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 16th at 1:30 pm in Council Chambers (GH-111)**

Listed below are the agenda items for discussion.

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

A G E N D A

I. **Minutes of the meeting of April 18th, 2017**

II. **Business arising**

III. **Report from the Associate Vice-President 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 Assistant Dean, Graduate Student Life and Research Training**

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

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

XIII. **Graduate Calendar Administrative Sections Changes and Sessional Dates**

XIV. **Spring 2017 Graduands (to be distributed)**

McMaster University

School of Graduate Studies

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Hamilton, Ontario, Canada
L8S 4L8

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

Graduate Council
April 28th 9:30 am
GH 111

Present: Dr. D. Welch, Ms. S. Baschiera, Ms. C. Bryce, Dr. T. Porter, Dr. C. Hayward, Dr. B. Gupta, Dr. B. Ibhawoh, Dr. M. Thompson, Dr. N. Agarwal, Dr. S. McCracken, Dr. T. Adams, Dr. A. Deza, Dr. A. Kitai, Dr. B. Doble, Dr. L. Thabane, Ms. M. Badv, Mr. R. Narro Perez, Dr. E. Grodek, Dr. S. O'Brien, Dr. G. McClelland, Dr. A. Sills, Dr. A. Fudge Schormans, Dr. E. Badone

Regrets: Dr. M. Verma, Dr. I. Marwah, Dr. D. Pelinovsky, Ms. R. Estok

By Invitation: Mr. S Van Koughnett, Ms. A. Drew Hassling, Ms. M. Bennett Dr. E. Mohamed, Ms. T. Long, Ms. T. Bates

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A G E N D A

I.   Minutes of the meeting March 21st, 2017

The minutes of the meeting of March 21st, 2017 were approved on a motion by Dr. Agarwal, seconded by Dr. Porter.

II.   Business arising

There was no business arising.

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

Dr. Welch passed along the news that the vote on the referendum for the increase in metal wellness fees had passed by a 2 to 1 margin. He noted that Sean Van Koughnett was in attendance and could speak to it.

Mr. Van Koughnett said that he was thankful the issues that he had discussed at Graduate Council in January had been resolved. They had worked closely with GSA who decided they want to bring it back to a vote. Part of what the success came down to is that there an education piece that seemed to take hold in the latter stages. He noted that the service isn't free but when students looked at the numbers it seemed like they would get good value. On average the services were accessed 6 times. The 72 dollar increase would mean that each appointment would cost 12 dollars. He said that first time appointments are normally the same day. Accessing services outside the university would potentially cost much more money and involve long wait periods. The consensus was that this was a good solution. He said that even though the fee doesn't kick in until September,

the MSU has agreed to open up counselling as of May 1st. The funding will allow them to hire a couple of more mental health staff – approximately 2000 more hours of help will be available. Dr. Welch thanked everyone involved for their efforts.

Dr. Welch also reported that McMaster is working towards its second Strategic Mandate Agreement and that the first draft was being submitted that week. He noted that it had become clear that graduate allocation is one of the keys going forward and that there had been some signals from the province that they understand this. The next round of negotiation is in May.

Dr. Welch reported that the federal science review has been made public this month and that there has clearly been a commitment to make sure that the Haprer-era elimination plan is no longer the theme.   He recommended reading it and noted that it was a good signal all around in terms of support for fundamental research.

He also provided an update on admissions, noting that it has always been a trial in the new system. He reported that Ms. Baschiera had been leading a group of people to get it right in Mosaic. They have operationalized part of the referee section of the admissions module and have worked it through with a number of the graduate administrators. Everyone seems pleased. He noted that it would not actually in place until September along with other developments. The changes will dramatically reduce the number of unneeded interactions and therefore dramatically improve interactions when they need to happen. In terms of the existing system and work arounds and additional admissions person they have been able to keep to very close to up to date on offers. At this point in time for Domestic Ph.D. applications they are 50% ahead on acceptances which is a very good sign.

IV.   Report from the Graduate Associate Deans

There were no reports.

V.   Report from the Associate Registrar and Graduate Secretary

There was no report.

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

There was no report.

VII.   Academic Accommodation Policy

Mr. Van Koughnett noted that the process for revisions to the policy started two years ago. He commended Sue Baptiste, Allison Drew-Hassling and Michelle Bennet for their work on the policy. The document shows the process that it had gone through for revisions. The last revision to the policy was in 2003, when mental health

accommodations weren't on the radar. The old policy also didn't discuss experiential learning. The Human Rights Commission has chimed in to show what they would like to see in this policy. He noted the tension on this issue and said that in light of that he was sure that it would continue to evolve. They have committed to looking at it in a year's time to see how everything is working. One of the challenges is that accommodation can be very case-specific. They set a framework in the policy in which to allow academic units to navigate through these cases.

Dr. Sue Baptiste noted that there had been a huge learning curve with the development of the policy. They have designed the policy to literally end at the point of the school/program/faculty so that they can take over and deal with it at that stage. There has been some feedback about what the accommodations team looks like. She said that it could be whatever works for the unit in question.

Dr. Hayward noted that it was a much more improved version. One of the big changes that she saw in was the non-valued added parts of the process for associate deans had been removed. She noted the need for a minor edit on page 18 of the policy, as there was a duplicate reference on number 6. She suggested it would also be worthwhile to make friendly amendment to make a note of who is communicating the accommodation plan.

Dr. Thompson requested on edit under the guidelines point 34 a) on page 8 where it said students are not required to seek accommodations directly from professors. He wanted to remove the word 'required'. He noted that someone with good intentions could offer accommodations, and can set a precedent that is hard to unwind in these cases. It should be very forceful to really directing student to SAS. Mr. Van Koughnett responded that that particular wording was a requirement of the human rights commission. Ms. Bennett noted that the second sentence could be changed. Dr. Welch agreed with Dr. Thompson noting that it could cause confusion people who are trying to do the right thing but those that don't understand the consequences. He said it could be phrased more positively to say 'students seeking accommodation from their professors, TA etc. should be directed to SAS.' Ms. Drew-Hassling suggested that they also add 'faculty office' to articulate there are two pathways.

Mr. Van Koughnett said that the faculty offices wouldn't want certain types of accommodation to go to SAS. Ms. Bennett said that if that change is made it will also need to be reflected in 22 a) referring to all accommodation requests.

Council members discussed students going to SAS versus the faculty office. Dr. Welch noted that Faculty Offices tend to have some appropriate training to assist. Ms. Bennet said it should be noted that anyone with a

permanent disability is supposed to go to SAS. Temporary and retroactive accommodations can be handled by the Faculty Office. Dr. Porter asked if graduate students would also go to the faculty office. Ms. Bennett responded that the School of Graduate Studies would be the faculty office and that in the definitions section it clarifies that graduate students are directed to the associate dean in SGS.

A council member noted that currently there are issues with the availability of simple accommodations like a note taker. He asked whose responsibility it is if an accommodation can't be met as it seems it is often a problem and wondered if this should be articulated in the policy. Mr. Van Koughnett responded that policy is one thing implementation is another and that escalating demand always creates challenges.

A council member suggested that to ensure clarity 34 a) and 22 a) should be edited to find a way to include teaching assistants.

A council member asked about confidentiality and whether or not in a department meeting, if a student accessibility issue comes up, they were allowed to discuss as a group. Ms. Bennett responded that they would have to justify the need to discuss it in that context and anonymize it as best they can. She noted that the need for accommodation shouldn't be discussed at departmental level and should only be discussed with those directly affected.

Dr. Agarwal asked about the role of SAS in retroactive accommodations and noted that there was no reference to an accommodation plan. Mr. Van Koughnett responded that retroactive accommodations are primarily requests to have an adjustment to a mark/course. Academic decisions that lay within the academic unit. Dr. Baptiste said that if it turns into a long term accommodation, SAS would get involved. Ms. Bennett noted that with retroactive accommodation it's after the fact, going back and correcting a record and that the contextual piece matters (ie. how soon after the event they sought accommodation). The faculty office can still work with SAS about whether the functional limitations would warrant accommodation. As far as accommodation plans are concerned they're for accommodations going forward. She noted that the Graduate and Undergraduate Calendars would have to be adjusted to include the requirements for retroactive accommodations.

Dr. Hayward asked for clarification on the paperwork that would get submitted, asking if it would still come in as a petition for special consideration. Ms. Bennett responded that some information could stay in the same form but that some additional documentation will be created, creating a standard for retroactive accommodations. She also noted that petitions will stay in the calendar but that adjustments will be needed to both calendars once the policy is approved.

Dr. Agarwal commented that there are some academic programs that have a co-op work term or internships and asked how accommodations would be handled there. Dr. Baptiste responded that there is a section there referring to off-site work and how to deal with these situations.

Dr. Porter noted that, as an associate dean, if he received a request for retroactive accommodation he would consult with SAS if that should be accommodated and asked if this correct. Dr. Baptiste responded that for retroactive accommodations they are articulated by the student first, go to faculty office, then it can go through SAS to build a plan if a long term accommodation is required. She said it's a mutual thing with all offices and the student working together. Ms. Drew-Hassling said the discretion is upon the individual about how they engage SAS in that case. Retroactive is a historical issue and the student may have not even registered with SAS. They can ask SAS to assist with context but each situation can be different. Dr. Porter asked if associate deans should be reviewing documentation.   Ms. Drew-Hassling responded that they could review documentation that supports the application for retroactive accommodation.

A council member noted some language around retroactive accommodation where it states the student was 'unaware' of the need for accommodation at the time and asked how someone could determine if a student was unaware. Dr. Welch responded that this is an area where there isn't a clear answer but that this is also an area where the province has decided that the need exists and that the institution has to find a way to address these kinds of accommodations. There will never be full certainty on any decisions that have to be made but it really boils down to whether the process is optimal for trying to make the right decisions. Dr. Baptiste noted that they are developing an implementation where people will report on problems they have.

Dr. Welch said that this is something that graduate deans are discussing frequently and that they are very good about sharing experience and best practices.

A council member asked for more detail about the academic accommodations teams role and how they come into play. Dr. Baptiste responded that the term is meant to incorporate a number of contexts and that the group should be made up of people who can support and make decisions. The Faculty of Health Sciences already has a committee they will utilize. Others may find one person is particularly keen to be involved. The council member asked if each Faculty will have to have an academic accommodations team. Dr. Baptiste responded that they will have to have a go-to person or team.

A council member asked if how students will students be aware of that person. Another council member asked if it would be at the Faculty or Departmental level. Dr. Baptiste responded it will be up to the Faculty to decide. The council member noted some concern with the vagueness and that there could be confusion about responsibility. Dr. Baptiste responded that it would be up to the supervisor and accommodations person to clarify. They can provide insight and receive updates from commission.   Ms. Bennett responded that the accommodation team is there is a resource for the decision maker. They're there to provide knowledge and expertise and would not be dealing directly with students.

The council member asked if they can be specified within the document. Dr. Baptiste responded that that's the application of the policy, not the policy itself and it would be too much detail to go into there. Ms. Bennett noted that it does say in the policy that it's an informal network. They will complement SAS and support associate deans. It says that they're not decision makers.

Dr. Welch said that this is the sort of policy where there is some level of discomfort in our lack of experience. Dr. Baptiste reiterated that the team is working on an implementation plan and that they'll take all of this into account.

A council member commented that at the graduate level petitions are handled at the department level, which she thought was easiest and most efficient for students. She said that for graduate students it seems like a level of bureaucracy is being added because instead of going to the department they're going to the associate dean. She thought that temporary accommodations are already dealt with quite well at department level. Dr. Welch suggested that this was a different interpretation. The petition does indeed have what a student writes on it and the perspective of supervisor and chair but it is still the associate dean that makes decisions. There have been many instances where associate deans have made a decisions other than what was suggested. The council member said that the interface is different. Student will have to go to the associate dean instead of the department and noted the importance of structure. Dr. Welch responded that yes that would be the case but he would be surprised if they associate dean didn't check in with the department. Ms. Bennett noted that students don't have to disclose information to chair or instructors.

Dr. Hayward moved and Dr. Thompson seconded, 'that Graduate Council approve the policy as set out in the document, with the revisions requested.'
The motion was carried.

VIII.   **Senate Policy on Diplomas and Certificates**

Ms. Baschiera explained that the old policy was silent with respect to graduate certificates. It now speaks to the different types of graduate diplomas and refers to IQAP policy for actual approval process for these diplomas. The certificates part is biggest change at the graduate level. They will be a minimum of three courses and can be part of another degree, counted towards both. She noted this is separate from IQAP which still address new programs and diplomas.

A council member asked about Water Without Borders and asked how a graduate certificate like that would be done with a partner institute. Ms. Baschiera responded that Water Without Borders is a diploma and noted that certificates are intended at the graduate level to highlight a competency.

Dr. Gupta moved and Dr. Hayward seconded, 'that Graduate Council approve the policy as set out in the document, conditional on the approval of Undergraduate Council'

The motion was carried.

IX.   University Aid and Awards Policy

Ms. Baschiera explained that this policy has been revised to harmonize the approach to student awards between undergraduate and graduate processes. It outlines the high level governance of how they're approved and specific award information will be outlined separately for graduate and undergraduate.

A council member noted that they tried to keep the process out of the policy. Process stays in the respective calendars and this is more about establishing awards.

Dr. Hayward moved and Dr. Sills seconded, 'that Graduate Council approve the policy as set out in the document, conditional on the approval of Undergraduate Council'

The motion was carried.

X.   Academic Program Review (IQAP) Policy

Ms. Baschiera explained that the document in front of graduate council contained tweaks based on changes in process and documentation since the initial introduction of the policy in 2011. The work had been done by the MacPherson Institute and the School of Graduate Studies with input from an advisory group.

An attendee noted a small correction for section 7.4 where the word 'provost' needed to be added.

Dr. Deza moved and Dr. Agarwal seconded,

'that Graduate Council approve the policy as set out in the document, conditional on the approval of Undergraduate Council.'

The motion was carried.

XI.   Faculty of Business Graduate Curriculum and Policy Committee Report

Dr. Agarwal reported on three items coming for approval. The first was from the Master of Finance program who proposed changes to their admission, course requirements and calendar copy to reflect those changes. The proposed changes to admission requirements was to modify the current requirement of two academic letters of recommendations. The Master of Finance is a professional program and they have experienced a significant number of applicants who are professionals. They would like to change the requirement of two academic references to at least one academic reference to allow for a professional reference. The second change they proposed around their admission requirement relates to the statement of interest. Dr. Agarwal noted that typically information provided in the statement is used to find a supervisor so it is more relevant to research-based degree and the Master of Finance does not find value in requiring the statement. In terms of course requirements, they currently have 15 courses - currently 11 are required and 4 are electives. The proposed change would increase the number of required and reduce the number of available electives. The calendar copy reflects those changes as well as providing clarity around requirements.

Dr. Ibhawoh noted that the statement of interest helps with finding supervisors but is also an index for evaluation and can help to get a sense of candidates' suitability for the program. He asked if the program had considered that. Dr. Agarwal responded that they tend to get that information from other sources.

A council member agreed with the statement of interest comment. One of the objectives is for the candidate to show they have an interest in graduate school. Dr. Agarwal responded that one of the expectations is that they submit a CV and two letters of recommendation. He also noted that the fact that they've applied is their measure of interest.

Dr. Ibhawoh noted that without the statement of interest potential applicants are considered without any sense of their writing. He said that it was ultimately the programs decision but was concerned that there would be no evidence of competency in this respect. Dr. Agarwal responded that the Master of Finance is a highly quantitative program and that there are other ways to judge their written competencies. Most of their applicant pool are visa students to they're required to write a written test to prove proficiency. Dr. Welch noted that this is up to the discretion of the program. If they find they're missing information they can come back and change it again.

The second curriculum change that Dr. Agarwal presented related to the Masters of Health Management. It is a collaborative program between the DeGroote School of Business and the Faculty of Health Sciences and is currently only offered on a part-time basis. They wish to add a full time option. This will involve no changes to curriculum and the proposed implementation date is September 2018.

Dr. Hayward commented that she was not sure this had gone to the Faculty of Health Sciences. Ms. Bryce confirmed that it had back in the fall term. Dr. Agarwal noted that it had been delayed on the Business side with some issues that were then resolved.

Dr. Agarwal presented two final changes from the M.B.A. program. The first one was from the Supply Chain Management specialization. The only change was removing one course from a list of elective options.

The second change proposed by M.B.A. was removing the DeGroote Days requirement as part of year 1 curriculum. In the old curriculum there were two mandatory workshops and now the content of these have been absorbed in new year one curriculum.

Dr. Agarwal moved and Dr. Deza seconded, 'Motion: 'that Graduate Council approve the proposed changes as described in the documents.'
The motion was approved with one abstention.

XII.   Faculty of Science Graduate Curriculum and Policy Committee Report

Dr. Gupta explained that there were three changes requiring approval: one from Kinesiology, one from Medical Physics and one from Psychology. He noted that also included in the report were a number of course changes for information. Kinesiology proposed decreasing their course requirements for the M.Sc. The intention is that students spend more time on their research. Medical Physics added an additional course as an option to complete degree requirements and the course will offer valuable skills for employability. The final changes were from Psychology and related to the Research and Clinical Training Stream. The stream has limited enrollment and they changed the language around admissions to make that clear and to their requirements to make clear what is expected from students in the program.

Dr. Deza moved and Dr. Thompson seconded, 'that Graduate Council approve the proposed changes as described in the documents.'
The motion was carried.

XIII.   Graduate Program Handbook Checklist

Dr. Hayward explained that graduate program handbooks contain supplemental rules and regulations that govern a student's academic progress. As the Faculty of Health Sciences started to deal with implementing a formal handbook approval process, they realized they didn't have any guidelines or checklist for what should be included in a handbook and that having such a thing would help with best practices. Dr. Hayward noted that she had been the chair of the working group to deal with this.
The beginning of the checklist highlights that the handbook should contain information that is not included in the Graduate Calendar.   The checklist document is organized in terms of what programs should consider putting in different sections and includes links to documentation to be updated on an annual basis. Also included is a process checklist which notes that there should be an annual review of handbooks, and

encourages engaging reviewers from different areas for feedback. The document also indicates that Faculty associate deans set the deadline for review. They are encouraging all programs approved to have their handbooks approved by May of next year.

The document also notes that approved handbooks should be publicly posted. Minor changes can be approved by the associate dean but major changes would go through the faculty curriculum committee.

A council member noted that a lot of the information in the main body is the same for everyone or very similar and asked if there were templates or examples to choose from. Dr. Hayward noted that they found a difference between clinical training programs and research based. There may be advantages to looking at several different handbooks. Ms. Baschiera noted that they could pull together a handful of examples.

A council member asked for clarification on what is meant by minor changes and asked if the associate dean needs to approve all minor changes. Dr. Hayward responded that it's supposed to be the Graduate Admissions and Study Committee, which the associate deans act on behalf of. If there are minor updates related to changes in staffing and nothing related to policies of the program, it's easy for the associate dean to just approve the update handbook. She noted that they have been doing this for several years in FHS. The ones that come to the committee are those with substantial changes or brand new handbooks. When they first started going through formal approval the faculty had them all reviewed which programs found helpful.

A council member noted that there shouldn't be anything in the handbook that isn't already approved in some ways. Dr. Hayward agreed that that should be the case but it's always necessarily true in practice and noted that some of them have specific policies related to the program, like absences from clinical placement. She noted that the handbooks are supposed to be formally reviewed and approved and in some cases had not been for some time.

Dr. Hayward moved and Dr. Agarwal seconded, 'that Graduate Council approve the program handbook checklist as set out in the document.'
The motion was carried.

XIV. **Faculty of Health Sciences Spring 2017 Graduands**

Dr. Deza moved and Dr. Thompson seconded 'that Graduate Council approve the list of the 2017 Spring Graduands, with amendments/corrections to be made as necessary by the Associate Graduate Registrar.'
The motion was carried.

XV. **New Scholarship**

Dr. Deza moved and Dr. Hayward seconded, 'that Graduate Council approve the new scholarship as set out in the document.'

The motion was carried.

XVI.   Change to Scholarship Committee Membership

Dr. Deza moved and Dr. Hayward seconded, 'that Graduate Council approve the scholarship committee membership change as set out in the document.'

The motion was carried.

To   :   Graduate Council

From   :   Christina Bryce
                Assistant Graduate Secretary
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At its meeting on March 8th and April 20th and via e-ballot on April 21st the Faculty of Engineering Graduate Curriculum and Policy Committee approved the following graduate curriculum recommendations.

Please note that these recommendations were approved at the May 9th meeting of the Faculty of Engineering Meeting.

FOR APPROVAL OF GRADUATE COUNCIL:

- ▪ **Change to Admission Requirement (Language Requirement)**

- ▪ **School of Engineering Practice and Technology**
  - • **Manufacturing Engineering**
    - o Change to Calendar Copy – Advanced Credit

  - • **Engineering Design**
    - o Change to Calendar Copy – Advanced Credit
    - o Change to Course Requirements

- ▪ **Computing and Software**
  - • M.Eng. Degrees Merger

- ▪ **Engineering Physics**
  - • **Change to Program Requirements**

FOR INFORMATION OF GRADUATE COUNCIL:

- ▪ **Chemical Engineering**
  - • **New Course**
    - o 763 Linear Dynamical Systems: Estimation and Control
  - • **Change in Course Title and Description**
    - o 753 Process Modelling and Optimization

- ▪ **Civil Engineering**
  - • New Course

- o 749 Numerical methods in water and wastewater treatment processes

- **Electrical and Computer Engineering**
  - **New Course**
    - o 737 Radar Systems
  - **Change in Course Description**
    - o 745 System-on-a-Chip (SOC) Design and Test- Part 2: Algorithms

- **Engineering Physics**
  - **Course Cancellations**
    - o 6K03 Optical Communications
    - o 717 Pollution Control Plasma Technology
  - **New Courses**
    - o 700 Graduate Seminars (Master's)
    - o 701 Graduate Seminars (Ph.D.)
    - o 707 Nuclear Fuel Cycle and Radioactive Waste Management
    - o 708 Quantum Materials, Devices, and Systems

- **Materials Science and Engineering**
  - **New Courses**
    - o 721 Advanced Thermodynamics and Phase Transformations
    - o 723 Functional materials
    - o 724 Materials Characterization by Electron/Ion Microscopy
    - o 725 Transmission Electron Microscopy
    - o 726 Advanced Topics in Electrochemistry
    - o 727 Advanced Topics in Heterogeneous Kinetics

  - **Change in Course Descriptions**
    - o 754 Fracture Mechanics
    - o 755 Deformation of Crystalline Solids
    - o 760 Electronic Materials

  - **Course Cancellations**
    - o 6E04 Computational Modeling of Microstructure Formation
    - o 6R03 Ceramic Science
    - o 711 Advanced thermodynamics
    - o 712 Phase transformation
    - o 714 Phase field methods in microstructure modeling
    - o 720 Point defects and materials behaviour
    - o 731 Introduction to electron microscopy
    - o 732 Analytical electron microscopy
    - o 733 Material characterization by electron microscopy
    - o 740 Interfacial phenomenon in materials science
    - o 743 Advanced topics in corrosion science and engineering

- o 745 Electrochemical techniques: theories and applications
- o 765 Selected Topics in Polymer Science and Engineering
- o 773 Properties of metallurgical slag
- o 774 Injection metallurgy
- o 775 Physical and mathematical modelling in materials processing

- **Mechanical Engineering**
  - **New Courses**
    - o 759 Hardware Prototyping Tools and Methods
    - o 760 Electric Drive Vehicles
    - o 761 Industrial Components, Networks and Interoperability

- **School of Engineering Practice and Technology**
  - **New Courses**
    - o 6CS3 Computer Security
    - o 6DV3 Vehicle Dynamics
    - o 6IC3 Industrial Networks and Controllers
    - o 6MS3 Modelling and Simulation
    - o 701 M.Eng. Project in Engineering Design
    - o 768 Special Topics in Additive Manufacturing
    - o 769 Systems Engineering & Cyber Physical Systems
    - o 774 Nanobiotechnology

  - **New Cross-Listed Course**
    - o 767 Multivariate Statistical Methods for Big Data Analysis and Process Improvement

  - **Change to Course Title**
    - o 6PD3 Power Distribution II
    - o 6X03 THE REGENERATION IMPERATIVE: Liveable Cities Revitalization of Built and Natural Assets

McMaster University **SCHOOL OF GRADUATE STUDIES**

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed. 2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca). 3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Faculty of Engineering, all graduate programs (excluding UNENE)		
NAME OF PROGRAM and PLAN			
DEGREE	MEng, Dipl, MASc, PhD		
NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)* **Is this change a result of an IQAP review? ☐ Yes ☐ No**			
CREATION OF NEW MILESTONE ☐			

CHANGE IN ADMISSION REQUIREMENTS	X	CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	
CHANGE IN THE DESCRIPTION OF A **SECTION** IN THE GRADUATE CALENDAR	Y	**EXPLAIN:** Change the listed faculty minimum for language requirements on admissions			
OTHER CHANGES		**EXPLAIN:**			

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

Listed on website " for the Faculty of Engineering a minimum score of 80 (internet based) or 213 on the (computer based) or 550 (paper based)"

Graduate Calendar " In Engineering, some programs require a minimum score of 80. Please check with the program to see specific requirements"

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

The Faculty of Engineering wishes to raise its minimum language requirements from 80 to 88 TOEFL (internet based).

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 faculty wishes to raise the incoming language requirements of its graduate students to align with neighbouring universities, improve TA interactions with undergraduate students, and hopes to reduce misinterpreted questions related to the comprehensive exam. It will also align the stated minimum with eligibility for TAs in our faculty.

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

September 2017

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):

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.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Michael Thompson   Email: mthomps@mcmaster.ca   Extension: 23213   Date submitted: Feb. 14, 2017

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

SGS/2013

McMaster University **SCHOOL OF GRADUATE STUDIES**

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DEPARTMENT	W Booth School of Engineering Practice and Technology
NAME OF PROGRAM and PLAN	Master of Engineering in Manufacturing Engineering (MEME)
DEGREE	**M.Eng**

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

CREATION OF NEW MILESTONE ☐

CHANGE IN ADMISSION REQUIREMENTS		CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	X	**EXPLAIN:** Allow listed 600-level courses as advanced credit in MED			
OTHER CHANGES	**EXPLAIN:**				

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

Advanced credit is allowed for certain 600-level courses, the department wishes to expand this option

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

Allow the following courses to be eligible for advanced credit in MEME

SEP 6AS3 / Advanced System Components and Integration
SEP 6AT3 / Conceptual Design of Electric and Hybrid Electric Vehicles
SEP 6DM3 / Data Mining
SEP 6PD3 /Power Distribution II
SEP 6TB3 /Biotechnology III/Advanced Biotechnology
SEP 6PM3 / Management of Technical Projects
MANUF 6RM3 / Robot Mechanics and Mechatronics 6BI3 Bioinformatics
6CS3 Computer Security
6DA3 Data Analytics and Big Data
6ES3 Real-Time Systems
6SS3 System Specification and Design

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?):

New 600-level courses are being added to the curriculum to enhance the SEPT graduate curriculum while also building pathways for undergraduate (BTech) students into SEPT graduate programs.

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

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

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

See attached

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

SGS/2013

Students may receive advanced credit for up to two the following courses (note that a maximum of two 600-level courses can count towards a SEPT graduate program).

Only a student enrolled in their final year of a Bachelors of Engineering or Technology at McMaster University immediately entering a SEPT graduate program can be eligible for advanced credit. There can be no banking, no retroactive accommodations and no offer for students outside of Engineering to

participate in the advanced credit option.

SEP 6AS3 / Advanced System Components and Integration
SEP 6AT3 / Conceptual Design of Electric and Hybrid Electric Vehicles
SEP 6DM3 / Data Mining
SEP 6PD3 /Power Distribution II
SEP 6TB3 /Biotechnology III/Advanced Biotechnology
SEP 6PM3 / Management of Technical Projects
MANUF 6RM3 / Robot Mechanics and Mechatronics
6BI3 Bioinformatics
6DA3 Data Analytics and Big Data
6ES3 Real-Time Systems
6SS3 System Specification and Design

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SCHOOL OF GRADUATE STUDIES

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

<table>
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<table>
<tr><td>**DEPARTMENT**</td><td colspan="2">W Booth School of Engineering Practice and Technology</td></tr>
<tr><td>**NAME OF PROGRAM and PLAN**</td><td colspan="2">Master of Engineering Design (MED)</td></tr>
<tr><td>**DEGREE**</td><td>**M.Eng**</td><td></td></tr>
<tr><td colspan="3">**NATURE OF RECOMMENDATION** *(PLEASE CHECK APPROPRIATE BOX)*

Is this change a result of an IQAP review? ☐ Yes ☐ No</td></tr>
<tr><td colspan="3">**CREATION OF NEW MILESTONE ☐**</td></tr>
</table>

<table>
<tr>
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<td>**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**</td><td></td>
<td>**CHANGE IN COURSE REQUIREMENTS**</td><td></td>
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<td colspan="2">**CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR**</td>
<td>X</td>
<td colspan="3">**EXPLAIN:**

Allow listed 600-level courses as advanced credit in MED</td>
</tr>
<tr>
<td colspan="2">**OTHER CHANGES**</td>
<td colspan="4">**EXPLAIN:**</td>
</tr>
</table>

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

Advanced credit is allowed for certain 600-level courses, the department wishes to expand this option

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

Allow the following courses to be eligible for advanced credit in MED

6DA3 Data Analytics and Big Data
6ES3 Real-Time Systems
6PQ3 Power Quality
6SS3 System Specification and Design

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?):

New 600-level courses are being added to the curriculum to enhance the SEPT graduate curriculum while also building pathways for undergraduate (BTech) students into SEPT graduate programs.

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

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

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

See attached

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Yvonne Maidment Email: maidmeny@mcmaster.ca   Extension: 26403 Date submitted: October 10, 2016

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

SGS/2013

Graduate Calendar – MED

Engineering Design, M. Eng. Design

⇦ Return to: Faculty of Engineering

Innovative new designs and the ability to improve performance of existing systems have become a basis for a competitive advantage in the markets. Performance, environmental sustainability, safety, and efficiency are integral parts of the requirements in the design of industrial products, large-scale systems, or software solutions. Within this complex set of constraints, successful engineers and engineering managers must be able to lead transformation of an idea to a complete design by working in interdisciplinary teams. The Master of Engineering Design program provides its participants with technical expertise and leadership capabilities required to invent novel solutions and to lead technically oriented organizations. Strong emphasis on solving engineering problems from industrial practice is accomplished via industrial motivated and supported projects.

The M.Eng. Design program emphasizes development of competencies in:

Leadership, collaboration, and management skills to lead diverse teams.
Design thinking and innovations methodologies
Engineering disciplines leading to breakthrough design and operation of systems in:
Sustainable community infrastructure (renewable energy systems, environmental systems, sustainable products and systems design, local economy)
Process industries (refining, chemicals, specialty chemicals, pharmaceuticals, power, oil and gas production, and similar)
Manufacturing of industrial and consumer products

Admission

In addition to the general requirements for entry into a graduate program in Engineering, students must hold a 4-year engineering undergraduate degree or equivalent, with at least a B- average (equivalent to a McMaster 7.0 GPA out of 12) in the final year in all courses in the discipline, or relating to the discipline, in which the applicant proposes to do graduate work. Students with a degree in Science, Technology and Mathematics background will also be considered.

Strong letters of recommendation are also required. Each applicant will also be interviewed as part of the admission process. Professional work experience will be highly desirable.

Candidates may be enrolled on a full- or part-time basis. Full-time students will complete the degree in twelve consecutive months of study. Students are admitted for September or January. Part-time students will normally be expected to complete the program in two years.

Prospective applicants who did not attain the required standing in their undergraduate degree, but who have at least four (4) years of relevant work experience, should discuss their situation with the Program Lead. If the experience is deemed sufficient, the Program Lead may then recommend an interview. Evidence of ability to do graduate work will still be required. (See Sections 2.1.1 Admission Requirements for Master's Degree and 2.1.5 Admission of Students with Related Work Experience or Course Work beyond the Bachelor's Degree in the Graduate Calendar.)

Students who take Leading Innovation and/or Entrepreneurial Opportunity Identification may be granted advanced standing for these required courses upon registration in SEP programs.

Students may receive advanced credit for up to two the following courses (note that a maximum of two 600-level courses can count towards a SEPT graduate program).

Only a student enrolled in their final year of a Bachelors of Engineering or Technology at McMaster University immediately entering a SEPT graduate program can be eligible for advanced credit. There can be no banking, no retroactive accommodations and no offer for students outside of Engineering to participate in the advanced credit option.

SEP 6AS3 / Advanced System Components and Integration
SEP 6AT3 / Conceptual Design of Electric and Hybrid Electric Vehicles
SEP 6BC3 / Building Science
SEP 6DM3 / Data Mining
SEP 6PD3 /Power Distribution II
SEP 6EL3 / Leading Innovation
SEP 6E03 / Entrepreneurial Opportunity Identification
SEP 6TB3 /Biotechnology III/Advanced Biotechnology
SEP 6PM3 / Management of Technical Projects
MANUF 6RM3 / Robot Mechanics and Mechatronics
6DA3 Data Analytics and Big Data
6ES3 Real-Time Systems
6PQ3 Power Quality
6SS3 System Specification and Design

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Curriculum

Candidates will be required to complete satisfactorily the equivalent of at least three full courses, plus full-time students must successfully complete SEP 771.

The curriculum has five main components:

1. Leadership and Management Capabilities courses that will enable M.Eng. Design graduates to deal with complex situations in the work environment, to lead teams, and to manage projects.
2. Interdisciplinary engineering courses in product design, project management, and risk management.
3. Core technical courses that provide expert knowledge in targeted technical areas.
4. Elective courses that allow students to acquire broader expertise in the technical areas which are at the centre of their studies.
5. An industrially oriented project that solves complex problems requiring synthesis of knowledge from several disciplines and presenting the students with an opportunity to develop the solution in an industrial environment.

Process and Production Systems

Master of Engineering Design program in the field of Process and Production Systems provides advanced competencies for engineers and supervisors typically working in:

Process Design
Advanced Process Control
Plant Operations

Process Industry Oriented R&D
Control Systems and Software

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

Required Courses

Candidates are required to take the following:

SEP 760 / Design Thinking
SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum (Full-students only)
SEP 772 / Innovation Studio
SEP 773 / Leadership for Innovation

Electives

Candidates are required to select four half courses which should be selected from graduate courses offered by departments within the Faculty of Engineering. Candidates are required to have their elective course selection approved by the program lead.

Process Design, Process Control, or Plant Operations
Recommended courses for candidates focusing on *Process Design, Process Control, or Plant Operations* include:

SEP 751 / Process Design and Control for Operability
SEP 752 / SYSTEMS MODELING AND OPTIMIZATION
SEP 6C03 / Statistics for Engineers
SEP 754 / Process Design and Integration for Minimal Environmental Impact
CHEM ENG 752 / Optimization of Chemical Processes
CHEM ENG 765 / Multivariate Statistical Methods for Process Analysis and Monitoring

Control Systems Engineering
Recommended courses for students with a background or interest in *Control Systems Engineering* are:
CAS *6CD3 / Distributed Computer Systems
CAS*6EB3 / Database Management System Design
CAS 704 / Embedded, Real-Time Software Systems
CAS 703 / Software Design
CHEM ENG 6E03 / Digital Computer Process Control
ECE*726/ Local Area Networks in Manufacturing Environment
ECE 732 / Non-linear Control Systems
ECE 771 / Algorithms for Parameter and State Estimation
ECE 772 / Neural Networks and Learning Machines

Product Design

Innovation and creative system, solutions, or product design are emphasized through problem solving via interdisciplinary teams in a design studio environment, while learning about the use of materials in product design and design for manufacturing are led by the faculty who are also members of

McMaster's advanced centres (including Centre for Automotive Materials, Manufacturing Research Institute, Institute for Polymer Production Technology and the Centre for Advanced Polymer Processing and Design). The interdisciplinary nature of the program enables its participants to work on a variety of designs, such as industrial machinery, consumer products, automotive, etc.

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

Mandatory Courses

Candidates are required to take the following:

SEP 760 / Design Thinking
SEP 763 / Special Topics in Engineering Design
SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum (full-time students only)
SEP 772 / Innovation Studio
SEP 773 / Leadership for Innovation

Electives

Candidates are required to take three half courses which should be selected from graduate courses offered by departments within the Faculty of Engineering. Candidates are required to have their elective course selection approved by the program lead.

SEP 760 / Design Thinking
SEP 761 / Human-Centred Design

Sustainable Community Infrastructure

Candidates in this field of study cover various aspects of the design of sustainable communities, including:

Public realm spaces (parks, sidewalks, recreation facilities)
Storm water management
Housing and energy efficient buildings
Development of local business
Sustainable transportation systems
Sustainable energy generation

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

Mandatory Courses

Candidates are required to take:

SEP 760 / Design Thinking
SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum (full-time students only)
SEP 772 / Innovation Studio
SEP 773 / Leadership for Innovation

Electives

Candidates are required to take four elective courses, which should be selected from graduate courses offered by departments within the Faculty of Engineering. Suggested courses in sustainable energy systems and manufacturing are:

SEP 6I03 / Sustainable Manufacturing Processes
SEP 705 / Green Engineering, Sustainability and Public Policy
SEP 746 / Design of Sustainable Community Infrastructure
SEP 747 / Energy Efficient Buildings
SEP 748 / Development of Sustainable Communities

Candidates are required to have their elective course selection approved by the program lead.

⬅ Return to: Faculty of Engineering

McMaster University

SCHOOL OF GRADUATE STUDIES

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).
3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	W. Booth School of Engineering Practice and Technology		
NAME OF PROGRAM and PLAN	Engineering Design		
DEGREE	**M. Eng. Design**		

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

CREATION OF NEW MILESTONE ☒

CHANGE IN ADMISSION REQUIREMENTS		CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	x
CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR		EXPLAIN:			
OTHER CHANGES	EXPLAIN:				

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

1. Students are required to take SEP 762 Prototyping tools and methods
2. Students are required to take SEP 763 Special Topics in Design, which is a team-based project analysis, presentations of the project content, critique, feedback.
3. Students start working on project identification in the Fall and then proceed to work on the actual project in Winter and throughout the summer. There is no formal credit and the evaluation is only pass or fail.

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

1. Since some of the students come to the program with the knowledge covered in SEP 762, the change is to make SEP 762 an elective course.
2. Remove the requirement that SEP 763 be mandatory for all MED students.
3. Introduce a new course to cover the work on the M.Eng. project. This work is done over 2 semesters.
   - SEP 7xx M.Eng Project in Engineering Design

   The courses will be mandatory for all students.

   Total number of courses that a student needs to take will be:

   6 courses (18 units) + 1 project courses (6 units)..

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 will enable us to grade the actual project and formalize the fact that the students work on the project over 2 terms.

The student workload remains the same as it is now. The proposed changes provide more structure to the project work.

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

September 1, 2017

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):

See below

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Vladimir Mahalec Email: mahalec@mcmaster.ca   Extension: 26386 Date submitted: Apr. 4, 2017

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

SGS/2013

Curriculum

Candidates will be required to complete satisfactorily the equivalent of at least three full courses, plus full-time students must successfully complete SEP 771.

The curriculum has five main components:

1. Leadership and Management Capabilities courses that will enable M.Eng. Design graduates to deal with complex situations in the work environment, to lead teams, and to manage projects.
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- Process Industry Oriented R&D
- Control Systems and Software

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- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum (Full-students only)
- SEP 772 / Innovation Studio
- SEP 773 / Leadership for Innovation

Electives

Candidates are required to select four half courses which should be selected from graduate courses offered by departments within the Faculty of Engineering. Candidates are required to have their elective course selection approved by the program lead.

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Recommended courses for candidates focusing on *Process Design, Process Control, or Plant Operations* include:
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- SEP 752 / SYSTEMS MODELING AND OPTIMIZATION
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- SEP 754 / Process Design and Integration for Minimal Environmental Impact
- CHEM ENG 752 / Optimization of Chemical Processes
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Recommended courses for students with a background or interest in *Control Systems Engineering* are:
- CAS *6CD3 / Distributed Computer Systems
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- CAS 704 / Embedded, Real-Time Software Systems
- CAS 703 / Software Design
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The following course requirements need to be fulfilled by the candidates:

Mandatory Courses

Candidates are required to take the following:

- SEP 760 / Design Thinking
- ~~SEP 763 / Special Topics in Engineering Design~~
- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum (full-time students only)
- SEP 772 / Innovation Studio
- SEP 773 / Leadership for Innovation

Electives

Candidates are required to take three half courses which should be selected from graduate courses offered by departments within the Faculty of Engineering. Candidates are required to have their elective course selection approved by the program lead.

- SEP 760 / Design Thinking
- SEP 761 / Human-Centred Design

Sustainable Community Infrastructure

Candidates in this field of study cover various aspects of the design of sustainable communities, including:

- Public realm spaces (parks, sidewalks, recreation facilities)
- Storm water management
- Housing and energy efficient buildings
- Development of local business
- Sustainable transportation systems
- Sustainable energy generation

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

Mandatory Courses

Candidates are required to take:

- SEP 760 / Design Thinking

- SEP 771 / W Booth School of Engineering Practice and Technology Practitioner's Forum (full-time students only)
- SEP 772 / Innovation Studio
- SEP 773 / Leadership for Innovation

Electives

Candidates are required to take four elective courses, which should be selected from graduate courses offered by departments within the Faculty of Engineering. Suggested courses in sustainable energy systems and manufacturing are:

- SEP 6I03 / Sustainable Manufacturing Processes
- SEP 705 / Green Engineering, Sustainability and Public Policy
- SEP 746 / Design of Sustainable Community Infrastructure
- SEP 747 / Energy Efficient Buildings
- SEP 748 / Development of Sustainable Communities
-

Candidates are required to have their elective course selection approved by the program lead.

McMaster University SCHOOL OF GRADUATE STUDIES

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

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DEPARTMENT	Computing and Software
NAME OF PROGRAM and PLAN	Master of Engineering in Computing and Software
DEGREE	Master of Engineering

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

CREATION OF NEW MILESTONE ☐

CHANGE IN ADMISSION REQUIREMENTS		CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE		CHANGE IN COURSE REQUIREMENTS	x

CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR	X	**EXPLAIN:** Dept. of Computing and Software haas previously 4 M.Eng. degree programs. The proposed change merges them into a single M.Eng. degree program to streamline the process and allow diversification of our graduate curriculum that was previously restrictive due to the need to meet the (different) course requirements of each of the programs.
OTHER CHANGES	**EXPLAIN:**	

1

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

Currently, CAS offers 4 M.Eng. programs, namely, Course Master's in Software Engineering, M. Eng., Course Master's in Virtual Systems Design, M. Eng., Course Master's in Mechatronics, M. Eng., Course Master's in Computer Science. Each program has its own set of course requirements and in some cases differs in admission requirements. (Further information can be found in the Program Learning Outcomes document attached.)

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

Detailed description can be found in the attached Regulations document. Key changes are highlighted below:

1. Single degree program
2. Unified course requirements
3. Advanced credit option made available to students from all degree programs of CAS.

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. We have phased out the Software Engineering in game design undergrad program in our department, which was the feeder program to the M.Eng. in Virtual Systems Design.
2. The enrolment in M.Eng. in Mechatronics continues to drop over the years.
3. Graduate teaching capacity is tied up by the need to offer 701-708 courses every year to meet the diverse requirements of each of the programs. Including one e-heath course (757), these courses account for 50% or more of total graduate courses offered by the dept. from 2012 to 2016. Some faculty members do not have the opportunity to offer any research oriented graduate courses in five years.
4. Administratively, extra paper work and human resources are needed to maintain these programs.
5. The last IQAP review has identified the following issues for improvement:
   - Admission requirements for the multitude of programs are confusing and they make it difficult for prospective students to distinguish between the different programs."
   - Students noted that there were too many SE courses, few of the courses have hands on experience and that there are not enough courses that reflect the rapid expansion of the field.

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

Sept. 2018

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

Incoming students for Sept 2017 shall stay with the program they are admitted to. Since all existing M.Eng. programs are 12 – 16 month, we anticipate that most if not all students starting Sept. 2017 would have had finished all the course requirements by Sept 2018.

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):

This program is intended for those interested in a career as a practicing professional in Computing and Software

related fields. The program consists of a minimum of three consecutive terms in which the candidate is required to

complete successfully six graduate half courses (or equivalent), of which at least four must be 700 level and up to two 600 level courses approved by the department, followed by an independent project. At the conclusion of the final term, the candidate is required to submit a report on a project that must demonstrate the ability to carry out independent study and reach a satisfactory conclusion in an area of Computer and Software.

Advanced Credit Option

Students in McMaster's Computer Science, Software Engineering, and Mechatronics Engineering undergraduate programs may apply for the Advanced Credit Option upon enrolling in the program immediately after completion of their undergraduate study. The Advanced Credit Option is open to students who have completed the advanced credit courses with a minimum of B- and achieved at least a B- sessional average in level 4 of their undergraduate program.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Rong Zheng   Email: rzheng   Extension: 22891   Date submitted: Feb. 2, 2017

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

SGS/2013

Overview of Changes to M.Eng. Programs

	Before	After
# of M.Eng. programs	4 M. Eng., Course Master's in Software Engineering M. Eng., Course Master's in Virtual Systems Design M. Eng., Course Master's in Mechatronics M. Eng., Course Master's in Computer Science	1 M.Eng.
Course requirement	Six one-term graduate course; No more than two 600's courses[1]	Six one-term graduate course; no more than two 600's courses; at most one course outside CAS subject to faculty supervisor's approval
Project requirement	Completion of a project related to topic areas in the program	Completion of a project

Program Learning Outcomes for M.Eng. Programs

According to the self-study in 2015 for IQAP review, the program learning outcomes (PLOs) for the four course-based master's programs are:

1. *Breadth of Knowledge:* The students should attain a mature understanding of their chosen subfield of computing that has wide breadth.
2. *Study or Development Project:* The students should be able to independently pursue a study or development project in their chosen subfield of computing.
3. *Communication:* The students should be able to effectively communicate their work orally and in writing.

PLO	Before	After
Breadth of Knowledge	Students in these programs gain breadth of knowledge by completing six one-term graduate courses as specified in the regulations for the respective program.	Students in these programs gain breadth of knowledge by completing six one-term graduate courses as specified in the regulations.[*the faculty supervisor will advise the set of courses to be taken*]
Study or Development Project	Students in these programs gain conceptual understanding and methodological competence by completing a software development project or, in the M.Eng. program in	Students are required to complete a research or study project under the guidance of a faculty-level supervisor. [*the subfield is determined by the faculty supervisor*]

---

[1] The current course requirements differ for different M.Eng. programs. See Appendix A.

	Computer Science, a study project under the guidance of a faculty-level supervisor.	
Communication	Students gain the ability to communicate ideas effectively by writing a project report under the guidance of a faculty-level supervisor. The project report will be approved by one other faculty member.	Students gain the ability to communicate ideas effectively by writing a project report under the guidance of a faculty-level supervisor. The project report will be approved by one other faculty member.

Appendix A Course Requirements in the Old M.Eng. Programs

SE	CS	Mechatronics	V. Sys. Design
1 from 701, 702	$\geq$ 2 from 701–3, 705–8	SE 6GA3, ME 6K03	701
2 from 703, 704, 707	$\geq$ 2, 700	$\geq$ 2, 700	SE 6GA3 or 704
$\geq$ 3 from CAS		$\geq$ 2, 700	$\geq$ 2 of ...
$\leq$ 2, 600	$\leq$ 2, 600	$\leq$ 2, 600	

Mechatronics Engineering M. Eng. Program:
All students in the Mechatronics Engineering M. Eng. program must complete six half (one-term) graduate courses. Students must complete:

1. SFWR ENG 6GA3 and MECH ENG 6K03
2. Two 700 level courses taken from the list of approved courses for the M.Eng. in Mechatronics Engineering below.
3. At least two additional 700 level courses, freely chosen.

Approved Course List

1. Courses from Computing and Software: 701, 702, 703, 704, 708, 724, 725, 730, 736, 740, 745, 748, 750, 753, 765
2. Courses from Mechanical Engineering: 702, 710, 711, 728, 729, 742, 743, 750, 751, 752, 755
3. Courses from Electrical and Computer Engineering: 722, 742, 744, 745, 774, 794

Software Engineering M. Eng. program
All students in the Software Engineering M. Eng. program must complete six half (one-term) graduate courses. Students must complete:

1. One of CAS 701, 702. Students are encouraged to consider taking both 701 and 702.
2. Two of: CAS 703, 704, 707.
3. For the three emaining courses, at least two must be from the Depart- ment of Computing and Software. One may be from another depart- ment in the Faculty of Engineering or from Mathematics. At most two courses may be at 600 level.

Computer Science M.Eng. program

All students in the Computer Science M. Eng. program must complete six half (one-term) graduate courses. Students must complete:

1. At least two of CAS 701, 702, 703, 705, 706, 707, 708 2. At least two additional 700 level courses 3. At most two courses may be at the 600 level.

The two 600 level courses might be taken as an Advanced Credit in the last year of undergraduate studies.

Virual System Design, M.Eng. program

All students in the Software Engineering and Virtual System Design M. Eng. program must complete six half (one-term) graduate courses. Students must complete:

1. CAS 701
2. SFWR ENG 6GA3 or CAS 704
3. At least two of: SFWR ENG 6GC3, CAS 702, 703, 708, 723, 724, 725, 726, 730, 736, 740, 745, 748, 749, 750, and 753, DIGSOC 713 and 727, PSYCH 723, 724, and 734, ECE 728, 6TN3, 6TL4, and 797, MATH 747.

At most two courses may be at 600 level, proposed by students and approved by the Chair or delegate. Necessary changes must be proposed and approved in the same way.

Regulations for the

M.Eng., Course and Project Master's Program

Department of Computing and Software

McMaster University

CAS-2016-12

1   Master of Engineering (M.Eng.)

This program is intended for those interested in a career as a practicing professional in Computing and Software related fields. Students must:

1. Successfully complete six half (one-term) graduate courses.

2. Complete an independent project demonstrating the ability to carry out independent studies and reach a satisfactory conclusion in an area of Computing and Software.

1.1   Advanced Credit Option

Students in McMaster's Computer Science, Software Engineering, and Mechatronics Engineering undergraduate programs may apply for the Advanced Credit Option upon enrolling in the program *immediately* after completion of their undergraduate study. Students taking the Advanced Credit Option are allowed to take two 600 level courses while in level 4 of the respective undergraduate program. A student may be admitted to the advanced credit option of the M. Eng. program after

- completing level 4;

- completing the advanced credit courses with a minimum of B- for each; and

- achieving at least a B- sessional average in level 4 of their undergraduate program.

1.2 Funding

Funding is normally the responsibility of the candidate. Funds may be available in the forms of teaching assistantships, entrance scholarships, and funding to support a project (see Section 1.5). Students may also enter the program on a part-time basis.

1.3 Supervisor

All students will have a supervisor from the Department to guide them through the program. Students are strongly encouraged to indicate the intended supervisors in their application materials. The supervisor will be assigned in the offer of admission and serve as the project supervisor (see Section 1.5).

1.4 Course Requirements

A student in the M. Eng. program must complete six half (one-term) graduate courses. Students must complete:

1. At least four 700 level courses.

2. At most two courses may be at the 600 level.

3. At most two courses, subject to the approval of the supervisor and graduate advisor, can be from another department in the Faculty of Engineering or the Dept. of Mathematics and Statistics, or the School of Computational Science and Engineering.

The two 600 level courses may be taken as an Advanced Credit in the last year of undergraduate studies in McMaster University (see Section 1.1).

1.5 The Project

The project provides an opportunity for students to demonstrate that they can apply what has been learned in the program.

1. Projects will be specified by the supervisor in the department, possibly in collaboration with industry.

2. The duration of a project is typically four months. A project could be completed at a company, but it must be conducted under the supervision of a faculty member.

3. An Examination Committee is formed, consisting of the supervisor(s) and at least one faculty member from CAS. The supervisor(s) nominate the Examination Committee and should be approved by by the Chair or delegate.

4. Students must submit the project, including all documentation, to the Examination Committee for evaluation before the end of the final term of the degree program.

5. The Examination Committee decides on the outcome: pass or fail. If the decision is fail, comments must be provided to aid in a revision. The decision must be made within three weeks of receipt of the project.

6. If the initial decision was fail, the student may resubmit the project after addressing the committee's concerns. If the subsequent decision is fail, the student is dismissed from the program.

1.6 Program Timing

1. All courses should be completed within 16 months of entry into the program.

2. The project should be completed within 20 months of entry into the program.

McMaster University

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1.   This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).
3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Engineering Physics			
NAME OF PROGRAM and PLAN	N/A			
DEGREE	M.A.Sc.			

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)* **Is this change a result of an IQAP review?** ☐ **Yes** ☒ **No**				
CREATION OF NEW MILESTONE ☐				
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	**CHANGE IN COURSE REQUIREMENTS**	x
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	x	**EXPLAIN:** Add new course ENGPHYS 700 to M.A.Sc. course requirements		
OTHER CHANGES	**EXPLAIN:**			

M.A.Sc. Degree

Course Requirements

A candidate for the M.A.Sc. degree is required to complete a minimum of three half courses, at least two of which must be at the 700 level, with an overall average of at least B and a thesis. The M.A.Sc. students are allowed to take one non-technical course at the 600- or 700-level among the three required half-courses. The thesis topic is chosen in consultation with the supervisor.

Students currently enrolled in their final year of an Engineering Physics undergraduate program at McMaster University may apply for an Advanced Credit Option. The Advanced Credit Option is open to undergraduates who have an overall average (CGPA) of at least B at the time they are applying for the option. The Advanced Credit Option allows undergraduate students to take one 600-level course during their final undergraduate year for graduate credit. The Advanced Credit Option may not be used in conjunction with the Accelerated Option which similarly allows an undergraduate student to count one 600-level course taken during their final year towards their degree requirements of the M.A.Sc program. In exceptional circumstances, students from other Engineering departments in McMaster applying for entry into the M.A.Sc. program in Engineering Physics may apply for the Advanced Credit Option with the permission of the Department's Associate Chair (Graduate). Entry into the M.A.Sc. program under the Advanced Credit Option must occur less than one year upon completing one's undergraduate degree and must meet the same requirements for admission as other candidates.

An Accelerated Option is also available to students currently enrolled at McMaster as undergraduate students in the Engineering Physics Department whereby the M.A.Sc. degree may
be completed in 12-16 months of full-time study. Application for entry into the Accelerated Option occurs in the final year of undergraduate studies. Applicants must have an overall average (CGPA) of at least B at the time they are applying for the option. The Accelerated Option requires students to complete at least one term of their thesis-related project with a supervisor from the department prior to completion of their undergraduate degree. A 600-level course offered by the department is required under the Accelerated Option in the final undergraduate year for graduate credit. In exceptional circumstances, students from other Engineering departments in McMaster may apply for entry into the Accelerated Option by contacting the department's Associate Chair (Graduate). Entry into the M.A.Sc. program under the Accelerated Option must occur less than one year upon completing one's undergraduate degree and must meet the same requirements for admission as other candidates.

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

Engineering Physics is adding a new course requirement for M.A.Sc. candidates. M.A.Sc. candidates must complete the new course ENGPHYS 700/Graduate Seminars (Master's). Please refer to the "Curriculum form – new course" for ENGPHYS 700 for more details.

• ENGPHYS 700 will NOT count towards the existing course requirements. This will be an additional requirement.
• The course will run over the Fall and Winter semester.
• The course will be offered annually.
• The course will be required by all new graduate students, and open to existing graduate students.
• If a student transfers from the M.A.Sc. to the Ph.D., the student will be required to complete both ENGPHYS 700 and 701. The two presentations must be different.
• The course will be pass/fail, without a letter grade.
• The course will be worth 3 units of credit; this will NOT count towards the existing course requirements (it will be an additional requirement).
• The course will be assigned an instructor, nominally the Graduate Associate Chair, who will attend all of the seminars.
• Each student will be required to prepare and present a 30-minute seminar, based upon extensive research work and literature surveys, related to their research.
• Each student will be required to attend and participate in at least 90% of the course seminars in each term within the course.
• The seminars will be advertised as part of the departmental seminar series. Staff, faculty, and students from Engineering Physics and other departments will be welcome to attend.

The following grading scheme will be used:
1. The student will give an outstanding talk which stresses the background of their research topic (and may include some preliminary results if available) at a level that is both comprehensible and entertaining for the entire department.
2. The student will provide a 5-10 minute introduction for another speaker on a day other than the day of their talk. The introduction must include a) the educational background of the speaker, b) a description of the supervisor and her/his research areas of interest. b) the specific topic being pursued by the speaker, c) the title of the speaker's talk. d) More details about the speaker's background and interests and other fun facts about the speaker. e) News from the relevant research group. The student is responsible for locating the speaker ahead of time and getting the introduction ready. The speaker is also tasked, as an introducer, to contact 3 faculty members (other than the supervisor) who seem relevant to the talk as graders for the talk. These faculty members may not all show up, but the task is to request that they attend the talk.
The student must use exactly 5 Powerpoint slides for the introduction for consistency among speakers.
3. The student introducer is responsible to provide up to $25.00 worth of cookies, cake or Timbits for each talk that they introduce. The department will reimburse students for this.
4. All other students and the instructor will grade the introductions and the presentation using a rubric. At least 90% of the seminars must be attended by students and marked.
5. In addition to the rubric, each student will be required to write a 1-page summary of each talk

that they attend.

6. The grade in the course will be determined by the performance in all of parts 1 to 5. The introduction rubric will count as 15% of the final mark and the 85% balance will be based on the presentation. This is a pass/fail course and there will be no letter grades.

The seminar should not last for more than 30 minutes. It should cover:

i) The background motivation of your research topic.

ii) Examples of the current state of the industry that is relevant to your topic.

iii) The basic science underlying your topic.

iv) The approach you are taking and the justification for your approach in your research.

v) A few of your key research achievements if you already have them.

vi) A brief summary and next steps.

There will be a Q&A after each seminar.

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?):

Graduate students in Engineering Physics need a seminar type course at the 700-level, so that the students can learn presentation and communication skills, and improve their breadth of knowledge.

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

  Sept 1, 2017

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

N/A

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

Add the followings to calendar course listings:

ENGPHYS 700 / Graduate Seminars (Master's)
Each student is required to prepare and present a major seminar, based upon extensive research work and literature surveys, in areas related to their current research. A pass/fail grade will be assessed based on overall performance in the course.

Change the calendar description of the course requirements to the following (changes are highlighted in red and underlined):

M.A.Sc. Degree

Course Requirements

A candidate for the M.A.Sc. degree is required to complete a minimum of three half courses, at least two of which must be at the 700 level, with an overall average of at least B and a thesis. The M.A.Sc. students are allowed to take one non-technical course at the 600- or 700-level among the three required half-courses. The thesis topic is chosen in consultation with the supervisor. In addition to the minimum of three half courses, M.A.Sc. candidates are required to complete the mandatory seminar half course ENGPHYS 700.

Students currently enrolled in their final year of an Engineering Physics undergraduate program at McMaster University may apply for an Advanced Credit Option. The Advanced Credit Option is open to undergraduates who have an overall average (CGPA) of at least B at the time they are applying for the option. The Advanced Credit Option allows undergraduate students to take one 600-level course during their final undergraduate year for graduate credit. The Advanced Credit Option may not be used in conjunction with the Accelerated Option which similarly allows an undergraduate student to count one 600-level course taken during their final year towards their degree requirements of the M.A.Sc program. In exceptional circumstances, students from other Engineering departments in McMaster applying for entry into the M.A.Sc. program in Engineering Physics may apply for the Advanced Credit Option with the permission of the Department's Associate Chair (Graduate). Entry into the M.A.Sc. program under the Advanced Credit Option must occur less than one year upon completing one's undergraduate degree and must meet the same requirements for admission as other candidates.

An Accelerated Option is also available to students currently enrolled at McMaster as undergraduate students in the Engineering Physics Department whereby the M.A.Sc. degree may be completed in 12-16 months of full-time study. Application for entry into the Accelerated Option occurs in the final year of undergraduate studies. Applicants must have an overall average (CGPA) of at least B at the time they are applying for the option. The Accelerated Option requires students to complete at least one term of their thesis-related project with a supervisor from the department prior to completion of their undergraduate degree. A 600-level course offered by the department is required under the Accelerated Option in the final undergraduate year for graduate credit. In exceptional circumstances, students from other Engineering departments in McMaster may apply for entry into the Accelerated Option by contacting the department's Associate Chair (Graduate). Entry into the M.A.Sc. program under the Accelerated Option must occur less than one year upon completing one's undergraduate degree and must meet the same requirements for admission as other candidates.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Chang-qing Xu   Email: cqxu@mcmaster.ca   Extension: 24314   Date submitted: Mar 15, 2017

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:
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2.   An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).
3.   A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Engineering Physics				
NAME OF PROGRAM and PLAN	N/A				
DEGREE	Ph.D.				
NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)* **Is this change a result of an IQAP review?** ☐ **Yes** ☒ **No**					
CREATION OF NEW MILESTONE ☐					
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**		**CHANGE IN COURSE REQUIREMENTS**	x
CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR	x	**EXPLAIN:** Add new course ENGPHYS 701 to Ph.D. course requirements			
OTHER CHANGES	**EXPLAIN:**				

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

Ph.D. Degree

Course Requirements

The general Regulations for the Degree Doctor of Philosophy appear earlier in the Calendar. Students with a Master's degree are required to take two half courses, at least two of which must be at the 700- level. Students entering into the Ph.D. program directly from a Baccalaureate degree, or transferring into the Ph.D. program without being required to complete the Master's degree are required to take a total of two half courses at the 700-level. Among these two half courses, one can be a non-technical course with approval of the Associate Chair (Graduate). For those students transferring to the Ph.D. without completion of the Master's degree, courses completed during the Master's at McMaster's Engineering Physics M.A.Sc. or M.Eng. program may be transferred to McMaster's Engineering Physics Ph.D. program.

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

Engineering Physics is adding a new course requirement for Ph.D. candidates. Ph.D. candidates must complete the new course ENGPHYS 701/Graduate Seminars (Ph.D.). Please refer to the "Curriculum form – new course" for ENGPHYS 701 for more details.

• ENGPHYS 701 will NOT count towards the existing course requirements. This will be an additional requirement.
• The course will run over the Fall and Winter semester.
• The course will be offered annually.
• The course will be required by all new graduate students, and open to existing graduate students.
• If a student transfers from the M.A.Sc. to the Ph.D., the student will be required to complete both ENGPHYS 700 and 701. The two presentations must be different.
• The course will be pass/fail, without a letter grade.
• The course will be worth 3 units of credit; this will NOT count towards the existing course requirements (it will be an additional requirement).
• The course will be assigned an instructor, nominally the Graduate Associate Chair, who will attend all of the seminars.
• Each student will be required to prepare and present a 30-minute seminar, based upon extensive research work and literature surveys, related to their research.
• Each student will be required to attend and participate in at least 90% of the course seminars in each term within the course.
• The seminars will be advertised as part of the departmental seminar series. Staff, faculty, and students from Engineering Physics and other departments will be welcome to attend.

The following grading scheme will be used:

1. The student will give an outstanding talk which stresses the background of their research topic (and may include some preliminary results if available) at a level that is both comprehensible and entertaining for the entire department.

2. The student will provide a 5-10 minute introduction for another speaker on a day other than the day of their talk. The introduction must include a) the educational background of the speaker, b) a description of the supervisor and her/his research areas of interest. b) the specific topic being pursued by the speaker, c) the title of the speaker's talk. d) More details about the speaker's background and interests and other fun facts about the speaker. e) News from the relevant research group. The student is responsible for locating the speaker ahead of time and getting the introduction ready. The speaker is also tasked, as an introducer, to contact 3 faculty members (other than the supervisor) who seem relevant to the talk as graders for the talk. These faculty members may not all show up, but the task is to request that they attend the talk.

The student must use exactly 5 Powerpoint slides for the introduction for consistency among speakers.

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4. All other students and the instructor will grade the introductions and the presentation using a rubric. At least 90% of the seminars must be attended by students and marked.

5. In addition to the rubric, each student will be required to write a 1-page summary of each talk that they attend.

6. The grade in the course will be determined by the performance in all of parts 1 to 5. The introduction rubric will count as 15% of the final mark and the 85% balance will be based on the presentation. This is a pass/fail course and there will be no letter grades.

The seminar should not last for more than 30 minutes. It should cover:

i) The background motivation of your research topic.

ii) Examples of the current state of the industry that is relevant to your topic.

iii) The basic science underlying your topic.

iv) The approach you are taking and the justification for your approach in your research.

v) A few of your key research achievements if you already have them.

vi) A brief summary and next steps.

There will be a Q&A after each seminar.

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?):

Graduate students in Engineering Physics need a seminar type course at the 700-level, so that the students can learn presentation and communication skills, and improve their breadth of knowledge.

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

Sept 1, 2017

ARE THERE ANY OTHER DETAILS OF THE RECOMMENDED CHANGE THAT THE CURRICULUM AND

POLICY COMMITTEE SHOULD BE AWARE OF? IF YES, EXPLAIN.

N/A

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

Add the followings to calendar course listings:

ENGPHYS 701 / Graduate Seminars (Ph.D.)
Each student is required to prepare and present a major seminar, based upon extensive research work and literature surveys, in areas related to their current research. A pass/fail grade will be assessed based on overall performance in the course.

Change the calendar description of the course requirements to the following (changes are highlighted in red and underlined):

Ph.D. Degree

Course Requirements

The general Regulations for the Degree Doctor of Philosophy appear earlier in the Calendar. Students with a Master's degree are required to take two half courses, at least two of which must be at the 700- level. Students entering into the Ph.D. program directly from a Baccalaureate degree, or transferring into the Ph.D. program without being required to complete the Master's degree are required to take a total of two half courses at the 700-level. Among these two half courses, one can be a non-technical course with approval of the Associate Chair (Graduate). For those students transferring to the Ph.D. without completion of the Master's degree, courses completed during the Master's at McMaster's Engineering Physics M.A.Sc. or M.Eng. program may be transferred to McMaster's Engineering Physics Ph.D. program. In addition to the minimum of two half courses, Ph.D. candidates are required to complete the mandatory seminar half course ENGPHYS 701.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Chang-qing Xu   Email: cqxu@mcmaster.ca   Extension: 24314   Date submitted: Mar 15, 2017

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

SGS/2013

To   :   Graduate Council

From   :   Christina Bryce
               Assistant Graduate Secretary
_____

At its meeting on April 5th 2017 and via e-ballot on April 18th and May 5th the Faculty of Health Sciences Graduate Policy and Curriculum Committee approved the following graduate curriculum recommendations.

Please note that these recommendations were approved at the April 26th Faculty of Health Science Executive Meeting.

FOR APPROVAL OF GRADUATE COUNCIL:
1. **Speech Language Pathology**
   - **New Program Calendar Copy**

2. **Biomedical Discovery and Commercialization**
   - **Change to Calendar Copy**

3. **Physiotherapy**
   - **Change to Admission Requirements**

4. **Occupational Therapy**
   - **Change to Calendar Copy***

FOR INFORMATION OF GRADUATE COUNCIL:
5. **Child Life and Pediatric Psychosocial Care**
   - New Courses
       i. 718 Child Life Clinical Skills Seminar 1
      ii. 719 Child Life Clinical Skills Seminar 2

6. **Speech Language Pathology**
   - **New Courses**
       i. 711 Problem-Based Tutorial I
      ii. 712 Clinical Skills Lab I
     iii. 713 Foundational Knowledge I
      iv. 714 Inquiry Seminar I
       v. 721 Problem-Based Tutorial II
      vi. 722 Clinical Skills Lab II

      vii.   723 Foundational Knowledge II
    viii.   724 Inquiry Seminar II
      ix.   725 Clinical Practice I

*This item is included in the report subject to FHS Executive approval and has been submitted for the May 24th meeting of the Faculty of Health Sciences Executive.

SCHOOL OF GRADUATE STUDIES

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

<table>
<tr><td colspan="4"><u>**IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:**</u>

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

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

3.   A representative from the department is <u>**required to attend**</u> the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.</td></tr>
<tr><td colspan="2">**DEPARTMENT**</td><td colspan="2">School of Rehabilitation Science</td></tr>
<tr><td colspan="2">**NAME OF PROGRAM and PLAN**</td><td colspan="2">Speech-Language Pathology</td></tr>
<tr><td>**DEGREE**</td><td colspan="3">**Master of Science in Speech-Language Pathology MSc(SLP)**</td></tr>
<tr><td colspan="4">**NATURE OF RECOMMENDATION** *(PLEASE CHECK APPROPRIATE BOX)*

Is this change a result of an IQAP review? ☐ Yes ☒ No</td></tr>
<tr><td colspan="4">**CREATION OF NEW MILESTONE ☒**</td></tr>
</table>

CHANGE IN ADMISSION REQUIREMENTS	new	**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	**CHANGE IN COURSE REQUIREMENTS**	new

CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR	new	**EXPLAIN:** New program begins September 2017

OTHER CHANGES	**EXPLAIN:**

DESCRIBE THE <u>EXISTING</u> REQUIREMENT/PROCEDURE: N/A
PROVIDE A DETAILED DESCRIPTION OF THE RECOMMENDED CHANGE *(Attach additional pages if space is not sufficient.)* See attached documentation
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?): See attached documentation
PROVIDE IMPLEMENTATION DATE: *(Implementation date should be at the beginning of the academic year)* September 2017
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): See attached documentation
CONTACT INFORMATION FOR THE RECOMMENDED CHANGE: Name: Dr. Lyn Turkstra   Email: turkstrl@mcmaster.ca Extension: 28648 Date submitted: March 22, 2017

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

SGS/2013

Speech-Language Pathology, MSc(SLP)

Program Description

The Master of Science in Speech-Language Pathology is a full-time course-based professional Master's program. It prepares students with knowledge, skills, and professional behaviours to practice as entry level speech-language pathologists. The program utilizes a problem-based, self-directed learning philosophy. Students will complete course work and clinical practica during their two study years. All courses are required.

Admission Requirements

Applicants must achieve a four-year baccalaureate degree (120 units/credits), will require a minimum average of B+ or 3.3/4.0 or 9/12, calculated over the last 60 units of his/her university course work. Applicants may apply in the 4th year of their degree.

The SLP program has 4 pre-requisite courses. Applicants will require a minimum of:

- one linguistics course at any level with a grade of B or higher;
- one relevant course in psychology at a second-year level or higher (e.g., child development, developmental psychology, aging and perception, cognition) with a grade of B or higher;
- one biological-science course at any level with a grade of B or higher; and
- one research methods or statistics course at any level with a grade of B or higher.

Note: A biological or life science course is considered any of the following: anatomy, biochemistry, biology, biomedical sciences, environmental science, earth science, histology, physiology, ecology, chemistry, physics, health physics, pharmacology, biotechnology, radiation sciences, integrated science, kinesiology or neuroscience.

Applicants must be enrolled in the specified prerequisite courses by the application deadline date (i.e. the course must be listed on an official transcript).

Applicants whose first language is not English and who did not attend an English-speaking university for their undergraduate degree must achieve at least a score of 600 (written) or 250 (computer) or 92 (iBT) (reading-22, speaking-24, listening-24, writing-22) on the TOEFL.

The number of seats in the Speech-Language Pathology program is limited, therefore, possession of published minimum requirements does not guarantee admission.

Application Procedure

All applicants (domestic and international) must apply through the Ontario Rehabilitation Science Programs (ORPAS) online application service http://www.ouac.on.ca/orpas/. Application deadline is available on the ORPAS website. Applicants who are academically eligible will be ranked on the basis of their preadmission GPA. The top-ranked (approximately 125) applicants will be invited to participate in an in-person mini multiple interview (MMI). Personal qualities and life experiences are assessed at these "mini" interviews, two of which are written stations. These interviews will take place in person at McMaster University Campus. Final offers of admission will be based on a combination of pre-admission GPA and MMI score. Interview dates and Offer dates can be found on the program's website http://srs-mcmaster.ca/slp-program-information/.

In addition to the academic requirements, all students are required to meet certain requirements of the Public Hospitals Act, and submit a Police Vulnerable Sector Screen.

Review of Student Progress

All students seeking to practice as a speech-language pathologist are expected to demonstrate clinical performance consistent with the minimum standards and clinical competencies of graduate study. This performance is expected to be developmental, reflecting increasing levels of clinical skill and independence. Only those students whose clinical performance is consistent with such standards will be recommended to graduate.

Graduate student progress is overseen by McMaster faculty and registered therapists. Student progress includes progress in academic coursework, clinical skills, and professional attributes required of all students at graduation. Student progress in the program is regularly reviewed by a Program Academic Study Committee (PASC). The PASC is responsible for determining if a student may proceed to the next term of study.

The program may, in appropriate circumstances, defer or remove a student from a clinical practicum if the student fails to meet program requirements, including but not limited to requirements for professionalism, ethical behaviour, knowledge and skills, and communication. Failure to meet any requirement may result in restrictions or termination of a practicum placement or other program experience. In most cases termination of the clinical placement constitutes a failure, will result in the student receiving a grade of F in the course, and may result in dismissal from the program.

Accreditation

In accordance with guidelines from the Council for Accreditation of Canadian University Programs in Speech-Language Pathology (CACUP), the McMaster SLP program will be applying for Candidacy prior to graduation of the first cohort of students. Students graduating from a Candidate program are entitled to register to practice in Ontario. We have designed the program to meet national standards for accreditation and provincial standards for registration and licensure in Ontario, so we expect that the program will receive Candidate status. As required by CACUP, within three years the program will apply for Accreditation.

Regulation of Practice

To practice in Canada, speech-language pathologists must be registered with the appropriate provincial or territorial regulatory organization, if such an organization exists, or with an equivalent regulatory body determined by that province or territory. Each regulatory body has a separate and distinct registration process; however, in all circumstances, an approved degree in speech-language pathology is required. Graduates from the MSc(SLP) Program will be eligible for registration with the College of Audiologists and Speech-Language Pathologists of Ontario (CASLPO). Students may choose to seek registration in other provinces or territories. While standards for registration in Ontario are generally similar to those in other provinces or territories, there may be some differences. Students planning to practice outside of Ontario must notify the Director of Clinical Education in their first semester of study of any requirements that differ from those in Ontario.

McMaster University | **SCHOOL OF GRADUATE STUDIES**

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
1. This form must be completed for **ALL** changes involving degree program requirements/procedures. **All** sections of this form **must** be completed.
2. An electronic version of this form (must be in MS WORD **not** PDF) should be emailed to the Assistant Secretary, School of Graduate Studies (cbryce@mcmaster.ca).
3. A representative from the department is **required to attend** the Faculty Curriculum and Policy Committee meeting during which this recommendation for change in graduate curriculum will be discussed.

DEPARTMENT	Biochemistry and Biomedical Sciences
NAME OF PROGRAM and PLAN	Biomedical Discovery and Commercialization [Program: GHSMB-Heath Sciences MBDC; Plan: BIOMEDMBDC – Biomedical Discovery and Commercialization]
DEGREE	Master of Biomedical Discovery and Commercialization

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

CREATION OF NEW MILESTONE ☐

CHANGE IN ADMISSION REQUIREMENTS	no	CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE	no	CHANGE IN COURSE REQUIREMENTS	no

CHANGE IN THE DESCRIPTION OF A <u>SECTION</u> IN THE GRADUATE CALENDAR	Yes	**EXPLAIN:** 1-Under the "Course Requirements" section, Business C711 Health Economics and Evaluation has been added as one of three business courses students can take. 2-Under the "Business Course Descriptions" section, the Business C711 course description has been added.
OTHER CHANGES	no	**EXPLAIN:** n/a

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

Currently, MBDC students are required to take one of: Business B730 (Strategic Management of Technology) or Business C727 (Health Economics and Evaluation) to fulfill their degree requirements.

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

To provide students with an additional business elective option, Business C711 will be listed as one of three business courses students can take.

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?):

Some of our students are interested in health economics and evaluation and have even secured internship placements that focus on this area. Listing this course as an option for students will be of interest/benefit to those students interested in pursuing a career path related to health economics and evaluation.

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

2017/2018 Calendar Year

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

We have received approval from Naresh Agarwal, Associate Dean (Graduate Studies and Research) to list this course as an option for MBDC students.

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 calendar copy.

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Dr. Brian Coombes   Email: Coombes@mcmaster.ca   Extension:22159 Date submitted: March 20, 2017

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

SGS/2013

Biomedical Discovery and Commercialization

The Master of Biomedical Discovery and Commercialization (MBDC) Program is a one-year course-based Master's that provides students with the scientific and technical knowledge and understanding that underlies breakthrough discoveries in the biomedical sciences and drug discovery. The program also provides an understanding of business fundamentals that are necessary to market such discoveries. The program is offered full-time and preference will be given to those applicants who completed the Honours Bachelor of Health Sciences in Biomedical Discovery and Commercialization Program at McMaster University.

One of the most important features of the program, the integration of business and science, is achieved through the Team Project, Scholarly Paper and two M.B.A. level Business courses. Experiential learning is obtained through a four to eight-month community internship that provides students with an opportunity for creative exploration of Biomedical Research and Commercialization. The internship also provides students with an invaluable opportunity to expand their professional network and to develop and refine a sound career plan.

Program Director:	Eric Brown, Ph.D.
Program Manager:	Nancy McKenzie, Ph.D.
Enquiries:	905 525-9140 Ext. 27335
E-mail:	bdcprogram@mcmaster.ca
Fax:	905 522-9033
Website:	http://www.bdcprogram-mcmaster.ca

Master of Biomedical Discovery and Commercialization, M.B.D.C.

Admission

Admission and program requirements conform to the general University regulations at the front of this Calendar. For additional information regarding the MBDC application (e.g., important deadlines and how to apply online) please refer to the following website:
http://gs.mcmaster.ca/programs/biomedical-discovery-and-commercialization.

Applicants applying from outside the BDC undergraduate program will have their course work assessed for equivalencies before being considered further. Short-listed applicants who did not complete the Honours Bachelor of Health Sciences in Biomedical Discovery and Commercialization Program, but who have an equivalent Bachelor's degree from an accredited university, will be subject to an interview process.

General Requirements

The general requirements for the Master's degree appear under the "Regulations for Master's Degrees" near the beginning of this Calendar.

Course Requirements

The candidate must complete three full, 700-level BIOMEDDC graduate courses (BIOMEDDC 701, 702, 703), and two half, 700-level M.B.A courses (BUSINESS B733 and one of BUSINESS B730, ~~or~~ BUSINESS C727, or BUSINESS C711). All graded courses require at least a B- standing.

The required courses for the Master of BDC Program are as follows:

Fall
- BIOMEDDC 701 / Team Project
- BUSINESS B733 / Multidisciplinary Entrepreneurship

One of:
- BUSINESS B730 / Strategic Management of Technology
- BUSINESS C727 / Pharma/Biotech Business Issues
- BUSINESS C711 / Health Economics and Evaluation

Winter; Spring/Summer
- BIOMEDDC 702 / Community Internship
- BIOMEDDC 703 / Scholarly Paper

Additional Information
The community internship provides students with an invaluable work-integrated learning opportunity. Emphasis is placed on the learning gains associated with a structured integration of theory and practice and the building of a professional network. Depending on the nature of the position, students may or may not receive any monetary compensation for the internship. Students have the option of securing their own internship placements, subject to the approval of the BDC Program Office. NOTE: as the majority of internship placements are expected to be in the GTA, students will be required to travel/and or relocate during their internship placement.

In addition to completing the required courses, students will also be required to complete the **Career Plan and Employability Preparation Milestone**. The milestone will provide students with pre-employment career skills and strategies for securing an internship within the health/life sciences, pharmaceutical, and biotechnology industries. Students will evaluate their personal strengths, values and

goals to create a career plan. Employability strategies, including the creation of a targeted job application portfolio, active job search techniques, networking with industry, and building interviewing skills, will establish career development skills. Students will directly apply the knowledge they gain to their interactions with Hiring Managers and Recruiters for the purposes of securing an internship.

BIOMEDDC Course Descriptions
BIOMEDDC courses are administered by the Department of Biochemistry and Biomedical Sciences.

BIOMEDDC 701 / Team Project

6 units (full course)

Students will work in small teams leveraging their training and developing career interests to create business plans and an entrepreneurial pitch for a new venture in biomedicine. Each team will be paired with an entrepreneur/company and will gain first-hand experience in entrepreneurship by helping to advance innovative Life Sciences products and services out of the lab and into the market. BIOMEDDC 701 (Team Project) will run concurrently with BUSINESS B733 (Multidisciplinary Entrepreneurship), which will allow students to apply the theory they learn in the classroom to the real world.

Prerequisite(s): Registration in the Biomedical Discovery and Commercialization Master's program
Course capacity: 50 Categories: NIL
Evaluation: Graded

BIOMEDDC 702 / Community Internship

6 units (full course)

The internship will provide students with the opportunity to explore career options and integrate academic learning through an experiential placement in the community sectors related to the pharmaceutical/biotechnology industry. Students will participate in the job search, application, and interview process. Upon securing a position they will gain invaluable industry experience through the role. Academic requirements will include completion of a learning portfolio where students will document the fulfillment of individual learning objectives. Students will also share aspects of their experiences in a student symposium.

Prerequisite(s): Registration in the Biomedical Discovery and Commercialization

Master's program
Course capacity: 50 Categories: NIL
Evaluation: pass/fail

BIOMEDDC 703 / Scholarly Paper

6 units (full course)

Students will prepare a scholarly paper on a selected topic of interest that demonstrates integration of learning across science and business disciplines. To be completed by June 1, the scholarly paper should reflect an understanding of current biomedical discovery and commercialization challenges and the tools and techniques needed to evaluate, plan, and implement solutions.

Prerequisite(s): Registration in the Biomedical Discovery and Commercialization
Master's program
Course capacity: 50 Categories: NIL
Evaluation: Graded

BUSINESS Course Descriptions
BUSINESS courses are administered by the DeGroote School of Business.

BUSINESS B733 / Multidisciplinary Entrepreneurship

3 units (half course)

This course examines issues associated with mounting entrepreneurial ventures from a heterogeneous university base and addresses such concerns as intellectual property, marketing, strategic human resources, raising capital, and starting and growing a business in that context. The course is open to students from all faculties at McMaster and provides an opportunity to develop networks for accessing varied resources for entrepreneurial ventures.

BUSIENSS B730 / Strategic Management of Technology

3 units (half course)

In today's competitive environment technology has become a central component of the strategic process of many innovative organizations. This course surveys the issues involved in this new role for technology including competitive advantage, analytical tools, technology based strategies, partnerships and alliances, and the process for managing technology so that it is closely integrated with the activities of the firm.

Prerequisite(s): BUSINESS B600 / Organizational Behaviour

BUSINESS C727 / Pharma/Biotech Business Issues

3 units (half course)

This course will allow students to familiarize themselves with the strategic and management issues currently facing the Pharma/Biotech industries through a consideration of the structure and challenges of the industry at the global, national and provincial levels.

Prerequisite(s): Registration in the Health Services Management specialization of the MBA or permission of the instructor.

BUSINESS C711 / Health Economics and Evaluation

3 units (half course)

This course will be taught using lectures, guest speakers, discussions, research projects and presentations and a minimum of one lecture via Avenue to Learn (hybrid course design). Lectures will not attempt to cover all the possible materials, but will provide a starting place for class discussion. Some of the class time will be used to engage in activities designed to illustrate certain topics and issues and to provide a basis for their discussion.

McMaster University

SCHOOL OF GRADUATE STUDIES

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

IMPORTANT: PLEASE READ THE FOLLOWING NOTES BEFORE COMPLETING THIS FORM:
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DEPARTMENT		School of Rehabilitation Science	
NAME OF PROGRAM and PLAN		Physiotherapy Program	
DEGREE	Master of Science (Physiotherapy)		

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

CREATION OF NEW MILESTONE ☐

CHANGE IN ADMISSION REQUIREMENTS	X	**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**		**CHANGE IN COURSE REQUIREMENTS**	
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	Y	**EXPLAIN:** Changes to graduate calendar to reflect the change in admission requirements and processes.			
OTHER CHANGES		**EXPLAIN:**			

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

Existing wording in the 2016-2017 Graduate Calendar: http://academiccalendars.romcmaster.ca/preview_program.php?catoid=20&poid=12523&hl=%22Physiotherapy%22&returnto=search

"Admission Requirements

To be eligible for admission to the M.Sc. (PT) Program, applicants will have completed a four-year baccalaureate degree or the equivalent number of courses (120 units/credits), and will have achieved a minimum grade-point average of "B" or 75% or 3.0/4.0 or 8.0/12.0 in their final 60 units of credit. Post-graduate coursework is also considered in this GPA calculation. Applicants may apply during the fourth year of their degree. In this case, the pre-admission GPA for eligibility purposes is calculated using the most recent 60 units of credit towards their degree. If an applicant in this category is subsequently offered admission to the program, the offer is "conditional" upon successful completion of their four-year degree by June 30 in that year, and maintenance of a B average in their final 60 units of credit.

Additional requirements include:

    a.   A minimum of one (1) biological or life science course, at any level, with a grade of at least B (75%) or higher

    b.   A minimum of one (1) social science or humanities course, at any level, with a grade of at least B (75%) or higher

Please see Program website for more details regarding prerequisites.

An offer of admission is contingent upon a "clear" approved Police Records Check Vulnerable Sector Screent or approval by the Assistant Dean. This condition of admission follows the *Police Records Check Policy* - Faculty of Health Sciences, that was approved in November 2013. Click here for the full policy

Application Procedure

Applicants are required to apply *via* the ORPAS on-line application service located at the Ontario Rehabilitation Sciences Programs Application Service (ORPAS), Guelph, Ontario website: http://www.ouac.on.ca/orpas/. Top ranked applicants (based on GPA) will be invited for an interview, which entails a series of "mini interviews", during with personal qualities and life experiences are assessed.

Enquiries: 905 525-9140 Ext. 27859, PT Program Coordinator
Fax: 905 524-0069
Email: askPT@mcmaster.ca
Website: http://srs-mcmaster.ca

Graduates with a strong research bias may be eligible to proceed to thesis-based graduate programs should they wish to do so in the future."

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

The Physiotherapy Program proposes the following changes:

Applicant Requirements:

The MSc(PT) Program is recommending that the minimum grade-point average be changed from a B to a B+ (3.3/4.0) for the final 60 units of credit in relevant courses.

Additional admission requirements to include the following pre-requisite courses:

    a.   A minimum of one (1) human anatomy course, at any level, with a grade of at least B+ (77%) or higher
    b.   A minimum of one (1) human physiology course, at any level, with a grade of at least B+ (77%) or higher
    c.   A minimum of one (1) statistics course, at any level, with a grade of at least B+ (77%) or higher

d. A minimum of one (1) humanities course with a significant writing component, at any level, with a grade of at least B+ (77%) or higher

Application Procedure:

After applicants have applied to the Program, **all** applicants who meet the minimum GPA and pre-requisite course requirements will be contacted to register for an on-line, video-based interview, comprised of a series of 'mini interview' questions the applicants are to answer. Applicants will be required to pay a $40.00 registration fee after which they will be sent instructions and can begin the on-line video interview process. The student will be given one (1) week to complete the video-based interview.

Applicants will be asked to answer a series of 'mini interview' questions (up to 8 questions). At least two of the questions will require a written response. Applicants will have an unlimited amount of practice time/sessions; however, once they begin the formal on-line video interview process they will be given only one (1) opportunity to respond to each question, similar to an in-person interview. The on-line, video-based interview should take no more than 30 minutes to complete and can be completed on the applicant's own time.

Applicants will require an internet connection, a computer/laptop/phone with a functioning webcam and microphone to complete the on-line, video-based interview.

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 changes to admissions have come about as a result of several years of current curriculum review and evaualation, which includes 10 years of employer and graduate survey data, internal and external environmental scans, and multiple stakeholder feedback in preparation for curriculum renewal.

There are numerous reasons for the recommended changes:

- To align the minimum GPA requirements with the School of Graduate Studies standard of B+ (3.3/4.0);
- To ensure students have the GPA requirements to be successful in a graduate-level, professional program;
- To ensure students have relevant pre-requisite courses that will serve as a strong foundation for Physiotherapy Program specific courses, such as clinical lab and research and evidence-based practice courses;
  - o e.g., The PT Program has found that students who have not taken Anatomy and Physiology courses as their Life/Biological Science pre-requisite courses tend to have great difficulty in the first Unit of the Program, often resulting in the student submitting a petition for special consideration for a LOA.
- To ensure students have engaged in non-science course, spefically a 'human experience' course with a significant writing component
  - o This requirements aligns with the revised PT Program's values (e.g., 'Citizenship/Social Accountability') and student outcomes (e.g., 'Demonstrate a commitment to society and physiotherapy through advocacy and advancement of the profession'), and is intended to require applicants to have a broader perspective e.g., students need be able to address the nature of future physiotherapy practice and changing Canadian demographics
  - o e.g., physiotherapy students need to demonstrate they have basic writing skills and abilities and have taken at least one course with this component
- To decrease the travel-related burden and costs associated with the current, in-person multiple mini interview (MMI) weekend.
- To allow more applicants the opportunity to participate in an interview process (in person MMI currently capped at 320 to 330 applicants) in order to be considered for admissions
- Education equity is intended to begin to attempt to address the Truth and Reconcillation findings

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

For the 2017-2018 graduate calendar for the September 2018 admission deadline.

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

The McMaster MBA Program uses the same on-line, video-based interview process (KIRA) and charges a fee of $150.

The McMaster Faculty of Engineering also uses the same on-line, video-based interview process (KIRA) and charges a fee of $40.

The $40 KIRA fee was reviewed by the Fees Committee on March 31, 2017.

The Education Equity section still needs to be reviewed for appropriate wording by Danielle Soucy, Director & Program Coordinator, Aboriginal Students Health Sciences (ASHS) Office. Danielle is away from the office until April 7th, 2017.

The PT Program plans to implement the proposed admission changes for three years and will formally evaluate outcomes to determine effects of the changes.

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):

REPLACE CURRENT CALENDAR COPY WITH THE FOLLOWING:

"Admission Requirements
To be eligible for admission to the M.Sc. (PT) Program, applicants will have completed a four-year baccalaureate degree or the equivalent number of courses (120 units/credits), and will have achieved a minimum grade-point average of "B+" or 757% or 3.0/4.0 or 8.0/12.0 in their final 60 units of credit in relevant courses. Post-graduate coursework is also considered in this GPA calculation. Applicants may apply during the fourth year of their degree. In this case, the pre-admission GPA for eligibility purposes is calculated using the most recent 60 units of credit in relevant courses towards their degree. If an applicant in this category is subsequently offered admission to the program, the offer is "conditional" upon successful completion of the four-year degree by June 30 in that year and maintenance of a B+ average in their final 60 units of credit.

Additional requirements include the following pre-requisite courses:

A minimum of one (1) biological or life science human anatomy course, at any level, with a grade of at least B+ (757%) or higher
A minimum of one (1) human physiology course, at any level, with a grade of at least B+ (77%) or higher
A minimum of one (1) statistics course, at any level, with a grade of at least B+ (77%) or higher
A minimum of one (1) social science or humanities course with a significant writing component, at any level, with a grade of at least B+ (7577%) or higher

Please see Program website for more details regarding prerequisites.

An offer of admission is contingent upon a "clear" approved Police Records Check Vulnerable Sector Screen or approval by the Assistant Dean. This condition of admission follows the *Police Records Check Policy* - Faculty of Health Sciences, - that was approved in November 2013. Click here for the full policy.

Application Procedure
Applicants are required to apply *via* the ORPAS on-line application service located at the Ontario Rehabilitation Sciences Programs Application Service (ORPAS), Guelph, Ontario website: http://www.ouac.on.ca/orpas/. Top ranked applicants (based on GPA) will be invited for an interview, which entails a series of "mini interviews", during with personal qualities and life experiences are assessed.

Applicant On-line Video Interview

All applicants who meet the required GPA admission requirements and pre-requisite courses will be invited to participate in an on-line, video-based interview comprised of a series of 'mini interview' questions. Once applicants have submitted their online application and paid the $40 video interview fee, the Program will notify applicants of the link to the video interview questions, instructions on how to complete the interview and the due date for completion of this component of the application, no later than March 15th of the application year. Please refer to the Program website for more details. Applicants will require an internet connection, a computer/laptop/phone with a functioning webcam and microphone to complete the on-line, video-based interview.

Education Equity: Indigenous Applicants
Each year, up to seven (7) Year 1 positions will be designated for applicants of Indigenous (First Nations, Inuit or Métis). Applicants should identify their Indigenous nation/citizenship when completing the ORPAS application. Indigenous applicants will be required to meet the admissions requirements and will be required to provide proof of Indigenous nation/citizenship – see website for more details.

Indigenous applicants who have concerns about the technology requirements of the application process should contact the PT Program Coordinator.

Enquiries: 905 525-9140 Ext. 27859, PT Program Coordinator
Fax: 905 524-0069
Email: askPT@mcmaster.ca
Website: http://srs-mcmaster.ca

Graduates with a strong research bias may be eligible to proceed to thesis-based graduate programs should they wish to do so in the future."

CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Vanina Dal Bello-Haas Email: vdalbel@mcmaster.ca

Extension: x27822   Date submitted: April 3, 2017

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.

DEPARTMENT		School of Rehabilitation Science	
NAME OF PROGRAM and PLAN		Occupational Therapy Program	
DEGREE	**MSc (OT)**		

NATURE OF RECOMMENDATION *(PLEASE CHECK APPROPRIATE BOX)* **Is this change a result of an IQAP review? ☐ Yes ☒ No**			
CREATION OF NEW MILESTONE ☐			
CHANGE IN ADMISSION REQUIREMENTS		**CHANGE IN COMPREHENSIVE EXAMINATION PROCEDURE**	**CHANGE IN COURSE REQUIREMENTS**
CHANGE IN THE DESCRIPTION OF A SECTION IN THE GRADUATE CALENDAR	X	**EXPLAIN:** Changes to graduate calendar to ensure clarity in application procedures and transparency in considering professional behaviours during admissions.	
OTHER CHANGES	**EXPLAIN:**		

DESCRIBE THE EXISTING REQUIREMENT/PROCEDURE:

Currently, the Application Procedure section states:

Applicants are required to apply via the ORPAS online application service located at the Ontario Rehabilitation Sciences Programs Application Service (ORPAS), Guelph, Ontario website: http://www.ouac.on.ca/orpas/.

Top ranked applicants (based on GPA) will be invited for a personal interview, which entails a series of seven "mini" interviews. Personal qualities and life experiences are assessed at these "mini" interviews, two of which are written stations. Interviewers are drawn from the faculty and the community

Enquiries: 905 525-9140 Ext. 27829, OT Program Coordinator
Fax: 905 524-0069
Email: askOT@mcmaster.ca
Website: http://srs-mcmaster.ca

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

We would like to insert a new paragraph under Application Procedures to indicate that professional behaviours are considered as part of the admissions process. See below for proposed wording which has been developed in collaboration with the Advisor, Professionalism in the Faculty of Health Sciences. In addition, we want to more clearly describe the interview process, while leaving opportunities for minor adjustments related to MMI station construction (the number that are in person versus written) and the option to create a longer time for applicants at a written station.

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 the past, we have observed problematic behaviours of some (few) applicants that we believe are important to consider as part of the admissions process. For example, applicants have been demanding, rude, or angry with staff. Some have behaved in ways that are considered unprofessional, such as breaching confidentiality expectations associated with interview questions. These behaviours are important for us to consider as part of the admissions process. We believe it is important to make this explicit to all applicants. Thus, we propose adding this paragraph to the Graduate Calendar. It will also be inserted into the booklet for applicants made available through the Ontario Rehabilitation Sciences Program Application Service (ORPAS).

The revisions proposed to describe the interview process are intended to add clarity but also flexibility to the process; for example a working group of the Admissions Committee in Occupational Therapy has proposed a written station that offers students more time to respond to written questions; this may mean more in-person interview stations are added to the MMI. Our proposed rewording is intended to be clear but also allow flexibility to improve admissions processes in future.

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

For 2017-2018 graduate calendar for students to be admitted in Sept. 2018.

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):

New wording (with track changes): Application Procedure

Applicants are required to apply via the ORPAS online application service located at the Ontario Rehabilitation Sciences Programs Application Service (ORPAS), Guelph, Ontario website: http://www.ouac.on.ca/orpas/.

Top ranked applicants (based on GPA) will be invited for a personal interview, which entails a series ~~of seven short,~~ in person interviews and station-based written responses. ~~"mini" interviews.~~ Personal qualities, aptitudes, and skills ~~and life experiences~~ are assessed at these ~~"mini"~~ interviews. ~~, two of which are written stations.~~ Interviewers are drawn from the faculty and the community.

Professionalism is an important requirement of the McMaster Occupational Therapy Program. Graduates of the program that register with a regulatory college will be expected to demonstrate professional behaviours in practice. In preparation for licensure and in keeping with the standard of excellence required in our program, we expect applicants to the MSc(OT) program to conduct themselves in a professional manner throughout all phases of the application process. Any and all interactions throughout the admissions process, where applicants are engaged with Occupational Therapy program staff, faculty, students, and/or community volunteers may be taken into consideration in making admissions decisions. Admission may be denied to applicants who, amongst other critical determinants, behave in a manner that is considered is below the level of professionalism expected of similarly situated candidates, regardless of their academic standing or interview performance.

Enquiries: 905 525-9140 Ext. 27829, OT Program Coordinator
Fax: 905 524-0069
Email: askOT@mcmaster.ca
Website: http://srs-mcmaster.ca

New wording (changes accepted): Application Procedure

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CONTACT INFORMATION FOR THE RECOMMENDED CHANGE:

Name: Lori Letts   Email: lettsl@mcmaster.ca   Extension: 27816   Date submitted: May 5, 2017

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

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 Epidemiology, 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, 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, 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 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, and Statistics, Speech Language Pathology

Master of Social Work

Master of Technology Entrepreneurship and Innovation

MD/Ph.D. in Medicine and Biochemistry, Medical and Biomedical Engineering, Medicine and Health Research Methodology Medicine and Medical Sciences, 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, Labour Studies, Kinesiology, Materials Engineering, Materials Science, 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 Associate Vice-President & Dean and Associate Deans of Graduate Studies, the Graduate Council, and the registrarial duties associated with graduate administration.

The Associate Vice-President & 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. 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/her 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:

- enroll annually until graduation, withdrawal, or withdrawal in good standing due to time limit;
- paying fees as required;
- complying with the regulations of the School of Graduate Studies as set out in this Calendar.

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) and, in particular, for informing the School of Graduate Studies of any change in employment status. 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/her academic obligations, the student will be required to withdraw involuntarily from his/her 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~~Any absence of~~ one week~~,~~ ~~or longer from campus~~, which is not part of the student's vacation entitlement~~,~~ requires the~~ir~~ supervisor's approval in writing. If th~~is period of time exceeds~~ ~~e absence 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 ~~absent~~ away from campus for more than four weeks ~~in any one term~~ require not only permission from the Department but also that of the appropriate Associate Dean of Graduate Studies and must submit a ~~petition for special consideration~~Request to be Full Time Off Campus. Note that this permission is needed even for field work or study 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 o~~f~~r fully in on-line formats.~~, p~~Please refer to details in individual program descriptions.

In order to receive a degree, the student must fulfill all departmental or program requirements and all University regulations, including those of the School of Graduate Studies. Students who have outstanding financial accounts at the end of the academic year will not receive their academic results, diplomas, or transcripts.

General Regulations of the Graduate School

Please note: if there is any discrepancy between a department or program handbook and the School of Graduate Studies Calendar, then the School of Graduate Studies Calendar shall prevail.

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 the student's @mcmaster.ca alias.

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.

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 an average grade equivalent to at least mid-B (equivalent to a McMaster 8.5 GPA out of 12 or better, normally demonstrated by an average grade in the final year or over senior courses.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. 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 Masters 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 two months from the date of reclassification;
   d. refusal of 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 two months 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 before the fall 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 before the fall term.

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 allows students access to a broader range of research supervision 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

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.

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 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. 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.

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 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 ~~incidental~~ 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 ~~enrol~~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 ~~incidentals~~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 ~~enrol~~enroll in the UHIP program to ensure adequate health insurance coverage during their stay.

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, some programs require a minimum score of 80. Please check with the program to see specific requirements~~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~~http://graduate.mcmaster.ca/graduate-students/future-students/how-to-apply.html~~

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 ~~$100~~ 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 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 Sstudents 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,. fFor full details, please refer to descriptions of the individual programs. Note any rRequests for advance credit shoulds normally be included as part of the offer letter made at the time of admissionare done by petition to the Associate Dean of the faculty once enrolled in the graduate program.

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 when accepting the offer of admission. 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 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) September 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:

- re-admitted to defend if all that remains is the thesis defence and student is re-admitted for one term only
- if a student needs more than one term to complete – they should be re-admitted to program and maintain continuous enrollment until they complete their studies

It is the joint responsibility of the student and program to determine the appropriate program and status of study. This will be clearly outlined in the student's offer of admission

A student who doesn't enroll for oneeach 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

<u>Full-Time Status</u>

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 absent 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 of absence exceeds four weeks in any one term, written evidence shall be available in the Graduate Studies Office to the effect that this requeste absence 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 supervisor or equivalent (designated by the universityprogram 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.
f.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 4.5 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 paid employment not directly related to their studies should work no more than an average of 10 hours a week to a maximum of 505 hours in the academic year. Full-time students who are participating in paid employment not directly related to their studies should work no more than an average of ten hours per week. University-related employment should also be limited to an average of ten hours per week for full-time students, and full-time students are expected to limit time spent on employment both inside and outside the University. The maximum hours that a full-time graduate student is allowed to work during an academic year (September to August) is 505 hours.

Exceptions to this rule are possible with the approval of the School of Graduate Studies. A full-time student seeking an exception must provide a study plan that has been approved by the departmental graduate studies committee or its equivalent, along with a written statement from the student's supervisor. Ph.D. students who seek an exemption from the rule must arrange for a supervisory committee meeting, with a report of that meeting submitted to the Graduate School, every four months during the time they are employed beyond ten hours per week. No exceptions totalling 505 hours or more in a single academic year will be approved.

The University considers full-time students to be those that have their studies as their priority. ~~Full-time employment may be compatible with full-time registration if the employment is in an area closely linked to the student's academic work.~~ 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, 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.

~~If the student is to be employed at the University other than as a TA (or Research Assistant in lieu of a TA), the School of Graduate Studies should be informed in writing of the nature of the employment, and the approval of the supervisor and the chair of the department is required. The approval of the School of Graduate Studies is required if the student is to be hired for University teaching.~~

2.5.5 Enrolment - International Students on Study Permits

~~International graduate s~~Students ~~without valid Study Permits will not be allowed to enrol. All i~~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 ~~Graduate studies Office (GSO)~~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 GSO (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 GSO 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 ~~on o~~Off-Campus

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

<u>General Regulations</u>

Leaves of absence are normally granted on a term-by-term basis. Whenever possible the leave should start and end at the beginning of a term (i.e., January 1, May 1, or September 1). During the period of a Leave the student cannot expect to be given supervision or be entitled to use the University's academic facilities. During a Leave of Absence, no tuition will be charged, nor will the student be eligible for any scholarship support. Students on a leave of absence have to pay applicable supplemental fees and will be able to use the services associated with those fees. The length of time for completing the degree, and for scholarship support eligibility (see qualifier below), will be extended by the duration of the Leave on the resumption of studies. If a leave begins or ends in the middle of a term, term count will be determined upon return in consultation with the Associate Dean.

Leaves of absence affecting Teaching Assistantship duties are covered by the Collective Agreement with Local 3906 (Unit 1) of the Canadian Union of Public Employees.

Students should be aware that in the event of Leaves of Absence, continuation of the same research project and/or supervisor cannot be guaranteed. Students applying for a leave of absence for personal reasons must normally have completed at least one year of full time graduate studies. Students who have not completed a minimum of 16 weeks of graduate studies at McMaster will not be eligible for parenting leave scholarship funding as noted below. For additional information related to parental and maternity leaves, please refer to the next section.

Students returning earlier than planned from a leave of absence must provide 4 week's notice to the School of Graduate Studies

<u>Reasons for Leaves of Absence</u>

A leave of absence 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 a leave of absence 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, he/she may be eligible for reinstatement upon reapplication.

A leave of absence 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. No two Leaves taken to obtain relevant work experience may be consecutive.

A leave of absence will not be granted to pursue another program of study.

Under certain circumstances the AVP and Dean of Graduate Studies may allow for a special leave of absence. In this case, application should be made directly to the AVP and Dean of Graduate Studies.

<u>Note</u>: Students who hold fellowships, scholarships or grants from NSERC, SSHRC, CIHR, or OGS should be aware that these agencies have policies governing the interruption and continuation of awards that may differ from the University's policy on leaves of absence. Students holding such awards and who intend to keep them are responsible for ensuring that any leave of absence taken does not conflict with the granting agency's regulations. The appropriate agency should be contacted for details.

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. The Policy applies only to full time graduate students as defined by the School of Graduate Studies.

Definitions

"McMaster Graduate Scholarship Funds"- The sum total of departmental and graduate scholarships as well as research account support committed to the student. It does not include funding from external sources; funding from employment such as Teaching Assistantships or Research Assistantships, or; most scholarships held in trust.

"Parent"- Includes the birth mother of a child; 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 intend to treat the child as his or her own.

"Parenting Leave"- An unpaid leave of absence from studies of up to 52 weeks' duration for a birth mother of a child or up to 37 weeks' for the parent of child who is not the birth mother.

Leave of Absence from Studies

Eligibility
A leave of absence for up to 52 weeks is permitted for Parenting Leave. 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.

Parameters
A Parenting leave for the birth mother may consist of two parts - a pregnancy leave and parental leave. The pregnancy leave must begin, at the earliest, up to 17 weeks before the anticipated due date or on the date the child comes into the care and control of the parent for the first time and lasts for 17 weeks. The parental leave must begin right after the pregnancy leave and lasts for up to 35 weeks. Alternatively, the birthing mother may only take the parental leave. In this case the leave can be a maximum of 37 weeks in length and must begin at latest within 52 weeks after the birth of the child or the date on which the child comes into the care and control of the parent for the first time.

The Parenting leave for a non-birth mother can be a maximum of 37 weeks in length and must begin at latest within 52 weeks after the birth of the child or the date on which the child comes into the care and control of the parent for the first time.

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 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 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 he/she intends to take his/her leave(s) and at least four weeks' notice of the date on which he/she intends to return from leave, should this date be different from the date agreed upon at the time the leave was granted.

A Parenting Leave or a portion thereof *may* be taken simultaneously with a Pregnancy and/or Parental leave from employment, in accordance with the Employment Standards Act, should the student also be an employee of McMaster University.

If both parents of a child are McMaster Graduate Students, only one parent is eligible to access Parenting Leave under this Policy at any one time. This Policy does not preclude the other parent from applying for a leave of absence under another policy or program and the approval or denial of that leave application will be determined on the basis of the parameters of that leave policy or program.

Combination with Other Leaves

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 employment there under.

Financial Support from the School of Graduate Studies for Parenting Leave

Eligibility
Students who have not completed a minimum of 16 weeks of graduate studies at McMaster will not be eligible for Financial Support under This Policy. They will remain eligible for a leave of absence from studies, in accordance with the above.

Parameters

A student in receipt of McMaster Graduate Scholarship Funds who has a child (or children) by birth or adoption may receive the financial support available under the Policy for a minimum period of 4 months and a maximum period of 8 months.

A student electing not to take the maximum amount of time available will not have the option of taking any unused leave at a later date.

A student in receipt of McMaster Graduate Scholarship Funds who takes a Parenting Leave under the Policy will be entitled to continue to receive graduate scholarship funds at the normal monthly rate, to a maximum of $750 per month and to a maximum total of $3,000, provided that a "Leave of Absence Information Form" has been submitted to and approved by the School of Graduate Studies.

The formula used to determine the "normal monthly rate" when a student is not currently in receipt of scholarship funds is the total of their McMaster Graduate Scholarship Funds averaged over the previous or current academic year depending on the start date of the parenting leave.

Combination with Other Forms of Financial Support

To maximize flexibility, the financial support available under the Policy can be combined with stipends from sources, excluding those from the Tri-Agencies (noted below) and can be spread over a period of between 4 and 8 months at the discretion of the student. However, in no case will funding for Parenting Leave from the School of Graduate Studies exceed a total of $3000 (and $750.00/month).

If the parent of the child for whom the Parenting Leave is being taken is eligible to receive parental support from CIHR, NSERC, SSHRC or another agency that provides parental support for the leave at any time during the Parenting leave, the parent is not eligible for financial support under McMaster's Parenting Leave Policy.

When two McMaster graduate students are the parents of a child, only one of those students will be entitled to claim the financial support under the Policy.

Financial support during Parenting Leave for students who are also employees of the University, provided as part of their terms and conditions of employment, are distinct and separate from the financial support available under this Policy. Other financial benefits, except as specifically excluded herein, can be taken concurrently with the financial support provided under this Policy provided that the individual meets the eligibility requirements for those plans for the duration for which they are accessing financial support under those plans.

The financial support provided under this Policy is not considered an approved Supplemental Unemployment Benefit Plan for the purposes of receiving Employment Insurance. Therefore, students wishing to access financial support under this Policy in addition to Employment Insurance ("EI") benefits should be aware that Human Resources and Skills Development Canada ("HRSDC") may consider financial support under this Policy to be earnings and could therefore require repayment of some of all EI benefits received. It is incumbent upon the student accessing financial support under this Policy to contact HRSDC if they have questions in this regard.

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

2.5.8 Vacations

Full-time graduate students are expected to be on campus for all three terms of the university year, as specified in Section 1.3. In addition to statutory holidays (see Sessional Dates) and the weeklong closing of the University from late December until early January, normal vacation entitlement is two weeks of vacation during the year, to be scheduled by mutual agreement with the research supervisor and the employment supervisor. An exception to this allotment requires approval from the supervisor or in the supervisor's absence a member of the supervisory committee.

2.5.9 Appeals and Petitions for Special Consideration

The University wishes to assist students with legitimate difficulties. It also has the responsibility to ensure that degree, program and course requirements are met in a manner that is equitable to all students. Students may submit, in a prompt and timely manner, a *Petition for Special Consideration* to the office of the Associate Dean of the School of Graduate Studies 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 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 initiate a complaint with the Office of Human Rights & Equity Services in 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 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 the 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	Pass/Fail
A+	12	P+
A	11	P
A-	10	F
B+	9	
B	8	
B-	7	
F	0	

Note: Grades in graduate courses are reported as letter grades. Averaging of letter grades must be done using the McMaster 12-point scale.

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

2.6.2 Course Levels and Types

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 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 approved, accelerated M.EngMasters. programs and with written permission of their department (or program) chair, director, or designate. (Departments may have restrictions on the number of 600-level courses allowed for graduate credit). 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 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

Where a student wishes to designate a particular course towards a program other than their primary academic program a special request is required. 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:

Masters (Count towards the Master's degree requirements)
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 Masters course are A+, A, A-, B+, B, and B-.

Doctoral (Count towards the Doctoral degree requirements)
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. 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 an Masters 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 Masters

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 Masters 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

All instances of failures 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. A failing grade in a Certificate, Diploma, Masters or Doctoral course remains on the transcript. Students who fail a second course will not normally be allowed to continue in the program.

Under exceptional circumstances a course instructor may approve an extension for the student for the completion of work in a course and assign an Incomplete grade (INC). 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 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 date specified in the Sessional Dates near the beginning of this Calendar. If the INC grade is not cleared by the deadline, a ~~failing~~ laps~~ed to~~ 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 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

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 - 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.

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. ~~Unless~~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

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. 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.

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 year (September-August), and possibly more often, to discuss the student's progress. Each Ph.D. supervisory committee must report 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. 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 is receiving unsatisfactory supervision, he/she 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 http://graduate.mcmaster.ca/current-students/policies.html.

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 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://gs.mcmaster.ca/sites/default/files/resources/graduate_work_supervision_guidelines_1.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/her 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 disabilities in designing and organizing 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 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://gs.mcmaster.ca/sites/default/files/resources/graduate_work_supervision_guidelines_1.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 ~~defense~~defence or for storage in the university library after a successful ~~defense~~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 ~~defense~~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 is wholly responsible for 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 <u>A Manual for Writers of Term Papers, Theses, and Dissertations</u> (7th ed., 2007). 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 ~~defense~~defence, including any changes mandated by the ~~defense~~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 Associate Vice-President & 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 Associate Vice-President & 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 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 DeGroote 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 authorised by a majority of the supervisory committee before producing the final version of

the thesis for oral ~~defense~~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~~chair; the thesis will be defended by the candidate in an oral examination before this committee. The Associate Vice-President & Dean of Graduate Studies may appoint members to these committees. The time of the ~~defense~~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 ~~defense~~defence. If the examiners approve the ~~defense~~defence, the Chair will ask the examiners to complete the Examination Report by ~~initialling~~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 ~~defense~~defence, and a reconvened oral ~~defense~~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 ~~defense~~defence. The reconvened ~~defense~~defence is the candidate's final opportunity to complete the degree. Membership on the reconvened examining committee should be the same as that for the original ~~defense~~defence, except that one or two substitutions are permitted in order to expedite scheduling of the reconvened ~~defense~~defence. If the ~~defense~~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 AVP 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 ~~Duration~~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, 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 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 ~~5.1~~2.5.2 - ~~Fees for Graduate Students~~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 unsatisfactory 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 ~~defense~~defence of the thesis. In all cases, the department must first declare that the submitted thesis is ready for ~~defense~~defence 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 re-admitted to 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 ~~defense~~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.

~~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~~defence ~~and subsequent processing of the thesis.~~

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.

4.3 Examinations

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. The Comprehensive Examination is designed to test students for this breadth of knowledge and the ability to integrate ideas. The form of the exam and its administration are the responsibility of the department in which the student is registered, not of the student's supervisory committee. 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, etc.). completion of seminars, 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.

The outcome will be reported to the School of Graduate Studies as "pass with distinction", "pass", or "fail."

If the Comprehensive Examination consists of multiple components, a second failure of the same single component will constitute a second failure of the Comprehensive Examination.

If the result of the Comprehensive Examination is "fail", the student must be given a second opportunity to take the examination, or those portions on which the failure occurred. This second opportunity is given in place of any 're-read' of a comprehensive exam, which is explicitly excluded from the Student Appeal Procedures, and in recognition of the fact that the failure may occur on the oral part of the examination. If a student chooses to withdraw from the program prior to that second opportunity, the result

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 comprehensive assessment of comprehensive knowledgeexam.

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 examination 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.

4.4 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 defensedefence. 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 defensedefence will not be arranged by the Thesis Coordinator until a majority of the supervisory committee has submitted a report approving the thesis for defensedefence and an agreed date of defensedefence has been received.

Selection of the Examining Committee

Selection of an external examiner is the responsibility of the Associate Vice-President & Dean of Graduate Studies. To aid in that selection, the supervisory committee is required to provide, through the Chair of the Department (or equivalent), the names and contact information for three potential examiners, at least one month prior to the submission of the thesis. 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. To maintain this distance, all communication with a potential or selected external examiner that is related to the examination and defensedefence of the student must originate only from the School of Graduate Studies. The external examiner will provide a written report to the Associate Vice-President & Dean of Graduate Studies judging whether the

written thesis is satisfactory for ~~defense~~defence or not. The external examiner will provide this assessment regardless of their ability to be present at the ~~defense~~defence.

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. 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. If the external examiner cannot attend the oral ~~defense~~defence, either in person or through tele- or video-conferencing, one additional representative of the faculty at large will be selected as an attending external examiner. In this case, the original (non-attending) external examiner will remain a member of the examining committee, but their contribution to evaluation of the candidate will be restricted to the written thesis. In unusual situations where the supervisor is not available to participate in the ~~defense~~defence for an extended period, the program Chair may designate a different faculty member to serve on the examining committee in place of the supervisor.

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 ~~Defense~~Defence)

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 ~~can~~ 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 Graduate Studies with a written assessment of the thesis at least one week before the scheduled 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, who will inform the candidate of any major criticisms of the thesis, so that the student can respond to these, but the evaluation must not be shown to the candidate. 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 same external examiner at a later date. A candidate may withdraw the thesis only once. Despite a negative assessment, a candidate has the right to proceed to a defence.

~~If the external examiner approves the thesis for oral examination,~~Subsequent to the receipt of the external examiner's report an oral ~~defense~~defence will be convened by the Associate Vice-President & Dean of Graduate Studies, chaired by herself or her 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. 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 ~~defense~~defence. Normally, examination of the candidate will not take more than two hours. In no case should it take more than three.

~~If the external examiner does not approve the thesis for an oral defense~~defence~~, the appropriate Associate Dean will convene a meeting with the student's supervisory committee to discuss the external examiner's report. The supervisory committee and student will make every effort to address the concerns of the examiner. A memo addressing the external examiner's concerns as outlined in the report is to be submitted to the School of Graduate Studies along with the revised thesis. SGS will then request that the external examiner re-evaluate the revised document to determine if it is suitable to go to defense~~defence~~. In rare cases, a new external examiner may be appointed by the Associate Vice-President and Dean of Graduate Studies.~~

After a discussion of the examination, the Chair will ask for a vote on the success or failure of the ~~defense~~defence. If the examiners approve the ~~defense~~defence, the Chair will ask the examiners to complete the Examination Report by initialling 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 ~~defense~~defence, and a reconvened oral ~~defense~~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 ~~defense~~defence. The reconvened ~~defense~~defence is the candidate's final opportunity to complete the degree. Membership on the reconvened examining committee should be the same as that for the original ~~defense~~defence, except that one or two substitutions are permitted in order to expedite scheduling of the reconvened ~~defense~~defence. If the ~~defense~~defence fails a second time, that decision is final, and is not open to appeal.

After a successful ~~defense~~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). ~~The fee for archiving the thesis is paid by the student.~~ 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 AVP and Dean of Graduate Studies.

4.~~5~~ 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 Associate Vice-President & Dean of Graduate Studies. 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 ~~defense~~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 ~~defense~~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 ~~Duration~~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. A student whose work is unsatisfactory 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 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.

~~I~~f 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 ~~defense~~defence of the thesis. In all cases, the department must first declare that the submitted thesis is ready for ~~defense~~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~~defence and subsequent processing of the thesis. If a student needs more than one term to complete they should be re-admitted to program and pay regular fees until all the program requirements are complete.

Financial Matters

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 ~~2016- 2017~~2017-2018 fees schedule is in effect for a period of September 1, ~~2016~~ 2017 to August 31, ~~2017~~ 2018 and applies to all graduate students whether registered in regular or part-time degree programs. Please consult the Accounts and Cashiers website (http://www.mcmaster.ca/bms/student/SAC_fees_grad.html) for the official graduate fees.

Notes:

Students promoted to a Doctoral program from a Master's program will be considered as new admissions for the purpose of time limits for completion of the degree requirements, eligibility for financial assistance, and fee assessment.

Some international students may be eligible to pay Canadian fees depending on various immigration policies, and the Ministry Funding Manual. International students in Term 7 or greater of a Master's program or Term 13 or greater of a Ph.D. program will pay Canadian tuition fees.

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, ~~The~~ 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 is 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-Yeard 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)

In all cases, scholarships awarded to a student will be applied towards tuition and all other mandatory supplemental fees on a student's account.

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; 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. The discounted tuition rate is normally equal to 1/2 of the Canadian tuition 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/)r. (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 Full-time Students

The University normally provides different types of financial support to full-time students: employment income, graduate/department or research scholarships, tuition bursaries, McMasters 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 of 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 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 more than 505 hours or more in a single academic year will be approved. Employment is paid as earned over the period in which the work is performed.

The Faculties or departments may provide tuition bursary funds to assist with tuition and fees. These funds will be applied towards tuition and all other mandatory supplemental fees on a student's account.

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.

Scholarships (excluding Research) and bursaries awarded to a student will be applied towards all charges on a student's account. A credit balance owing to the student will be issued as a "refund" once per term into a Canadian Bank account of choice. The direct deposit method of payment is mandatory and may take 3-5 business days to process.

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 monies owing to McMaster, such as award repayments, will be deducted from the student's financial support as necessary, or show as an outstanding balance on their student account. Please see section 5.1.2.

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 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 are responsible for being aware of and demonstrating behaviour that is honest and ethical in their academic work. Such behaviour includes:

a. following the expectations articulated by instructors for referencing sources of information and for group work;
b. asking for clarification of expectations as necessary;
c. identifying testing situations that may allow copying;
d. preventing their work from being used by others, e.g., protecting access to computer files; and
e. 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."

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.

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 communication informally with their instructors, the Chair of his/her 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/her 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

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, even those signed only by the faculty member but referring to student involvement, can restrict conditions for a number of matters important to students, such as their wish to publish research results, the thesis ~~defense~~defence, and the deposit of the thesis with libraries. In many cases, the restrictions are reasonable and do not clash with academic principles that require the presentation of research findings for peer assessment.

In those instances where a Non-disclosure Agreement has been signed, a supervisor must notify the Associate Vice-President & Dean of Graduate Studies in writing of the Agreement, giving a brief description of its contents and assessing the impact on the thesis ~~defense~~defence or dissemination of the thesis.

Students are advised to discuss any non-disclosure waivers or comparable agreements with the department chair, graduate advisor, or the School of Graduate Studies, before signing.

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 ~~defense~~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 Associate Vice-President & 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 ~~defense~~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 Associate Vice-President & 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
Human Rights and Equity Services - http://www.mcmaster.ca/hres
International Student Services - Tel. 905-525-9140 ext.24700; 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
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 - http://conference.mcmaster.ca
Hospitality Services - http://hospitality.mcmaster.ca
McMaster Community Homes Corporation - Tel . 905-578-3833; E-mail: receptionist@communityhomes.ca
Off-Campus Housing - http://macoffcampus.ca (Off-Campus Resource Centre)
On-Campus Housing - http://housing.mcmaster.ca (Housing and Conference Services)

Student Associations
Graduate Students Association (GSA) - http://www.mcmaster.ca/gsa
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 - http://www.mcmaster.ca/mcmcc
- McMaster Students' Union Child Care Centre - Tel. 905-526-1544 E-mail: 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
Centre for Leadership in Learning - http://cll.mcmaster.ca
McMaster Media Production Services - http://www.media.mcmaster.ca
McMaster Museum of Art - http://www.mcmaster.ca/museum
Office of International Affairs - http://www.mcmaster.ca/oia
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~~http://graduate.mcmaster.ca/graduate-scholarships)~~

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 ~~violated~~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;

- o 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 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 ~~Scholarships and Bursaries~~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.

8.2.1.1. 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.

8.2.1.2 Academic Grants

Academic Grants are granted on the basis of academic excellence and demonstrated financial need as stated above in section 8.2.1.1.

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.

8.2.1.3 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 Aapplicants must be invited by their department to submit an application to these competitions and verify eligibility requirements with the external agencies.

Awards from external agencies are sometimes renewable. 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 his/hertheir 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, the Associate Vice President & 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 Associate Vice President & 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 Executive Director (Strategic Planning & Administration), 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 Associate Vice President & 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 Associate Vice-President & 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.

Sessional Dates 2017~~6~~-2018~~7~~

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DEADLINE DATES FOR GRADUATE PROGRAMS	FALL TERM	WINTER TERM	SUMMER TERM
	Sept.- Dec., 2017~~6~~ Sept. - Oct., 2017~~6~~ (1HF) Nov. - Dec., 2017~~6~~ (2HF)	Jan. - April, 2018~~7~~ Jan. - Feb., 2018~~7~~ (1HF) March - April, 2018~~7~~ (2HF)	May - August, 2018~~7~~
On-Time Registration	Tuesday, July 2~~5~~6 to Tuesday, August 29~~30~~	Thursday, ~~December 1~~ November 30th to Thursday, December 14~~15~~	Thursday, April ~~5~~6 to Thursday, April 20~~19~~
Class Start Dates **	Classes begin after September ~~5~~4, ~~2016~~ 2017 - check with program for details	Classes begin after January 2, 2018~~7~~ - check with program for details	Class start dates vary - check with program for details
Late Registration	Wednesday August 30~~1~~ to Monday, September 1~~2~~	Friday, December 1~~5~~6 to ~~Monday~~Tuesday, January 2	Friday, April 20~~1~~ to ~~Monday~~Tuesday, May 1
Final Dates to Add Courses:			
6 Unit Courses	Friday, September 29~~30~~		
3 Unit Courses or 1.5 Unit Courses (1HF)	Friday, September 30~~29~~	Friday, January 2~~6~~7	Friday, May 1~~8~~9
1.5 Unit Courses (2HF)	Friday, October 2~~7~~8	Friday, March 2~~3~~	Friday, June 29~~30~~
Final Dates to Drop Courses: **			
6 Unit Courses	Friday, January 4~~6~~		Friday, August 24
3 Unit Courses	Friday, October 6~~7~~	Friday, February 2~~3~~	Friday, June 8~~9~~
1.5 Unit Courses (1HF)	~~Thursday~~Friday, September 30~~29~~	Friday, January 26~~27~~	Friday, June 8~~9~~
~~Quarter~~ 1.5 Unit Courses (2HF)	Friday, November 3~~4~~	Friday, March 9~~10~~	Friday, July 13~~14~~
Final Dates to Submit Grades:			

6 Unit Courses		~~Monday, May 1~~Friday, May 4	Friday, August 24
3 Unit Courses	~~Monday, January 2~~Friday, January 4	~~Monday, May 1~~Friday May 4	Friday, August ~~25~~24
1.5 Unit Courses (1HF)	Friday, October ~~28~~27	Friday, March ~~2~~3	Friday, August ~~25~~24
1.5 Unit Courses (2HF)	~~Monday, January 2~~Friday January 4	~~Monday, May 1~~Friday May 4	Friday, August ~~25~~24
Final Date to Submit Results of Incomplete (INC) Grades for Previous Term with Permission of Associate Dean	Friday, March 9~~10~~	Friday, July 13~~7~~	Friday, November ~~10~~9

Thesis

	FALL 201~~7~~6	SPRING 201~~8~~7	FALL 201~~8~~7
Final Date to Submit Ph.D. Theses to Graduate Studies (Prior to Defense)	Friday, July 1~~4~~5	Tuesday, Feb. 6~~7~~ (*Health Sci.*) Tuesday, Feb. 2~~0~~1 (*All others*)	Friday, July 1~~3~~4
Final Date to Submit Master's Theses to Departments (Prior to Defense)	Friday, August 1~~1~~2	Friday, March 9~~10~~	Friday, August 1~~0~~1
Final Date to File Final Theses with Graduate Studies and Complete Degree Requirements***			
- Faculty of Health Sciences	Friday, September ~~30th~~ 29th	Thursday, April ~~5~~6th (*except Nursing*)	~~Friday, September 29~~Sunday, September 30
- All Other Faculties	Friday, September ~~30th~~ 29th	Thursday, April 2~~6~~7 (*including Nursing*)	~~Friday, September 29~~Sunday, September 30

~~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.~~

**~~All courses on a student's record after these dates ~~will require~~ a grade. Exceptions require submission of a Petition for Special Consideration~~

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. Students should consult the undergraduate calendar for enrolment.

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.

*** A final thesis is the corrected, approved version of 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/