



School of Biomedical Engineering

Graduate Program Handbook

2024-2025

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DEPARTMENTAL CONTACTS

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Disclaimer:

This document is not intended to replicate or modify the information found in the School of Graduate Studies (SGS) Calendar (available at <https://graduate.mcmaster.ca/grad-council/graduate-calendar.html>). If there is any discrepancy between this document and the SGS Calendar, then the School of Graduate Studies Calendar shall prevail. Students and faculty are encouraged to look at the SGS Calendar for information about:

- Graduate study at McMaster University;
- General regulations of the School of Graduate Studies;
- University regulations;
- Graduate fees and financial assistance;
- University regulations affecting graduate students;
- University services;
- Fellowships, scholarships, bursaries and other awards;
- University governing bodies;
- Student appeals; and
- Degree programs (including degree requirements).

QUICKLINKS – UNIVERSITY POLICIES AND REGULATIONS

The School of Graduate Studies Graduate Calendar (2024-2025)

<https://academiccalendars.mcmaster.ca/index.php?catoid=55>

Policies, Procedures and Guidelines (Academic Dishonesty, Appeals, etc.)

<https://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf>

Student Code of Conduct

<https://secretariat.mcmaster.ca/app/uploads/Code-of-Student-Rights-and-Responsibilities.pdf>

Copyright Policy (MILO)

<https://research.mcmaster.ca/mcmaster-industry-liaison-office-milo/about-us/>

Discrimination, Harassment & Sexual Harassment Prevention and Response Policy:

<https://secretariat.mcmaster.ca/app/uploads/Discrimination-and-Harassment-Policy.pdf>

Research Integrity Policy

<https://secretariat.mcmaster.ca/app/uploads/Academic-Integrity-Policy-1-1.pdf>

Thesis Completion and Defence

<https://gs.mcmaster.ca/current-students/completing-your-degree/>

Collective Agreement for TA/RA in lieu of TA:

<https://cupe3906.org/tas-unit-1/collective-agreement/>

Conduct Expectations

As a McMaster graduate student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the *Code of Student Rights & Responsibilities* (the “Code”). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students’ access to these platforms.

Academic Accommodations of Students with Disabilities

Student Accessibility Services (SAS) provides academic accommodation assistance and related supports to students with disabilities at McMaster. SAS is available to assist students transitioning from high school, and other post secondary institutions, and can be reached at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University’s Academic Accommodation of Students with Disabilities policy or visit <http://sas.mcmaster.ca/>.

Reminder: Approved accommodations of previous undergraduates at McMaster do not automatically apply during graduate studies. Students needing accommodations should return to SAS soon after commencement of their graduate program to implement or update your student status and to activate accommodations.

Academic Accommodation for Religious, Indigenous or Spiritual Observances (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the *RISO* policy. Students should submit their request to their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and term.

Copyright And Recording

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, including lectures by university instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

Extreme Circumstances

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

Intellectual Property & Student Ownership

More than roughly 80% of the research carried out in the Faculty of Engineering is done with industry. The university signs intellectual property and ownership agreements with a company and hence the terms of these agreements apply to all members of McMaster, not just the project supervisor. Students are encouraged to talk to their supervisors about the terms covering their research project to understand how their contributions will be weighted in the intellectual property generated and whether any review of theses and papers is required by the industrial sponsor before public disclosure.

Plagiarism-Checking Software (iThenticate)

Effective December 1, 2023 the university requires all Master's and Doctoral theses to be reviewed by iThenticate, a plagiarism-checking software, before being seen by an external reviewer (Doctoral) or the finished copy submitted (Master's). This requirement can be found in the University's Research Plagiarism Checking Policy (found on the Secretariat website). This requirement is not meant to catch plagiarism; but rather, prevent it. By helping students detect sections of text requiring revision before the document is released to the public, the use of this tool can avoid otherwise serious allegations.

Student and supervisor will work together to revise any sections of the thesis that may be overlapping

with previously published content that the student does not have permission to copy; sandwich theses are expected to have a substantial amount of already published content, but in this case the student should have sought, and been granted, permission to use it in their document. The student's supervisor is responsible for confirming the thesis is ready to submit.

QUICKLINKS – FINANCIAL MATTERS

Scholarships Database

<https://gs.mcmaster.ca/current-students/scholarships/>

Payroll Information

<https://hr.mcmaster.ca/employees/payroll/teaching-assistants-payroll-information/>

Pay Statement Guide

<https://hr.mcmaster.ca/app/uploads/2019/06/pay-statement-explained-2014-10-20-1-49-1.pdf>

Tuition Fees

<https://registrar.mcmaster.ca/fees/graduate/>

University Health Insurance Plan (UHIP) for International Students

<https://studentsuccess.mcmaster.ca/international-students/health-insurance/>

Scholarships, Fellowships, Bursaries and Other Awards

Most graduate students admitted to the M.A.Sc. and Ph.D. programs in Biomedical Engineering will receive financial support in the form of a teaching assistantship and a departmental scholarship. The minimum level of support varies from year to year. Graduate students are encouraged to apply for both internal and external funding opportunities that may be available to them. (Keep an eye on your email; most of these opportunities will be advertised through that medium.) Awards—such as CGS, PGS and Vanier—are announced in the Fall term, as well as most donor-funded awards. OGS awards are announced in the Winter term. Department-specific awards are often announced between the Winter and Spring terms.

If a graduate student holds a major award (NSERC, CGS-M, CGS-D, PGS-D, OGS, QEII GSST, Vanier), the total stipend provided by the program cannot be reduced by more than \$2,500 per term for each term in which the student holds the award. Any scholarship greater than \$10,000 is considered a major scholarship.

Teaching Assistantship

First Time Teaching Assistants (TA)

All first time TA's at McMaster are required to complete five hours of paid mandatory TA training which will include instruction on topics in pedagogy and anti-oppression. This mandatory training is a one-time requirement separate from, and in addition to, other training that you may be expected to complete as part of your employment (which may include general orientations, institution-wide mandatory health and safety training, and assignment-specific health and safety training required by your Employment Supervisor).

Self-registration for training courses is available through the Regulatory Training Tile on the Mosaic homepage. Once registered, carefully follow the directions under on the welcome page on Avenue to Learn. More detailed instructions will be emailed to students before the beginning of each semester.

Important notes:

1. Training should be completed within two weeks of your assignment.
2. A short quiz follows each module on Avenue to Learn, and a score of 100% is required on each quiz. These quizzes can be taken repeatedly until the required score is reached. *These quizzes trigger the payment process - if the quizzes are not successfully completed (i.e. 100%), you risk not being paid for these five hours.*
3. This training is a one-time requirement for the first time that you TA at McMaster. You will not be paid for more than 5 hours of training, even if you TA for multiple faculties.

For more information, please refer to the links below:

https://hr.mcmaster.ca/employees/health_safety_well-being/our-safety/health-and-safety-%20training/ta-training/

<https://mi.mcmaster.ca/new-ta-programming/>

<https://fireballacademy.mcmaster.ca/for-students/on-the-job/ta-training-materials>

Returning Teaching Assistants

If for any reason, a returning TA has not taken the pedagogy and anti-oppression training (away on a leave of absence or co-op placement), the TA will be required to take the two-hour anti-oppression training module through MacPherson and will receive two hours of pay accordingly. While additional training is encouraged, it will not be compensated.

Teaching Assistants for 2024/2025 Academic Year

A useful guide is provided here: <https://ecampusontario.pressbooks.pub/taguide/>

You must complete all TA training. Before commencing your Teaching Assistantship duties, you need to complete the following forms in consultation with the course instructor and submit the completed forms to the Graduate Administrator.

1. TA Hours of Work Form: <https://hr.mcmaster.ca/app/uploads/2019/02/TA-Hours-of-Work-Form- August-2021 Fillable-Form.pdf>
2. TA Performance Expectations Form: https://www.eng.mcmaster.ca/app/uploads/2023/12/ta_performance_expectations_form_mech_eng.pdf

CUPE

If you are receiving a Teaching Assistantship (TA) or a Research Assistantship (RA) in lieu of TA, you are a member of the Canadian Union of Public Employees, Local 3906. Union dues are deducted in each month in which you receive TA/RA monies.

Dental Plan

All full-time graduate students who are receiving a TA and/or a RA in lieu of a TA of 130 hours or greater will have Dental Plan premiums deducted each month for the full year.

Employment Regulations

Please refer to section 2.5.4 of the Graduate Calendar for Employment Regulations

https://academiccalendars.romcmaster.ca/content.php?catoid=48&navoid=9525#2.5.4_Employment_Regulations

Biomedical Graduate Student Travel Assistance Grant

In 2022 we created a new Travel Award for BME students. The School of Biomedical Engineering students can apply for a travel award valued at a maximum of \$500.00. The travel awards are intended as reimbursement for expenses incurred to attend a conference, a workshop, or participate in other activities which foster scientific exchange and networking with other researchers. The receipts used for the BME Travel Award cannot be combined with another award and must only be submitted once.

For further information on how to apply and the application form please go to the [BME Resources](https://www.eng.mcmaster.ca/msbe/resources#graduate-students): <https://www.eng.mcmaster.ca/msbe/resources#graduate-students>

GRADUATE PAY

In order to receive research scholarships and TA income, you will need to:

- Ensure that you are properly set up on the Student Centre module (under Graduate Studies' Banking webpage, click "If you are receiving a Research Scholarship, TA, and/or RA in Lieu of TA" to see instructions on how to [enrol in direct deposit](#))
- Ensure that you are properly set up on the Human Resources module (students must [submit their payroll information](#) via the online Employee Self-Service portal in Mosaic, starting August 2024)

Research scholarships are paid as one lump sum two or three weeks into the start of a new term; TA income is paid biweekly during the term(s) in which you are a TA. In order to receive graduate/department bursaries, you will need to:

In order to receive graduate/department bursaries, you will need to:

- Ensure that you are properly set up for [Direct Deposit](#)

Bursaries are paid as one lump sum two or three weeks into the start of a new term.

If you do not see the Enrol in Direct Deposit (Student) tile on your Mosaic Homepage, please log into University Technology Services' (UTS) [Client Services Portal](#) (again, using your MacID and password) and select:

1. "General Requests"; then
2. "Report a Problem".
3. Detail your issue in the blank field, then click "Create". Please monitor the portal for confirmation that the tile has been added to your Mosaic Homepage. Detail your issue in the blank field, then click "Create". Please monitor the portal for confirmation that the tile has been added to your Mosaic Homepage.

***IMPORTANT:** If you complete any of the previous steps improperly and/or are not fully enrolled in the Fall 2024, Winter 2025 and Spring/Summer 2025 terms by August 1, 2024, your payments will be delayed until a correction is made.

University Health Insurance Plan (UHIP)

UHIP is a mandatory, comprehensive health insurance plan that provides health coverage for international and incoming exchange students. UHIP covers medically necessary doctors and hospital visits within Ontario for international students, incoming exchange students and dependants (spouse and children). For more information, please visit:

<https://studentsuccess.mcmaster.ca/international-students/health-insurance/>

Other topics, such as cost of living and tuition fees, can be found on [The School of Graduate Studies' website under "Cost of Living"](#) or on [The Registrar's website under "Graduate Fees": Tuition and Supplementary Fees.](#)

QUICKLINKS – MISCELLANEOUS RESOURCES & STUDENT LIFE

Incoming Graduate Students

<https://www.eng.mcmaster.ca/future-students/future-graduate-students/incoming-graduate-%20students/>

Housing & Student Life

<https://www.eng.mcmaster.ca/future-students/future-graduate-students/incoming-graduate-%20students/housing-student-life/>

Advice From Current Graduate Students

<https://www.eng.mcmaster.ca/future-students/future-graduate-students/incoming-graduate-%20students/advice-from-current-students/>

Student Wellness Centre: Mental Health Resources

<https://wellness.mcmaster.ca/thriveweek/mentalhealthresources/>

TalkSpot: A Mental Health Service Exclusively for Mac Eng Students

<https://www.eng.mcmaster.ca/current-students/talkspot/>

Thesis Writing and English Language Skills Development

If you are having difficulty with the English language and thesis writing, there are several on campus resources available to help you. The following are particularly useful:

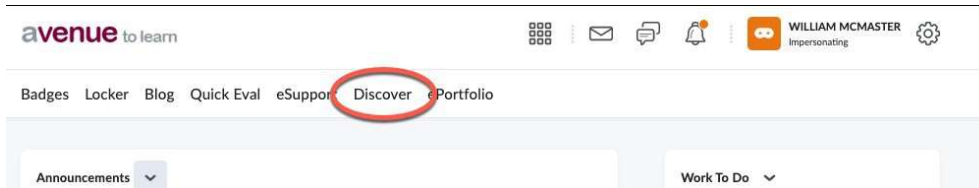
McMaster Office for the Development of English Language Learners (MODEL). This is a FREE service designed to help students with the English Language. They offer training, workshops and support to meet student needs of all academic backgrounds and English language proficiency. You can get more information at [MODEL | MELD Office](#).

The School of Graduate Studies also offers help with Thesis writing. Often, the Thesis writing can be the stumbling block for students to graduate on-time. Using their resources at the start of one's graduate study can significantly help with the writing process. Please check out their resources at [Graduate Writing – School of Graduate Studies](#).

Build Professional & Technical Skills

Discover the Technical Communications for Graduate Students module on Avenue2Learn: The Art and Science of Persuasion, Audience Analysis, Writing for Publications, Proposing and Reporting a Project, Presentations and Visualizing Data, How to Give an Oral Presentation. All essential skills for success in today's competitive market.

After logging in, click on the 'Discover' link, and search for 'Technical Communications for Graduate Students' to find the course.



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.

RESPONSIBILITIES OF GRADUATE STUDENTS TO THE UNIVERSITY

Just as the University has responsibilities to graduate students, graduate students also have responsibilities to the University.

The student's responsibilities include, but are not limited to:

- Registering annually until graduation, withdrawal, or withdrawal in good standing due to time limit.
- Using the University provided e-mail address or maintaining a valid forwarding e-mail address.
- 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
- 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.
- 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 and a decision on readmission is not subject to appeal.
- Paying fees as required.
- Reviewing the University's [Code of Student Rights and Responsibilities](#)
- Complying with the regulations of the School of Graduate Studies as set out in its calendar.
- <https://academiccalendars.romcmaster.ca/index.php>

Academic Integrity

The Office of Academic Integrity strives to assist instructors and students with issues of academic and research integrity. The McMaster University Academic Integrity Policy can be found here: <http://www.mcmaster.ca/academicintegrity/>. The McMaster University Research Integrity Policy can be found here:

<https://www.mcmaster.ca/policy/faculty/Research/ResearchIntegrityPolicy.pdf>

* Please also take note of the policies and guidelines referring to student misconduct. The School of Biomedical Engineering will also adhere to these policies.

Leaves of Absence

Please refer to the [24/25 SGS Calendar](#)

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Vacation

Please refer to the [24/25 SGS Calendar](#)

SAFETY & SECURITY

Mandatory Health and Safety Training

Graduate students must complete the mandatory health and safety training courses.

1. Asbestos Awareness
2. Ergonomics
3. Fire Safety
4. Office WHMIS
5. Slips, Trips and Falls
6. Health and Safety Orientation Training
7. Violence and Harassment Training

Training can be completed on Mosaic. After completion students are required to send verification to their supervisor.

Emergency

In case of emergency on campus dial 88. The McMaster Security office is located in E.T. Clarke 201 and can be contacted at ext. 24281. This office is responsible for overall security on campus.

Walk Home Service - SWHAT

During the months of September through April, students operate a service called "Students Walk Home Attendant Team" (SWHAT). After dark, if you telephone ext. 27500, you can arrange to be escorted to your car or residence by a male and a female student. During the summer term, Campus Security will escort you to your car or residence and they can be reached at ext. 27500.

GRADUATE PROGRAM REGULATIONS – ENROLMENT

Matters With Regard to Enrolment (Section 2.5 Of The Graduate Calendar)

Full-Time Student

A full-time student is one who is studying on a full-time basis; treating studies like a full-time job; attending to coursework and research in a professional manner; being in consultation with and available to their supervisor at regular intervals (daily and/or weekly by mutual agreement) to monitor progress.

Part-Time Student

A part-time student is one who usually has a full-time job outside the university, but wants to work towards his or her graduate degree on a part-time basis. A part-time student is limited to 3 graduate courses (9 units) per academic session (Sept 1 – Aug 31) and will usually take more time to complete the degree [M.A.Sc. program: up to five years (60 months) from the original date of registration if student began as “part-time”; Ph.D. program: up to eight years (96 months) from the original date of registration if student began as “part-time”]. Part-time students are not eligible for financial support from the department; nor teaching assistantships; nor scholarship equivalent.

Status Changes (FT to PT; PT to FT; Withdrawal; Re-admission to Defend; Program Transfers, Leaves of Absence; Full-time Off-Campus)

Students who wish to change their status (full-time to part-time; part-time to full-time; transferring from M.A.Sc. to Ph.D.; withdrawal from the program; going on leave of absence, studying full-time off-campus), and former students who wish to be readmitted to the program, are expected to complete paperwork within a timeframe that permits their change to be effective on the first day of the next term (September 1st, January 1st or May 1st). Please see the graduate program administrator at least one month in advance of an expected transition to ensure that all paperwork is completed in a timely manner.

Engineering Co-op Program

The Engineering Co-Op Program for graduate students is an optional program for full-time domestic and international M.A.Sc. and Ph.D. students in good academic standing, that allows students to gain engineering work experience prior to graduation. Students have the option to complete 4 to 12 months of co-op experience. It is administered by the Career Development & Relationship Manager - Graduate Studies. For more information, please visit:

<https://www.eng.mcmaster.ca/co-op-career-experience/how-co-op-works/graduate/>

Industrial Ph.D. Program

The Industrial Ph.D. program allows full-time doctoral students the unique opportunity to work in the field and complete study toward their doctoral degree simultaneously. For more information on the Industrial stream, please visit the Faculty of Engineering’s page on the “Industrial Ph.D.” program.

Email

The School of Graduate Studies and the Department will use electronic mail to communicate directly with graduate students at various times during the year. The University Technology Services (UTS) provides each with an e-mail address. You are required to “self-register” for your e-mail address via MOSAIC.

During the self-registration process you will be given a password, it is important to keep a note of this original password, it will be required again for library and computer access. If you have any major problems you can call the UTS helpline ext. 24357.

All students are required to register for services on MOSAIC on an annual basis. Student accounts not renewed by October 15 are disabled and subject to deletion. Students are expected to read their email on a regular basis. Not reading email messages will not be treated as a valid reason for not adhering to regulations, procedures or deadlines.

Desk

Each student will also be assigned a desk or a shared desk in the graduate student office (ETB 303). It is **your responsibility** to empty and clean your desk at the end of your studies to ensure a new student is assigned a clean & available desk. Failure to do so will cause a delay in defending your thesis. The desk you are assigned is the desk you must stay at for the duration of your degree. If there are any issues please see the program administrator.

UNIVERSITY ADMINISTRATIVE INFORMATION

Graduate Transcripts

If you wish to obtain a McMaster graduate transcript, you must place your order with the receptionist in the Office of the Registrar (Gilmour Hall, Room 108). The form is available on-line at: <https://registrar.mcmaster.ca/services/transcripts/request/>

Housing

In an effort to assist students in their search for housing, the University operates an Off-Campus Resource Centre. The office is located in MUSC B112. For additional information, please visit: <http://macoffcampus.mcmaster.ca/>

Parking & Transit Services

Security & Parking Services strive to provide our University Community and visitors, with safe and well maintained parking and transiting infrastructure. The University is dedicated to courteous and helpful customer service through information resources, polite and knowledgeable staff, and convenient parking facilities. If you require parking for an extended period, please contact the Parking & Transit Service Office: <http://parking.mcmaster.ca/>

Student Wellness Centre

The Student Wellness Centre is a resource for all McMaster students. It offers services in several main areas: personal counseling, academic skills, services for students with disabilities and Leadership Training. Located in MUSC B118.

Student Health Services

The medical services are located in the McMaster University Student Centre B101 ext. 27700. Health care is available throughout the year. Whether you have a health emergency, a concern about nutrition, or a bad case of the flu, you can expect care, dispensed by health professionals who are friendly, concerned and accessible. <http://wellness.mcmaster.ca/>

Financial Aid & Scholarships

The Student Financial Aid & Scholarships office provides service to students in all areas of financial support: loans (i.e. OSAP, BCSAP), bursaries, work programs and scholarships. <https://registrar.mcmaster.ca/aid-awards/>

McMaster Library

McMaster University has four libraries to help with your research, teaching and learning. For information on the library's listed below, visit the website - <https://library.mcmaster.ca/>

- H.G.Thode Library of Science & Engineering
- Health Sciences Library housed in the Health Sciences Centre
- Mills Memorial Library (Humanities and Social Sciences),
- Innis Library (Business) located in Kenneth Taylor Hall, Room 108

International Student Services

The aim of McMaster University's International Students Services (ISS) is to make your stay as comfortable and beneficial as possible. <https://iss.mcmaster.ca/>

Graduate Students Association (GSA)

The mandate of the GSA is to promote the welfare and interests of the members through the provision of facilities and opportunities for social, athletic and intellectual activities; to the members before the duly elected and appointed authorities of McMaster University, and to promote communication and participation in all matters of common interest between the members of other student organizations, both at McMaster and in other educational institutions. <http://www.mcmaster.ca/gsa/>

Engineering Graduate Society (EGS)

The Engineering Graduate Society is an official organization in support graduate students in Engineering and who organize events, both educational and social, for the development of all graduate students with the aim of impacting the student experience while at McMaster for the better. More information can be found at: <http://egs.mcmaster.ca/>

Biomedical Engineering Graduate Students Association (BMEGA)

The Biomedical Engineering Graduate Association Executive is a group of about five students within BME who, throughout the year, organize fun and exciting social get-togethers for BME. In this respect, the goal is to bring us together through exciting and/or relaxing social activities that help build relationships, memories, and a unique identity, thus making the BME program more than about research and academia. As a graduate student in BME, all students are a part of this Association.

In the past BMEGA has organized the following events:

- The Inside Ride: Coast to Coast Against Cancer, where we put together a BME team of 6 who competed in an indoor cycling competition and helped raise money for children and families affected by cancer.
- Co-recreational Volleyball Intramurals
- Hallowe'en Party and Pumpkin Carving Contest
- Rock Climbing
- Winter Holiday Wine and Cheese Get-Together
- Salvation Army Food Hamper and Gifts for Children Volunteering
- Second Term Wine and Cheese Get-Together
- GSA Reading Week Ski Trip
- GSA D-League Softball (all summer long!)
- Golf Day
- BME Open House (recruitment)

BMEGA can be reached by email at bmega@mcmaster.ca.

INTERNATIONAL STUDENTS

Student Visa, Employment Authorization

Visa students are required to provide photocopies of their study permit and/or employment authorization to the Biomedical Engineering's Program Coordinator.

Immigration Information

For information on renewing your student visa or other immigration information, please visit the Citizenship and Immigration Canada site: <http://www.cic.gc.ca/>

Social Insurance Number (SIN)

If you have a Teaching Assistantship or Research Assistant position as part of your offer of admission, you will need to apply for a SIN. The Service Canada Office is located at 1550 Upper James Street and is open Monday to Friday from 8:30 am to 4:00 pm. The SIN application can be found on the Service Canada site: <http://www.servicecanada.gc.ca/eng/sin/apply/how.shtml>

You will require the following documents when applying for your SIN:

- A copy of your offer letter. .
- Your passport and study permit
- Social Insurance Number application form

GRADUATE STUDIES IN BIOMEDICAL ENGINEERING

Course Registration

The complete list of graduate courses in the School of Biomedical Engineering is listed in the [School of Graduate Studies Calendar 2024-2025](#). At least 50% of the required courses for the degree must be selected from this list, and any courses selected outside of the list must have the Director's approval or Associate Dean's approval to count as a required course. All graduate courses for BME must be from engineering, science or health sciences.

A current list of our courses can be found at the following link:

<https://www.eng.mcmaster.ca/msbe/programs/course-listing> For other and cross-listed courses, see the [Calendar List of Biomedical Engineering Courses](#)

You will need to register for graduate courses using MOSAIC, please indicate the category (M) Master's, (D) Ph.D., or (EC) Extra Credit on this form.

M (Count towards primary academic program requirements of 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 Master's course are A+, A, A-, B+, B, and B-.

D (Count towards primary academic program requirements of 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-.

EC (Extra Course)

This category identifies courses that the student is taking with the approval of their supervisor but that are not required for the degree. In order to designate a course as extra, a student will have to submit a course designation request during the normal add period of enrollment in a particular term. The form is submitted to the program office and once approved will have the designation added to the enrollment record for that course only. If a failing grade (less than B-) is received in a course taken as Extra, the course and grade will not appear on the student's transcript unless there is a case of academic dishonesty. Students must petition to change the designation of an Extra Course to a Master's or Doctoral course, prior to the deadline to drop a course, provided that this change is supported by the supervisor and program. Changes of designation after the drop date will not be approved. Courses designated as Extra Course may subsequently be counted towards graduate degree requirements and the course designation changed to Master's or Doctoral, if approved by the Faculty Admissions and Study Committee of the Associate Dean (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 Department Chair as additional requirements in excess of the stated minimum for the program must be designated as Master's or Doctoral.

Note: Graduate students should make their course selection after consulting with their research supervisor.

Audit Courses

It is possible for graduate students to audit a graduate course under regulations given in the School of Graduate Studies Calendar. Auditing allows a student to participate in a course without being assigned a mark. The course will show up on the transcript as an audited course, but it will not count as an M, D, or EC course nor can it be used satisfy any degree program requirements. It can also not be taken again later for credit. In order to audit a course, permission must be granted by the instructor. To apply to audit a course, a student must complete the Audit Graduate Course Form

Required Courses for All Graduate Students – SGS 101, SGS 201

All graduate students must complete and pass SGS #101 – Academic Research Integrity and Ethics & SGS 201 Accessibility for Ontarians with Disabilities Act within the first month after their admission. The purpose of this course is to ensure that the standards and expectations of academic integrity and research ethics are communicated and understood by students. Registration for this course is completed on MOSAIC. If you have taken SGS #101 but have not fulfilled the requirements, you will be required to take it until completion. All graduate students are also required to complete and pass SGS #201 – Accessibility for Ontarians with Disabilities Act (AODA), which can be completed online at www.mcmaster.ca/accessibility by the end of their first month.

Notes

- Passing grade for SGS 101 is 14/20 and students have three (3) attempts.
- Passing grade for SGS 201 is 6/6 and currently there is no limit to the number of attempts.
- Students who have taken SGS 101 and 201 for a previous graduate degree do not need to take the course again.

Students may not graduate or register in subsequent academic year without having successfully completed these courses.

During an academic term in which students are not enrolled in courses but remain active in their research as a graduate student at McMaster University, students must enroll in SGS #700 – Placeholder, in order to alert the Department and School of Graduate Studies of their activity. Otherwise, this course is not required if students are enrolled in and completing academic courses.

Core Courses

BIOMED *701 / Biomedical Engineering (Core) – 3 unit(s) R. Selvaganapathy

An introduction to biomedical engineering. The biological, chemical, electrical, and mechanical principles involve the design and operation of medical devices and bioprocesses. The research themes of the School of Biomedical Engineering are emphasized: biomaterials and devices; biomedical imaging, sensing and detection and therapeutics.

- This course is required if you have a health/life science background.

BIOMED 706 / Biomedical Engineering II (Core) – 3 unit(s) R. Mishra (course cross-listed as [CHEM ENG 781](#))

- An introduction to biomedical engineering with a health science focus. The biological and chemical concepts involved in the design and operation of medical devices and biological processes will be discussed. The following research themes will be emphasized: cell biological responses to biomaterials, toxicity / pharmacokinetics, tissue and genetic engineering, gene therapy, biotechnology physiological response to biomaterials.
All Students are welcome to take both.
- This course is required if you have an engineering background.

NOTE: Students cannot take BIOMED 706 to meet the health science/medical science course requirement. This is a core course for students who enter the program with an engineering background. You are required to take one additional health science/medical science course to meet your requirement.

Additional Course Offerings

In addition to the core courses offered annually, there is a list of additional course offerings that can be found in the [on-line calendar](#).

Career Planning – CARP – Mandatory Program Requirement

- Graduate students entering into Master's or Doctoral programs within the Faculty of Engineering are required to complete a career planning exercise within their first academic year (September to August). The report should be no more than two pages and must be submitted to the department's graduate Administrator before the end of August in their first year. For students who start their programs in May or January their career plan must be submitted by the end of their first 12 months in the program. In preparation for writing this career planning exercise, students will be contacted by the Engineering Career Services Dept. for career counseling sessions. A copy of the [CARP form](#) is also available on our web site.

Degree Completion Overview and Transferring to a Ph.D.

- Master's Students require 3 one-term courses to complete their M.A.Sc. degree.
- M.A.Sc. that complete their degree at McMaster and then move on to a PhD will need 2 half term courses at the PhD level.
- McMaster BME M.A.Sc. that transfer to the Ph.D. program without completing their M.A.Sc.

will need a total of 5 half term courses to complete their PhD degree (2 of which needed to be completed with a B+ while they were still in the M.A.Sc.).

- PhD students transferring from a different university will need 3 half term courses to complete their degree.

Engineering Co-op

The Co-op Program for Graduate students is an optional program for full-time domestic and international Master's and Ph.D. students in good academic standing that allows students to gain engineering work experience prior to graduation. Students are required to complete a minimum of 8-months of work experience for Master's students, and 12-months of work experience for Ph.D. students prior to graduation. It is administered by the Career Development & Relationship Manager - Graduate Studies. The permission of the supervisor is required to take part in the Co-Op opportunity. <https://www.eng.mcmaster.ca/co-op-career/co-op-program#FAQs>

Completion of Course Requirements

Graduate students who have finished all courses must still use the course selection screen to select non-coursework activities: Research, Project or Thesis to indicate their current study status. For graduate students selecting non-coursework activities the following rules apply:

- Project and thesis are mutually exclusive and cannot be selected at the same time
- Students with discounted fees may only select thesis.

Academic Advisement

Mosaic offers graduate students the Academic Advisement report tool as a method of tracking your progress towards graduation via completion of your curriculum requirements. Follow the instruction at the link below to view your Advisement Report.

Guide to Accessing Academic Advisement reports

<https://registrar.mcmaster.ca/wp-content/uploads/2019/03/Academic-Advisement-Report-01.21.pdf>

SGS Policy: Course Registration & Withdrawal Dates

There is a deadline date for both registration and changes (drop and add) for courses. The drop and add dates are posted in the SGS Graduate Calendar. It is the student's responsibility to drop and add courses from their academic record. [Deadline Dates](#)

In certain circumstances, it is possible to change course selection after the deadline date. Please note that students will require approval from their supervisor, Director of the School and the School of Graduate Studies. To request the change, the student must complete a Petition for Special Consideration which can be completed electronically through this link:

<https://gs.mcmaster.ca/current-students/forms-and-policies-for-graduate-students-staff-and-faculty/>

Biomedical Engineering Symposium and Seminars

The School of Biomedical Engineering runs an annual 2-day Biomedical Engineering Symposium (in January). Attendance of all registered Master's and Ph.D. students in the Biomedical Engineering program is mandatory. Students are also required to present one seminar on the research they have carried out while enrolled in the program. Students can present their seminar during one of the following events:

1. The BME symposium (Spring)
2. The Health Sciences Plenary (May)
3. The Fall seminar day

4. 'METRIC' conference hosted by the Engineering Graduate Society, EGS, egs@mcmaster.ca, egs.mcmaster.ca

Master's Program

An M.A.Sc. Candidate entering is required to complete at least three (3) one-term courses and present a thesis embodying an original contribution to biomedical engineering; students of different cohorts may have different requirements. The thesis must be defended in an oral examination. M.A.Sc. students must complete one of the biomedical core courses (BME *701 Biomedical Engineering – Core I for students from a health/life sciences background or BME *706 Biomedical Engineering – Core II for students from an Engineering background). At least two of the courses must be at the 700 level. For students from engineering backgrounds, 1 of the 2 courses must be from the health sciences offerings. For students from health/life sciences, 1 of the 2 courses must be from the Engineering offerings.

A twenty-four (24) month period with funding has been set for our research based M.A.Sc. program. The maximum time for completion of the degree is three (3) years from initial registration, 5 years for part-time students.

Accelerated Master's and Ph.D. Options

Accelerated Master's Option: An accelerated M.A.Sc. option is available to students coming from the undergraduate IBEHS program whereby the degree may be completed in 12 months of full-time study. Students are required to complete 3 (one-term) courses, one required 600 IBEHS course, (IBEHS 6F04 or IBEHS 6QZ3), this is a course for advanced credit that the student takes in their undergraduate degree, with department permission. They must ask once enrolled in their graduate studies to transfer it, one of the biomedical core courses (BME *701 Biomedical Engineering – Core I for students from a health/life sciences background or BME *706 Biomedical Engineering – Core II for students from an Engineering background). One other course must be at the 700 level. Students start their research project in the summer term of the 4th year of their IBEHS undergraduate degree. Once admitted to the Master's program, students work on their research for 1 year.

Accelerated Direct entry to Ph.D. Option

Excellent undergraduate students in the IBEHS program can also consider an accelerated "Direct to PhD" option. Applicants must have a sessional average of 11.0 at the time they are applying for this option. They would follow the same schedule as above. However, they would extend the degree by at least 2 extra years (for a total of 3 years, post-undergraduate studies). Such students would need an additional three 700 level courses beyond the one 600 level and one core course (total of 5 courses). This option would be available only McMaster undergraduate students. Other students already possessing an accelerated Master's degree, or any other type of Master's degree, would not be accepted into this program

Mandatory Meetings For M.A.Sc. Students

M.A.Sc. students will need to fill out a Supervisory Committee Report form with their supervisor/co-supervisor (if applicable). You are required to notify the Administrator of your committee members within the first 5 months of starting your program. The required form can be found [here](#).

Using the supervisory committee meeting report form for Master's students, a faculty member must give each of their Master's students (M.A.Sc.) a mid-program progress review and submit that form to their department (and ultimately to SGS). The review could come within 6 months for students who are considering transferring to the Ph.D. program. Otherwise, the review occurs within the first 12 months.

Part-time students must also receive a review after their first year. A student starting in September

must have the report done by November 30 of the following year and within one year from September 1 in the subsequent years; students starting in January are due by November 1 of the same year and within 1 year of September of the subsequent years; students starting in May are due by November 1 of the same year and within 1 year of May of the subsequent years.

Mater's Examining Committee

Each M.A.Sc. student must successfully defend their thesis in an oral examination before a committee proposed by the supervisor and approved by the School or their delegate. A member of the committee, other than the supervisor, will be appointed to chair the committee.

The committee shall be composed of 3 (three) members, including the supervisor. In the case of co-supervision, the committee will consist of 4 (four) members including the supervisors.

Master's Thesis

The administration of the M.A.Sc. thesis defence is the responsibility of the School. The School recommends that the thesis follow the format described by Graduate Studies in their booklet "Guide for the Preparation of Theses" at

<https://gs.mcmaster.ca/current-students/completing-your-degree/masters-thesis/>

The student is responsible for ensuring that the format satisfies the University requirements. The sequence of events is as follows:

- The student's supervisor gives permission to prepare the thesis. The student is responsible for submitting the thesis either hard copy or electronic copy, reasonably free of grammatical, typographical and technical errors to the examiners and to the Chair of the defense. If the thesis is found to contain an excessive number of errors, it will be returned to the student and the oral examination postponed until a satisfactory thesis has been submitted.
- The student's supervisor(s) and two other faculty members, one of whom may be from a department other than Biomedical Engineering, sit as an examining committee for the thesis. The Associate Vice-President & Dean of Graduate Studies may appoint members to these committees. The supervisor usually acts as Chair of the examination committee.
- The committee will be approved by the Director. The Administrator will prepare the appropriate forms and provide them to the Chair of the examination committee.
- Each student is responsible, together with their supervisor organize their Master's Defence.

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 of School of Graduate Studies Calendar). Students must submit their final thesis within four weeks of a successful defence when only minor changes are required of the student by the examining committee. When major revisions are required by the examining committee, the student will have one term (4 months) to complete those changes.

If some of the research undertaken expressly for the degree has previously been published or prepared for publication by the student as one or more journal articles, or parts of books, those items may be included within the thesis subject to the School of Graduate Studies' regulations and to obtaining permission from the supervisory committee. Please consult the "Guide for the Preparation Theses" for more detailed information on Sandwich Theses.

[Master's Guide to Write, Defend and Submit your Thesis](#)

[Guide to Preparation of Master's and Doctoral Theses](#)

The student is required to submit the following forms to the program Administrator for processing. Both forms can be found at <https://gs.mcmaster.ca/current-students/forms-and-policies-for-graduate-students-staff-and-faculty/>

- Report of Examining Committee
- [Final Thesis Submission Form](#)
- [License to McMaster University Form](#)

Transfer from M.A.Sc. to Ph.D. without completion of Master's Thesis

Students enrolled in the M.A.Sc. program may be transferred to the Ph.D. program prior to the completion of the M.A.Sc. degree. Transfer to the Ph.D. without completion of the M.A.Sc. is intended to expedite the student's progress towards the Ph.D. by not requiring the preparation of the formal M.A.Sc. thesis and allowing the research carried out during enrollment in the M.A.Sc. program to be used in the Ph.D. thesis. The expectation for transfer to Ph.D. is that the research progress at the M.A.Sc. level should be exemplary. The candidate will be expected to have completed a minimum of two (2) half courses with a grade average of B+ or better. Each student is responsible, together with their supervisor, to select and organize their transfer examination committee. The possibility of transfer to Ph.D. should be discussed by the student and the research supervisor early in the M.A.Sc. program and then the following procedure should be followed:

- After a minimum of one year in the M.A.Sc. program at McMaster students may request in writing to the Director to be transferred to the Ph.D. program. The program encourages students to transfer between 12 and 20 months.
- The Director will then appoint an Examining Committee comprising of two (2) faculty members, in addition to the student's research supervisor(s).
- The student will provide four (4) copies of a formal written transfer report, which summarizes the student's research work to date, to the School office no later than ten (10) days before the scheduled examination date.

The transfer report is not a thesis and need not follow the M.A.Sc. thesis preparation requirements since the report will not be kept for archival purposes. The maximum length is 25 single-spaced pages. The transfer report must address the following:

- Definition of the research problem.
- Brief critical review of the relevant literature.
- Summary of the completed work including: experimental equipment built, experimental techniques developed, experimental data gathered and analyzed. The summary must clearly show the Examining Committee some contribution to biomedical engineering research.
- Scope of the completed work as a basis for future Ph.D. studies. The emphasis is on research progress and completed work and not on the research plan for the Ph.D.
- The examination will consist of an oral presentation, 20-30 minutes in duration, summarizing the research progress to date. The candidate will then have a session of questioning by the Examining Committee members only.
- The Examining Committee will evaluate the student's course standings, transfer report, oral presentation of the research progress and the answers provided during the examination.

The outcome of the examination is that the School recommends to the Committee on Graduate Admissions and Study one of the following:

1. Admission to Ph.D. studies following completion of the requirements of the M.A.Sc. degree.
2. Admission to Ph.D. studies without completion of an M.A.Sc. program.
3. Admission to Ph.D. studies but with concurrent completion of all requirements for an M.A.Sc. degree within two months from the date of reclassification.
4. Refusal of admission to Ph.D. studies.

Ph.D. Program

The minimum course requirement for this degree for the 2024/2025 incoming cohort is at least five (5) half courses beyond the baccalaureate degree or two (2) half courses beyond the M.A.Sc. degree; students of different cohorts may have different requirements.

A minimum of two half-year graduate courses beyond the Master's Degree requirement. For students from engineering backgrounds who have previously taken the core course, one course must be from Health Sciences offerings. If the core course is required, one course beyond the core course must be from Health Sciences offerings. Students completing a PhD will be required to complete 2 courses beyond the Master's or 5 courses beyond the baccalaureate degree. One must be the core course and one additional course must be from the complimentary discipline from their background (Engineering students must take at least one 700 level Health Science Course, Health/Life Science students must take at least one 700 level engineering course).

A forty-eight (48) month period with funding has been set for our Ph.D. program. The maximum time for completion of the degree is six (6) years from initial registration, 8 years for part-time students.

Ph.D. Supervisory Committee Meetings

In accordance with the regulations of the School of Graduate Studies (Sections 1.2.4, 2.6 and 4.5 of the Graduate Calendar), all Ph.D. and M.A.Sc. students will have a Supervisory Committee which should meet at least once every year and provide the student with feedback regarding his/her coursework and research. Each student (Master's or Ph.D.) is responsible, together with their supervisor, to select and organize their supervisory committee. The committee will consist of the research supervisor(s) and two other professors. Two members must be members of BME. You are required to notify the Administrator of your committee members within the first 5 months of starting your program.

Review 'Section 4.4 of the Graduate Calendar, Supervision'. Your supervisor plus 1 other, need to be from BME. Below is what is written in the calendar under section 4.4 Supervision

[https://academiccalendars.romcmaster.ca/content.php?catoid=42&navoid=8736#4.5 Supervision](https://academiccalendars.romcmaster.ca/content.php?catoid=42&navoid=8736#4.5_Supervision)

"The supervisory committee will consist of at least three members. Two, including the supervisor, must be from within the department/program. A third member, whose scholarly interests include the area of the student's main interest, may be from outside the department/program. One member may be appointed from outside the University with the permission of the Vice-Provost & Dean of Graduate Studies."

The School of Graduate Studies requires students to complete an online progress report during or prior to the committee meeting which becomes part of the overall Ph.D. Supervisory Committee report. The Committee is required to meet with the candidate at least once each academic year. A January and May start has until November 30 of that year to have their first meeting, while a September start may go past the November 30 deadline but must still have their first meeting within 12 months of starting.

As of June 30, 2018 all Ph.D. Supervisory Committee Reports will be filled out and submitted online. Your administrator will initiate this through SGS Administrative Tools and an email will be sent to the student.

Ph.D. Supervisory Committee Meeting Procedures Supervisor and Student:

- Set up date and time of Ph.D. supervisory committee meeting in consultation with student and other members of the committee.
- Administrator can book a room and the student will send an email confirming supervisory committee meeting to the other members of the committee, including date, time and room location.
- Once date is set, email the to graduate administrator to initiate report. Students will receive an email message outline the next steps to completing the report.

Comprehensive Examinations for Ph.D. Students

The comprehensive examination is a requirement of the PhD program. This examination normally takes place between 12 and 20 months after the start of the program. In all cases, this must be completed within 24 months after their start date. The timing of this examination is the same for both full time and part time students. Each student, in collaboration with their supervisor, is responsible for selecting and organizing their supervisory committee. Please note that only the selected committee members and the student will be permitted to attend the comprehensive examination due to its confidential nature.

The format will resemble a committee meeting except it will be based on a written research proposal. The supervisory committee will meet to determine the written proposal topic and scope of the oral examination. The topic will be related to, but not the same as, the PhD research topic. The chosen topic is then submitted to the Director for approval. Additional candidate information is to be provided including start date in the program, number of committee meetings and progress to date.

The proposal will be up to 10,000 words plus references in length. Once the candidate received their topic they have 21 days to submit their proposal. An official letter is sent to the candidate outlining the proposal topic, examination procedures and guidelines. The oral examination will be one week after submission of the report. The examination will include an oral presentation, not more than 15 minutes in length. This is followed by a question period from the examination committee. The first round of questions is on the actual proposal and the second round will be related to general Biomedical Engineering. The total examination will normally be 2 hours in length, but no more than 3 hours.

The comprehensive results form is to be completed by the chair and submitted to the Director for approval. This form can be found at: <https://gs.mcmaster.ca/current-students/forms-and-policies-for-graduate-students-staff-and-faculty/>

The exam will be graded as either pass (P), pass with distinction (P+), or fail (F). The completed form is then submitted to the administrator who will forward to Graduate Studies and update the candidate's departmental file. If a failure is noted the student will be given one further attempt at passing. The new exam normally occurs within one month of the previous attempt and will be with a new topic, but same examining panel. A second failure will result in automatic dismissal from the program.

Structure of the Examining Committee

The examination committee consists of 3; an examination chair, (can be a member of the supervisory committee), 1 other member of your supervisory committee, and 1 additional member (external to the supervisory committee) whose area is relevant to the examination topic. Suggestions for the additional member will be provided by your supervisory committee and approved by the Director. During the initial committee meeting the chair of the committee will also be determined. The supervisor is present for the examination but is not part of the official panel. The roll of your supervisor will be to assess and convey the degree of fairness of the exam to the examining committee. They will not have any vote on the outcome of the exam.

Format of the Examination

The Comprehensive Examination will consist of a written report and an oral presentation.

The candidate will be required to submit a proposal, 10,000 words of text plus references, on a research topic related to, but not the same as the Ph.D. research topic. The candidate will be required to prepare this report within 21 days of receiving the proposal topic.

The written report must include:

- Proposal objectives: both short and long term
- Literature pertinent to the proposal
- Methods and proposed approach
- Milestones for specific objectives and tasks
- Anticipated significance of the work

The oral examination will be conducted in two parts. In the first part, the candidate will be required to make a brief presentation of the report, maximum of 15 minutes, followed by questions directly related to the report. The second part of the oral examination will probe the candidate's general comprehension of the research field and peripheral areas. The oral examination will normally require two (2) hours to complete but in no case will continue for more than three (3) hours.

It is the responsibility of the Chair of the Examining Committee to call a meeting of the Committee at least five (5) weeks in advance of the examination date to review the candidate's records and background to determine an appropriate research topic and scope of background examination.

A candidate who fails the comprehensive examination will be given a second opportunity to retake the portion(s) of the exam deemed to have been failed within six months.. There is no opportunity for a third attempt.

The Chair of the Examining Committee will communicate the results of the examination, in writing, to the Director of the School who will communicate the result, in writing, to the candidate.

Ph.D. Thesis

Here is the link to guide you through the preparation of your Doctoral theses:

Guide for Preparation of a Ph.D. Thesis:

- [Ph.D. Guide to Write, Defend and Submit](#)
- [Ph.D. Defence Flowchart](#)

Students close to submitting their Ph.D. thesis (approximately 2 months) should complete the on-line Thesis Defence System (TDS).

This will begin thesis defence scheduling. Candidates will be asked for a thesis title and estimated date to submit the thesis. Under separate cover, the supervisor will be asked to submit the name of an external examiner which must be approved by the supervisory committee and School. A final date and time of the defence will be scheduled and approved by the student, supervisory committee and external examiner.

Doctoral students and their supervisors should note that theses of extraordinary length are to be discouraged. As a general rule, doctoral students are urged to limit theses to no greater length than three hundred (300) manuscript pages. In cases where students and their supervisor(s) believe that responsible scholarly treatment of the thesis topic requires substantially greater length than that specified above, they are expected to receive written approval from the Associate

Dean of Graduate Studies before the thesis is submitted for the defence.

If some of the research undertaken expressly for the degree has previously been published or prepared for publication by the student as one or more journal articles, or parts of books, those items may be included within the thesis subject to the School of Graduate Studies' regulations and to obtaining permission from the supervisory committee. Please consult the "Guide for the Preparation Theses" for more detailed information on Sandwich Theses.

After a successful defense, 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 of School of Graduate Studies Calendar - Publication of Electronic Theses at McMaster University). The fee for archiving the thesis is paid by the student. Students must submit their final thesis within four weeks of a successful defence when only minor changes are required of the student by the examining committee. When major revisions are required by the examining committee, the student will have one term (4 months) to complete those changes.

Deadlines

A thesis may be submitted at any time. However, there are two deadlines for the submission of the Ph.D. thesis to Graduate Studies electronically and complete degree requirements for Autumn or Spring Convocation. For 2024-2025, the dates can be found in the [2024/2025 Graduate Calendar](#).

Convocation

Detailed information including deadlines and the timing of ceremonies is available on the Office of the Registrar's website: <http://registrar.mcmaster.ca/category/grad/>

Additional Resources

Central Resources and Services

Thesis Completion

Guidelines for Preparation

<https://gs.mcmaster.ca/current-students/completing-your-degree/>

School of Graduate Studies Resources

<https://gs.mcmaster.ca/resources>

Policies and Regulations

Academic Integrity Policy

<https://secretariat.mcmaster.ca/app/uploads/Academic-Integrity-Policy-1-1.pdf>

Tuition Fees

<https://registrar.mcmaster.ca/fees/>

Leaves of Absence:

http://academiccalendars.romcmaster.ca/content.php?catoid=20&navoid=3572#2-5-7_leaves_of_absence

Incomplete/Failing Grade:

http://academiccalendars.romcmaster.ca/content.php?catoid=20&navoid=3572#2.6.4_Failing_Grades_and_Incomplete_Grades

Student Code of Student Rights and Responsibilities:

<https://secretariat.mcmaster.ca/app/uploads/Code-of-Student-Rights-and-Responsibilities.pdf>

Student Appeals Process:

<https://secretariat.mcmaster.ca/app/uploads/Student-Appeal-Procedures.pdf>

Fair Dealing Policy:

<https://copyright.mcmaster.ca/app/uploads/2018/06/Fair-Dealing-Policy-Nov-2013.pdf>

Discrimination & Harassment Policy:

<https://secretariat.mcmaster.ca/app/uploads/Discrimination-and-Harassment-Policy.pdf>

Research Integrity Policy

<https://secretariat.mcmaster.ca/app/uploads/Academic-Integrity-Policy-1-1.pdf>

I confirm that I have received the Biomedical Engineering Graduate Student Handbook, 2024-2025. Please return a copy of this page to Maya Sabados, Program Administrator (ETB-411) upon receipt.

Disclaimer

In the case of discrepancy between this guide and other University policy, students are advised to consult the Graduate Calendar published by the School of Graduate Studies.

Maya Sabados

Name

September 13, 2024

Date

Revised September 2024