is intended for students with a Master's degree in Business Administration or other relevant disciplines such as Psychology, Economics and Sociology.

## MS

The MS field is concerned with the development and application of quantitative modeling and systematic approaches to the solution of management problems. Areas of application for these techniques include operations management, logistics, and

supply chain management. The field has a strong research emphasis and is designed to prepare highly motivated and capable individuals for making significant advances in management science knowledge. It is intended for students with Master's degrees in Business Administration or in disciplines such as Mathematics, Engineering, Science, and Computer Science.

## Marketing

The Marketing field of study is designed to prepare graduate students with a solid foundation in theoretical and empirical methodologies focusing primarily on firm level research in the discipline of marketing. The doctoral student will work closely with the supervisor to conduct leading edge research in the discipline of marketing, which explores the processes and mechanisms by which value is created and delivered to the customer. The expectation is that this research will be published in top journals. The program is designed for students who have an interest in pursuing an academic career.

## Application

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Requests for application material should be sent to the attention of the Program Administrator, Business Administration PhD Program, DeGroot School of Business, McMaster University, Hamilton, Ontario, Canada, L8S 4M4 or by email to [phdinfo@mcmaster.ca](mailto:phdinfo@mcmaster.ca). Information is also available on the website: <http://phd.degroot.mcmaster.ca>. Admission decisions are based on previous academic performance, Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) results, references, research interests and other relevant information.

Applicants whose native language is not English will be required to demonstrate English language proficiency by providing a valid TOEFL test score at the time of application. Successful applicants will normally achieve a score of at least 100 and 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 Internet-Based Test (IBT); or 600 on the Paper-Based Test (PBT); or 250 on the Computer-Based Test (CBT). We may also consider the equivalent score on other recognized tests.

Applicants may be exempted from this requirement if they have completed a university degree where English was the language of instruction.

Applicants are responsible for making all arrangements regarding writing of the TOEFL test or other recognized tests and for ensuring the official score report is forwarded to the DeGroot School of Business in a timely manner.

## Qualification Requirements

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Admission to the Ph.D. program will be granted in accordance with the general regulations of the School of Graduate Studies as specified in the front of this calendar. Applicants normally must have a Master's degree with at least B+ standing and a minimum GMAT score of 600. In lieu of a GMAT score, a comparable GRE score will be considered as long as a minimum of 80% below is achieved in the quantitative score. Admission decisions are based on past academic performance, GMAT or GRE score, the strength of reference letters, the quality of the applicant's statement of research interests and goals, and matching of the applicants' research interests with the research expertise and interests of the faculty members.

**Accounting** candidates must demonstrate proficiency in various subject areas of business management, including accounting and economics. They must also possess strong quantitative skills, including calculus and linear algebra. Highly qualified candidates with background in other fields such as economics, finance, mathematics, engineering, engineering and management, or computer science are encouraged to apply.

**Finance** candidates must demonstrate competence in business management, finance, mathematics and economics.

**HM** candidates must hold a related Master's degree, demonstrate competence in one or more functional areas of management, and possess strong communication skills. The most competitive candidates will have at least two years of management experience and will also have experience conducting business, social sciences, humanities or health sciences related research.

**IS** candidates must demonstrate proficiency in business management and information systems. Students must also demonstrate proficiency in statistics at a level sufficient for study and research in the IS field.

**MOBHR** candidates must demonstrate competence in at least one of the following related subject areas in business management: organizational behaviour, human resources management, labour relations, industrial and organizational psychology and economics.

**MS** candidates must demonstrate proficiency in various subject areas in business management, including operations management and economics. They must also demonstrate proficiency in calculus, probability, matrix algebra, statistics and computer programming at a level sufficient for study and research in the MS field.

**Marketing** candidates must have demonstrated proficiency in any area of the natural sciences, social sciences or humanities. They are encouraged to demonstrate some competence in areas of business management and marketing. Students must also have demonstrated proficiency in mathematics or statistics at a level sufficient for study and research in the Marketing field.

## Program Requirements

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Because of the differing backgrounds of students entering the program and the differing areas of dissertation research, there will be variations in the course programs that students follow. A program of study will be chosen by the student with the approval of the student's supervisor and the Area Chair. This program will be chosen to prepare the student for the comprehensive examinations and to provide appropriate background for the planned dissertation research.

Most of the courses and seminars will be taken within the School of Business. Where appropriate, and with the approval of the student's supervisor, courses from other departments within the University or from other universities may be taken; such courses normally will be graduate courses. Graduate courses offered in other university departments are described elsewhere in this calendar.

Students must take a minimum of 6 to a maximum of 12 one-term courses. The exact number and mix of courses will depend on the background and research interests of the student as assessed by the student's supervisor. Students can receive exemptions for courses (if qualified) or take additional courses as long as the total number does not exceed 12 courses.

In order to remain in the program, students must maintain a grade point average of at least B+ in their course work with no more than one failing grade (below B-) in a prescribed course. The student will be required to withdraw from the program if he/she receives a second failing grade.

**All students in the program, regardless of field of study, take one common seminar course ([BUSINESS B790 / Theory Building in Management](#)).**

## Accounting Field

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### Accounting Ph.D. Courses

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Three accounting Ph.D. seminar courses must be taken.

[BUSINESS A771 / Seminar in Research Methods and Design in Accounting Research](#)

[BUSINESS A772 / Seminar in Financial Accounting Research](#)

[BUSINESS A773 / Seminar in Managerial Accounting Research](#)

### Department of Economics Courses

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In addition, the following courses from the Department of Economics must be taken:

[ECON 721 / Microeconomic Theory I](#)

[ECON 722 / Microeconomic Theory II](#)

[ECON 761 / Econometrics I](#)

[ECON 762 / Econometrics II](#)

[ECON 765 / Mathematical Methods](#)

### Additional Information

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Candidates who do not have sufficient background in accounting, microeconomics and/or econometrics will be required to take specific courses in accounting, microeconomics and/or econometrics for credit, normally in the coursework phase of the Ph.D. program, up to a maximum of 12 one-term courses for credit in the program.

## Finance Field

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### Finance Ph.D. Courses

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The ~~five~~ five finance Ph.D. courses must be taken.

[BUSINESS F770 / Financial Economics and Quantitative Methods](#)

[BUSINESS F771 / Financial Economics I](#)

[BUSINESS F772 / Financial Economics II](#)

[BUSINESS F773 / Empirical Methods in Finance](#)

[BUSINESS F774 / Seminar in Corporate Finance](#)

### Department of Economics Courses

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In addition, the following courses from the Department of Economics must be taken:

[ECON 721 / Microeconomic Theory I](#)

[ECON 722 / Microeconomic Theory II](#)

[ECON 723 / Macroeconomic Theory I](#)

[ECON 761 / Econometrics I](#)

[ECON 762 / Econometrics II](#)

### Additional Information

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Students are also required to take one additional 700-level course in Business, Economics or Mathematics, to be determined in consultation with their supervisor.

# Health Management Field

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## Ph.D. Courses

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Six Ph.D. seminar courses must be taken.

~~(a minimum of 8 and a maximum of 12 half-credit courses)~~

## Required Courses

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~~BUSINESS B790 / Theory Building in Management~~

~~BUSINESS B793 / Applied Multivariate Statistics (or approved equivalent from another department)~~

~~BUSINESS B794 / Research Methods and Design (or approved equivalent from another department)~~

~~BUSINESS C780 / Mixed Methods Research (or approved equivalent from another department)~~

~~BUSINESS C781 / Health Economics and Evaluation~~

~~BUSINESS C782 / Health Policy Analysis~~

~~BUSINESS C783 / Research Issues in Health Management~~

~~One ~~MBA-HM~~additional course, chosen from: And at least one of:~~

~~• [BUSINESS C715 / Health Care Funding and Resource Allocation](#)~~

~~[BUSINESS C725 / Managing Communications in Health Care](#)~~

~~[BUSINESS C722 / Management of Population Health](#)~~

~~[BUSINESS C736 / Quality Management in Health Services](#)~~

~~[BUSINESS C741 / Health Care Marketing](#)~~

~~[BUSINESS C750 / Ethical and Legal Issues in Health Care](#)~~

~~or a graduate level course from another department approved by supervisor and program director (or equivalent)~~

## Additional Information

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Students may be required to take ~~one~~ additional courses depending on their background and the recommendation of the supervisor.

## IS Field

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### Ph.D. Courses

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~~The t~~Three Ph.D. seminar courses must be taken.

[BUSINESS B793 / Applied Multivariate Statistics](#)

[BUSINESS B794 / Research Methods and Design](#)

[BUSINESS K797 / Independent Research Study](#)

### IS Ph.D. Courses

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Two IS Ph.D. courses must be taken, chosen from:

[BUSINESS K778 / Selected Topics in Information Systems I](#)

[BUSINESS K779 / Selected Topics in Information Systems II](#)

[BUSINESS K791 / Knowledge Management Systems](#)

[BUSINESS K792 / Security, Privacy and Trust in eBusiness](#)

[BUSINESS K793 / Mobile Commerce and Social Networks](#)

[BUSINESS K794 / Advances in Information Systems Research](#)

[BUSINESS K795 / Qualitative Methods in Information Systems Research](#)

### MBA ~~Information Systems~~ Courses

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Two MBA ~~Information systems~~ courses must be taken, chosen from:

- [BUSINESS K723 / Data Mining and Business Intelligence](#)
- [BUSINESS K724 / eBusiness Strategies](#)
- [BUSINESS K725 / Business Process Management](#)
- [BUSINESS K731 / Project Management](#)
- [BUSINESS K735 / Managing the Implementation of Enterprise Systems](#)
- [BUSINESS K736 / Management Issues in eHealth](#)
- [BUSINESS K737 / Cases in eBusiness, Innovation and Entrepreneurship](#)

## MOBHR Field

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### Ph.D. Courses

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~~Eight~~The following ~~MOBHR~~ Ph.D. seminar courses must be taken.

- ~~[BUSINESS B790 / Theory Building in Management](#)~~
- [BUSINESS B791 / Field Surveys: Organizational Behaviour and Organizational Theory](#)
- [BUSINESS B792 / Field Surveys: Human Resources and Industrial Relations](#)
- [BUSINESS B793 / Applied Multivariate Statistics](#)
- [BUSINESS B794 / Research Methods and Design](#)
- [BUSINESS B795 / Research Issues: Organizational Behaviour and Organizational Theory](#)
- [BUSINESS B796 / Research Issues: Human Resources and Industrial Relations](#)
- [BUSINESS B797 / Research Course I](#)
- [BUSINESS B798 / Research Course II](#)

## MS Field

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## MS Ph.D. Courses

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Five MS Ph.D. courses must be taken.

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## Required Courses

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Students are required to take the following courses. Additional courses may be required, depending upon the background and interest of the student.

[BUSINESS Q771 / Stochastic Processes with Business Applications](#)  
[BUSINESS Q773 / Mathematical Programming: Theory and Algorithms](#)  
[BUSINESS Q780 / Management Science Research Issues I](#)  
[BUSINESS Q781 / Management Science Research Issues II](#)  
[BUSINESS Q790 / Advanced Operations Management I](#)

Four MS Ph.D. courses must be taken, chosen from:

Plus four of the following courses:

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- [BUSINESS Q772 / Networks and Graphs in Operations Research](#)  
[BUSINESS Q774 / Combinatorial Optimization: Complexity and Heuristics](#)  
[BUSINESS Q778 / Selected Topics in Management Science/Systems](#)  
[BUSINESS Q782 / Dynamic Programming and Optimal Control](#)  
[BUSINESS Q783 / Game Theory and Decision Analysis](#)  
[BUSINESS Q784 / Supply Chain Design and Coordination](#)  
[BUSINESS Q785 / Queuing Theory and Computer Simulation](#)  
[BUSINESS Q786 / Network Design Issues in Freight Transportation](#)  
[BUSINESS Q787 / Optimization Under Uncertainty](#)  
[BUSINESS Q791 / Advanced Operations Management II](#)  
[BUSINESS Q793 / Sequencing and Scheduling](#)

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[BUSINESS Q794 / Inventory Theory](#)

## Marketing Field

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### Marketing Ph.D. Courses

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The four marketing Ph.D. courses must be taken.

[BUSINESS M771 / Marketing Foundations](#)

[BUSINESS M772 / Marketing Models and Modeling](#)

[BUSINESS M773 / Inter-Organizational Research in Marketing](#)

AND

[BUSINESS M774 / Special Topics in Marketing Strategy I](#)

OR

[BUSINESS M775 / Special Topics in Marketing Strategy II](#)

### Ph.D. Courses

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One of the following combinations must be taken, to be determined in consultation with the supervisor:

[BUSINESS B793 / Applied Multivariate Statistics](#)

[BUSINESS B794 / Research Methods and Design](#)

OR

[ECON 761 / Econometrics I](#)

[ECON 762 / Econometrics II](#)

~~Additional courses in Mathematics, Economics, Psychology or other disciplines may be required depending on the background preparation of the students, to be determined in consultation with the supervisor~~

[Additional Information](#)

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Additional courses in Mathematics, Economics, Psychology or other disciplines may be required depending on the background preparation of the students, to be determined in consultation with the supervisor

## Comprehensive Examination

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All doctoral candidates must pass a comprehensive examination in their chosen field of study to demonstrate knowledge of the field and preparation for research. The comprehensive examination will test each student's knowledge of core material, familiarity with the relevant literature and knowledge of methodology required to do research in the field. The comprehensive examinations in the Accounting, MOBHR and Marketing fields include a written examination followed by an oral examination. The comprehensive examination in all other fields includes only a written examination.

In addition to the comprehensive examination, students must pass an oral defence of their dissertation proposals before they can proceed to the final oral defence of their dissertation. The dissertation examination will take place in accordance with the regulations of the School of Graduate Studies.

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

|   |                             |   |  |
|---|-----------------------------|---|--|
| <b>IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:</b>  |                             |   |  |
| <p>1. This form must be completed for <b>ALL</b> changes involving degree program requirements/procedures. <b>All</b> sections of this form <b>must</b> be completed.</p> <p>2. An electronic version of this form (must be in MS WORD <b>not</b> PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).</p> <p>3. A representative from the department is <b>required to attend</b> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</p> |                             |   |  |
| <b>DEPARTMENT</b>   | DeGroote School of Business |   |  |
| <b>NAME OF PROGRAM and PLAN</b>   | Master of Finance           |   |  |
| <b>DEGREE</b>   | Master of Finance           |   |  |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>  |                             |   |  |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |                             |   |  |
| CREATION OF NEW MILESTONE <input type="checkbox"/>  |                             |   |  |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>   | X                           | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b>  |  |
|   |                             |   | <b>CHANGE IN COURSE REQUIREMENTS</b> X |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>  | X                           | <b>EXPLAIN:</b><br>The proposed changes require corresponding changes to the description of the Master of Finance program in the Graduate calendar. |  |
| <b>OTHER CHANGES</b>  | <b>EXPLAIN:</b>             |   |  |

**DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:**

- 1) The program currently requires that students maintain an average grade of at least B in order to continue in the program and graduate.
- 2) Students can choose elective courses from a specified list of courses.

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

- 1) To remove the requirement that students maintain an average grade of at least B in order to continue in the program and graduate.
- 2) To revise the list of possible elective courses to include the two new courses that have been created (The proposal for the two new courses are being submitted separately), and remove from the list two existing courses that the two new courses replace.

**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) The rationale for removing the average grade requirement is to make the program consistent with the general requirement of the SGS. That is, the SGS does not impose an average grade requirement.
- 2) The rationale for revising the list of possible elective courses is that the program is proposing two new courses that students can choose as elective courses.

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

Academic year 2019-20

**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):**

Please see the attached Appendix.

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Narat Charupat    Email: charupat@mcmaster.ca    Extension: 23987    Date submitted: 17 October 2016

|  |
|--|
|  |
|  |

## **Appendix 1: Changes to be made to the Calendar**

The following changes need to be made to Master of Finance pages of the calendar.

1. In the section entitled "Additional Information", remove the first sentence in that section. That is, remove the sentence that says:

"In order to continue in the program and graduate, students must maintain an average of at least B."

2. In the subsection entitled "Electives", replace the entire content with the following:

Electives courses will be from a selected list of finance electives presently offered in the MBA program and/or Master of Finance program, or, with the approval of the Program Director and consent of the department involved, electives in business, mathematics, statistics or economics. The Finance electives from which Master of Finance students can choose are as follows (note that not all the courses on the list may be offered in a given academic term):

- BUSINESS F700 – Valuation for Finance Professionals
- BUSINESS F711 – Financial Institutions
- BUSINESS F712 - Applied Corporate Finance
- BUSINESS F715 - Portfolio Theory and Management
- BUSINESS F716 - International Financial Management
- BUSINESS F717 - Financial Statement Analysis
- BUSINESS F719 - Independent Research Project in Finance
- BUSINESS F722 - Market Trading and Risk Management
- BUSINESS F724 - Venture Capital and Private Equity
- BUSINESS F725 - Personal Financial Management
- BUSINESS F726 - Behavioural Finance
- BUSINESS F736 - Ethics and Professional Practice in Finance
- BUSINESS F741 - Introduction to FinTech
- BUSINESS F743 - Big Data in Finance
- FINANCE 711 – Mergers, Acquisitions, and Corporate Restructuring
- FINANCE 712 – Risk Management – Principles and Practices





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

|  |   |  |                                      |
|--|---|--|--------------------------------------|
| <b><u>IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:</u></b>  |   |  |                                      |
| <p>1. This form must be completed for <b><u>ALL</u></b> changes involving degree program requirements/procedures. <b><u>All</u></b> sections of this form <b><u>must</u></b> be completed.</p> <p>2. An electronic version of this form (must be in MS WORD <b><u>not</u></b> PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).</p> <p>3. A representative from the department is <b><u>required to attend</u></b> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</p> |   |  |                                      |
| <b>DEPARTMENT</b>  | School of Rehabilitation Science and DeGroot School of Business |  |                                      |
| <b>NAME OF PROGRAM and PLAN</b>  | Health Management   |  |                                      |
| <b>DEGREE</b>  | Master of Health Management                                     |  |                                      |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>   |   |  |                                      |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input type="checkbox"/> No  |   |  |                                      |
| CREATION OF NEW MILESTONE <input type="checkbox"/>   |   |  |                                      |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>  | X   | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b> | <b>CHANGE IN COURSE REQUIREMENTS</b> |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>   | X   | <b>EXPLAIN:</b>                                      |                                      |
| <b>OTHER CHANGES</b>   | <b>EXPLAIN:</b>   |  |                                      |

**DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:**

Admission Requirements

Regulated health professional (evidence of registration in the applicant's professional affiliation in his/her own province/country). Examples of regulated health professionals include audiologists, dietitians, nurses, occupational therapists, psychologists, physiotherapists, physicians.

Graduation with a minimum of a B+ average from a 4-year health professional program.

One academic and two clinical/work place related references.

Written application outlining career plans, research interests and suitability for the Master of Health Management Program.

If the applicant's native language is not English, an official copy of their TOEFL score, or other evidence of competency in English. A minimum TOEFL (iBT) score of 92 (580 on the paper-based TOEFL test or 237 on the computer-based TOEFL test) is required.

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

First edit:

Regulated health professional (evidence of **current** registration in the applicant's professional affiliation in his/her own province/country).

Second edit, add:

Non-regulated health professional candidates will be considered if you have a minimum of 12 months working experience within the healthcare system as a healthcare professional OR supervisory experience of regulated health professionals.

**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?):**

To create transparency for non-regulated health professional candidates. Case by case, candidates who are non-regulated health professionals will be assessed for admission. This is a recommendation of the MHM Program IQAP review committee.

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

Sept 2019

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

In addition to meeting the minimum work and/or supervisory experience as outlined above, the candidate will submit *The Determination of equivalency for non-regulated health professional applicants form* with their application. Applicants must outline their educational and work experience and provide a clear rationale as to how they have prepared them to achieve the following core competencies for the Master of Health Management Program:

- Awareness of the political and healthcare environments

•Organizational behaviour and human resources management

•Financial management

•Research awareness

•Leadership

Evidence of these competencies must be demonstrated in a maximum one-page written application.

**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):**

Admission Requirements

Regulated health professional (evidence of **active** registration in the applicant's professional affiliation in his/her own province/country). Examples of regulated health professionals include audiologists, dietitians, nurses, occupational therapists, psychologists, physiotherapists, physicians.

**Non-regulated health professional candidates will be considered if they have a minimum of 12 months working experience within the healthcare system as a healthcare professional OR supervisory experience of regulated health professionals.**

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Glen Randall    Email: randall@mcmaster.ca    Extension: 26191    Date submitted: January 21, 2019

Name: Brenda Vrkljan    Email: vrkljan@mcmaster.ca    Extension: 27817    Date submitted: January 21, 2019

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, [cbryce@mcmaster.ca](mailto:cbryce@mcmaster.ca)

SGS/2013



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

|   |   |   |                                     |
|---|---|---|-------------------------------------|
| <b>IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:</b>  |   |   |                                     |
| <p>1. This form must be completed for <b>ALL</b> changes involving degree program requirements/procedures. <b>All</b> sections of this form <b>must</b> be completed.</p> <p>2. An electronic version of this form (must be in MS WORD <b>not</b> PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).</p> <p>3. A representative from the department is <b>required to attend</b> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</p> |   |   |                                     |
| <b>DEPARTMENT</b>   |   | Accounting and Financial Management Services Area, DeGroot School of Business |                                     |
| <b>NAME OF PROGRAM and PLAN</b>   |   | MBA Program, Accounting and Financial Management Services Specialization      |                                     |
| <b>DEGREE</b>   | MBA   |   |                                     |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>  |   |   |                                     |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |   |   |                                     |
| CREATION OF NEW MILESTONE <input type="checkbox"/>  |   |   |                                     |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>   | <input type="checkbox"/>  | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b>                          | <input type="checkbox"/>            |
|   |   | <b>CHANGE IN COURSE REQUIREMENTS</b>  | <input checked="" type="checkbox"/> |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>  |   | <b>EXPLAIN:</b>   |                                     |
| <b>OTHER CHANGES</b>  | <b>EXPLAIN:</b>   |   |                                     |
|   | Elective courses of the Accounting and Financial Management Services Specialization are deleted to reflect current offerings. |   |                                     |

**DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:**

Required courses

P700 [Business, Government and the Global Environment](#)  
P720 [Strategic Management](#)  
Plus five of the following:  
A701 [Intermediate Financial Accounting I](#)  
A702 [Intermediate Financial Accounting II](#)  
A703 [Advanced Financial Accounting](#)  
A717 [Seminar in Accounting Theory](#)  
A721 [Management Accounting Information for Strategic Development](#)  
A723 [Accounting Information Systems](#)  
A730 [Canadian Taxation I](#)  
A732 [Canadian Income Tax Fundamentals](#)  
A733 [Canadian Taxation II](#)  
A745 [Assurance](#)  
A750 [Financial Statement Analysis](#)  
P745 [Corporate Governance](#)  
A718/28/38...Selected Topics in Accounting.  
Plus 3 electives

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

Both A732 and P745 are deleted from the list of accounting courses for the specialization

Proposed change in specialization requirement:

Required courses

P700 [Business, Government and the Global Environment](#)  
P720 [Strategic Management](#)  
Plus five of the following:  
A701 [Intermediate Financial Accounting I](#)  
A702 [Intermediate Financial Accounting II](#)  
A703 [Advanced Financial Accounting](#)  
A717 [Seminar in Accounting Theory](#)  
A721 [Management Accounting Information for Strategic Development](#)  
A723 [Accounting Information Systems](#)  
A730 [Canadian Taxation I](#)  
A733 [Canadian Taxation II](#)  
A745 [Assurance](#)  
A750 [Financial Statement Analysis](#)  
A718/28/38...Selected Topics in Accounting.  
Plus 3 electives

**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?):**

Both BUSINESS A730 and A733 are required for MBA students interested in the CPA (Chartered Professional Accountant) program, and the Accounting and Financial Management Services Area has not offered BUSINESS A732 since September 2015.

The Strategic Management Area has not offered BUSINESS P745 since September 2013.

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

September 2019.

**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):**

Required courses

P700 [Business, Government and the Global Environment](#)

P720 [Strategic Management](#)

Plus five of the following:

A701 [Intermediate Financial Accounting I](#)

A702 [Intermediate Financial Accounting II](#)

A703 [Advanced Financial Accounting](#)

A717 [Seminar in Accounting Theory](#)

A721 [Management Accounting Information for Strategic Development](#)

A723 [Accounting Information Systems](#)

A730 [Canadian Taxation I](#)

A733 [Canadian Taxation II](#)

A745 [Assurance](#)

A750 [Financial Statement Analysis](#)

A718/28/38...Selected Topics in Accounting.

Plus 3 electives

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Y. Lilian Chan      Email: [ylchan@mcmaster.ca](mailto:ylchan@mcmaster.ca)      Extension: 23974      Date submitted: July 5, 2018

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, [cbryce@mcmaster.ca](mailto:cbryce@mcmaster.ca)

SGS/2013

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

|   |   |   |                          |
|---|---|---|--------------------------|
| <b>IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:</b>  |   |   |                          |
| <p>1. This form must be completed for <b>ALL</b> changes involving degree program requirements/procedures. <b>All</b> sections of this form <b>must</b> be completed.</p> <p>2. An electronic version of this form (must be in MS WORD <b>not</b> PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).</p> <p>3. A representative from the department is <b>required to attend</b> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</p> |   |   |                          |
| <b>DEPARTMENT</b>   |   | Health Policy and Management  |                          |
| <b>NAME OF PROGRAM and PLAN</b>   |   | MBA (Health Services Management)  |                          |
| <b>DEGREE</b>   | MBA   |   |                          |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>  |   |   |                          |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input type="checkbox"/> No   |   |   |                          |
| CREATION OF NEW MILESTONE <input type="checkbox"/>  |   |   |                          |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>   | <input type="checkbox"/>  | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b>                      | <input type="checkbox"/> |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>  | <input type="checkbox"/>  | <b>EXPLAIN:</b>   |                          |
| <b>OTHER CHANGES</b>  | <input checked="" type="checkbox"/>                             | <b>EXPLAIN:</b><br>The addition of a new course to the list of electives. |                          |
| <b>DESCRIBE THE <u>EXISTING</u> REQUIREMENT/PROCEDURE:</b>  |   |   |                          |
| <b>Required courses</b>   |   |   |                          |
| P700  | <a href="#">Business, Government and the Global Environment</a> |   |                          |
| P720  | <a href="#">Strategic Management</a>                            |   |                          |
| C711  | <a href="#">Health Economics and Evaluation</a>                 |   |                          |
| C721  | <a href="#">Health Policy Analysis</a>                          |   |                          |

**Plus three of the following:**

- C700 [Introduction to Health Management](#)  
(Only students admitted prior to 2016 are eligible to count this course)
- C715 [Health Care Funding and Resource Allocation](#)
- C722 [Management of Population Health](#)
- C725 [Managing Communications in Health Care](#)
- C727 [Pharma/Biotech Business Issues](#)
- C735 [Proposal Development for Health Care Leaders](#)
- C736 [Quality Management in Health Services](#)
- C741 [Health Care Marketing](#)
- C750 [Ethical and Legal Issues in Health Care](#)

**Plus 3 electives.**

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

Add course C755 (Analytics and Decision Making in Healthcare) to the list of electives that may be taken to meet the requirements for the Health Services Management stream of the MBA.

**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 new course adds to the breadth of available electives.

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

Immediately; first course will be offered in Winter 2020.

**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):**

C755 Analytics and Decision Making in Healthcare

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Glen Randall Email: [randalg@mcmaster.ca](mailto:randalg@mcmaster.ca) Extension: 26191 Date submitted: March 20, 2019

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, [cbryce@mcmaster.ca](mailto:cbryce@mcmaster.ca)





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

|  |   |  |   |
|--|---|--|---|
| <b><u>IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:</u></b>  |   |  |   |
| <p>1. This form must be completed for <b><u>ALL</u></b> changes involving degree program requirements/procedures. <b><u>All</u></b> sections of this form <b><u>must</u></b> be completed.</p> <p>2. An electronic version of this form (must be in MS WORD <b><u>not</u></b> PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).</p> <p>3. A representative from the department is <b><u>required to attend</u></b> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</p> |   |  |   |
| <b>DEPARTMENT</b>  |   | DeGroote School of Business                          |   |
| <b>NAME OF PROGRAM and PLAN</b>  |   | MBA BusAdmin (all plans)                             |   |
| <b>DEGREE</b>  | Master of Business Administration (MBA) |  |   |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>   |   |  |   |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |   |  |   |
| CREATION OF NEW MILESTONE <input type="checkbox"/>   |   |  |   |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>  | x                                       | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b> | <b>CHANGE IN COURSE REQUIREMENTS</b>  |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>   |   | x  | <b>EXPLAIN:</b><br>Added: BLPT Elective Course List and statement regarding program transfer<br><br>Updated: Accelerated Program Admissions (allowing a B- for McMaster BCom Grads)<br><br>Plus miscellaneous housekeeping updates in MBA calendar copy |
| <b>OTHER CHANGES</b>   | x                                       | <b>EXPLAIN:</b><br>BLPT Elective Course list         |   |

**DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:**

BLPT program launched in 2018. Curriculum development has necessitated updates to the calendar copy.  
Accelerated Admissions – Calendar states a B average is required for admission to Accelerated Program.

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

See attached

**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 to BLPT

Inclusion of the BLPT elective list allows BLPT students to understand elective options.

Additional BLPT program text: *Please note that it is not possible to transfer from the BLPT Program to other MBA Programs (MBA, MBA with Coop or Accelerated MBA). Please speak with program staff to ensure this is the best program option for you.*

This statement ensures that students understand that transferring from BLPT to another MBA program is not possible.

Changes to Accelerated Admissions

We have always allowed a B- average for McMaster BCom grads, versus our standard B average requirement, but it was not previously reflected in the calendar copy

All other changes are minor housekeeping.

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

September 2019

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

None

**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):**

See attached

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Dr. Willi Wiesner Email: [wiesner@mcmaster.ca](mailto:wiesner@mcmaster.ca) Extension: 20692 Date submitted: April 29, 2019

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies,  
[cbryce@mcmaster.ca](mailto:cbryce@mcmaster.ca)

SGS/2013

# DeGroote School of Business

## Programs

### 1. Diploma

- [Graduate Diploma in Professional Accountancy](#)

### 2. Business Administration

### 3. Doctoral

- [Business Administration, Ph.D.](#)

### 4. M.B.A.

#### *Master*

- [Business Administration Accelerated, M.B.A.](#)
- [Business Administration Co-op, M.B.A.](#)
- [Business Administration Part-Time, M.B.A.](#)
- [Business Administration, Full-time - M.B.A.](#)
- [Business Administration, M.B.A.](#)

### 5. Finance

#### *Master*

- [Finance, M.Fin](#)

### 6. EMBA

#### *Master*

- [Executive M.B.A.](#)



## M.B.A.

The DeGroote School of Business offers programs leading to the M.B.A. and Ph.D. in Business Administration. In collaboration with other faculties, the School offers an M.Sc. in eHealth, and a Master of Health Management. For more information on these collaborative programs, see the degree programs under those names. The DeGroote School also offers a Graduate Diploma in Professional Accounting. The DeGroote School also offers a Master of Finance Program (MFin).

Enquiries: 905 525-9140: M.B.A., Ext. 27024;  
Ph.D., Ext. 23373  
E-mail: M.B.A., [mbainfo@mcmaster.ca](mailto:mbainfo@mcmaster.ca) Ph.D., [phdinfo@mcmaster.ca](mailto:phdinfo@mcmaster.ca)  
Fax: M.B.A.: 905 634-4985  
Website: <http://www.degroote.mcmaster.ca>

### Faculty/ Fall ~~2018~~2019

#### Professors

**Prakash L. Abad**, B. Tech (Indian Institute of Technology), M.S. MBA, Ph.D. (Cincinnati) / Operations Management  
**Vishwanath Baba**, B.Eng. (Madras), M.B.A. (Western Illinois), Ph.D. (British Columbia) / Human Resources & Management  
**Ronald J. Balvers**, B.A. (Tillburg), Ph.D. (Pittsburg) / Finance and Business Economics / Michael Lee-Chin & Family Chair in Investment and Portfolio Management  
**Trevor W. Chamberlain**, B.Sc. (California, Berkeley), M.B.A., Dip. Pub. Acc. (McGill), Ph.D.(Toronto), CA, CPA / Finance and Business Economics  
**Y. C. Lilian Chan**, B.B.A. (Chinese University of Hong Kong), Ph.D. (Virginia Tech), C.P.A., FCMA / Accounting & Financial Management Services  
**Narat Charupat**, B.A. Accounting (Thammasat), M.B.A. (Drexell), Ph.D. (York) / Chair, Finance & Business Economics  
**C. S. Sherman Cheung**, B.S. (Louisiana State), M.S., Ph.D. (Illinois) / Finance & Business Economics  
**Catherine Connelly**, B.Comm. (McMaster), M.Sc., Ph.D. (Queen's) / Human Resources & Management / Canada Research Chair in Organizational Behaviour  
**Kenneth R. Deal**, B.S, MBA, Ph.D. (State University of New York at Buffalo) / Marketing  
**Richard W. Deaves**, B.A., M.A., Ph.D. (Toronto) / Finance & Business Economics  
**Brian Detlor**, B.Sc. - Hons. Comp. Sci. (Western), M.I.S. (Toronto), Ph.D. (Toronto) / Chair, Information Systems  
**Rick. D. Hackett**, B.Sc. (Toronto), M.A. (Windsor), Ph.D. (Bowling Green State) / Human Resources & Management /Canada Research Chair of Organizational Behaviour and Human Performance  
**Michael Hartmann**, BA Honours (Western Ontario), MA (Toronto), MBA (York), DBA (University of St. Gallen) / Human Resources & Management / Principal of the Directors College  
**Khaled S. Hassanein**, B.Sc. (Kuwait), M.A. Sc. (Toronto), M.B.A. (Wilfrid Laurier), Ph.D. (Waterloo), P.Eng. / Information Systems/ Associate Dean (Graduate Studies and Research) / Acting Director, McMaster Digital Transformation Research Centre  
**Elkafi Hassini**, B.Sc. (Bilkent), M.A.Sc., Ph.D. (Waterloo) / Chair, Operations Management/ University

#### Scholar

**Milena Head**, B. Math (Waterloo), M.B.A., Ph.D. (McMaster) / Information Systems / Wayne C. Fox Chair in Business Innovation

**Benson L. Honig**, B.A. (San Francisco State), Ph.D. (Stanford) / Human Resources and Management / Teresa Cascioli Chair in Entrepreneurial Leadership

**Clarence C.Y. Kwan**, M.B.A. (McMaster), Ph.D. (Toronto), Ph.D. (Ottawa). P.Eng. / Finance & Business Economics

**Rosemary Luo**, B.Eng. (Beijing), M.A. (McMaster), Ph.D. (Western) / Finance & Business Economics

**John Maheu**, B.A. (McMaster), M.A. (Queen's), Ph.D. (Queen's) / Finance & Business Economics / BMO Financial Group Chair in Capital Markets - Financial Literacy and the Individual Investor

**John W. Medcof**, B.A. (New Brunswick), M.A., Ph.D. (Toronto) / Human Resources & Management

**Peter C. P. Miu**, B.Sc. (Hong Kong), M.B.A., Ph.D. (Toronto) / Finance & Business Economics / Director, Master of Finance Program

**Ali Montazemi**, H.N.D. (Teesside Polytechnic, U.K.), M.Sc. (Southampton), Ph.D. (Waterloo) / Information Systems

**Dean C. Mountain**, B.A. (McMaster), M.A., Ph.D. (Western) / Finance & Business Economics

**S. M. Khalid Nainar**, B.A., M.A. (Delhi), Ph.D. (Florida) / Accounting & Financial Management Services

**Mahmut Parlar**, B.Sc., M.Sc. (Middle East Tech.), Ph.D. (Waterloo) / Operations Management / Distinguished Business Research Professor

**Jiaping Qiu**, B.A. (Xiamen), M.Sc. (Hong Kong University of Science & Technology), Ph.D. (Toronto) / Finance & Business Economics / CIBC Chair in Financial Markets

**Joseph B. Rose**, B.B.A. (Adelphi), M.B.A. (California, Berkeley), Ph.D. (SUNY at Buffalo) / Human Resources & Management

**Sudipto Sarkar**, B. Tech. (Indian Inst. of Technology), Ph.D. (Columbia) / Finance & Business Economics

**Mohamed M. Shehata**, B. Comm. (Tanta), M.Sc. (Ain-Shams), M.B.A. (N. Texas State), Ph.D. (Florida) / Accounting & Financial Management Services

**Joseph K. Tan**, B.A. (Wartburg College), M.S. (Iowa), Ph.D. (U.B.C.) / Information Systems

**Leonard Waverman**, BCom, MEcon (Toronto), Ph.D. (MIT) / Finance & Business Economics / Dean, DeGroote School of Business

**Yufei Yuan**, B.S. (Fudan), Ph.D. (Michigan) / Information Systems

**F. Isik Zeytinoglu**, B.A., M.B.A. (Bogazici), M.A., Ph.D. (Pennsylvania) / Human Resources & Management

#### Associate Professors

**Nick Bontis**, B.A., Ph.D. (Western) / Chair, Strategic Management

**Anna Danielova**, B.Sc. (Yerevan), M.Sc. (American University of Armenia), M.A., M.B.A., Ph.D. (Indiana) / Associate Dean (Faculty Affairs and Accreditation)

**Kai Huang**, B.Sc. (Huazhong Univ. of Science & Technology), M.Sc. (Tsinghua), Ph.D. (Georgia Inst. of Technology) / Operations Management

**Maureen Hupfer**, B.Comm., M.A., Ph.D. (Alberta) / Health Policy and Management

**Justin Jin**, B.S. (Peking), MBA (Oklahoma), Ph.D. (Toronto), CA / Accounting & Financial Management Services

**Manish Kacker**, B.A. (Delhi), PGDM (Indian Inst. of Management), Ph.D. (Northwestern) / Chair, Marketing

**Christopher J. Longo**, B.A. (York), M.Sc. (Western), Ph.D. (Toronto) / Health Policy and Management  
**Mandeep Malik**, B.A. (India), M. Ed. (Canberra) / Marketing / Director, International Student Exchange Program  
**Teal McAteer**, B.Com. (Queen's), M.I.R., Ph.D. (Toronto) / Human Resources & Management  
**Sue A. McCracken**, B.Comm. (Queen's), Ph.D. Accounting (Waterloo), CA / Accounting & Financial Management Services / Director, DeGroote Centre for the Promotion of Accounting Education and Research / Associate Dean (Academic)  
**Brent McKnight**, B.Eng. Mgt., MBA (McMaster), Ph.D. (Western) / Strategic Management  
**Emad Mohammad**, B.A. (Kuwait), M.B.A., Ph.D. (Georgia State) / Chair, Accounting & Financial Management Services / Director, Graduate Diploma in Professional Accountancy Program/ Director, Integrated Business and Humanities  
**Gillian Mulvale**, BA (University of Waterloo), MA (Western), Ph.D. (McMaster) / Health Policy and Management/ Director, Health Services Management Specialization  
**Devashish Pujari**, B.Com, M.Com, M.Phil (Kurukshetra), Ph.D. (Bradford) / Marketing  
**Glen E. Randall**, B.A., M.A., M.B.A. (McMaster), Ph.D. (Toronto) / Health Policy and Management/ Co-Director, Master in Health Management Program  
**Sourav Ray**, B.Tech (Indian Institute of Technology), M.S. (Texas A & M), Ph.D. (Minnesota) / Marketing  
**Erin Reid**, Hons. B.Com. (McMaster), M.Sc. (Queen's), A.M., Sociology, Ph.D. (Harvard) / Human Resources & Management  
**Aaron Schat**, B.A. (Redeemer), M.A., Ph.D. (Guelph) / Chair, Human Resources & Management  
**John Siam**, B.A., M.A., Ph.D. (Concordia) / Accounting & Financial Management Services and Finance & Business Economics / Director, Allen H. Gould Trading Floor and Horizon Exchange Traded Funds Investment Decision Centre  
**Patricia Wakefield**, B.Sc. (Alberta), M.Sc. (Cornell), M.P.A. (NYU), DBA (Boston) / Chair, Health Policy and Management  
**Willi Wiesner**, B.A. Hons. (Wilfrid Laurier), M.A.Sc., Ph.D. (Waterloo) / Human Resources & Management/ Director, MBA Program  
**Ruhai Wu**, B.A., M.S. (Tsinghua), M.S., Ph.D. (Texas) / Marketing  
**Manish Verma**, M.B.A., Ph.D. (McGill) / Operations Management  
**Hongjin Zhu**, B.A. (Peking), Ph.D. (National University of Singapore) / Strategic Management

#### **Assistant Professors**

**William Allender**, B.S. (California Polytechnic), M.S., Ph.D. (Arizona State) / Marketing  
**Goran Calic**, B.Com. (Ottawa), M.B.A., Ph.D. (Purdue) / Strategic Management  
**Rita Cossa**, HBBA (Wilfrid Laurier), CIM (Canadian Securities Institute), MBA (McMaster) / Strategic Management  
**Maryam Ghasemaghahi**, B.Sc., M.Sc. (Isfahan), Ph.D. (McMaster) / Information Systems  
**Yaqin Hu**, Honors B.A. (Wilfrid Laurier), M.A. (Toronto), Ph.D. (University of Texas at Dallas) / Accounting & Financial Management Services  
**Aadil Merali Juma**, B.Eng. Mgt., MBA (McMaster) CPA, CMA / Accounting & Financial Management Services  
**François Neville**, B.Com, M.Sc. (Ottawa), Ph.D. (Georgia State) / Strategic Management  
**Marvin G. Ryder**, B.A., B.Sc. (Carleton), M.B.A. (McMaster) / Marketing  
**Linda Stockton**, MBA (McMaster), Diploma Retail Management (Seneca College, Toronto) / Strategic Management



**Peter Vilks**, B.Sc. E.E. (Buffalo), MBA (McMaster) / Strategic Management  
**Kevin Veenstra**, B.A. (Honours), M. Acc. (Waterloo), Ph.D. (Toronto), CPA, CA, CMA, CFA / Accounting & Financial Management Services  
**Yan Wang**, B.S. (Beijing), M.A., Ph.D. (McGill) / Finance and Business Economics  
**Manaf Zargoush**, B.Sc., (Chamran University, Ahvaz), M.Sc., (SUT, Tehran), Ph.D. (ESSEC Business School, Paris) / Health Policy and Management

#### Professors Emeriti

**Roy J. Adams**, B.A. (Pennsylvania State), M.A., Ph.D. (Wisconsin)  
**Naresh C. Agarwal**, B.A., M.A. (Delhi), Ph.D. (Minnesota)  
**Norman P. Archer**, B.Sc. (Alberta), Ph.D. (McMaster), M.S. (New York) / Information Systems  
**Peter M. Banting**, B.A., M.B.A. (McMaster), Ph.D. (Michigan State)  
**Min Basadur**, B.A.Sc. (Toronto), M.B.A. (Xavier), Ph.D. (Cincinnati), P.Eng.  
**M. W. Luke Chan**, B.Sc. (Prince Edward Island), MA, Ph.D. (McMaster) / Finance and Business Economics  
**David Conrath**, B.A. (Stanford), M.S. (Carnegie -Melon); M.A., Ph.D. (California-Berkley), P.Eng.  
**Robert G. Cooper**, B.Eng., M.Eng. (McGill), M.B.A., Ph.D. (Western Ontario)  
**Harish C. Jain**, B.Com. (Delhi), M.B.A. (Indiana), Ph.D. (Wisconsin)  
**Elko J. Kleinschmidt**, Dip.Ing. (Staatliche Ingenieurschule, Hanover), M.B.A., Ph.D. (McGill)  
**Winston H. Mahatoo**, B.A. (London), B.Sc., M.Sc. (McGill), Ph.D. (Montreal)  
**G. John Miltenburg**, B.Eng. Mgt., M.B.A. (McMaster), M.Eng. (Toronto), Ph.D. (Waterloo), P. Eng.  
**George Steiner**, Diploma in Mathematics ("Summa Cum Laude") (Budapest), Ph.D. (Waterloo)  
**George W. Torrance**, B.A.Sc., M.B.A. (Toronto), Ph.D. (SUNY - Buffalo), P.Eng.  
**William G. Truscott**, B.S.E. (Princeton), M.B.A. (McMaster), D.BA (Indiana), P.Eng.  
**George O. Wesolowsky**, B.A.Sc. (Toronto), M.B.A. (Western Ontario), Ph.D. (Wisconsin)

## MBA Program

The MBA program at McMaster University was created in 1962, and boasts more than 16,000 alumni around the world. The DeGroote School of Business is also AACSB accredited - less than 5% of business schools worldwide earn this distinction in management education.

Canada's largest co-op MBA program was established at McMaster in 1973, and today is a premier choice for students who want to gain work experience while studying, and for employers who want to hire future business leaders.

~~Full Time~~The DeGroote School of Business offers two full-time programs – The DeGroote MBA and the DeGroote MBA with Co-op. In addition we offer a Blended Learning Part-Time program and an Accelerated program (which can be taken as a full-time or a part-time offering). ~~s~~ are also offered to give students the flexibility they need to continue their education and become leaders in the business world and the community. Classes are held at the Ron Joyce Centre in Burlington, Ontario in a state-of-the-art building designed to enrich the student learning experience.

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Students interested in the MBA program can obtain full particulars on regulations, as well as full course descriptions, from the MBA Academic Calendar, available on the DeGroot School of Business MBA webpage at <http://mbastudent.degroot.mcmaster.ca/>.

#### Admission Prior to September 2016

The current MBA program consists of 20 courses; ten in year one and ten in year two. Twelve of the 20 courses are core courses, which all students are required to take. Traditional

#### Admission Post September 2016

The DeGroot School of Business offers two full-time programs – the DeGroot MBA and the DeGroot MBA with and Full-time Co-op. Students admitted in or after September 2016 will complete a redesigned Year 1 curriculum. This redesigned curriculum will begin with mandatory three-week intensive Foundations modules which will convey teach fundamental business and professional skills, for success baseline information regardless of undergraduate major or experience. There will be 5 required core courses in Term 1 which will be team taught with content integrated across disciplines. Term 2 will begin with an additional one-week required Foundations Week module focusing on professional development competencies and skill-based workshops. Each student will also need to complete two required 6.50 courses (Accounting and Finance) followed by a choice of 3 out of 5 core electives. The final 3 weeks of Term 2 will be Integration Weeks dedicated to the Integrated Project Course. Students will be required to complete an integrating project to implement all of the knowledge and skills they've learned throughout the first year. In year two, all students (both newly admitted and current) must select a specialization and complete courses required for that specialization. For specific information, see the MBA Academic Calendar.

Topics covered in the Selected Topics courses will vary depending on recent developments in the subject area and the research interests of the instructor(s).

There is no thesis requirement for graduation in the MBA program. However, a student in the second year may, with the prior approval of the appropriate instructor, Area Chair, and the Director of the MBA Program, undertake an original paper, research study or project in an area directly associated with his/her program of study. Credit for one second-year course will be granted upon satisfactory completion of the project.

#### Admission requirements/Required Documentation

1. Completed on-line application ([mbarecruit.degroot.mcmaster.ca](http://mbarecruit.degroot.mcmaster.ca)) accompanied by the application fee (\$150 Cdn).
2. Official transcripts are to be sent by the school's registrar (or equivalent officer) from each postsecondary institutions attended. In the final 2 years of study, a B average is recommended.
3. Completion of the GMAT is required. A score of 600 is normally competitive. Each application is processed on its own merits with higher scores on some criteria compensating for lower scores in other areas.

4. Two letters of recommendation are to be completed by individuals who can supply information relating to the applicant's abilities. While it is preferred that at least one reference be from an instructor who has taught the candidate, work-related references are also acceptable.
5. A full résumé must be supplied. Candidates applying to the Accelerated ~~and traditional~~ Fulltime options must have at least one year of full-time, continuous work experience at the professional, technical, or managerial level. Whether applying for full-time or co-op, all international candidates must have one year of full-time work experience that has been completed after graduation.
6. TOEFL results (if applicable) are to be sent directly by the Educational Testing Service ([www.toefl.org](http://www.toefl.org)).

Minimum required scores are 250 on the computer-based test or 100 on the internet-based test. IELTS ([www.ielts.org](http://www.ielts.org)) is also accepted with a minimum score of 7.0.

As of September 2016, a new transfer credit and waiver policy is in place for the ~~DeGroot~~ ~~DeGroot~~ ~~MBA and the DeGroot~~ ~~MBA with Full time and~~ Co-op programs. The intention of this new policy shifts the focus from student flexibility to one of delivering an experience both inside and outside of the classroom - requiring all ~~Full time and Co-op MBA~~ students to follow the same programming throughout their ~~degree, entire program~~. Thus, no ~~Accelerated Part Time~~ transfer credits or waivers will be granted for ~~MBA and MBA with~~ Co-op ~~and Full time~~ students. ~~Accelerated Part time~~ students ~~may~~ will continue to receive transfer credits and waivers at the time of admission for 600-level MBA courses up to a maximum of 6 term courses. Only candidates who have earned their degree within the last 10 years from a recognized Canadian or American University and have obtained a minimum B grade (B- for McMaster graduates) in the equivalent course will have their courses reviewed automatically for credit. Transfer credits and waivers (with replacements) will be determined at the time of admission and will be outlined in the admission offer. For more information please visit <http://mbastudent.degroot.mcmaster.ca/newly-admitted-students/>

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Specializations:

As of September 2018, areas of specialization that are available are as follows:

- Accounting and Financial Management Services
- Business Analytics
- Finance
- Health Services Management (certain restrictions may apply)
- Strategic Business Valuation
- Strategic Marketing
- General

~~Students registered prior to September 2018. This change is for new students only. In program~~ students in ~~any~~ the full-time, part-time and co-op programs will be grandfathered based on the specialization they registered for.

Please note that starting September 2016 program minors will no longer be available in the MBA program.

### Non-Degree Applicants

Each year, the DeGroote School of Business is prepared to admit to the MBA program a small number of highly qualified students who do not hold a bachelor's degree. The Admissions Advisory Committee will consider applicants with a minimum of seven years of successful business experience along with the typical GMAT score that ranges upward from 600.

### Programs

#### Master

- [Business Administration Accelerated, M.B.A.](#)
- [Business Administration Co-op, M.B.A.](#)
- [Business Administration Part-Time, M.B.A.](#)
- [Business Administration, Full-time - M.B.A.](#)
- [Business Administration, M.B.A.](#)

# Business Administration Accelerated, M.B.A.

## Accelerated MBA

If you have already completed a recognized undergraduate business degree within the last 10 years, or are a graduate of McMaster University's Engineering and Management program, you may be eligible for advanced standing in year one and be admitted directly into year two. You can earn your MBA degree in as little as 8 months of full-time study. The Accelerated program may also be taken on a part-time basis (6 units or less per term), or 20 months of part-time study. The Accelerated Program is intended for those with at least one year of managerial, professional, or technical work experience.

Length: 8 months full-time or approximately generally not longer than 8-10 terms ~~20 months~~ part-time.

## Admission Requirements

- Completion of an undergraduate degree in business, or McMaster's Engineering and Management program, with a B average in the final two years of study. Applicants who completed their BCom at McMaster may be considered with a B- average.
- Graduated within the last 10 years from a recognized Canadian or American university.
- Minimum of one year of full-time continuous managerial, professional, or technical work experience.
- ~~Undergraduate co-op or internship placements (adding up to 12 months of work or more) from a~~ North
- ~~North~~ American institution will also be considered if they are noted on your official transcripts or are confirmed in a letter from your school.
- GMAT: Required
- 2 Letters of Reference

## Program Requirements

- BUSINESS P700 / Business, Government and the Global Environment
- BUSINESS P720 / Strategic Management
- Plus eight 700-level courses

# Business Administration Co-op, M.B.A.

## DeGroote MBA with Co-op (4 academic terms alternating with 3 paid work terms)

The DeGroote MBA with Co-op combines theoretical business education with the opportunity to complete three paid work terms. An emphasis on both the learning of business fundamentals, and the development of practical skills helps students advance their careers.

### Admission Requirements

- Work Experience: Although work experience is an asset, it is not a requirement for domestic applicants. International applicants must have one year of full-time continuous professional, managerial or technical work experience.
- GPA: Completion of an undergraduate degree, with a B average or higher is recommended
- GMAT: Required
- Proof of English Language Proficiency: required if previous degree was not completed in English
- 2 Letters of Reference
- Applicants who meet the admission requirements will be required to take part in a behaviour based interview.

### Program Requirements

Level 1 (36 units)

- [BUSINESS L611 / Foundations 1](#)
- [BUSINESS I601 / Managing Financial Resources](#)
- [BUSINESS I602 / Economics & Business Statistics](#)
- [BUSINESS I603 / Competing Through Digital Transformation & Analytics](#)
- [BUSINESS I604 / Creating Customer Value](#)
- [BUSINESS I605 / Managing Organizations](#)
- [BUSINESS L625 / Foundations 2: Review & Relaunch](#)
- [BUSINESS A650 / Accounting for Decision Makers](#)
- [BUSINESS F650 / Firms and Markets](#)
- [BUSINESS L626 / Integrating Project](#)
-

Students choose from 3 out of the 5 from the following:

- [BUSINESS B650 / Managing People in Organizations](#)
- [BUSINESS C650 / Introduction to Health Management](#)
- [BUSINESS K650 / Information Systems in Business](#)
- [BUSINESS M650 / Strategic Marketing Management](#)
- [BUSINESS O650 / Operations Management](#)
- WT01 - Co-op Work Term

Level 2 (30 units)

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- [BUSINESS P700 / Business, Government and the Global Environment](#)
  - [BUSINESS P720 / Strategic Management](#)
  - WT02 - Co-op Work Term
  - WT03 - Co-op Work Term
- Plus eight 700-level courses (see MBA Course List)

# Business Administration Part-Time, M.B.A.

## Part-Time MBA Programs

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For students wishing to complete their MBA but unable to commit to a full-time study schedule, a part-time program is an ideal alternative.

The Blended Learning Part-time MBA launched in September 2018. Admission into the ~~previous~~ Part-time MBA Program was discontinued in 2017. Part-time students generally may take up to 6 units of course work per term, with the exception of Terms 8 and 9 in the Blended Learning Part-time Program.

Students with a Bachelor of Commerce degree may complete an Accelerated MBA Program on a full-time or part-time basis. Please refer to the Accelerated MBA Program section for additional detail.

### **Blended Learning Part-time MBA**

#### **For students enrolled after September 2018**

Length: 9 terms. Please note this program follows a prescribed sequence.

Number of courses/units: 21 courses/55.5 units

#### Admission Criteria

Applicants to the BLPT MBA are expected to meet the following requirements:

- 4-year bachelor's degree in any discipline, with a recommended B average (73-76% or 3.0 on a 4-point scale) in the two most recent years of university study.
- Résumé to assess work experience, with a minimum of 4 years expected.
- Two letters of recommendation; at least one from a non-academic referee (e.g., past or present employer)
- Admissions interview, if necessary, to better understand a prospective student's capabilities, learning objectives and potential for success in the Program.
- TOEFL, IELTS, or PTE scores for those who have not resided in an English-speaking country for at least four years, or if English was not the primary language of instruction for at least three years of full-time post-secondary education, excluding ESL courses.



Program specific notes:

This program offers non-elective courses in a Blended Learning format. Students are required to engage in on-line learning activities, in addition to attending 3 mandatory weekend residencies per term.

Please note that it is not possible to transfer from the BLPT Program to other MBA Programs (MBA, MBA with Coop or Accelerated MBA). Please speak with program staff to ensure this is the best program option for you.

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## Required Courses

*Term 1 (6 units)*

- [BUSINESS BL600 / Leadership Fundamentals](#)
- [BUSINESS BL610 / Management Fundamentals](#)

*Term 2 (6 units)*

- [BUSINESS BL602 / Economics & Business Statistics](#)
- [BUSINESS BL604 / Creating Customer Value](#)

*Term 3 (6 units)*

- [BUSINESS BL601 / Managing Financial Resources](#)
- [BUSINESS BL603 / Competing Through Digital Transformation & Analytics](#)

*Term 4 (6 units)*

- [BUSINESS BL605 / Managing Organizations](#)
- BL651 Intermediate Accounting
- BL652 Intermediate Finance

*Term 5 (6 units)*

- [BUSINESS BLP720 / Strategic Management](#)

- BL653 Intermediate Marketing
- BL654 Intermediate Operations

Term 6 (6 units)

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- BUSINESS ~~BLP700~~ / Business, Government and the Global ~~Environment~~Environment
- BL751 Innovation & Design Thinking
- BL752 Co-Creating Strategic Foresight

Term 7 (6 units)

**Elective credits\* (6 units)**

Or Independent Study BL719

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**Elective credits\* (6 units)**

Term 8 (9 units)

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Elective credits\* (6 units)

Strategic Integration Project A (3 units)

Term 9 (4.5 units)

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Strategic Innovation Project B (3 units)

Program Synthesis & Future Planning (1.5 units)

**BLPT Electives**

**\*12 units of elective credit are to be taken from the approved program elective credit list.**

| Course Code | Course Name   |
|-------------|---|
| A721        | Management Accounting Information for Strategic Development |

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|                           |  |
|---------------------------|--|
| <a href="#">A732</a>      | <a href="#">Canadian Income Tax Fundamentals</a>                     |
| <a href="#">A750/F717</a> | <a href="#">Financial Statement Analysis</a>                         |
| <a href="#">B712</a>      | <a href="#">Managerial Negotiations</a>                              |
| <a href="#">B715</a>      | <a href="#">Leadership</a>   |
| <a href="#">B716</a>      | <a href="#">Strategic Organizational Change</a>                      |
| <a href="#">B717</a>      | <a href="#">Management Development</a>                               |
| <a href="#">B730</a>      | <a href="#">Strategic Management of Technology</a>                   |
| <a href="#">F700</a>      | <a href="#">Valuation for Finance Professionals</a>                  |
| <a href="#">F701</a>      | <a href="#">Alternative Investments and Portfolio Management</a>     |
| <a href="#">F711</a>      | <a href="#">Financial Institutions</a>                               |
| <a href="#">F712</a>      | <a href="#">Applied Corporate Finance</a>                            |
| <a href="#">F713</a>      | <a href="#">Security Analysis</a>                                    |
| <a href="#">F716</a>      | <a href="#">International Financial Management</a>                   |
| <a href="#">F720</a>      | <a href="#">Small Business/Entrepreneurial Finance</a>               |
| <a href="#">F721</a>      | <a href="#">Mergers, Acquisitions and Corporate Control</a>          |
| <a href="#">F722</a>      | <a href="#">Market Trading and Risk Management With Options</a>      |
| <a href="#">F723</a>      | <a href="#">Fixed Income Analysis</a>                                |
| <a href="#">F724</a>      | <a href="#">Venture Capital and Private Equity</a>                   |
| <a href="#">F725</a>      | <a href="#">Personal Financial Management</a>                        |
| <a href="#">F726</a>      | <a href="#">Behavioural Finance</a>                                  |
| <a href="#">F727</a>      | <a href="#">Working Capital Management</a>                           |
| <a href="#">F730</a>      | <a href="#">Pension, Retirement and Estate Planning</a>              |
| <a href="#">F731</a>      | <a href="#">Insurance and Risk Management</a>                        |
| <a href="#">F732</a>      | <a href="#">Personal Financial Planning and Advising</a>             |
| <a href="#">F733</a>      | <a href="#">Financial Risk Management</a>                            |
| <a href="#">F734</a>      | <a href="#">Real Estate Finance and Investment</a>                   |
| <a href="#">F735</a>      | <a href="#">Financial Modelling</a>                                  |
| <a href="#">F741</a>      | <a href="#">Introduction to FinTech</a>                              |
| <a href="#">F743</a>      | <a href="#">Big Data in Finance</a>                                  |
| <a href="#">K723</a>      | <a href="#">Data Mining and Business Intelligence</a>                |
| <a href="#">K724</a>      | <a href="#">eBusiness Strategies</a>                                 |
| <a href="#">K725</a>      | <a href="#">Business Process Management</a>                          |
| <a href="#">K728</a>      | <a href="#">eHealth: Innovations, Trends, Successes and Failures</a> |

|                           |   |
|---------------------------|---|
| <a href="#">K731</a>      | <a href="#">Project Management</a>                                  |
| <a href="#">K735</a>      | <a href="#">Managing the Implementation of Enterprise Systems</a>   |
| <a href="#">K736</a>      | <a href="#">Management Issues In eHealth</a>                        |
| <a href="#">K737</a>      | <a href="#">Cases in eBusiness, Innovation and Entrepreneurship</a> |
| <a href="#">M721</a>      | <a href="#">Business Marketing</a>                                  |
| <a href="#">M722/C741</a> | <a href="#">Health Care Marketing</a>                               |
| <a href="#">M724</a>      | <a href="#">Innovation and New Products</a>                         |
| <a href="#">M727</a>      | <a href="#">Marketing Communication</a>                             |
| <a href="#">M731</a>      | <a href="#">Marketing Research</a>                                  |
| <a href="#">M732</a>      | <a href="#">Consumer Behaviour</a>                                  |
| <a href="#">M736</a>      | <a href="#">Services Marketing</a>                                  |
| <a href="#">M740</a>      | <a href="#">Corporate Reputation and Brand Management</a>           |
| <a href="#">M750</a>      | <a href="#">Consultative Selling</a>                                |
| <a href="#">M751</a>      | <a href="#">Sustainability and Corporate Social Responsibility</a>  |
| <a href="#">O701</a>      | <a href="#">Modelling and Analytics Using Spreadsheets</a>          |
| <a href="#">O721</a>      | <a href="#">Inventory Management and Production Planning</a>        |
| <a href="#">O725</a>      | <a href="#">Business Logistics</a>                                  |
| <a href="#">O726</a>      | <a href="#">Methods for Quality Management</a>                      |
| <a href="#">O727</a>      | <a href="#">Service Operations Management</a>                       |
| <a href="#">O734</a>      | <a href="#">Supply Chain Management</a>                             |
| <a href="#">O735</a>      | <a href="#">Strategic Procurement</a>                               |
| <a href="#">P715</a>      | <a href="#">Entrepreneurship</a>                                    |
| <a href="#">P719</a>      | <a href="#">The Clinic - Innovation Lab</a>                         |
| <a href="#">P722</a>      | <a href="#">Legal Aspects Of Business</a>                           |
| <a href="#">P731</a>      | <a href="#">Crisis Management and Communications</a>                |
| <a href="#">V700</a>      | <a href="#">Strategic Business Analysis and Valuation</a>           |
| <a href="#">C711</a>      | <a href="#">Health Economics and Evaluation</a>                     |
| <a href="#">C715</a>      | <a href="#">Health Care Funding and Resource Allocation</a>         |
| <a href="#">C721</a>      | <a href="#">Health Policy Analysis</a>                              |
| <a href="#">C722</a>      | <a href="#">Management of Population Health</a>                     |
| <a href="#">C725</a>      | <a href="#">Managing Communications in Health Care</a>              |
| <a href="#">C727</a>      | <a href="#">Pharma/Biotech Business Issues</a>                      |
| <a href="#">C735</a>      | <a href="#">Proposal Development for Health Care Leaders</a>        |

|                      |   |
|----------------------|---|
| <a href="#">C736</a> | <a href="#">Quality Management In Health Services</a>   |
| <a href="#">C741</a> | <a href="#">Health Care Marketing</a>                   |
| <a href="#">C750</a> | <a href="#">Ethical and Legal Issues in Health Care</a> |

## **Part-Time MBA**

### **For students enrolled on or before September 2016**

Length: Variable. It takes most students 4 to 5 years, but students have a maximum of 8 years to complete the program.

Number of courses: 20

Program specific requirements: Work experience helps, but is not required.

Program specific notes:

- You can take a maximum of 2 classes per term.
- You may have the option of taking complete terms off. Please consult an Academic Advisor.
- Evening courses are held once a week and usually run from 7 p.m. to 10 p.m.
- Students admitted prior to September 2016 are not permitted to transfer into the Blended Learning Part-time Program.

# Business Administration, Full-time - M.B.A.

## DeGroote MBA (Full-Time, 4 academic terms)

The DeGroote Full-time MBA is a carefully blended combination of practical and theoretical business education. During 4 academic terms there is an emphasis on both the learning of business fundamentals, and the development of practical skills required for you to advance your career. It is intended for those with at least one year of managerial, professional, or technical work experience.

### Admission Requirements

- Work Experience: One year of full-time continuous professional, managerial or technical work experience.
- GPA: Completion of an undergraduate degree with a **B-** average or higher
- GMAT: Required
- Proof of English Language Proficiency: required if previous degree was not completed in English
- 2 Letters of Reference

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### Program Requirements

Level 1 (36 units)

- [BUSINESS L611 / Foundations 1](#)
- [BUSINESS I601 / Managing Financial Resources](#)
- [BUSINESS I602 / Economics & Business Statistics](#)
- [BUSINESS I603 / Competing Through Digital Transformation & Analytics](#)
- [BUSINESS I604 / Creating Customer Value](#)
- [BUSINESS I605 / Managing Organizations](#)
- [BUSINESS L624 / Foundations 2: Advanced Professional Skills](#)
- [BUSINESS A650 / Accounting for Decision Makers](#)
- [BUSINESS F650 / Firms and Markets](#)
- [BUSINESS L626 / Integrating Project](#)

Students choose from 3 out of 5 of the following:

- [BUSINESS B650 / Managing People in Organizations](#)
- [BUSINESS C650 / Introduction to Health Management](#)
- [BUSINESS K650 / Information Systems in Business](#)
- [BUSINESS M650 / Strategic Marketing Management](#)
- [BUSINESS O650 / Operations Management](#)

Level 2 (30 units)

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- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)
- Plus eight 700-level courses (see MBA Course List)

# Business Administration, M.B.A.

## Master of Business Administration (MBA) Degree

The MBA program at McMaster University was created in 1962, and boasts more than **16,000** alumni around the world. The DeGroote School of Business is also AACSB accredited - less than **5%** of business schools worldwide earn this distinction in management education.

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Canada's first Co-op MBA program was established at McMaster in 1973, and today is a premier choice for students who want to gain work experience while studying, and for employers who want to hire future business leaders.

Full-time, part-time and accelerated programs are also offered to give students the flexibility they need to continue their education and become leaders in the business world and the community. Classes are held at the Ron Joyce Centre in Burlington, Ontario in a state-of-the-art building designed to enrich the student learning experience.

## MBA Program Information

The MBA Program offers a number of program options:

**DeGroote** MBA (full-time status, 4 academic terms)

**DeGroote** MBA with Co-op (full-time status, 4 academic terms alternating with 3 paid work terms)

DeGroote Accelerated MBA (10 courses, available full-time or part-time)

DeGroote Blended Learning Part-time Program (9 academic terms, part-time study only)

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Students in Year 2 who wish to take graduate courses in other departments of the University as part of their MBA program may do so provided they secure approval from the particular department concerned and the Manager, Academic (MBA), DeGroote School of Business. Graduate students not registered in the Faculty of Business may enroll in MBA courses only with

the prior approval of the Faculty of Business and their home department. Enquiries should be directed to the Manager, Academic (MBA).



# Specializations

## Business Analytics

The Business Analytics is a cross-discipline specialization that incorporates descriptive, predictive and prescriptive analytics courses as well as application courses. In addition to the required Year 1 foundational functional areas of business courses, the specialization offers foundational courses in predictive and prescriptive courses in Year 2. Most of the courses will make use of relevant analytics software to equip the students with the necessary analytics platforms.

Data analytics has been touted by many industry leaders as the next frontier for innovation and productivity. The employment growth in data analytics is predicted to be the largest among all occupations in Canada. This specialization provides students with a wide variety of career options in the area of business analytics with three application tracks in finance, marketing and operations

The Business Analytics specialization serves as a gateway to valuable professional designations such as INFORMS Certified Analytics Professional (CAP) designation as well as the SAP Business Integration Certification program.

### Business Analytics

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Required:

- [BUSINESS K723 / Data Mining and Business Intelligence](#)
- [BUSINESS O701 / Modeling and Analytics using Spreadsheets](#)
- [BUSINESS O711 / Predictive Modelling and Analytics](#)
- [BUSINESS O715 / Simulation for Business Analytics](#)
- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)
- 

*And three courses from one of the following application tracks:*

### Finance Track

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Required:

- [BUSINESS F741 / Introduction to FinTech](#)
- [BUSINESS F743 / Big Data in Finance](#)

- Electives:
- [BUSINESS F713 / Security Analysis](#).
- [BUSINESS F714 / Options and Futures: Theory and Applications](#).
- [BUSINESS F715 / Portfolio Theory and Management](#).
- [BUSINESS F719 / Independent Research Project in Finance](#).
- [BUSINESS F722 / Market Trading and Risk Management](#).
- [BUSINESS F723 / Fixed Income Analysis](#).
- [BUSINESS F733 / Financial Risk Management](#).
- [BUSINESS F735 / Financial Modelling](#).

### Information Systems Track

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- [EHEALTH 746 / Healthcare Analytics](#).
- [BUSINESS K724 / eBusiness Strategies](#).
- [BUSINESS K725 / Business Process Management](#).
- [BUSINESS K735 / Managing the Implementation of Enterprise Systems](#).
- [BUSINESS K737 / Cases in eBusiness, Innovation and Entrepreneurship](#).

### Marketing Track

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- [BUSINESS M719 / Independent Research Project in Marketing](#).
- [BUSINESS M731 / Marketing Research](#).
- [BUSINESS M733 / Marketing Analytics](#).
- [BUSINESS M734 / Strategic Marketing Analysis](#).

### Operations and Supply Chain Management Track

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- [BUSINESS O719 / Independent Research Project in Operations Management](#).
- [BUSINESS O721 / Inventory Management and Production Planning](#).
- [BUSINESS O725 / Business Logistics](#).
- [BUSINESS O726 / Methods for Quality Management](#).
- [BUSINESS O734 / Supply Chain Management](#).
- [BUSINESS O735 / Strategic Procurement](#).
- 

*plus 1 700 level elective course.*

### Accounting and Financial Management Services

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The Accounting and Financial Management Services Specialization emphasizes the fundamental areas and current issues in financial reporting, including the problems of measurement and reporting to both internal and external users of financial information. Course work is required in the various functional areas of business in Year 1 and the election of further work in finance, economics, information systems, and quantitative methods is strongly encouraged in Year 2.

This specialization provides students with a wide variety of career options. Graduates may pursue careers in financial reporting, public accounting (specializing in auditing and assurance, forensic accounting, taxation), business valuations, or bankruptcy trusteeship. Other career opportunities include management accounting positions in for-profit and not-for-profit business environments as Chief Financial Officers, controllers, financial analysts, and treasury officers responsible for developing reporting and control systems as well as decision support systems within organizations. A specialization in Accounting and Financial Management Services also provides opportunities for access to positions in financial institutions as credit officers and financial specialists as well as opportunities in management consulting in areas requiring financial expertise.

The Accounting and Financial Management Services specialization serves as a gateway to valuable professional financial designations and contains maximal embedded career options. Choosing this specialization enables one to be in a position to qualify for a financial designation such as Chartered Professional Accountant (CPA), Certified Public Accountant (CPA), and Chartered Financial Analyst (CFA).

- Required:
- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)

*and five of the following:*

- [BUSINESS A701 / Intermediate Financial Accounting I](#)
- [BUSINESS A702 / Intermediate Financial Accounting II](#)
- [BUSINESS A703 / Advanced Financial Accounting](#)
- [BUSINESS A717 / Seminar in Accounting Theory](#)
- [A718/28/38/48... Selected Topics in Accounting](#)
- [BUSINESS A721 / Management Accounting Information for Strategic Development](#)
- [BUSINESS A723 / Accounting Information Systems](#)
- [BUSINESS A730 / Canadian Taxation I](#)
- [BUSINESS A732 / Canadian Income Tax Fundamentals](#)
- [BUSINESS A733 / Canadian Taxation II](#)
- [BUSINESS A745 / Assurance](#)
- [A750/F717/V701 Financial Statement Analysis](#)

← [BUSINESS P745 / Corporate Governance](#)

plus 3 700 level electives

## Finance

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The Finance specialization offers a complete range of courses to prepare the student for a career in finance. In Business F650, the introductory course which all MBA students must take, students are introduced to the financial market tools of valuation, market efficiency, arbitrage pricing, contingent claims, and risk-return tradeoffs. On the corporate side, students are introduced to concepts such as cost of capital, capital budgeting, dividend policy, and capital structure. In advanced courses, students deepen their practical understanding through the use of models currently used in financial markets: options, futures and other derivatives, portfolio management, and forecasting and quantitative methods. Students apply concepts in cases, computer simulations, projects, and market analysis. Among other things, the Specialization is designed to prepare students for the exams required to obtain the Chartered Financial Analyst (CFA) and Certified Financial Planner (CFP) designations. The Finance Specialization has been recognized by the CFA Institute as meeting the requirements for membership in its University Recognition Program. At a minimum, students pursuing the CFA designation should take the courses marked with an asterisk (\*).

Career opportunities for graduates in finance include employment in the financial services sector, a sector which currently accounts for about one-fifth of the Canadian economy and continues to grow - banks, trusts, management consulting, investment banks, pension funds, mutual funds, real estate, and insurance companies. The financial function in corporations offers opportunities for the finance specialist as well. For more information, students should contact the Finance and Business Economics Area.

- Required:
- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)
- and five of the following:
- [BUSINESS E714 / Business and Economic Forecasting](#)
- [BUSINESS F700 / Valuation for Finance Professionals](#)
- [BUSINESS F701 / Alternative Investments and Portfolio Management](#) \*
- [BUSINESS F710 / Financial Economics and Quantitative Methods](#)
- [BUSINESS F711 / Financial Institutions](#)
- [BUSINESS F712 / Applied Corporate Finance](#)
- [BUSINESS F713 / Security Analysis](#) \*

- [BUSINESS F714 / Options and Futures: Theory and Applications](#)
- [BUSINESS F715 / Portfolio Theory and Management](#)
- [BUSINESS F716 / International Financial Management](#)
- *F717/A750/V701 Financial Statement Analysis\**
- *F718/28/38/48/58... Selected Topics in Finance*
- [BUSINESS F720 / Small Business/Entrepreneurial Finance](#)
- [BUSINESS F721 / Mergers, Acquisitions and Corporate Control](#)
- [BUSINESS F722 / Market Trading and Risk Management](#)
- [BUSINESS F723 / Fixed Income Analysis](#) \*
- *F724/V705 Venture Capital and Private Equity*
- [BUSINESS F725 / Personal Financial Management](#)
- *F726/V702 Behavioural Finance*
- [BUSINESS F727 / Working Capital Management](#)
- [BUSINESS F730 / Pension, Retirement and Estate Planning](#)
- [BUSINESS F731 / Insurance and Risk Management](#)
- [BUSINESS F732 / Personal Financial Planning and Advising](#)
- [BUSINESS F733 / Financial Risk Management](#)
- [BUSINESS F734 / Real Estate Finance and Investment](#)
- *F735/V703 Financial Modelling*
- [BUSINESS F736 / Ethics and Professional Practice in Finance](#) \*

## General MBA

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The General MBA is designed for students who are interested in preparing themselves for positions which require ability to co-ordinate several functional areas of business and other complex organizations. The General MBA might also be considered by those intending to start their own business enterprise as well as by those experienced students who are interested in preparing themselves for advancement to upper management levels.

The General MBA combines a required program of introductory courses in all the functional areas of management with a program of electives offering students considerable freedom to seek a broad education tailored to their individual backgrounds and career interests.

- Required:
- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)

*and eight 700-level courses*

## Health Services Management

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The competent professional health services manager is a critical element in the framework of effective and efficient delivery of health services. Such individuals need solid management grounding in the fundamentals of planning, operations and evaluation, and a broad orientation to the realities, limitations, and potentialities of our health "system".

The underlying assumption of this specialization is that a solid MBA training, including selected graduate courses in health services, coupled with a range of work term experiences in the health sector designed with specific educational objectives, will produce a unique graduate with accelerated capabilities in the health services field. The health services management (HSM) specialization also provides the added benefit of preparing students for a career and certification as a Certified Health Executive (CHE), Canada's only professional credential available to health leaders, under the DeGroote School of Business' strategic alliance with the Canadian College of Health Service Executives (CCHSE).

For those who choose Co-op, the work-study nature of the MBA co-op program is an excellent educational format. The three work terms provide a 12-month "residency" training period as an integral part of the total educational experience. To the extent possible, the work term sites and activities are based on the student's interests and needs. During each work term, the student receives on-the-job training under the guidance of a supervisor (preceptor) from the work setting. MBA co-op work terms in the Canadian health services management field can be credited towards the CHE practical experience requirement.

This specialization provides students a fast-track opportunity to earn the MBA degree and CHE designation. Students who enroll in the strategic alliance must complete the CHE program requirements within three years from the date of enrollment.

For more information, please visit <http://www.cchl-ccls.ca/>

This specialization is also available to students in the Accelerated Program provided they have a minimum of 1-year work experience in the Health Care industry at the time of their application.

- Required:
- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)
- [BUSINESS C711 / Health Economics and Evaluation](#)
- [BUSINESS C721 / Health Policy Analysis](#)
- *and three of the following:*
- [BUSINESS C715 / Health Care Funding and Resource Allocation](#)
- [BUSINESS C722 / Management of Population Health](#)
- [BUSINESS C725 / Managing Communications in Health Care](#)

- [BUSINESS C727 / Pharma/Biotech Business Issues](#)
- [BUSINESS C735 / Proposal Development for Health Care Leaders](#)
- [BUSINESS C736 / Quality Management in Health Services](#)
- [C741/M722 Health Care Marketing](#)
- [BUSINESS C750 / Ethical and Legal Issues in Health Care](#)
- 

*plus 3 700 level electives, excluding C700*

*Co-op students are required to complete at least two out of three work terms in the Health Services Management field.*

*Students in programs other than Co-op, who have had full-time, management positions in the health services sector, may be able to take the Health Services Management specialization. Students' work experience will be assessed on a case-by-case basis by the Area.*

*Effective September 2018, students enrolled in the Blended Learning Part-Time MBA program are unable to declare specializations.*

## Strategic Business Valuation

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Students in the Strategic Business Valuation (SBV) specialization who successfully complete V700 (Strategic Business Valuation) and V704 (Advanced Strategic Business Valuation) will be exempt from taking the Level I and Level II Canadian Institute of Chartered Business Valuators (CICBV) courses (two of six required courses) for earning the CBV designation, as long as they pass the corresponding CICBV exams before the end of the third calendar year after completing V700 and V704.

Students in the Strategic Business Valuation specialization learn best practices for business valuation through a unique interdisciplinary approach using a blend of finance, economics, and accounting principles which include: investigative techniques to identify the drivers of value in an enterprise; case analysis and class discussion; and panel discussions with industry experts. They are exposed to valuation models and analytical techniques that value a business, including both tangible and intangible assets, drawing upon both traditional valuation techniques and newer, more contemporary approaches. The purpose is to accurately and exhaustively profile firms to identify those that meet rigorous standards of excellence and growth and to develop strategies for further value enhancement and preservation.

The underlying philosophy of this whole-business approach is that wise investments are made for the long run rather than for quick returns through rapid buying and selling. This approach

requires the identification of firms for investment which have enduring financial health and growth. Such long-term potential can only be assessed through a complete analysis of the firm and the drivers of value.

The pedagogy in the specialization stresses the use of conceptual/theoretical material in analyses that have practical value in solving the kinds of problems and making the kinds of decisions that are encountered in the workplace. Graduates are thus prepared to enter unique positions in, business valuation, credit analysis, consulting, and corporate management, and are well prepared to assume positions of responsibility relatively quickly.

- Required:
- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)
- [BUSINESS V700 / Strategic Business Analysis and Valuation](#)
- [BUSINESS V704 / Advanced Strategic Business Valuation](#)

*and three of the following:*

- [BUSINESS F712 / Applied Corporate Finance](#)
- [BUSINESS F713 / Security Analysis](#)
- [BUSINESS F721 / Mergers, Acquisitions and Corporate Control](#)
- *V701/A750/F717 Financial Statement Analysis*
- *V702/F726 Behavioural Finance*
- *V703/F735 Financial Modeling and Valuation*
- *V705/F724 Venture Capital and Private Equity*

*plus 3 700 level electives*

## Strategic Marketing

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Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large. Professional marketers act in a forward looking manner to create, maintain, and enhance relationships among different stakeholders to facilitate such exchanges. Highly successful marketers understand both the quantitative (e.g. economics) as well as the qualitative (e.g. psychology, sociology and politics) aspects of customer behaviour in consumer and business markets.

The Strategic Marketing Specialization provides MBA students a diverse selection of courses



to develop the broad understanding of the fundamental concepts, theories and applications needed to be a successful marketer. Integrated experiential learning is an important part of this education. This is achieved via projects with local and national businesses, cases, research projects, and marketing simulations.

Graduates in this specialization are well prepared for careers in marketing management, new product marketing, brand management, services marketing, marketing analytics, marketing research, retailing, sales, advertising, promotion etc. Students are provided with the education and experience to become highly successful in both consumer and business marketing professions as well as to effectively operate in domestic and international markets.

- Required:
- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)
- [BUSINESS M731 / Marketing Research](#)

*and four of the following:*

- *M718/28/38/48... Selected Topics in Marketing*
- [BUSINESS M721 / Business Marketing](#)
- *M722/C741 Health Care Marketing*
- [BUSINESS M724 / Innovation and New Products](#)
- [BUSINESS M727 / Marketing Communication](#)
- [BUSINESS M732 / Consumer Behavior](#)
- [BUSINESS M733 / Marketing Analytics](#)
- [BUSINESS M734 / Strategic Marketing Analysis](#)
- [BUSINESS M736 / Services Marketing](#)
- [BUSINESS M740 / Corporate Reputation and Brand Management](#)
- [BUSINESS M750 / Consultative Selling](#)
- [BUSINESS M751 / Sustainability and Corporate Social Responsibility](#)
- [BUSINESS P715 / Entrepreneurship](#)
- [BUSINESS P731 / Crisis Management and Communications](#)
- 

*plus 3 700 level electives*

# MBA Courses

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Note 1: Not all courses are necessarily offered every year.

Note 2: Under normal circumstances, a student is expected to complete all first year courses before beginning 700-level courses. Requests to circumvent this expectation are not permitted.

## Selected Topics Courses

Selected topics courses are special courses offered in the MBA program which are not part of the regular curriculum.

Topics vary depending on recent developments in the subject area and on the research interests of the instructor(s).

These courses are not listed in the MBA Academic Calendar and may change from term to term. Course descriptions are available at <http://mbastudent.degroote.mcmaster.ca/courses/courseschedule/>

Prerequisites for these courses depend upon the topic offered.

Selected topics courses with a given course number may be repeated for credit if a different topic is offered.

## Year 1 Courses

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**Year 1 Courses - DeGroote MBA (Full-time) and DeGroote MBA with Co-op (For students admitted on or after September 2016)**

- [BUSINESS L611 / Foundations 1](#)
- [BUSINESS I601 / Managing Financial Resources](#)
- [BUSINESS I602 / Economics & Business Statistics](#)
- [BUSINESS I603 / Competing Through Digital Transformation & Analytics](#)
- [BUSINESS I604 / Creating Customer Value](#)
- [BUSINESS I605 / Managing Organizations](#)
- [BUSINESS L625 / Foundations 2: Review & Relaunch](#)
- [BUSINESS A650 / Accounting for Decision Makers](#)
- [BUSINESS F650 / Firms and Markets](#)
- [BUSINESS L626 / Integrating Project](#)
- **Students choose from 3 out of 5 from the following:**
- [BUSINESS B650 / Managing People in Organizations](#)
- [BUSINESS C650 / Introduction to Health Management](#)

- [BUSINESS K650 / Information Systems in Business](#)
- [BUSINESS M650 / Strategic Marketing Management](#)
- [BUSINESS O650 / Operations Management](#)

## Year 1 Courses

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Year 1 Courses - All Programs except Part-Time. (For students admitted prior to September 2016)

- [BUSINESS A600 / Financial Accounting and Reporting](#)
- [BUSINESS A610 / Managerial Accounting](#)
- [BUSINESS B600 / Organizational Behaviour](#)
- [BUSINESS E600 / Economics](#)
- [BUSINESS F600 / Managerial Finance](#)
- [BUSINESS K603 / Information Systems in Business](#)
- [BUSINESS M600 / Marketing Concepts and Applications](#)
- [BUSINESS O600 / Operations Management](#)
- [BUSINESS Q600 / Applied Business Statistics](#)

## Year 2 Courses

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- **Required Courses:**
- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P720 / Strategic Management](#)
- Plus eight 700-level courses from the following:

## Accounting Courses

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- [BUSINESS A600 / Financial Accounting and Reporting](#)
- [BUSINESS A610 / Managerial Accounting](#)
- [BUSINESS A701 / Intermediate Financial Accounting I](#)
- [BUSINESS A702 / Intermediate Financial Accounting II](#)
- [BUSINESS A703 / Advanced Financial Accounting](#)
- [BUSINESS A717 / Seminar in Accounting Theory](#)
- A718/28/38/48 Selected Topics in Accounting
- [BUSINESS A721 / Management Accounting Information for Strategic Development](#)
- [BUSINESS A722 / Market Trading and Risk Management](#)
- [BUSINESS A723 / Accounting Information Systems](#)
- [BUSINESS A730 / Canadian Taxation I](#)

- [BUSINESS A732 / Canadian Income Tax Fundamentals](#)
- [BUSINESS A733 / Canadian Taxation II](#)
- [BUSINESS A740 / Strategic Management Accounting](#)
- [BUSINESS A745 / Assurance](#)
- [BUSINESS A750 / Financial Statement Analysis](#)

## Organizational Behaviour

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- [BUSINESS B600 / Organizational Behaviour](#)
- [BUSINESS B712 / Managerial Negotiations](#)
- [BUSINESS B715 / Principles of Leadership](#)
- [BUSINESS B716 / Strategic Organizational Change](#)
- [BUSINESS B717 / Management Development](#)
- [B718/28/38/48 Selected Topics in Organizational Behaviour](#)
- [BUSINESS B730 / Strategic Management of Technology](#)
- [BUSINESS B733 / Multidisciplinary Entrepreneurship](#)
- [BUSINESS B734 / International Entrepreneurship](#)

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## Health Services Management

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- [BUSINESS C700 / Introduction to Health Management](#)
- [BUSINESS C711 / Health Economics and Evaluation](#)
- [BUSINESS C721 / Health Policy Analysis](#)
- [BUSINESS C722 / Management of Population Health](#)
- [BUSINESS C725 / Managing Communications in Health Care](#)
- [BUSINESS C727 / Pharma/Biotech Business Issues](#)
- [BUSINESS C735 / Proposal Development for Health Care Leaders](#)
- [BUSINESS C736 / Quality Management in Health Services](#)
- [BUSINESS C741 / Health Care Marketing](#)
- [BUSINESS C750 / Ethical and Legal Issues in Health Care](#)
- [BUSINESS C755 / Analytics and Decision Making in Healthcare](#)
- [BUSINESS D700 / Case Analyses and Presentations](#)

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## Business Economics

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- [BUSINESS E600 / Economics](#)
- [BUSINESS E714 / Business and Economic Forecasting](#)

## Finance

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- [BUSINESS F600 / Managerial Finance](#)
- [BUSINESS F700 / Valuation for Finance Professionals](#)
- [BUSINESS F701 / Alternative Investments and Portfolio Management](#)
- [BUSINESS F710 / Financial Economics and Quantitative Methods](#)
- [BUSINESS F711 / Financial Institutions](#)
- [BUSINESS F712 / Applied Corporate Finance](#)
- [BUSINESS F713 / Security Analysis](#)
- [BUSINESS F714 / Options and Futures: Theory and Applications](#)
- [BUSINESS F715 / Portfolio Theory and Management](#)
- [BUSINESS F716 / International Financial Management](#)
- [BUSINESS F717 / Financial Statement Analysis](#)
- [F718/28/38/48 Selected Topics in Finance](#)
- [BUSINESS F720 / Small Business/Entrepreneurial Finance](#)
- [BUSINESS F721 / Mergers, Acquisitions and Corporate Control](#)
- [BUSINESS F722 / Market Trading and Risk Management](#)
- [BUSINESS F723 / Fixed Income Analysis](#)
- [BUSINESS F724 / Venture Capital and Private Equity](#)
- [BUSINESS F725 / Personal Financial Management](#)
- [BUSINESS F726 / Behavioural Finance](#)
- [BUSINESS F727 / Working Capital Management](#)
- [BUSINESS F730 / Pension, Retirement and Estate Planning](#)
- [BUSINESS F731 / Insurance and Risk Management](#)
- [BUSINESS F732 / Personal Financial Planning and Advising](#)
- [BUSINESS F733 / Financial Risk Management](#)
- [BUSINESS F734 / Real Estate Finance and Investment](#)
- [BUSINESS F735 / Financial Modelling](#)
- [BUSINESS F736 / Ethics and Professional Practice in Finance](#)
- [BUSINESS F743 / Big Data in Finance](#)

## Human Resources and Management

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- [BUSINESS H600 / Human Resources Management](#)
- [H718/28/38/48 Selected Topics in Human Resources](#)

## International Business

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## Management Information Systems

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- [BUSINESS K603 / Information Systems in Business](#)
- K718/28/38/48 Selected Topics in Management Information Systems
- [BUSINESS K723 / Data Mining and Business Intelligence](#)
- [BUSINESS K724 / eBusiness Strategies](#)
- [BUSINESS K725 / Business Process Management](#)
- [BUSINESS K731 / Project Management](#)
- [BUSINESS K735 / Managing the Implementation of Enterprise Systems](#)
- [BUSINESS K736 / Management Issues in eHealth](#)
- [BUSINESS K737 / Cases in eBusiness, Innovation and Entrepreneurship](#)
- [BUSINESS M600 / Marketing Concepts and Applications](#)

## Strategic Marketing

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- [BUSINESS M721 / Business Marketing](#)
- M718/28/38/48 Selected Topics in Marketing
- [BUSINESS M722 / Health Care Marketing](#)
- [BUSINESS M724 / Innovation and New Products](#)
- [BUSINESS M727 / Marketing Communication](#)
- [BUSINESS M731 / Marketing Research](#)
- [BUSINESS M732 / Consumer Behaviour](#)
- [BUSINESS M734 / Strategic Marketing Analysis](#)
- [BUSINESS M733 / Marketing Analytics](#)
- [BUSINESS M736 / Services Marketing](#)
- [BUSINESS M740 / Corporate Reputation and Brand Management](#)
- [BUSINESS M750 / Consultative Selling](#)
- [BUSINESS M751 / Sustainability and Corporate Social Responsibility](#)
- [BUSINESS M752 / Digital Marketing](#)
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## Operations Management

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- [BUSINESS O600 / Operations Management](#)
- [BUSINESS O701 / Modeling and Analytics using Spreadsheets](#)
- [BUSINESS O711 / Predictive Modelling and Analytics](#)
- [BUSINESS O715 / Simulation for Business Analytics](#)
- O718/28/38/48 Selected Topics in Operations Management

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- [BUSINESS O721 / Inventory Management and Production Planning](#)
- [BUSINESS O725 / Business Logistics](#)
- [BUSINESS O726 / Methods for Quality Mangement](#)
- [BUSINESS O734 / Supply Chain Management](#)
- [BUSINESS O735 / Strategic Procurement](#)

## **Business Environment and Policy**

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- [BUSINESS P700 / Business, Government and the Global Environment](#)
- [BUSINESS P715 / Entrepreneurship](#)
- [BUSINESS P720 / Strategic Management](#)
- [BUSINESS P722 / Legal Aspects of Business](#)
- [BUSINESS P724 / Innovation](#)
- [BUSINESS P727 / Strategic Knowledge Management](#)
- [BUSINESS P731 / Crisis Management and Communications](#)
- [BUSINESS P737 / Profiting from Intellectual Property](#)
- [BUSINESS P745 / Corporate Governance](#)
- [BUSINESS Q600 / Applied Business Statistics](#)

## **Strategic Business Valuation**

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- [BUSINESS V700 / Strategic Business Analysis and Valuation](#)
- [BUSINESS V701 / Financial Statement Analysis](#)
- [BUSINESS V702 / Behavioural Finance](#)
- [BUSINESS V703 / Financial Modeling and Valuation](#)
- [BUSINESS V704 / Advanced Strategic Business Valuation](#)
- [BUSINESS V705 / Venture Capital and Private Equity](#)

## **Special Research Projects**

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There is no thesis requirement for graduation in the MBA program. However, a student in the second year may undertake, with the prior approval of the appropriate instructor, Area Chair, and Associate Dean of Business, to develop an original paper, research study, or project in an area directly associated with their program of study. Special Research Projects must be supervised by a faculty member. Credit for one second-year course will be granted upon satisfactory completion of the project. In order to make best use of this opportunity the student must plan the research and contact a faculty member in the session preceding the one in which they intend to register for the special research project.

- [BUSINESS A719 / Independent Research Project in Accounting](#)
- [BUSINESS B719 / Independent Research Project in Organizational Behaviour](#)
- [BUSINESS C719 / Independent Research Project in Health Sciences Management](#)
- [BUSINESS E719 / Independent Research Project in Business Economics](#)
- [BUSINESS F719 / Independent Research Project in Finance](#)
- [BUSINESS H719 / Independent Research Project in Human Resources Management](#)
- [BUSINESS I719 / Independent Research Project in International Business](#)
- [BUSINESS K719 / Independent Research Project in Management Information Systems](#)
- [BUSINESS M719 / Independent Research Project in Marketing](#)
- [BUSINESS O719 / Independent Research Project in Operations Management](#)
- [BUSINESS P719 / Independent Research Project in Business Environment and Policy](#)
- [BUSINESS V719 / Independent Research Project in Strategic Business Valuation](#)





**School of Graduate Studies**

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Ext. 23679  
<http://graduate.mcmaster.ca>

To : Graduate Council

From : Christina Bryce  
Assistant Graduate Secretary

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At its meeting on March 19<sup>th</sup> and via e-ballot on April 8<sup>th</sup>, 2019 the Faculty of Health Sciences Graduate Policy and Curriculum Committee approved the following recommendations.

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

**For Approval of Graduate Council**

- **Medical Sciences**
  1. **Change to Transfer Examination**
  
- **Nursing**
  1. **Change to Course Requirements**

**For Information of Graduate Council:**

- **Public Health**
  1. **New Course**
    - 710 Introduction to Knowledge Synthesis and Guidelines

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

|   |                                     |  |                          |
|---|-------------------------------------|--|--------------------------|
| <b>IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:</b>  |                                     |  |                          |
| <p>1. This form must be completed for <b>ALL</b> changes involving degree program requirements/procedures. <b>All</b> sections of this form <b>must</b> be completed.</p> <p>2. An electronic version of this form (must be in MS WORD <b>not</b> PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).</p> <p>3. A representative from the department is <b>required to attend</b> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</p> |                                     |  |                          |
| <b>DEPARTMENT</b>   | Multiple FHS Departments            |  |                          |
| <b>NAME OF PROGRAM and PLAN</b>   | Medical Sciences Graduate Program   |  |                          |
| <b>DEGREE</b>   | PhD                                 |  |                          |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>  |                                     |  |                          |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes No <b>X</b>   |                                     |  |                          |
| CREATION OF NEW MILESTONE <input type="checkbox"/>  |                                     |  |                          |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>   | <input type="checkbox"/>            | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b> | <input type="checkbox"/> |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>  | <input checked="" type="checkbox"/> | <b>EXPLAIN:</b><br>Change in transfer exam           |                          |
| <b>OTHER CHANGES</b>  | <b>EXPLAIN:</b>                     |  |                          |

**DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:**

Currently, a student in the Medical Science Program who wishes to transfer to the PhD program prior to the completion of a master's degree will be expected :

To have completed the course requirements for the MSc (one full course or equivalent) with at least a B+ average. If, however, the course requirement is not complete at the time that the student wishes to transfer (e.g. a desired half-course is not offered until the following academic year), then a letter seeking permission to proceed with the Transfer should be sent to the Assistant Dean of the Medical Sciences Program requesting the transfer and the student needs to complete a Petition for Special Consideration form to the Program, who will forward the request for consideration of approval by the Associate Dean of Graduate Studies (Health Sciences). Students wishing to transfer should see section 2.1.2 and 2.1.3 of the General Regulations and the statement entitled "Policy and Procedure for Transfer from MSc to PhD - Medical Sciences" of the School of Graduate Studies Calendar.

In addition to completing the course requirement for a MSc, the student **will prepare a Transfer Examination Committee Report, which will include the research progress made to date and a PhD research proposal. This Report must be submitted to Transfer Committee within 21 months from entry into the MSc program so that the transfer will be completed by 22 months, as outlined in Graduate Calendar. Approval to transfer will be determined at the Transfer Examination Meeting when the student presents orally his/her research progress and plan for PhD study.**

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

The recommended change is in regards to the bolded text above.

The Transfer examination will be discontinued. Instead, students requesting to transfer from the MSc to the PhD program will indicate their intention to transfer at their 2<sup>nd</sup> or 3<sup>rd</sup> supervisory committee meeting (no sooner than 8 months, and no later than 22 months after registration in the MSc program). For the committee meeting, the student must submit a one-page outline of the PhD project, including hypothesis and specific aims. The supervisory committee will then reach a consensus on one of the following recommendations: 1) Proceed to PhD without completing MSc; 2) Do not proceed to PhD, but complete MSc degree. Following the meeting and the decision, the supervisor must submit a letter to the Assistant Dean of Medical Sciences indicating the rationale for the student to be transferred to the PhD program.

**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 new procedure will help to streamline the formal assessments of students.

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

September 2019

**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):**

Following two terms after initial registration in the Master's program, students may request to be transferred (reclassified) to the Ph.D. program. The candidate must present requests for transfer to the supervisor and the Supervisory Committee and all must be in agreement to proceed with the transfer. [To remain consistent with Graduate Calendar policy,](#) students enrolled in the Master's program beyond 22 months must complete the [MSc](#) degree requirements including [all course work and](#) the thesis [defense](#) prior to admission to the Ph.D. program. As such, all students seeking reclassification to the Ph.D. program from the M.Sc. program must [receive approval to transfer](#) do so before going beyond 22 months following registration in the M.Sc. program. Approval to transfer will be determined following [the supervisory committee meeting at which permission to transfer was](#) requested.

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name:

Email:

Extension:

Date submitted:

If you have any questions regarding this form, please contact the Assistant Secretary, School of Graduate Studies, [cbryce@mcmaster.ca](mailto:cbryce@mcmaster.ca)

SGS/2013



**Judith A West-Mays**, PhD  
Professor, Pathology and  
Assistant Dean, Medical Sciences  
Graduate Program

OFFICE: (905) 525-9140 X26237 FAX: (905) 525-7400 Email: [westmayj@mcmaster.ca](mailto:westmayj@mcmaster.ca)

April 2, 2019

Dear GPCC Committee Members:

The attached curriculum form for program changes outlines our program's request to eliminate the current Transfer exam procedure requirements for students requesting to transfer from the MSc to the PhD program and instead have this request occur at the student's 2<sup>nd</sup> or 3<sup>rd</sup> committee MSc committee meeting. This change will help to streamline our processes and is in alignment with the recent, approved requests that other FHS programs have made. Please let me know if you have any concerns or questions.

Sincerely,

Judith West-Mays



**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.

|  |                 |  |   |                                      |   |
|--|-----------------|--|---|--------------------------------------|---|
| <b>DEPARTMENT</b>  |                 | Nursing  |   |                                      |   |
| <b>NAME OF PROGRAM and PLAN</b>  |                 | Masters Course Based                                 |   |                                      |   |
| <b>DEGREE</b>  | MSc             |  |   |                                      |   |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>   |                 |  |   |                                      |   |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                 |  |   |                                      |   |
| CREATION OF NEW MILESTONE <input checked="" type="checkbox"/>  |                 |  |   |                                      |   |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>  |                 | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b> |   | <b>CHANGE IN COURSE REQUIREMENTS</b> | X |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>   |                 | X  | <b>EXPLAIN:</b><br>Yes change to Program Requirements and list of required courses and clarification of information from previous changes |                                      |   |
| <b>OTHER CHANGES</b>   | <b>EXPLAIN:</b> |  |   |                                      |   |

**DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:**

Currently, students in the MSc Course Based program are required to take NUR 745 Qualitative Health Research Methods.

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

NUR 745 Qualitative Health Research will no longer be a required course. MSc Course Based students instead be required to take an additional elective graduate half course instead of this required 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?):**

In our current Curriculum Renewal process, we have heard from our Course Based students and alumni they would like more choice in their coursework. The current curriculum is heavily weighted on research methods course. Many graduates will be clinicians, health educators or administrators, and would like the opportunity to choose electives more relevant to their career goals. Students who wish to take NUR 745 Qualitative Health Research can take this as an elective.

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

Fall 2019 intake

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

Yes. Previously, the required scholarly paper was considered a milestone. It is now a core required course called NUR 714 Scholarly Paper. Because of this, the minimum number of required courses is eight (four required courses, four electives).

The language in the graduate calendar was not clear about this and confusing for students. We are recommending changes to the calendar to provide clarity.

**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 Requirements:

Each student will be required to complete a minimum of ~~seven-eight~~ graduate half courses which must include the four required courses below. The remaining course will be chosen by the student with the approval of his/her faculty advisor, ~~and usually centre around a theme~~. With the permission of the course instructor and faculty advisor, a student's minimum course requirement may include up to two 600-level graduate half courses. ~~4~~

~~addition, each student must write a 15 to 20 page scholarly paper (NUR 714) on a topic approved by two examiners approved by the Assistant Dean~~

Course Requirements:

NUR 701 Theoretical Basis of Nursing

NUR 711 Advanced Practicum in Nursing

NUR 715 Introduction to Quantitative Research Methods in Health Research

~~NUR 715 Qualitative Research Methods~~

NUR 714 Scholarly Paper

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Nancy Carter      Email: carternm@mcmaster.ca      Extension: 22259 Date submitted: March 26 2019

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

SGS/2013





**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.

|  |                                     |  |                                     |
|--|-------------------------------------|--|-------------------------------------|
| <b>DEPARTMENT</b>  |                                     | Nursing  |                                     |
| <b>NAME OF PROGRAM and PLAN</b>  |                                     | Masters Course Based PHCNP   |                                     |
| <b>DEGREE</b>  | MSc                                 |  |                                     |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>   |                                     |  |                                     |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |                                     |  |                                     |
| CREATION OF NEW MILESTONE <input checked="" type="checkbox"/>  |                                     |  |                                     |
| <b>CHANGE IN ADMISSION REQUIREMENTS</b>  | <input type="checkbox"/>            | <b>CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE</b>   | <input type="checkbox"/>            |
|  |                                     | <b>CHANGE IN COURSE REQUIREMENTS</b>   | <input checked="" type="checkbox"/> |
| <b>CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR</b>   | <input checked="" type="checkbox"/> | <b>EXPLAIN:</b><br>Yes change to Program Requirements and list of required courses and clarification of information from previous changes. |                                     |
| <b>OTHER CHANGES</b>   | <b>EXPLAIN:</b>                     |  |                                     |

**DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:**

Currently, students in the MSc NP program are required to take NUR 745 Qualitative Health Research Methods.

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

NUR 745 Qualitative Health Research will no longer be a required course. MSc NP students will now be required to take an elective graduate half course in the winter or spring of year 1 instead of this required 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?):**

Currently MSc Course Based NP students do not have the opportunity to take electives. In our current Curriculum Renewal Process we have heard from our NP students and alumni they would like some choice in their coursework and the current curriculum is too heavily weighted on research methods. Most graduates will be clinicians and would like the opportunity to take an elective that would be more relevant to clinical work. Students who wish to take NUR 745 Qualitative Health Research can take this as an elective if they choose to.

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

Fall 2019 intake

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

NO Yes. Previously, the required scholarly paper was considered a milestone. It is now a core required course called NUR 714 Scholarly Paper. The language in the graduate calendar was not clear about this and confusing for students. We are recommending changes to the calendar to provide clarity.

The language around the time needed to complete the degree has also been changed to reflect accurate information.

**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 Requirements:

For those wishing to obtain a Primary Health Care Nurse Practitioner certificate and a course-based M.Sc. degree, admission requirements are the same as for other course-based M.Sc. students with the additional requirement of two years' full-time nursing practice within the past five years. Students complete three core courses, ~~write the 15-20 page scholarly paper~~, one

[elective \(level 600 or above\)](#) and complete the seven courses offered through the NP Consortium. Since the seven PHCNP courses are offered every year, they can be completed in 12 months of full-time study. The program typically requires ~~3~~2 years to complete. Once the PHCNP courses have been completed successfully, students are eligible to write their RN (Extended Class) exams.

~~Students take three core courses write the scholarly paper,, and complete the seven courses offered through the NP Consortium.~~

Course Requirements:

NUR 715 Introduction to Quantitative Research Methods in Health Research

NUR 712 Evidence-Based Health Care

~~NUR 745 Qualitative Research Methods~~

NUR 714 Scholarly Paper

NUR 761 Pathophysiology for Nurse NPs

NUR 762 Advanced Health Assessment and Diagnosis I

NUR 763 Advanced Health Assessment and Diagnosis II

NUR 764 Therapeutics in Primary Care I

NUR 765 Therapeutics in Primary Care II

NUR 766 Roles and Responsibilities

NUR 767 Integrative Practicum

**CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Nancy Carter      Email: carternm@mcmaster.ca      Extension: 22259 Date submitted: March 26 2019

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 COURSES & MILESTONES**

**IMPORTANT: 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 Secretary, School of Graduate Studies (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.

|  |                                     |  |  |                     |
|--|-------------------------------------|--|--|---------------------|
| <b>DEPARTMENT</b>  |                                     | Health Research methods, Evidence, and Impact  |  |                     |
| <b>COURSE TITLE</b>  |                                     | Introduction to Knowledge Synthesis and Guidelines   |  |                     |
| <b>COURSE NUMBER</b>   | TBD                                 | <b>COURSE CREDIT</b>   |  |                     |
|  |                                     | 6 Unit Course ( )  | 3 Unit Course ( X )  | 1.5 Unit Course ( ) |
| <b>INSTRUCTOR(S)</b>   |                                     | Romina Brignardello-Petersen; Assistant Professor.   |  |                     |
| <b>REQUISITE(S)</b><br><br>(Pre/Co/Anti or program enrollment requirement)   |                                     | PUBHLTH704 Population and Public Health Research Methods   |  |                     |
| <b>NATURE OF RECOMMENDATION (PLEASE CHECK APPROPRIATE BOX)</b>   |                                     |  |  |                     |
| Is this change a result of an IQAP review? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |                                     |  |  |                     |
| <b>NEW COURSE</b>  | <input checked="" type="checkbox"/> | <b>DATE TO BE OFFERED (FOR NEW COURSES ONLY):</b> Fall 2019                                      | <b>WAS THE PROPOSED COURSE OFFERED ON DEAN'S APPROVAL?</b> |                     |
| WILL THE COURSE BE <b>CROSS-LISTED (COMBINED SECTIONS)</b> WITH ANOTHER DEPARTMENT? No IF YES, PLEASE NOTE WHICH DEPARTMENT:<br><br>ATTACH TO THIS FORM ANY RELEVANT CORRESPONDENCE WITH THE OTHER DEPARTMENT(S). <b>NOTE:</b> CROSS-LISTING OF COURSES REQUIRES WRITTEN APPROVAL FROM <b>EACH</b> 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.<br><br>*FOR ALL NEW CROSS-LISTINGS PLEASE NOTE WHICH DEPARTMENT OWNS THE COURSE: |                                     |  |  |                     |
| <b>CHANGE IN COURSE TITLE</b>  |                                     | PROVIDE THE <b>NEW</b> COURSE TITLE:   |  |                     |
| <b>CHANGE IN COURSE DESCRIPTION</b>  |                                     | 600-LEVEL COURSE (Undergraduate course for graduate credit) Please see #4 on page 2 of this form |  |                     |

|   |   |
|---|---|
| <b>COURSE CANCELLATION</b>  | <b>PROVIDE THE REASON FOR COURSE CANCELLATION:</b><br><br><b>PLEASE NOTE: CROSS-LISTED (COMBINED SECTIONS) COURSES CAN ONLY BE CANCELLED BY THE DEPARTMENT WHO OWNS THE COURSE.</b> |
| <b>OTHER CHANGES</b>  | <b>EXPLAIN:</b>   |
| <b>BRIEF COURSE DESCRIPTION FOR CALENDAR - Provide a brief description (<i>maximum 6 lines</i>) to be included in the Graduate Calendar.</b><br><br>This course is designed for MPH students to learn the main aspects of the methodology for the development of different types of literature reviews (including systematic reviews, scoping reviews, overviews of reviews, and environmental scans) and practice guidelines. Students will learn <del>what is</del> the purpose of each type of review and practice guidelines, what are the main <del>steps</del> <del>features</del> to consider when planning to conduct <del>a review</del> <del>them</del> , <del>and how they are used</del> <del>what they can and cannot be used for</del> , and <del>what to look for when using any of them</del> to inform decision <del>makings</del> .   |   |
| <b>CONTENT/RATIONALE - Provide a brief description, i.e., outline the topics or major sub-topics, and indicate the principal texts to be used.</b><br><br>The general learning objectives of this course are: <ul style="list-style-type: none"> <li>- To understand the different types of knowledge synthesis, the evidence that they summarize, and the type of decisions that they can inform.</li> <li>- To learn how to critically appraise the different types of knowledge synthesis, and to make appropriate conclusions from them.</li> <li>- To understand how guidelines are developed and how they should be used to make decisions.</li> </ul> This course will cover the following topics <ol style="list-style-type: none"> <li>1. Systematic reviews of the literature</li> <li>2. Scoping reviews</li> <li>3. Overviews of reviews</li> <li>4. Health technology assessments</li> <li>5. Environmental scans</li> <li>6. Evidence-based clinical practice guidelines</li> </ol> In a first module (4 weeks), the course will provide an introduction to the methods for developing systematic reviews. Students will learn the difference between narrative and systematic reviews, what type of questions a systematic review can answer, and the basic methods for planning and conducting a systematic review of interventions (week 1), as well as how the data are synthesized and interpreted (week 2). Students will also learn about specific issues related to systematic reviews of diagnostic accuracy questions and prognostic factors questions (week 3); and systematic reviews of special interest to public health (week 4). <p>Each of the next sessions will focus on one type of review, what is the purpose of that type of review, the use of that type of review, the methods of conduct, and how the review type is similar or different from systematic reviews. Finally, students will learn about the methodology to develop evidence-based clinical practice guidelines (2 weeks), including how</p> |   |

to decide on the scope and formulate recommendation questions, the type of evidence that needs to be used, and how to move from evidence to decisions/ recommendations.

The background material will be obtained from published articles on each of the topics.

**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)?)**

The goal of this course is to provide MPH students with the skills to use summaries of evidence to inform decisions. Students from the MPH program specialize in diverse fields. Nonetheless, in most of these fields there is a need to use evidence to inform the development of research projects, quality improvement programs, or policy decisions, among others. Evidence-based practice/ decision making proposes that people should make decisions using the best available summaries of evidence. Thus, it is important for graduates from the MPH program to understand the purpose and methods used to develop such summaries of evidence, to identify which type of summary is best, depending on the question at hand, and how to use the evidence appropriately.

**2. EXPECTED ENROLMENT:**

25

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

Each session will have a lecture and a tutorial. Students will have to complete 1- 2 required readings before each session. The lecturer will present and explain the main contents to achieve the objectives of the session. Then, students will be split into small groups to discuss the concepts presented, the readings, and to conduct the critical appraisal of examples provided.

**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 be evaluated based on participation in tutorials (10%), 3 critical summaries of the readings provided (30% total, 10% each), one mid-term assignment (30%), and one final assignment (30%).

Together with the required readings, each week the students will be provided with 1-2 questions that make them reflect on how the concepts in the readings can be applied in practice. Each student will choose 3 sessions throughout the term, for which they will submit a 1-page critical summary (due before the lecture) in which they synthesize the main content of the readings and address the respective questions.

For the midterm assignment, pairs of students will be provided with a systematic review of the literature, which they will have to present and discuss. Depending on enrollment, presentations will be done with the whole class combined or in smaller groups. Students will be expected to present the question, methods, and results of the systematic review; and to discuss its strengths and limitations.

For the final assignment, pairs of students will be required to formulate their own question that can be answered with any type of review or clinical practice guideline, find two reviews/guidelines that address such a question, and make a

presentation in which they summarize and appraise both, and make a judgment regarding which of the sources is more suitable to answer their question.

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

There is currently no course in which MPH students can obtain these competencies. The HRM program offers courses on systematic reviews of interventions (HRM 743), and clinical practice guidelines (HRM 775, online); but these courses are focused on their respective topics, and are designed for students who aim to conduct such projects on their own. Discussions with the MPH program director, Dr. Emma Apatu, has highlighted the need for a course like this.

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

Not applicable

**PLEASE PROVIDE THE CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:**

Name: Romina Brignardello-Petersen      Email: brignarr@mcmaster.ca      Extension: 21635      Date submitted: Feb 2019

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

SGS /2015

## **Introduction to Knowledge Synthesis and Practice guidelines**

### **Instructor**

Romina Brignardello-Petersen, DDS, MSc, PhD  
Assistant Professor (HEI)

### **Additional faculty (to confirm)**

Nancy Santesso  
Jan Brozek  
Bram Rochweg  
Waleed Al-Hazaani

### **Course description**

This course is designed for MPH students to learn the main aspects of the methodology for the development of different types of literature reviews (including systematic reviews, scoping reviews, overviews of reviews, and environmental scans) and practice guidelines. Students will learn what is the purpose of each type of review and practice guidelines, what are the main features to consider when planning to conduct them, what they can and cannot be used for, and what to look for when using any of them to inform decisions.

### **Content/ rationale**

This course will cover the following topics

1. Systematic reviews of the literature
2. Scoping reviews
3. Overviews of reviews
4. Health technology assessments
5. Environmental scans
6. Evidence-based practice guidelines

In a first module (4 weeks), the course will provide an introduction to the methods for developing systematic reviews. Students will learn the difference between narrative and systematic reviews, what type of questions a systematic review can answer, and the basic methods for planning and conducting a systematic review of interventions (week 1), as well as how the data are synthesized and interpreted (week 2). Students will also learn about specific issues related to systematic reviews of diagnostic accuracy questions and prognostic factors questions (week 3); and systematic reviews of special interest to public health (week 4).

Each of the next sessions will focus on one type of review, what is the purpose of that type of review, the use of that type of review, the methods of conduct, and how the review type is similar or different from systematic reviews. Finally, students will learn about the methodology to develop evidence-based clinical practice guidelines (2 weeks), including how to decide on the scope and formulate recommendation questions, the type of evidence that needs to be used, and how to move from evidence to decisions/ recommendations.



The background material will be obtained from published articles on each of the topics.

### **Method of presentation of course material**

Each session will have a lecture and a tutorial. Students will have to complete 1- 2 required readings before each session. The lecturer will present and explain the main contents to achieve the objectives of the session. Then, students will be split in small groups to discuss about the concepts presented, and to conduct the critical appraisal of examples provided.

### **Method of evaluation**

Students will be evaluated based on participation in tutorials (10%), 3 critical summaries of the readings provided (30%), one mid-term assignment (30%), and one final assignment (30%).

Together with the required readings, each week the students will be provided with 1-2 questions that makes them reflect on how the concepts in the reading can be applied in practice. Each student will choose 3 sessions throughout the term, for which they will submit a 1-page critical summary (due before the lecture) in which they synthesize the main content of the readings and address the respective questions.

For the midterm assignment, pairs of students will be provided with a systematic review of the literature, which they will have to present and discuss. Depending on enrollment, presentations will be done with the whole class combined or in smaller groups. Students are expected to present the question, methods, and results of the systematic review; and to discuss its strengths and limitations.

For the final assignment, pairs of students will be required to formulate their own question that can be answered with any type of review or clinical practice guideline, find two reviews/guidelines that address such question, and make a presentation in which they summarize and appraise both, and make a judgment regarding which of the sources is more suitable to answer their question.

### **Outline of sessions**

#### **Session 1: “Introduction to systematic reviews- part 1”**

Objectives:

- To be able to differentiate systematic reviews from narrative reviews
- To understand the type of questions that can be answered with a systematic review
- To identify the main stages in the development of a systematic review of interventions
- To get familiar with how to formulate a systematic review question, and how to search for and select studies.

Readings:

- Carrasco-Labra A, Brignardello-Petersen R, Glick M, Guyatt GH, Azarpazhooh A. **A practical approach to evidence-based dentistry: VI: How to use a systematic review.** J Am Dent Assoc. 2015 Apr;146(4):255-65.e1. doi: 10.1016/j.adaj.2015.01.025. PubMed PMID: 25819657.
- Ioannidis J. **Next-generation systematic reviews: prospective meta-analysis, individual-level data, networks and umbrella reviews.** Br J Sports Med. 2017 Oct;51(20):1456-1458. doi: 10.1136/bjsports-2017-097621. Epub 2017 Feb 21. PubMed PMID: 28223307.

## **Session 2: “Introduction to systematic reviews- part 2”**

### Objectives:

- To get familiar with how to assess the risk of bias of the studies included in a systematic review of interventions
- To understand how a meta-analysis is conducted
- To identify the domains that need to be considered when assessing the quality of the evidence from a systematic review of interventions
- To be able to interpret the results from a systematic review of interventions

### Readings:

- Egger M, Smith GD, Phillips AN. **Meta-analysis: principles and procedures.** BMJ. 1997 Dec 6;315(7121):1533-7. PubMed PMID: 9432252; PubMed Central PMCID:PMC2127925.
- Guyatt GH, Oxman AD, Kunz R, Vist GE, Falck-Ytter Y, Schünemann HJ; GRADE Working Group. **What is "quality of evidence" and why is it important to clinicians?** BMJ. 2008 May 3;336(7651):995-8. doi: 10.1136/bmj.39490.551019.BE. Review. PubMed PMID: 18456631; PubMed Central PMCID: PMC2364804.

## **Session 3: “Systematic reviews of diagnostic test accuracy and prognostic factors”**

### Objectives:

- To understand specific aspects of the eligibility of studies, sources for searching, assessment of risk of bias, data synthesis, and assessment of the quality of the evidence of systematic reviews of diagnostic test accuracy studies.
- To understand specific aspects of the eligibility of studies, sources for searching, assessment of risk of bias, data synthesis, and assessment of the quality of the evidence of systematic reviews of prognostic factors.
- To be able to critically appraise systematic reviews of diagnostic test accuracy and prognostic factors and interpret their results

### Readings:

- Leeflang MM, Deeks JJ, Gatsonis C, Bossuyt PM; Cochrane Diagnostic Test Accuracy Working Group. **Systematic reviews of diagnostic test accuracy.** Ann Intern Med. 2008 Dec

16;149(12):889-97. PubMed PMID: 19075208; PubMed Central PMCID: PMC2956514.

- Dretzke J, Ensor J, Bayliss S, Hodgkinson J, Lordkipanidzé M, Riley RD, Fitzmaurice D, Moore D. **Methodological issues and recommendations for systematic reviews of prognostic studies: an example from cardiovascular disease.** Syst Rev. 2014 Dec 3;3:140. doi: 10.1186/2046-4053-3-140. Review. PubMed PMID: 25466903; PubMed Central PMCID: PMC4265412.

#### **Session 4: “Considerations for systematic reviews in public health”**

Objectives:

- To understand specific aspects of the eligibility of studies, sources for searching, assessment of risk of bias, data synthesis, and assessment of the quality of the evidence of systematic reviews of health promotion and public health interventions
- To be able to critically appraise systematic reviews of health promotion and public health interventions

Readings:

- Jackson N, Waters E; Guidelines for Systematic Reviews in Health Promotion and Public Health Taskforce. **Criteria for the systematic review of health promotion and public health interventions.** Health Promot Int. 2005 Dec;20(4):367-74. Epub 2005 Sep 16. PubMed PMID: 16169885.
- Whiting P, Savović J, Higgins JP, Caldwell DM, Reeves BC, Shea B, Davies P, Kleijnen J, Churchill R; ROBIS group. **ROBIS: A new tool to assess risk of bias in systematic reviews was developed.** J Clin Epidemiol. 2016 Jan;69:225-34. doi: 10.1016/j.jclinepi.2015.06.005. Epub 2015 Jun 16. PubMed PMID: 26092286; PubMed Central PMCID: PMC4687950.

#### **Session 5: “Scoping reviews”**

Objectives:

- To understand the type of questions that can be answered using a scoping review
- To get familiar with the methods to conduct scoping reviews.
- To discuss how to achieve an appropriate balance between the flexibility and how systematic a scoping review should be.
- To understand the similarities and differences between a systematic review and a scoping reviews
- To be able to critically appraise scoping reviews and interpret their results.

Readings:

- Peters MD, Godfrey CM, Khalil H, McInerney P, Parker D, Soares CB. **Guidance for conducting systematic scoping reviews.** Int J Evid Based Healthc. 2015 Sep;13(3):141-6. doi: 10.1097/XEB.000000000000050. PubMed PMID: 26134548.

- Colquhoun HL, Levac D, O'Brien KK, Straus S, Tricco AC, Perrier L, Kastner M, Moher D. **Scoping reviews: time for clarity in definition, methods, and reporting.** J Clin Epidemiol. 2014 Dec;67(12):1291-4. doi: 10.1016/j.jclinepi.2014.03.013. Epub 2014 Jul 14. PubMed PMID: 25034198.

### **Session 6: Midterm assignment presentations**

### **Session 7: “Overview of reviews”**

Objectives:

- To understand the purpose and type of questions that can be answered using an overview of reviews
- To get familiar with the methods to conduct overview of reviews
- To understand the similarities and differences between a systematic review and an overview of reviews, and when it is appropriate to use one or the other
- To be able to critically appraise overviews of reviews and interpret their results

Readings:

- Pollock M, Fernandes RM, Becker LA, Featherstone R, Hartling L. **What guidance is available for researchers conducting overviews of reviews of healthcare interventions? A scoping review and qualitative metasummary.** Syst Rev. 2016 Nov 14;5(1):190. doi: 10.1186/s13643-016-0367-5. Review. PubMed PMID: 27842604; PubMed Central PMCID: PMC5109841.
- Pollock A, Campbell P, Brunton G, Hunt H, Estcourt L. **Selecting and implementing overview methods: implications from five exemplar overviews.** Syst Rev. 2017 Jul 18;6(1):145. doi: 10.1186/s13643-017-0534-3. Review. PubMed PMID: 28720141; PubMed Central PMCID: PMC5516331.

### **Session 8: “Health technology assessments”**

Objectives:

- To understand the purpose of health technology assessments
- To get familiar with the components of health technology assessments
- To get familiar with the methods to conduct a health technology assessment
- To understand the role of systematic reviews in the process of developing health technology assessments
- To be able to critically appraise health technology assessments and interpret their results

Readings:

- Mathes T, Antoine SL, Prengel P, Bühn S, Polus S, Pieper D. **Health Technology assessment of public health interventions: a synthesis of methodological guidance.** Int J Technol Assess Health Care. 2017 Jan;33(2):135-146. doi:10.1017/S0266462317000228. Epub 2017 Apr 24.

PubMed PMID: 28434414.

- Drummond MF, Schwartz JS, Jönsson B, Luce BR, Neumann PJ, Siebert U, Sullivan SD. **Key principles for the improved conduct of health technology assessments for resource allocation decisions.** *Int J Technol Assess Health Care.* 2008 Summer;24(3):244-58; discussion 362-8. doi: 10.1017/S0266462308080343. PubMed PMID: 18601792.

### **Session 9: “Environmental scans”**

Objectives:

- To understand the purpose and type of questions that can be answered with an environmental scan
- To get familiar with the methods to conduct an environmental scan
- To understand the differences between systematic reviews, scoping reviews, and environmental scans
- To be able to critically appraise environmental scans and interpret their results

Readings:

- Wilburn A, Vanderpool RC, Knight JR. **Environmental Scanning as a Public Health Tool: Kentucky's Human Papillomavirus Vaccination Project.** *Prev Chronic Dis.* 2016 Aug 18;13:E109. doi: 10.5888/pcd13.160165. PubMed PMID: 27536901; PubMed Central PMCID: PMC4993117.
- Rowel R, Moore ND, Nowrojee S, Memiah P, Bronner Y. **The utility of the environmental scan for public health practice: lessons from an urban program to increase cancer screening.** *J Natl Med Assoc.* 2005 Apr;97(4):527-34. Review. PubMed PMID: 15868772; PubMed Central PMCID: PMC2568702.

### **Session 10: “Evidence-based practice guidelines- part 1”**

Objectives:

- To understand what is an evidence-based practice guideline.
- To understand what are the types of questions that an evidence-based practice guideline addresses.
- To get familiar with the stages of the development of an evidence-based practice guideline.
- To discuss how to determine the scope of an evidence-based practice guideline and how to prioritize recommendation questions to address.
- To identify the types of evidence that needs to be collected to develop an evidence-based practice guideline.

Readings:

- Lim W, Arnold DM, Bachanova V, Haspel RL, Rosovsky RP, Shustov AR, Crowther MA. **Evidence-based guidelines--an introduction.** *Hematology Am Soc Hematol Educ Program.* 2008:26-30. doi: 10.1182/asheducation-2008.1.26. PubMed PMID: 19074050.

- Kredt T, Bernhardsson S, Machingaidze S, Young T, Louw Q, Ochodo E, Grimmer K. **Guide to clinical practice guidelines: the current state of play**. Int J Qual Health Care. 2016 Feb;28(1):122-8. doi: 10.1093/intqhc/mzv115. Epub 2016 Jan 20. Review. PubMed PMID: 26796486; PubMed Central PMCID: PMC4767049.

### **Session 11: “Evidence-based practice guidelines- part 2”**

#### Objectives:

- To understand how to determine to what extent a systematic review for informing an evidence-based practice guideline can be updated or should be developed de novo
- To understand how to synthesize and appraise all the evidence necessary to develop a recommendation
- To get familiar with the process for moving from evidence to recommendations
- To understand the implications of recommendations

#### Readings:

- Andrews JC, Schünemann HJ, Oxman AD, Pottie K, Meerpohl JJ, Coello PA, Rind D, Montori VM, Brito JP, Norris S, Elbarbary M, Post P, Nasser M, Shukla V, Jaeschke R, Brozek J, Djulbegovic B, Guyatt G. **GRADE guidelines: 15. Going from evidence to recommendation-determinants of a recommendation's direction and strength**. J Clin Epidemiol. 2013 Jul;66(7):726-35. doi: 10.1016/j.jclinepi.2013.02.003. Epub 2013 Apr 6. PubMed PMID: 23570745.
- Alonso-Coello P, Oxman AD, Moberg J, Brignardello-Petersen R, Akl EA, Davoli M, Treweek S, Mustafa RA, Vandvik PO, Meerpohl J, Guyatt GH, Schünemann HJ; GRADE Working Group. **GRADE Evidence to Decision (EtD) frameworks: a systematic and transparent approach to making well informed healthcare choices. 2: Clinical practice guidelines**. BMJ. 2016 Jun 30;353:i2089. doi: 10.1136/bmj.i2089. PubMed PMID: 27365494.

### **Session 12: “Evidence-based practice guidelines- part 3**

#### Objectives:

- To understand the differences between practice guidelines developed with a clinical perspective, a public health perspective, and a policy perspective
- To understand specific aspects of the planning, evidence synthesis, and formulation of recommendations in practice guidelines of health promotion and public health interventions

#### Readings:

- Moberg J, Oxman AD, Rosenbaum S, Schünemann HJ, Guyatt G, Flottorp S, Glenton C, Lewin S, Morelli A, Rada G, Alonso-Coello P; GRADE Working Group. **The GRADE Evidence to Decision (EtD) framework for health system and public health decisions**. Health Res Policy Syst. 2018 May 29;16(1):45. doi:10.1186/s12961-018-0320-2. PubMed PMID: 29843743; PubMed Central PMCID: PMC5975536.

- Jørgensen KJ, Kalager M, Barratt A, Baines C, Zahl PH, Brodersen J, Harris RP. **Overview of guidelines on breast screening: Why recommendations differ and what to do about it.** Breast. 2017 Feb;31:261-269. doi: 10.1016/j.breast.2016.08.002. Epub 2016 Oct 4. Review. PubMed PMID: 27717717.

**Session 13: Final assignment presentations**

## **FINAL ASSESSMENT REPORT - DRAFT**

### **Institutional Quality Assurance Program (IQAP) Review**

#### **Mathematics M.Sc. and Ph.D. Programs**

**Date of Review:** February 12-13, 2018

*In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the **Mathematics M.Sc. and Ph.D.** programs delivered by the Department of Mathematics and Statistics. This report identifies the significant strengths of the programs, together with opportunities for program improvement and enhancement, and it sets out and prioritizes the recommendations that have been selected for implementation.*

*The report includes an Implementation Plan that identifies who will be responsible for approving the recommendations set out in the Final Assessment Report; who will be responsible for providing any resources entailed by those recommendations; any changes in organization, policy or governance that will be necessary to meet the recommendations and who will be responsible for acting on those recommendations; and timelines for acting on and monitoring the implementation of those recommendations.*

#### **Executive Summary of the Cyclical Program Review of the Mathematics M.Sc. and Ph.D. Programs**

In accordance with the Institutional Quality Assurance Process (IQAP), the Department of Mathematics and Statistics submitted a self-study for the Mathematics M.Sc. and Ph.D. programs in December 2017 to the Vice-Provost and Dean of Graduate Studies to initiate the cyclical program review of its graduate programs. The approved self-study presented program descriptions, learning outcomes, and analyses of data provided by the Office of Institutional Research and Analysis. Appendices to the self-study contained all course outlines associated with the program and the CVs for each full-time member in the department.

Two arm's length external reviewers, both from Ontario and one internal reviewer were endorsed by the Dean, Faculty of Science, and selected by the Vice-Provost, Faculty. The review team reviewed the self-study documentation and then conducted a site visit to McMaster University on February 12 - 13, 2018. The visit included interviews with the Provost and Vice-President (Academic); Vice-Provost and Dean of Graduate Studies, Associate Dean of Graduate Studies, Dean of the Faculty of Science, Chair of the department and meetings with groups of current undergraduate students, full-time faculty and support staff.



The Chair of the program and the Dean of the Faculty of Science submitted responses to the Reviewers' Report (July 2018). Specific recommendations were discussed and clarifications and corrections were presented. Follow-up actions and timelines were included.

### Strengths

In their report (March 2018), the Review team noted the following strengths of the Mathematics M.Sc. and Ph.D. programs:

- Research strength and visibility of the faculty members;
- High quality supervision;
- Employment rate of graduates.

### Areas of Improvement

In their report, the Review Team identified some recommendations for areas of improvement including:

- Faculty renewal;
- Teaching Assistant training and formative feedback;
- Transparency with respect to assigning the teaching assistant duties;
- The variety of the courses offered in pure mathematics.

The Dean of the Faculty of Science, in consultation with the Chair of the Mathematics and Statistics department shall be responsible for monitoring the recommendations implementation plan. The details of the progress made will be presented in the progress report and filed in the Vice-Provost, Faculty's office.

### Summary of the Reviewers' Recommendations with the Department's and Dean's Responses

#### Implementation Plan

| Recommendation                | Proposed Follow-Up  | Responsibility for Leading Follow-Up  | Timeline for Addressing Recommendation |
|-------------------------------|---|---|--|
| <b>I. Enhance TA training</b> | <p>We will explore creating a training course for TAs focused on teaching skills.</p> <p>Ensure all TAs receive teaching evaluations from students (where appropriate), from their peers and that a faculty member evaluates their teaching.</p> <p>Work with the MacPherson Institute and/or the Language and Linguistics Department (e.g. MERGE pilot) to Provide ESL (English as a Second Language) training as appropriate.</p> | TA coordinator, Associate Chair (Undergraduate), Associate Chair (Graduate) | 2018-2019                              |

|   |  |   |                 |
|---|--|---|-----------------|
|   | Work with the MacPherson Institute to design specific pedagogy training for math TAs or to provide other resources.  |   |                 |
| <b>II. Faculty renewal</b>                              | Submit proposals to the Faculty for new faculty positions needed to support the Department's academic plan and teaching/research needs. We note that the Department has already been approved to hire next year in the areas of probability and statistics, and geometry.  | Chair on advice from the Department and the Appointments Committee  | Next five years |
| <b>III. Student input in scheduling of grad courses</b> | Include a graduate student on the Graduate Committee; organize a meeting of graduate students at the end of the Fall term to produce suggestions for graduate courses. We will explore other ways to better engage graduate students in the planning of the graduate programme.  | Associate Chair (Graduate)  | 2018-2019       |
| <b>IV. More staff resources</b>                         | Develop a proposal for at least one new staff position dedicated to the Departmental graduate programmes. Note that we currently have less than one staff person to handle four separate graduate programmes and over 400 applications (40% of the entire Faculty's applications!).  | Chair, Associate Chair (Graduate)   | 2018-2019       |
| <b>V. Modify funding model for graduate students</b>    | Explore funding models for graduate students that are more sustainable and better balanced for the Department and supervisors.   | Chair, Associate Chair (Graduate)   | 2018-2019       |
| <b>VI. Increase intake of international students</b>    | <p>We strongly support this recommendation.</p> <p>The primary obstacle to admitting more international students is lack of available funding. We receive many applications from top quality international students, and we can afford to accept very few.</p> <p>We will explore ways to lower the costs to supervisors and the Department so that we may increase the number of international graduate students.</p> | <p>Chair, Associate Chair (Graduate)</p> <p>(University has already eliminated the tuition differential for international PhD students)</p> | 2018-2019       |

|  |   |  |             |
|--|---|--|-------------|
| <b>VII. Schedule department meetings sufficiently in advance</b>                       | Ensure that at least one week's notice is given for all department meetings.<br><br>It would be helpful if there were a way to schedule a regular meeting time that did not conflict with faculty teaching schedules. | Chair                                      | 2018-2019   |
| <b>VIII. Ensure TAs are given a range of assignments during their time at McMaster</b> | This is already done, although the current procedure needs to be communicated better to the TAs. The procedure will be explained in the Graduate Student Handbook (also see recommendation IX below).                 | TA coordinator, Associate Chair (Graduate) | 2018-2019   |
| <b>IX. Make it clear to students the criteria needed to teach a class</b>              | Add a section to the Graduate Student Handbook fully explaining how TA duties are assigned and evaluated, and what experience students need to be selected to teach a class. (See also responses VIII and I.)         | Associate Chair (Graduate)                 | immediately |

### Further Summary from the Department:

The program had extensive discussion about items I (TA training) and V (modified graduate funding). We include some more detailed comments on these points below.

The question of TA training is of critical importance to the departmental mission on several levels. Effective TAs are of obvious importance to the success of our undergraduate teaching, and in order to compete for jobs in academia our graduate students need mentorship in and evidence of effective teaching skills. To enhance the training of TAs, we intend to enlist the support of the MacPherson Institute in providing TA training activities designed specifically for graduate students in math and stats. In fact, Deirdre Haskell and Nicholas Kevlahan met with Greg Van Gastel and Elliot Storm from the MacPherson Institute on May 28 to discuss specific measures we could take, including ESL and orientation for international students. This was a helpful and productive discussion, and MacPherson has agreed to organize a half-day workshop focused specifically on training for mathematics TAs in early September. Unfortunately, the MacPherson Institute has no resources for ESL training, and with roughly 25% of the in-program graduate students at McMaster being international, this is an ongoing concern. Greg and Elliot recognized that the lack of any effective English language training for graduate students (especially those working as TAs) is a major deficiency at McMaster. In their previous incarnation as the Centre for Leadership and Learning, there was an ESL training program specifically designed for international graduate students in mathematics and statistics. That program was exactly what our students need, and it is the kind of thing that we would like to see MacPherson take leadership on.

Bradd Hart addressed graduate student funding (item V) in a presentation given at the retreat. His overview of included a breakdown of graduate revenues, costs and shortfall, on a per capita basis by student (MSc/PhD, domestic/international). The picture that emerged was rather dire, and while it is clear that this model is unsustainable, it is not clear what we can do to address the imbalance. For instance, it was noted that faculty members involved in the program are already committing a substantial percentage of their available NSERC grant funds (72%) in support of graduate students. Options for restructuring graduate funding were presented, and one overarching goal is to increase the number of scholarship holders in the program. Here, we would argue that the

additional staff support called for in item IV would assist our students in competing more effectively for scholarships.

The university's decision to move to equalized tuition for international PhD students is a promising change, but it is not yet clear if and how international BIU funds will flow to the units. Nevertheless, the pool of international talent in mathematics is broad and deep (and is reflected in the hundreds of applications we receive each year), and this change will dramatically improve the opportunities for engagement of students in cutting-edge research.

Faculty renewal remains the most pressing issue for our graduate programs.

Our Department is at a defining moment, with graduate programs in Financial Math and Statistics having recently split off from the Mathematics program. We are also faced with unprecedented growth in the demand for research and training in the mathematical sciences. The information age is in full swing, and students are arriving at university with an appreciation for and an interest in learning more about the power and applicability of mathematical and statistical ideas. Programs like ours will play a key role in training a new generation of leaders and thinkers, graduates who can combine their analytical skills with creative problem-solving to address social, economic, and societal issues. They will be able to use logical reasoning, mathematical and statistical modelling, and computer-assisted analysis to elucidate and illuminate.

There are enormous opportunities for mathematicians and statisticians to contribute to the development of knowledge in big data and data science, and there is a bright future for graduate programs in mathematics at McMaster, which is well-known nationally and internationally for its research strength in math and stats and with our large and active postdoctoral training program. We are encouraged that the reviewers recommended hires in the strategically important research area of geometry, and we look to making other core hires to strengthen the department and build research and supervisory capacity within the fields of pure and applied mathematics.

While we agree with all of the reviewers' recommendations, one particular point (item IV) is noteworthy. In addition to our own graduate programs in math, stats, and financial math, our unit also provides administrative support for the interdisciplinary graduate program in Computational Science and Engineering. Recommendation IV for more staff resources to support these programs is therefore very well received. In the current arrangement, there is one very dedicated administrative assistant for graduate support in the department. This individual is responsible for handling over 400 admissions applications per year and providing direct administrative support for the large number of students across the four graduate programs (Math MSc/PhD, Stats MSc/PhD, Financial Math MFM, CSE MSc/PhD). Additional staff support would help in a myriad of ways, for instance, by providing more assistance for graduate students in preparing for and submitting scholarship applications. While we recognize the heroic efforts of the current staff, and especially this individual, it is clear that the present system is not sustainable, and there is an urgent need for additional graduate support staff in the department.

### **Dean's Response, Faculty of Science:**

The Dean would like to thank the members of the review team for their engagement during the site visit and for their comprehensive Review Team Report. The Dean noted in particular, the context and perspective in terms of the comparison of the graduate programs in Mathematics at McMaster to other Canadian and international programs is very helpful. The Dean would also like to thank the members of the Department of Mathematics and Statistics for the inclusive way that they approached the preparation of the Program Response and for the immediate action they have taken on several of the recommendations.

The Dean stated that the reviewers' report highlighted several areas of strength including the "vibrant" post-doctoral fellow program, the high-quality faculty research and supervision and the employment

landscape for graduates of the program. The Dean agreed with the central challenge stated in the report: to preserve the integrity and excellence of the core program in pure and applied mathematics, while still fostering growth and development in the newer programs in actuarial and financial math and statistics. The Dean believes that adherence to the action plan generated for each of the recommendations in the report will ensure that these program enhancements are obtained.

The Dean agreed with each of the review team recommendations and the program responses to those recommendations. While the purpose of the IQAP review is not to specifically address resource issues, academic programming is intimately linked to resources. In this response, the Dean would like to emphasize that for the first time in a decade, the Faculty of Science is in a positive financial position, and as such, strategic investment in faculty and staff renewal has begun. The program response highlights that the Department of Mathematics and Statistics received approval in the Spring of 2018 to hire 2 new tenure track faculty members in the areas of geometry and statistics, and recently, additional administrative staffing for graduate programs was approved. With respect to some of the other recommendations, some recent developments at the Faculty and University level will serve to enhance the action items identified in the program responses.

**For recommendation V: Modify funding model for graduate students,** The Associate Dean (Graduate) for the Faculty of Science has been directing a comprehensive review of graduate funding models in all programs in the Faculty of Science and that review is now ready for distribution to all programs. In agreement with the observations of the review team, the graduate programs in the Department of Mathematics and Statistics have some of the highest supervisor contribution rates, and highest percentage of international students along with some of the lowest percentage of students with scholarship support. These data support the plans to increase efforts in terms of scholarship support for graduate students. The comparison funding models used in other graduate programs in the Faculty of Science may also provide some insight in terms of alternative funding models for consideration by the program.

For recommendation I: Enhance TA training, The Dean wrote that the MacPherson Institute is currently in the midst of a review and the request to have more Faculty and Department specific programming and activity aligns with some of the early feedback provided by many stakeholders in the Faculty of Science. The need for a range of ESL support and training opportunities for graduate students has been highlighted by both the Dean of Graduate Studies and the Provost. A strategic plan for the development of these types of resources is currently underway.

The Dean is looking forward to working with this excellent and dedicated academic unit to advance the mission and vision of McMaster University and agreed that this is a very exciting time for mathematics and statistics. The solid foundation of excellence in teaching, research and community engagement established by the graduate programs in Mathematics will be very important to both the Faculty and the University strategic plans and will work in a coordinated fashion to make positive changes and enhancements that align with the recommendations stemming from this review.

## **Quality Assurance Committee Recommendations**

McMaster's Quality Assurance Committee (QAC) reviewed the above documentation and the committee recommends that the program should follow the regular course of action with a progress report and subsequent full external cyclical review to be conducted no later than 8 years after the start of the last review.

## FINAL ASSESSMENT REPORT

### Institutional Quality Assurance Program (IQAP) Review

#### Statistics M.Sc. Program

**Date of Review:** February 12-13, 2018

*In accordance with the University Institutional Quality Assurance Process (IQAP), this final assessment report provides a synthesis of the external evaluation and the internal response and assessments of the **Mathematics and Statistics** undergraduate programs delivered by the Department of Mathematics and Statistics. This report identifies the significant strengths of the programs, together with opportunities for program improvement and enhancement, and it sets out and prioritizes the recommendations that have been selected for implementation.*

*The report includes an Implementation Plan that identifies who will be responsible for approving the recommendations set out in the Final Assessment Report; who will be responsible for providing any resources entailed by those recommendations; any changes in organization, policy or governance that will be necessary to meet the recommendations and who will be responsible for acting on those recommendations; and timelines for acting on and monitoring the implementation of those recommendations.*

#### **Executive Summary of the Cyclical Program Review of the Statistics M.Sc. Program**

In accordance with the Institutional Quality Assurance Process (IQAP), the Department of Mathematics and Statistics submitted a self-study for the Statistics M.Sc. program in December 2017 to the Vice-Provost and Dean of Graduate Studies to initiate the cyclical program review of the program. The approved self-study presented program descriptions, learning outcomes, and analyses of data provided by the Office of Institutional Research and Analysis. Appendices to the self-study contained all course outlines associated with the program and the CVs for each full-time member in the department.

Two arm's length external reviewers, one from BC and one from Ontario and one internal reviewer were endorsed by the Dean, Faculty of Science, and selected by the Vice-Provost and Dean of Graduate Studies. The review team reviewed the self-study documentation and then conducted a site visit to McMaster University on February 12 - 13, 2018. The visit included interviews with the Provost and Vice-President (Academic); Vice-Provost and Dean of Graduate Studies, Associate Dean of Graduate Studies, Dean of the Faculty of Science, Chair of the department and meetings with groups of current undergraduate students, full-time faculty and support staff.

The Chair of the program and the Dean of the Faculty of Science submitted responses to the Reviewers' Report (July 2018). Specific recommendations were discussed and clarifications and corrections were presented. Follow-up actions and timelines were included.

## Strengths

In their report (March 2018), the Review team noted the following strengths of the Statistics M.Sc.:

- **Strengths**
  - Multidisciplinary nature
  - Quality of students include strong domestic pool
  - Computational statistics
  
- **Areas for Improvement**
  - 700-level stats course offerings, both in variety and in frequency
  - Courses offered by other departments, which are suitable to students in statistics
  - Multidisciplinary nature of the program
  - Student engagement in the program, and learning and skill development activities
  - Research activities, professional development opportunities, and training programs in the summer

The Dean of the Faculty of Science, in consultation with the Chair of the Mathematics and Statistics department shall be responsible for monitoring the recommendations implementation plan. The details of the progress made will be presented in the progress report and filed in the Vice-Provost, Faculty's office.

## Summary of the Reviewers' Recommendations with the Department's and Dean's Responses

### Implementation Plan

| <b>Recommendation</b>                                      | <b>Proposed Follow-Up</b>   | <b>Responsibility for Leading Follow-Up</b> | <b>Timeline for Addressing Recommendation</b> |
|--|---|---|---|
| <b>1. Developing regular rotation of graduate courses.</b> | The Statistics group plans to return to the practice of holding regular meetings and recommending a slate of courses to the Department. This should help establish a more regular rotation of graduate courses in statistics. | Chair and Associate Chair (Statistics)      | Next three years                              |
| <b>2. Modernize the curriculum.</b>                        | A proposal for a new course STATS 790 Statistical Learning is attached. Also, STATS 6CI03: Computational Inference will be offered in Winter 2019 and will be offered on rotation with STATS 6I03: Inference.                 | Chair and Associate Chair (Statistics)      | 2018-2019                                     |



|  |   |   |                 |
|--|---|---|-----------------|
| <b>3. Maintain list of available courses from outside the program.</b> | Regrettably, relatively few students in the Stats MSc program take courses from outside the department. Having an up-to-date list of available courses might serve to increase the participation rate in such courses, and we will consult with other departments to help prepare and maintain such a list.   | Chair and Associate Chair (Statistics)                          | 2019-2020       |
| <b>4. Ensure the size of the Statistics group does not decrease.</b>   | One new tenure-track faculty hire in Statistics has been approved, with an anticipated start date of July 1, 2019. In addition, candidates in the current search for a teaching-track faculty member in Actuarial Science are expected to be able to contribute through the teaching of undergraduate courses in statistics. Nevertheless, the Stats group is concerned, with the pending retirement of Dr. Roman Viveros, the new hire will only maintain the current supervisory capacity in statistics; additional faculty hires in statistics will be needed to increase that capacity. | Chair   | Next five years |
| <b>5. Hire in modern areas of statistics.</b>                          | The Department is optimistic that it will be able to recruit a strong candidate working in an area of statistics that will help modernize the program.  | Chair, Associate Chair (Statistics), and Appointments Committee | Next two years  |
| <b>6. Improve quality of student office space</b>                      | The Chair is ultimately responsible for the allocation of all space within the department, including graduate offices. Right now, the department is experiencing a severe shortage of graduate desk space, and the situation will unfortunately get worse before it gets better, since next year a new class of M-Phimac students will all require office space as well. With the Faculty of Science in an improved financial situation, we are hopeful that new space in Hamilton Hall or in a nearby building will be allocated for use by our graduate students.                         | Chair   | Next five years |
| <b>7. More engagement with students.</b>                               | Towards the end of each Fall term, an electronic survey will be administered to solicit student feedback.   | Chair and Associate Chair (Statistics)                          | 2018-2019       |

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| <b>8. Provide Coursework students more experiential learning opportunities.</b>    | We plan to investigate potential experiential learning opportunities. Some concrete steps are addressed in response to points <b>9, 10, 12</b> below.   | Associate Chair (Statistics)           | 2019-2020        |
| <b>9. Introduce more co-op/internship opportunities</b>                            | We will continue to make students aware of MITACS, and similar, internships that they may wish to take advantage of. We will also investigate co-op options.  | Chair and Associate Chair (Statistics) | Next three years |
| <b>10. Modify Stats 770.</b>   | We are currently working on revamping STATS 770, the seminar course. We plan to submit a new proposal taking into account of all the above suggestions. The new format is expected to take effect in the academic year of 2019-2020.  | Associate Chair (Statistics)           | 2019-2020        |
| <b>11. Increase number of student awards.</b>                                      | At present, the extent to which students are aware of award deadlines depends on who happens to be teaching 400 level courses in the Fall term. Starting in Fall 2018, we will take a more strategic approach and include this information at the start of the third seminar of the Fall semester. Happily, one of our incoming Statistics M.Sc. students received an NSERC-CGS scholarship. Because she is also a graduate of our undergraduate program, this is especially good news. | Chair and Associate Chair (Statistics) | 2018-2019        |
| <b>12. Add experiential learning opportunities to graduate courses.</b>            | This already happens in part of STATS 780: Data Science and STATS 752: Linear Models and Experiment Designs, where students must complete and present a detailed project on non-trivial data for their final project. A similar approach will be taken with the new course STATS 790: Statistical Learning.   | Associate Chair (Statistics)           | Implemented      |
| <b>13. Renewal of external faculty involved in supervision within the program.</b> | We intend to actively recruit potential supervisors from other disciplines. Three recent hires from other departments have expressed interests in becoming associate members of the Master's program in statistics. Their names and home departments are: Dr. Youngki Shin (Economics), Dr. Sarmeer Parpia (Oncology), and Dr. Guillaume Paré (Pathology and Molecular Medicine).   | Associate Chair (Statistics)           | Next three years |

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| <p><b>14. Review workload of the graduate secretary.</b></p>   | <p>Submit a proposal for a new graduate staff position dedicated to the Departmental graduate programs. Note that we currently have less than one staff person to handle four separate graduate programs.</p>   | <p>Chair</p>                                  | <p>2018-2019</p>       |
| <p><b>15. Governance issues:</b></p> <p><b>(a)</b> Recognize research supervision outside one’s home department.</p> <p><b>(b)</b> Devise equitable ways for faculty to teach courses outside their home departments.</p> <p><b>(c)</b> Provide teaching credit for research supervision.</p> <p><b>(d)</b> Add more Statistics representatives on Appointments Committee.</p> | <p><b>15 (a)</b> This is a good point, and it is a problem that needs to be addressed at the decanal and university level.</p> <p><b>(b)</b> Another good point, one that again requires a solution at the decanal and university level.</p> <p><b>(c)</b> This suggestion has much merit, but presently our faculty resources are stretched thin simply mounting the courses for the program. Additional faculty members in Statistics would make it possible to implement a course-reduction scheme for rewarding graduate supervision.</p> <p><b>(d)</b> The review committee seemed to have been misinformed about departmental governance, and we take a moment to outline the department process for hiring new faculty.</p> <p>The Appointments Committee is an elected committee with one year terms and a two-year term limit. There is a constitutional provision that guarantees representation from at least one member of the Stats group, but there can be (and often are) additional members from the Stats group on the committee. This can occur through the election process, and it also occurs automatically whenever there is a targeted hire in statistics through the following mechanism.</p> <p>In a faculty search, a “hiring subcommittee” is struck, typically consisting of three members appointed by the Chair and working in the area. Such members, if not already elected, are added to the appointments committee for the given search (“add-ons”). The subcommittee is charged with proposing an initial slate of candidates, participating</p> | <p>Chair and Associate Chair (Statistics)</p> | <p>Next five years</p> |

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|  | <p>in skype interviews, recommending a short list for on-campus interviews, etc. For example, in a targeted search in statistics, additional members from the Stats group would be selected for the hiring committee.</p> <p>As well, all decisions made by the appointments committee are discussed in an open meeting with all department members invited to participate. Consensus is taken by means of a departmental straw vote, which (if supported) is moved by the appointments committee and formally voted upon. No system is perfect, but ours has the virtue of allowing direct input from all members of the department while also recognizing the expertise of members in the field (e.g. the Stats group), who are better equipped in making decisions on hires in their area.</p> |  |  |
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**Further Summary from the Department:**

The Department and Stats group is in general agreement with external reviewers’ executive summary:

*The master’s program in Statistics at McMaster has a history of excellence: attracting high quality applicants; delivering multidisciplinary learning and training; preparing students for highly competitive job market. With the recent addition of faculty specialization in Computational Statistics, the program has been invigorated. However, the program is currently at a crucial stage for meeting key challenges in maintaining/improving the quality of the program: limited number of 700-level Stats courses available to students; limited faculty resources compared to highly increased market demand for qualified statisticians; declined thesis supervision or multidisciplinary engagement by faculty members outside the department.*

Research in probability and statistics has been rapidly expanding in the last few years, mainly due to advances in computational technology and the explosive accumulation of data. The new science of big data and machine learning has emerged as an area of significant importance, with its many applications to health, medicine, business and commerce. Data science is also an area of strategic importance to the unit and to the faculty; for instance, it featured prominently as a field of strong interest at the recent Faculty of Science retreat and strategic planning session. The Department of Mathematics and Statistics is well-positioned to take a leadership role in developing training and research programs in big data science, and the faculty members in our unit, especially those working in Probability and Statistics, are well-positioned to make significant contributions to establishing McMaster in this new emerging field.

**Dean’s Response, Faculty of Science:**

The Dean would like to thank the members of the review team for their willingness to participate in the site visit and for preparing the external reviewers report. As is cited in the report, data science, and

therefore statistics in all of its various forms, will surely be a foundational part of many advancements at McMaster University in the future and therefore it is very important that we are informed about potential areas for enhancement of this academic program. The Dean would like to also thank the Department of Mathematics and Statistics for preparing the Program response to the review report.

The Dean noted that the reviewers' report highlighted several areas of strength including the "interdisciplinary flavour" of the current Master's Program in Statistics. The Dean applauded the initiative that has been taken to address the current trends in statistics and agreed with the majority of the recommendations presented and their associated action plans. There are a few areas of clarification and updates on progress that the Dean provided to some of the specific recommendations below.

Recommendation 9. Introduce more co-op/internship opportunities. In June of 2018, the budget for the Faculty of Science received approval for a number of new staff positions including a Career Integration Specialist who will be available to assist the Chair and Associate Chair in carrying forward the action plan related to this recommendation. The Career Integration Specialist will assist McMaster undergraduate and graduate students in the Faculty of Science to achieve the highest standard of professional development and career readiness in preparation for life after McMaster. The Career Integration Specialist will work closely with academic departments, career centre and student services staff, student groups, and other campus stakeholders to develop, implement and evaluate programs that embed career learning and development into curricular, co-curricular and extracurricular activities.

Recommendation 11. Increase number of student awards. The Associate Dean (Graduate) for the Faculty of Science has been directing a comprehensive review of graduate funding models in all programs in the Faculty of Science and that review is now ready for distribution to all programs. In agreement with the observations of the review team, the graduate programs in the Department of Mathematics and Statistics have some of the highest supervisor contribution rates, and highest percentage of international students along with some of the lowest percentage of students with external scholarship support. These data support the plans to increase efforts in terms of scholarship support for graduate students, increase the quality of the domestic students admitted to the program and continue to attract high quality international students. The comparison funding models used in other graduate programs in the Faculty of Science may also provide some insight in terms of alternative funding models for consideration by the program.

Recommendation 14. Review workload of the graduate secretary. The Dean agreed with this assessment in terms of the need for more administrative resources for the graduate programs in Mathematics and Statistics and, as such, has recently approved additional administrative staffing for this unit. There is also considerable effort being placed on improvements to the tools available to graduate administrators (MOSAIC) throughout campus.

Recommendation 15. Governance issues. (a) Recognize research supervision outside one's home department. The Dean was puzzled by both the review team recommendation and the Program response to this item. There are, the dean believes, two main ways in which research supervision conducted by faculty members is recognized at McMaster university and both allow for equal levels of recognition regardless of alignment of the "home" department of the student and the faculty member. In both the career, progress and merit scheme (CPM) and the tenure and promotion processes (T&P), faculty members are encouraged to identify all student supervision activities and research activities in all Departments and Faculties, and even outside of McMaster, and there is no indication or practice the Dean is aware of that prioritizes one category of activity above another.

Recommendation 15. Governance issues. (b) Devise equitable ways for faculty to teach courses outside their home departments. Similar to the Dean's response to item 15(a) above, there are currently mechanisms in place for cross-Department and cross-Faculty teaching. While many of these arrangements exist at the undergraduate level, the Faculty has also supported those activities at the graduate level in the past. There has been a period of considerable adjustment to the implementation of the current budget model at McMaster and to the impact on budget allocation practices within the Faculty of Science. The Dean is open to all proposals that support the academic goals and strategic plans of each unit and academic program, including the support of interdisciplinary activities at both the undergraduate and graduate level, and will work with the Department of Mathematics and Statistics to ensure that they are aware of models for implementing this type of collaborative activity.

Overall it will be important for the Department of Mathematics and Statistics to balance the increasing demands for resources and opportunities in the areas of Statistics and Data Science, with the need to maintain their excellence in fundamental mathematics. While the Dean agreed that the Faculty of Science should support continued investment in this program, it must certainly be balanced by the Faculty's needs to invest in many other areas in Science. As such the fostering of the interdisciplinary connections and activities of this program, and the new PhD program in statistics, will be essential in the future.

#### **Quality Assurance Committee Recommendations**

McMaster's Quality Assurance Committee (QAC) reviewed the above documentation and the committee recommends that the program should follow the regular course of action with a progress report and subsequent full external cyclical review to be conducted no later than 8 years after the start of the last review.