



# BIOCHEMISTRY GRADUATE PROGRAM

Handbook  
2023–2024

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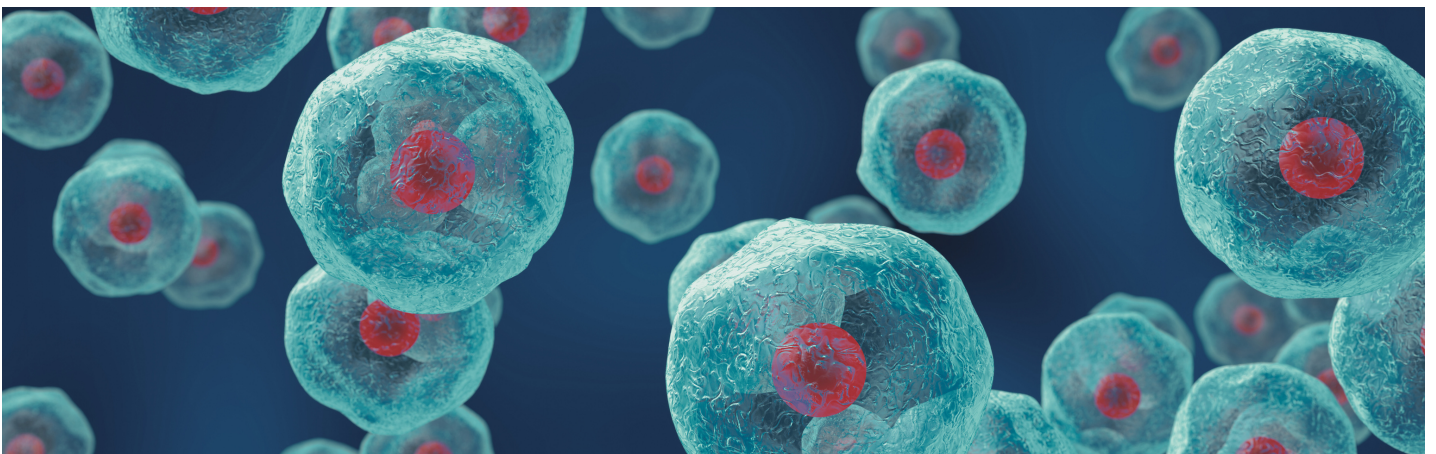
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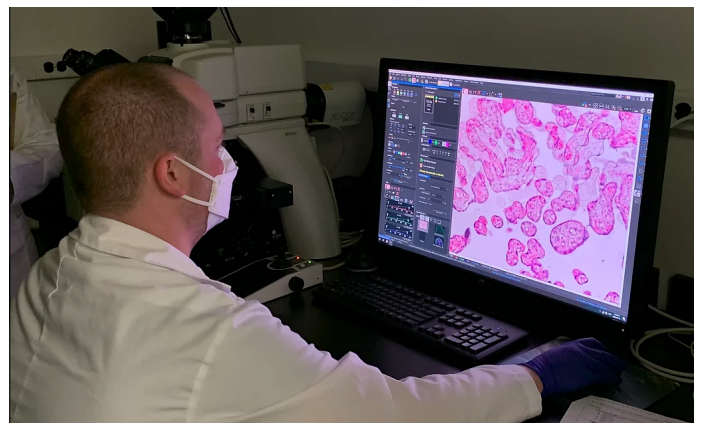
# OVERVIEW

## PURPOSE OF THE HANDBOOK

The purpose of this handbook is to outline the policies and procedures followed by the Biochemistry Graduate Program, which supplement the policies and procedures contained in the [SGS Graduate Calendar](#). If there are any discrepancies between this document and the SGS Calendar, then the SGS Calendar shall prevail. Students and faculty are also encouraged to look at the [Biochemistry Graduate Program](#) website for more information.

## OUR PHILOSOPHY

Our philosophy is that the most important goal of a graduate degree is to become an expert in a specific field while maintaining sufficient breadth of knowledge to succeed after leaving graduate school. This includes publication in respected peer-reviewed journals, applications for scholarships, and oral and written presentation skills. Our graduates typically secure top-level international post-doctoral fellowships or have industry placements in leading biotechnology and pharmaceutical research companies worldwide.



# MESSAGE FROM THE ASSISTANT DEAN

Dear BBS Graduate Student Community,

On behalf of the faculty and staff of the Department of Biochemistry & Biomedical Sciences (BBS), it gives me great pleasure to welcome you to the Biochemistry Graduate Program. As an internationally recognized research training environment, BBS offers comprehensive and exciting graduate programs in the biomedical sciences through its MSc, PhD, and MD/PhD degree offerings. Many of our faculty members lead world-class research labs and are renowned experts in the fields of biochemistry, microbiology, genetics, and cell biology. The scientific depth and breadth of these research programs underlies the Biochemistry Graduate Program's commitment to training the next generation of scientists.



This Handbook is intended to serve as your comprehensive guide to achieving success in graduate school. In the pages below, you will find detailed information on graduate policies & regulations, graduate student resources, student wellness & financial information, scholarship guidelines, and degree completion requirements. I encourage you to familiarize yourself with all aspects of this document so that you have all the information you need to succeed in your graduate program.

Our graduate program is pleased to provide living allowances that are among the highest in Canada. By virtue of its location in west end of Hamilton, McMaster University is uniquely positioned to offer the vibrancy of a college town while also being in close proximity to a major urban center, which is easily accessible by public transit for day trips or weekend getaways. The Hamilton-Niagara region is also known for its numerous outdoor activities with its many waterfalls, hiking trails, and conservation areas being popular among our graduate student community.

In closing, I'd like to emphasize how excited we are to have all of you join us as members of our graduate student community. Graduate degrees in the biomedical sciences provide excellent preparation for a diversity of career trajectories and BBS alumni have gone on to hold prominent positions in academia, government, industry, medicine, and law. I wish each of you every success in graduate school and I look forward to hearing about your scientific achievements in the years to come.

Sincerely,  
John Whitney

# POLICIES & REGULATIONS

Click boxes for more information

## RESEARCH INTEGRITY

Research misconduct is unethical and goes against the values of the University. It is imperative that research is conducted in a manner that builds trust and gives others confidence in the methods and findings reported in the published literature. It is of utmost importance that everyone conducts their research with integrity.

## ACADEMIC INTEGRITY

The University states unequivocally that it expects scholarly integrity from all of its members. Academic dishonesty, in whatever form, is destructive to the mission of the University; furthermore, it is unfair and discouraging to those students who pursue their studies honestly.

## CODE OF STUDENT RIGHTS AND RESPONSIBILITIES

McMaster is a community dedicated to providing a safe and secure environment in which all community members conduct themselves in a manner that respects community members' rights, upholds their responsibilities as a member of the community and promotes the educational goals of the University.

## RESPONSIBILITIES OF FACULTY, DEPARTMENT AND GRADUATE STUDENTS

The School of Graduate Studies, the faculty and the department have a responsibility to educate McMaster's graduate students.

Graduate students also have a responsibility to McMaster University. For example, students are expected to enrol annually until graduation and pay required fees.

## ACCOMMODATION FOR STUDENTS WITH DISABILITIES

McMaster supports a culture of acceptance, inclusion and celebrates diversity. We strive to create a learning environment that is accessible to all students.

## DISCRIMINATION AND HARRASSMENT

All students, staff and faculty have the right to live and work in a discrimination and harassment free environment.

# POLICIES & REGULATIONS

REVIEW A FEW OTHER IMPORTANT REGULATIONS:



**Graduate Work Supervision for Faculty and Students**



**Parenting Grant**



**Leave of Absence**



**Copyright Policy**



**Petition for Special Consideration**



**Human Rights & Dispute Resolution Program**



**Student Appeal Procedure**



**Academic Accommodation - Religious, Indigenous or Spiritual Observances**



# MOSAIC STUDENT CENTRE



## MOSAIC

Mosaic is McMaster's administrative information system. A student can access the Student Centre to enrol in courses and access other services such as transcripts, student accounts, financial aid and human resources. Your MAC ID and password is required to access the Mosaic System Portal.

## MAC ID

MAC ID is your McMaster username that is unique to you and is used to access various McMaster resources. Applicants are pre-assigned a MAC ID upon applying to McMaster University. Go to [MAC ID Management](#) for more information.

## TRANSCRIPTS

A transcript reflects the current status of your student record. You are able to request an unofficial transcript, official paper copy transcript or an official e-transcript via Mosaic. Go to the [Registrars Office](#) to learn how to request your transcript.

## UPDATING HOME ADDRESS

It is important that your home address information is correct and up-to-date in Mosaic to ensure you receive important information in a timely manner.

You can update your address in MOSAIC using the following steps:

- Click the Student Centre tile
- Scroll down to the Personal Information section and click on "Demographic Data" and click the Addresses tab

## DEGREE VERIFICATION

If you have been asked by an employer or other parties to verify your degree, you can access an "Approved to Graduate" letter before convocation and the "Degree Awarded" letter following convocation.

You may receive a Degree Awarded Letter or Approved to Graduate Letter on Mosaic by following the steps:

1. Click on the Student Centre tile on Mosaic
2. Go to My Academics
3. Click on Enrolment/Financial Letters
4. Click on your Degree Awarded Letter or Approved to Graduate Letter

# STUDENT CARDS

## STUDENT CARD

Your Student ID card identifies you as a McMaster student. It displays your student number, name, photo and contains an encoded magnetic strip that will allow access to a variety of University services. Let your Graduate Administrator know if you think you need access to facilities. Go to [Student ID Card](#) for more information



## HAMILTON STREET RAILWAY

All full-time graduate students are entitled to a 12-month, unlimited ride Presto card from September 1, 2023 to August 31, 2024 with the Hamilton Street Railway (HSR). New students can receive their Presto card from any local retailers and are required to register the bus pass by following these Instructions.

Go to [HSR Buss Pass](#) to learn more.

Go to [HSR bus schedule](#) to learn about bus timings.



## HEALTH SCIENCES CENTRE PHOTO ID BADGE

Students working in the Health Science Center are required to carry an ID card when on hospital property. This card will provide access to the Graduate Student Lounge (located on the 4th floor, across from the MDCL bridge), various Health Sciences Research Labs and Animal Quarters (if required). Please contact Lisa Kush or Nadia Butt to obtain your ID badge.



## MDCL ACCESS CARD

All offices and labs are secured by conventional door locks. Please contact Lisa Kush or Nadia Butt, to obtain your MDCL Access card.





# TECHNOLOGY SERVICES



## EMAIL

Every graduate student will receive a McMaster email account powered by Microsoft 365. Students are required to activate their McMaster email accounts.

Please note that the MAC ID must be activated for you to have access to your email.



## MICROSOFT 365

Your McMaster email gives you access to full desktop and mobile versions of Microsoft 365 to install on 5 personal devices. Some of the programs that you are able to install include Word, Excel and PowerPoint. Microsoft License including email will be activated after enrolling. For training dates and details go to Office 365 Hub.



## AVENUE TO LEARN

Avenue to Learn is a learning management system for students and instructors. It is a place where you can access course information, assignments, instructions, lecture slides and discussions.



## VIRTUAL PRIVATE NETWORK (VPN)

The use of the McMaster VPN is only for students working and learning outside of Canada. VPN will allow you to connect to the campus network and provide you with security by encrypting your data. For more information visit VPN For Student.



## ZOOM

This service is free and you will need to sign in with your McMaster email and your MAC ID and password. Go to Zoom for more information.



## LINKEDIN LEARNING

Thousands of online courses are available to you for free! You are able to learn from a variety of industry leaders. For more information visit LinkedIn Learning.



## MCMASTER LIBRARY ONLINE

You are able to access books & journals online, receive a research consultation and seek media creation support via the online library. For more information visit the Library Remote Hub.



## MORE INFORMATION

For more information on the tech resources available to you, please visit Technology Resources. For any questions or if you need tech-support please contact UTS at [uts@mcmaster.ca](mailto:uts@mcmaster.ca) or via there Live Chat.

# HEALTH AND DENTAL PLANS

## GRADUATE STUDENT ASSOCIATION (GSA) BENEFITS



The McMaster GSA Health & Dental Plan provides students with unique health benefits. The plan was designed by students for students to provide many important services and cover expenses not covered by a basic health-care plan (i.e. OHIP), or the equivalent (e.g. UHIP for international students) such as prescription drugs, health practitioners, medical equipment, travel health coverage, and more.

The GSA Health & Dental Plan automatically covers members who pay GSA and McMaster fees. This includes international students who are paying McMaster fees. Certain exceptions exist. Please check your student account to confirm if you have been charged the plan fees. New summer semester students may be eligible to enroll themselves in the plan. Please note that you can extend your coverage to your spouse and/or dependent children.

All questions about health and dental should first be directed to [macgsa@mcmaster.ca](mailto:macgsa@mcmaster.ca). For further details please visit [GSA's Health and Dental](#) website.

### **GSA (OPT OUT):**

If you are already covered by an equivalent health and/or dental plan, you can opt out and receive reimbursement of the GSA plan. Please refer to the [GSA website](#) for more information.

## CUPE: UNIT 1 FOR TEACHING ASSISTANTS



### **Dental Coverage**

Eligibility for the Dental plan runs by academic year (Sept 1 to Aug 31). The eligible amount for reimbursement runs by calendar year (Jan 1 - Dec 31).

To opt-out of dental coverage if you have alternative dental coverage through your parents or spouse, please fill out the forms available at [CUPE 3906](#).

### **Other Coverages:**

- International students who are members of Unit 1 (Teaching Assistants or RAs in lieu) are eligible to apply for a \$250 rebate for UHIP.
- Childcare reimbursement funds (\$300/academic term) are available.
- Mental health counsellors are available via the Employee Family Assistance Program.
- For more information visit [CUPE 3906](#).

# HEALTH AND DENTAL PLANS

## INTERNATIONAL STUDENTS UNIVERSITY HEALTH INSURANCE



UHIP is a compulsory plan for international students (and eligible dependents) at McMaster University who hold a valid study permit issued by Citizenship and Immigration Canada and who are FULLY enrolled in a graduate program. The UHIP coverage period is from September 1 to August 31 of any given year. Exceptions to this rule include exchange students and other students with defined shorter stays at McMaster.

It is the student's responsibility to ensure their coverage is correct by checking their account on Mosaic. After successfully completing enrolment, students will receive a copy of their UHIP card by email.

Please note that supplementary coverage (i.e. vision, dental, prescriptions) is not part of UHIP. However, international students have coverage through GSA/CUPE benefits.



# STUDENT WELLNESS

## STUDENT WELLNESS CENTRE

Crisis Support: Urgent counselling appointments are available at the Student Wellness Centre (PGCLL Level 2). If you are dealing with an emergency situation on McMaster Campus, please call Campus Security 905-522-4135 or '88' from a campus phone. If you are not on campus visit the nearest hospital emergency department, or call 911.

A range of counselling options, medical services and wellness programs are available to you via the Student Wellness Centre.

- **Counselling:** You can book an appointment with an experienced counsellor by calling 905-525-9140 x 27700.
- **Student Wellness Programs:** There are many excellent programs for you to join and meet other individuals who may share similar wellness experiences. You will gain skills to manage anxiety, depression, eating disorders, and intense emotion. For more information please visit [Student Wellness](#).
- **Medical Care:** There are nurses, family medicine doctors and specialist doctors available to provide you with personal health care. For more information please visit [Medical Care](#) services.



# STUDENT WELLNESS

## GOOD2TALK

A free, confidential post-secondary student helpline open 24/7 that provides professional counselling and information and referrals for mental health, addictions and well-being. For more information visit [GOOD2TALK](#) or call 1-866-925-5454.

## EMPOWER ME

A 24-hour counselling service funded by the GSA insurance plan. Get support for depression, anxiety, grief, relationship problems, adjusting to life in a new country, addictions and so much more. There are counsellors available who are equipped to help students in crisis. However, you do not need to be in crisis to use this program. There are life coaches who can help you navigate your life such as your relationships, finances, well-being and even career! For more information call 1-844-741-6389 or visit [EMPOWER ME](#).

## MACCESS

MACCESS provides peer support by trained volunteers with lived experiences with disability such as chronic illness, mental illness, madness, mental health concerns, and additional identities. For more information visit [MACCESS](#).



# STUDENT SUPPORT

The relationship between a graduate student and their thesis supervisor is one of the most important relationships in graduate school. The thesis supervisor is responsible for mentoring the student in all aspects of their academic learning.

## WHAT TO DO IF YOU ARE FEELING STUCK ?

- 1 → Reach out to your supervisor
- 2 → Contact your committee members
- 3 → Contact the BBS Graduate Office (Lisa/Nadia) or Assistant Dean (Dr. John Whitney). A meeting with the Assistant Dean can simply be an informal discussion, which may help resolve any questions, concerns or issues that you might have.



## RESOURCES

### Graduate Supervision Guidelines

This guide outlines the responsibilities of graduate students, supervisors, programs and committee members.

### Supervisor & Student Relationship Guide

This guide helps to facilitate positive working relationships and enhances communication between supervisors and students.



# INTERNATIONAL STUDENTS

## AUTHORIZATION



Visa students are required to present their study permits to the School of Graduate Studies upon their arrival at McMaster and each time such authorizations are renewed. Go to the [Government of Canada](#) website for more information.

## IMMIGRATION ADVISING



To seek clarity and guidance throughout the immigration process please contact Anthony Cheah at [immigration@mcmaster.ca](mailto:immigration@mcmaster.ca). Go to [Immigrant Advising](#) website for more information.

## SOCIAL INSURANCE NUMBER



A Social Insurance Number (SIN) is a 9-digit number issued by Service Canada. You need a SIN before starting work in Canada, to file taxes as well as access a programs and benefits. For more information go to [SIN Overview](#).

## INTERNATIONAL ADVISOR



Connect with another international graduate student who has been in the same position as you! They can provide you with advice, help you transition to life at McMaster and be a friend to you. For more information please visit [International Grad Advisor](#).

## GET INVOLVED



There are many support systems, clubs, workshops and events that are offered exclusively to international students. This will provide you with the opportunity to connect with your peers, get involved and explore McMaster! For more information please visit [International Student Peer-Support](#).

## INTERNATIONAL STUDENT SERVICES



To find services offered to you and for updated information related to international affairs please visit [International Student Services](#).

# STIPEND RATES 2023–2024

	Domestic	International
MSc	\$29,098.91	\$33,845.10
PhD	\$36,552.07	\$37,308.07
MD/PhD	36,552.07	

Many of our students secure scholarships from Provincial or Federal granting agencies including, in particular, the Canadian Institutes for Health Research, Natural Sciences and Engineering Research Council of Canada and Ontario Graduate Scholarships. Stipends will be adjusted for students who hold external awards/scholarships.

## GUARANTEED FUNDING

Full-time MSc and PhD Biochemistry students who receive funding as part of their offer of admission are guaranteed financial support for 2 and 4 years, respectively. After this guaranteed time period, the only support students can potentially receive comes from their supervisor in the form of a research scholarship. It is the student's responsibility to contact their supervisor before their funding ends to discuss the possibility of continued support. Supervisors who are willing to financially support students beyond the guaranteed timelines must contact Sarah Cumin, Academic & Staff Operations Manager at [cumins@mcmaster.ca](mailto:cumins@mcmaster.ca).





# TYPES OF PAYMENTS

## 1 RESEARCH AND DEPARTMENTAL SCHOLARSHIP

These scholarship funds are paid through the HR module in MOSAIC. These scholarships are T4A income, which means that if you are enrolled full-time, the scholarships are not taxable. These funds can be viewed on your pay statement and will be paid directly to you via direct deposit as a lump sum per term. Go to [Scholarship/Payment Schedule](#) to learn when your funds will be deposited

## 2 EMPLOYMENT INCOME (TA)

These employment monies are paid through the HR module in MOSAIC. Teaching assistantships (or Research Assistantships in lieu of Teaching Assistantships) are employment funds from work performed on campus and is T4 income. Please note taxes, CPP, EI, union dues, dental (if eligible), will be deducted from your teaching assistantship income. These funds will be paid bi-weekly directly to you via direct bank deposit and can be viewed on your pay statement in Mosaic.

## 3 NON-RESEARCH SCHOLARSHIPS

These scholarship funds are paid through the Student Center module in MOSAIC. This is T4A income, which means that if you are enrolled full-time, these payments are not taxable. These funds can be viewed under the View Financial Aid Awards section in MOSAIC and will be paid directly to your student account as a lump sum per term.

**NOTE:** Students that complete all degree requirements before the end of a term are required to pay back the internal scholarship support for the months that they are no longer enrolled. External scholarship awards end when students complete their degree requirements.

### E-TRANSFER

Scholarships paid through e-transfer include:

- Graduate & department scholarships
- External scholarships
- Tuition scholarships
- Tri-Agency awards (CIHR, NSER)

### DIRECT DEPOSIT

Payments for research scholarship and TA payments will be deposited directly into your bank account. This method of payment is mandatory. All new students must complete and email the "[Employee Contact & Deposit](#)" form to the Human Resources Services Centre: [hr.mcmaster@mcmaster.ca](mailto:hr.mcmaster@mcmaster.ca)

# TYPES OF FEES

## 1 TUITION

Tuition fees are assessed on a term-by-term basis. Students are solely responsible for paying their tuition. Tuition is due in mid-September, mid-January and mid-May. If tuition is not paid in full, interest will be applied on the second last business day of September, January and May. Please note that interest is at an approximate rate of 1.2%/month.

## 2 SUPPLEMENTARY FEES

Supplementary fees are payable in full and are not refundable. You are not able to opt-out of any supplementary fees, with the exception of health and dental if you have proof of coverage.

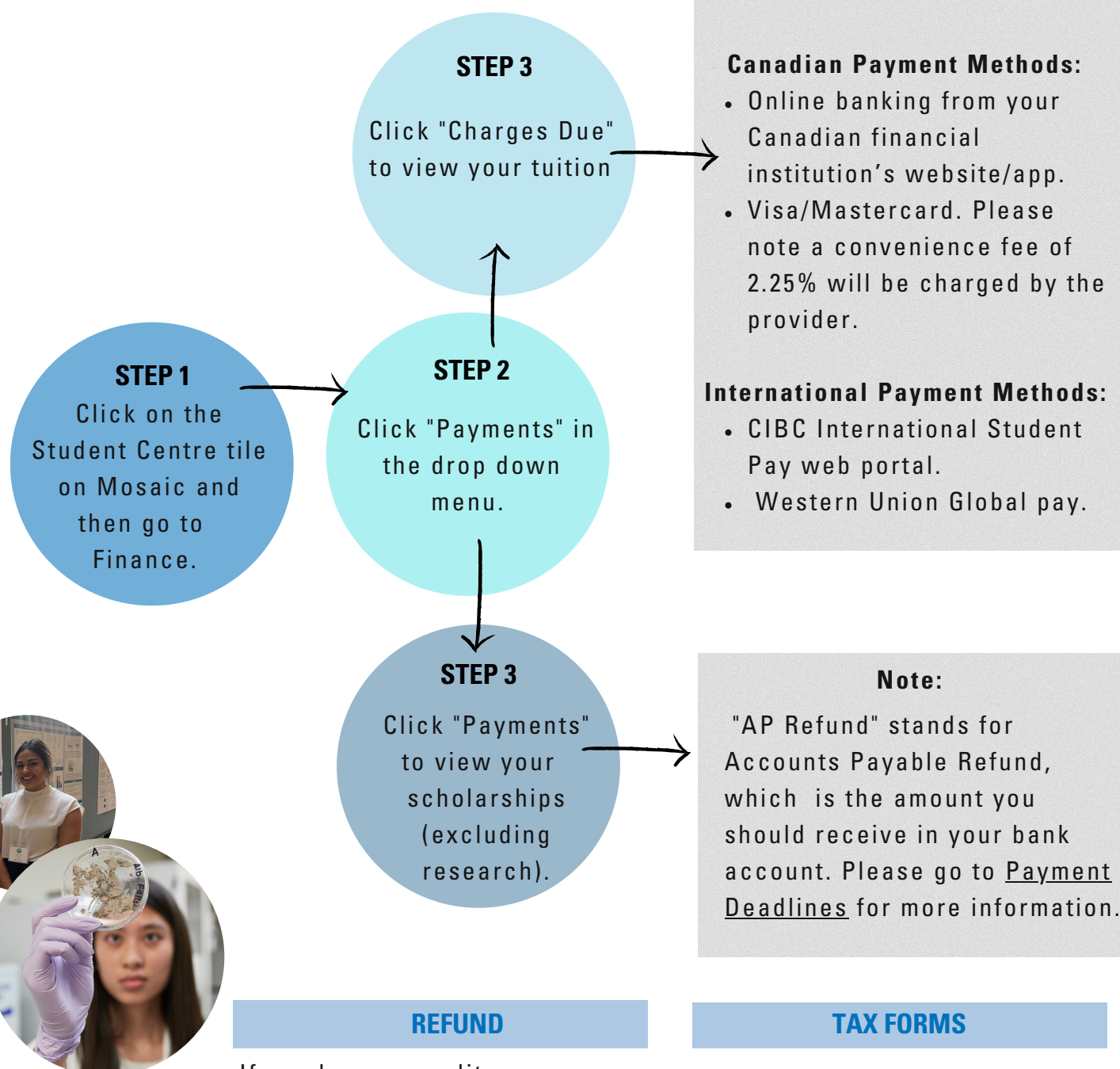
## 3 ONTARIO STUDENT ASSISTANCE PROGRAM (OSAP)

The Ontario Student Assistance Program is a government student loan and grant program that helps students pay for University. OSAP is run by the Ministry of Advanced Education and Skills Development and is funded by the federal and provincial governments. OSAP is open to Ontario residents of any age who are Canadian Citizens, permanent residents or protected persons. For more information go to [OSAP](#).



# VIEWING PAYMENTS, FEES & TAX FORMS

## TUITION AND SCHOLARSHIP PAYMENTS



If you have a credit on your student account, McMaster will verify and refund the payment. Email [refunds@mcmaster.ca](mailto:refunds@mcmaster.ca) for assistance.

To view your T2202A and T4 Form please go to the the Student Centre tile on Mosaic and click the drop down menu on the Finance section.

# TEACHING ASSISTANTSHIP

## APPOINTMENTS

Each year our program receives an allocation of Teaching Assistantships. All current in-time and incoming PhD students are required to TA for a total of 130 hours in the upcoming academic year. However, they can have their TA position bought out by their supervisor. Additionally, TA's will be paid 3.0 hours for Health and Safety Training and Orientation per term. Once all PhD guaranteed TA's have been made, any remaining vacancies will be posted for MSc students to apply for a TA position.

## CONTINUITY OF FUNDS

Every full-time student in a Master's program who has been employed as a Teaching Assistant during a part of their first year of study in a program will be re-employed as a TA for an additional succeeding year. Full-time students in the Doctoral program who have been employed as a TA during a part of their first year of study in a program will be re-employed as a TA during the three succeeding years of their study.

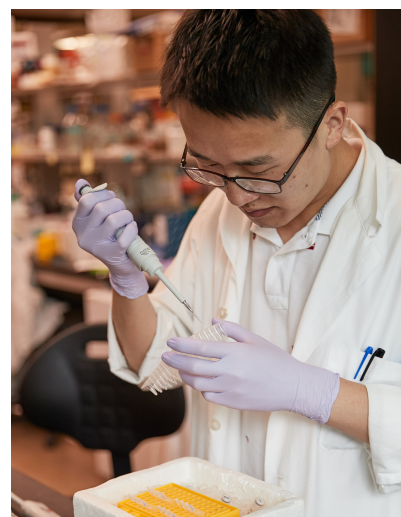
## TA OR RA IN LIEU OF TA PAYMENTS

TAs will be paid biweekly directly to their bank account. TAs will be able to view their paystub on Mosaic by going to the "Employee Self Service" tile and then the "Pay" tile.

Note: The University is required by law to deduct Canada Pension Plan & Employment Insurance premiums on all employment income (TA/RA in lieu of TA).



For further details about Teaching Assistantships please refer to the [TA handbook](#)



# FINANCIAL CONTACTS

## DEPARTMENT CONTACT: SARAH CUMIN

cumins@mcmaster.ca  
Health Sciences Centre, 4N59

## TUITION AND FEES: STUDENT ACCOUNTS & CASHIER OFFICE

student.accounts@mcmaster.ca  
Gilmour Hall, Room 209

## SCHOLARSHIPS AND BANK DEPOSITS: SCHOOL OF GRADUATE STUDIES

gradpay@mcmaster.ca and graduatescholarships@mcmaster.ca  
Go to [Scholarships](#) for more information

## EMPLOYMENT INCOME: HR SERVICE CENTRE

hr.mcmaster@mcmaster.ca  
Go to [Payroll](#) for more information

## LIST OF REQUIRED FEES AND PAYMENT

Visit [Fees and Payments](#) for more information



# DEPARTMENT AWARDS

## THE KARL FREEMAN PRIZE FOR BIOCHEMISTRY GRADUATE SEMINARS



The Karl Freeman Prize is awarded annually to graduate students in the department who are deemed to have presented the most outstanding graduate seminars. Prizes are given for first and second place seminar ranking in the MSc and PhD program. This prize was established in 2001 by Karl Freeman, Chair of the Department of Biochemistry from 1973 to 1979 and acting chair for six months during 1982.

## THOMAS NEILSON SCHOLARSHIP



This award is given to the Biochemistry graduate student deemed to show the greatest potential as an independent scientist at the time of transfer to the PhD program. This award was established in memory of Dr. Thomas Neilson by his family, friends and colleagues as a token of their appreciation and respect.

Thomas Neilson joined the Department of Biochemistry in its early years and contributed to its chemical expertise. Among his colleagues, Dr. Neilson was widely admired for his consummate skill in organic synthesis. Within a short time, he developed convenient procedures for the large-scale synthesis of oligoribonucleotides of defined sequence. To his students, Dr. Neilson was a devoted teacher who gave of his time generously. Above all, he was a man of sincerity and integrity who earned the trust and affection of those around him. His career at McMaster sets a worthy example to all of us in academic life.

The Neilson Scholarship will be awarded based upon performance in the program with particular emphasis upon the overall academic standing, supporting letters, contributions to teaching, the seminar presentation, the report, research contributions and publications.

## IMPACT AWARD



This award will be presented to Biochemistry and Biomedical Sciences graduate students for highly meritorious contributions to scientific literature during 2023. Up to three awards are given annually for first-authored publication(s) by our graduate students that are evaluated by a faculty review committee. Nominations should be submitted in the form of a letter to the Graduate Chair from their thesis supervisor.

# BURSARIES & TRAVEL AWARDS

## GENERAL BURSARY, INTERNAL BURSARIES AND ACADEMIC GRANTS

The School of Graduate Studies website lists various scholarships and bursaries. An email will be sent to students relaying the various deadline dates. Before applying for a McMaster scholarship, it is important to prepare your application. Graduate students are now able to apply for graduate bursaries through Mosaic's Student Centre. Go through the [Guide](#) to learn the online process for McMaster awards and bursaries that are available in Mosaic.

## BBS GRADUATE STUDENT TRAVEL AWARDS

The Department will grant up to 50 competitive \$500 travel awards each year to assist students planning to attend scientific meetings outside of the Greater Hamilton-Toronto Area (GTHA). To qualify, students must be enrolled on a full-time basis in either the MSc, PhD or MD/PhD program and must present data either as a poster or as a speaker at the meeting they plan to attend. Students who have received a travel award in the past will be eligible for another only if funding permits. Students applying for these awards are strongly encouraged to apply for travel funds from other sources including GSA Travel Grants.

## GRADUATE STUDENT ASSOCIATION (GSA) TRAVEL GRANTS

The GSA awards a number of travel grants for students (up to \$500) every semester (Sept-Dec, Jan-Apr, May-Aug) for travel to conferences to present, or to undertake research relevant to their field of study. GSA Travel Awards are funded from the proceeds of the GSA Development Fund, which is sustained by contributions from Graduate Students and the University. Students can apply through "Aid by Application" in Mosaic. Go to [Travel Grants](#) for more information.



# GOVERNMENT & EXTERNAL SCHOLARSHIPS

There are a number of external awards available from provincial and national funding agencies. All graduate students are encouraged to compete for awards provided they meet the eligibility requirements. For all major scholarship and award guidelines go to [Graduate Studies Scholarships](#). For specific instructions and department deadlines, please refer to the [External Scholarships](#) page.



## CANADA GRADUATE SCHOLARSHIPS (MASTER'S) – CIHR AND NSERC

The CGS-M Program supports up to 2,500 students annually in all disciplines and is administered jointly by Canada's three federal granting agencies: CIHR, NSERC and SSHRC. This is a one-year award valued at \$17,500. The selection process and post-award administration are carried out at the institutional level, under the guidance of the three agencies. Applicants must complete their application using the [Research Portal](#), hosted by NSERC. Applications must be submitted no later than December 1. The results are made available through the portal April 1st of the following year.

## VANIER (DOCTORAL) – CIHR OR NSERC

The Vanier Canada Graduate Scholarships (CGS) program is designed to attract and retain world-class doctoral students who demonstrate leadership skills and a high standard of scholarly achievement in doctoral studies. A Vanier CGS is valued at \$50,000 per year up to three years. Canadian, Permanent Residents and International students are eligible to be nominated. The VANIER competition is separate from the doctoral (CIHR/NSERC) Canada Graduate Scholarship (CGS) competition, therefore students MUST submit an application to BOTH competitions to be considered for both awards. There is a two-stage internal review process in place at McMaster to help identify the strongest applications and to select the most competitive candidates in each research mandate of CIHR or NSERC.





# GOVERNMENT & EXTERNAL SCHOLARSHIPS

## **OGS – ONTARIO GRADUATE SCHOLARSHIPS AND QUEEN ELIZABETH II GRADUATE SCHOLARSHIPS IN SCIENCE AND TECHNOLOGY (QEII-GSST)**

The Ontario Graduate Scholarship (OGS) Program provides funding to full-time students at the master's and doctoral levels. The Ontario Graduate Scholarship is a one-year award with a value of \$15,000 (\$5,000 per term) and the Ontario Graduate Fellowship is a one-year award with a value of \$12,000 (\$4,000 per term). This award will be withdrawn if you are offered and accept any major government external awards or if you fail to maintain registration as a full-time graduate student. Students entering the first or second year of graduate studies at the time of the application deadline must have achieved a first-class average (which is 10/12 at McMaster) in each of the last two completed years of study.

## **NSERC (DOCTORAL) – NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA**

To be eligible for support from NSERC, you must or will be undertaking a program of study or research in one of the fields that NSERC supports. In addition, the research must be supervised by a faculty member whose own research field is in a field that NSERC supports. In cases where the proposed research is deemed to fall within the mandate of either CIHR or SSHRC, NSERC will not accept the application. If you hold or have held a CGS from another federal granting agency (CIHR or SSHRC), you are not eligible to apply to NSERC for support at the same level. Scholarship values for CGS-D and PGS-D is \$35,000 per annum and \$21,000 per annum, respectively. Applications are prepared and submitted by students in ResearchNet by the internal deadline set by McMaster.

## **CIHR (DOCTORAL) – CANADIAN INSTITUTES OF HEALTH RESEARCH**

Canadian Institutes of Health Research (CIHR) Doctoral Research Awards consist of two programs administered through a single application: The Frederick Banting and Charles Best Canada Graduate Scholarships Doctoral Awards (CGS-D) program provides special recognition and support to students who are pursuing a doctoral degree in a health-related field in Canada. The maximum amount for a single award is \$35,000 per annum. The Doctoral Foreign Study Award (DFSA) provides special recognition and support to students who are pursuing a doctoral degree in a health-related field abroad. Applications are prepared and submitted by students in ResearchNet by the internal deadline set by McMaster.



# LABORATORY SAFETY TRAINING

Every employee of McMaster University must participate in basic health and safety training sessions as it relates to their work environment. It is important to participate in the safety training that is required for your lab, therefore it is imperative you consult with your supervisor to ensure you attend all appropriate training upon your arrival and prior to the commencement of any laboratory work. The training is online through Mosaic and Avenue 2 Learn. Once you have successfully completed the training, which includes a quiz for each module, your record will be stored in Mosaic. Each laboratory has a dedicated safety representative. Please consult with your research supervisor to find out who this person is for your lab.

## HOSPITAL SAFETY

Students working in the hospital building require training from the FHS SAFETY OFFICE.

## CAMPUS HEALTH AND SAFETY

McMaster's Health and Safety Training Program is designed to provide mandatory and site-specific safety training on campus. Go to Health & Safety Training for details.

## INJURY/INCIDENT REPORTS

An injury/incident report must be submitted within 24 hours of an injury. Please contact [FHSS0@mcmaster.ca](mailto:FHSS0@mcmaster.ca) for details.



# ENROLMENT

Students are required to enrol in all terms in an academic year, even if they plan on finishing before the year ends. Students who are on a Leave of Absence that covers a term do not have to enrol in that term. Go to [How To Enrol](#) for further instructions.

## NEW STUDENTS - MANDATORY TRAINING COURSES:

### **SGS 101: Academic Integrity and Ethics**

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.

### **SGS 201: Accessibility for Ontarians with Disability Act (AODA)**

The Ontario government legislated a requirement for all graduate students to complete AODA training.

If you have any questions about the training modules, you can contact the Accessibility Office directly at [aoda@mcmaster.ca](mailto:aoda@mcmaster.ca).

Note: Students who have taken SGS 101 and 201 for a previous graduate degree do not need to take the courses again.

## NEW & RETURNING STUDENTS - SGS 700/ACADEMIC COURSES:

SGS 700 (Placeholder): Mosaic requires graduate students to enrol in a course in every term they are an active student. If there is a term in which you are not taking an academic course, you must enrol in SGS 700.

## EXAMPLE OF ENROLMENT:

### **Fall Term**

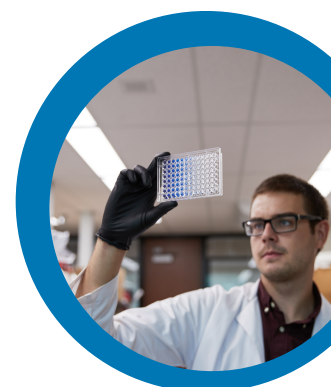
- SGS101
- SGS201
- SGS700

### **Winter Term**

- BIOCHEM  
733

### **Spring/Summer Term**

- SGS700



# COURSES

## GRADUATE COURSES OFFERED BY OUR DEPARTMENT:

**BIOCHEM 720**  
**Scientific Communication**  
**Term: Sept – Dec & Jan - Apr**  
**Instructor: Matthew Miller**

NOTE: This is a multi-term course for second year Biochemistry Masters Students.

This course will introduce students to various methods of scientific communication and provide them with the tools to become better communicators in speaking, writing, and publishing.

**BIOCHEM 732**  
**Writing for science**  
**Term: Sept- Dec**  
**Instructor: Lori Burrows**

Scientific writing spans journalism, manuscripts, patents, posters, grant proposals, commentaries - the list goes on. This course will expose students to a variety of scientific writing, exploring their purpose(s) and how they are evaluated by their intended audiences

**BIOCHEM 733**  
**Biomedical Commercialization and Entrepreneurship**  
**Term: Jan - April**  
**Instructor: Leigh Wilson**

Biomedical Commercialization and Entrepreneurship has been developed with the following goals in mind- to educate learners on the process of research commercialization, and to enlighten students on the intricacies of the life science industry, prepare them for possible non-academic careers, and foster interest in life sciences entrepreneurship.

**NEW**

**BIOCHEM 734**  
**Advanced Techniques in the Biomedical Sciences**  
**Term: Jan- April**  
**Instructors: Sara Andres, Jon Stokes, Ray Truant and Hong Han**

The objective of this course is to introduce students to modern experimental approaches and technologies commonly employed in biomedical research. The course will consist of four units delivered over a single term and will be delivered as a series of modules that will provide students with the practical and theoretical framework necessary to both design, perform, and interpret experiments using various technologies.

# SEMINARS

Learning to communicate the results of basic research is an integral part of graduate education. It is also important for students to be exposed to research outside their own area of specialization. Students are therefore expected to attend their peer's seminars and make the graduate student seminar series a fixed commitment in their weekly schedules. MSc and PhD students are required to present one and two seminars, respectively. Students will receive feedback from faculty and other graduate students following each seminar.

**MSc Seminar:** Second year master's students will present a 15 minute seminar with 5 minutes set aside for questions from the audience. This should be a very focused presentation. The problem the student is trying to address should be explained in such a way that any scientifically literate audience member can grasp what they're working on.

**PhD Seminars:** The first doctoral level seminar will be presented in second year. The second seminar is typically during the last 12 months in the program. Doctoral students will have 25 minutes to present with 5 minutes set aside for questions. Seminars must place the student's sizeable body of work in the context of their field. It is important to explain how the specific work contributes to this field.

PARTICIPATION IN THE DEPARTMENTAL SEMINAR PROGRAM IS MANDATORY FOR ALL GRADUATE STUDENTS

OUR SEMINARS ARE HELD EVERY MONDAY FROM 11:30 AM -12:30 PM.

PLEASE REFER TO OUR WEBSITE FOR THIS YEAR'S SEMINAR SERIES SCHEDULE.



# COMMITTEE MEETING OVERVIEW

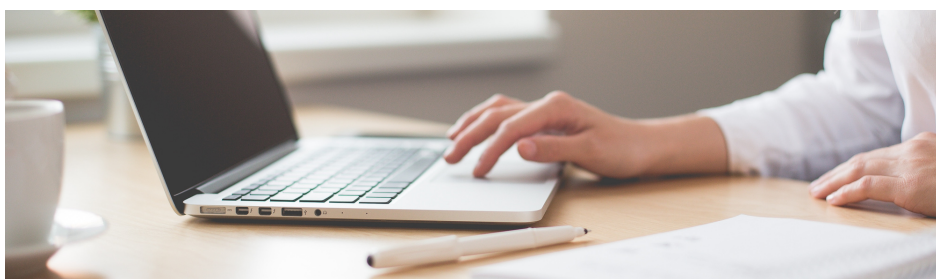
## SUMMARY

University regulations require all graduate students meet formally with their supervisory committee to discuss their progress. Committee meetings provide a tool for both communicating and documenting student accomplishments and their supervisory committees' expectations.

Supervisors are responsible for assembling their student's committee. The research interests of all committee members will encompass the thesis topic of the student. The committee will consist of the student's supervisor plus two other members (at least one must be a full-time faculty or associate member from the Biochemistry and Biomedical Sciences Department). A third member, whose scholarly interests include the area of the student's main interest, may be from outside the department.

Students are responsible for scheduling their committee meetings on time. The Biochemistry Graduate Administrative Assistant must be notified by the student once the meeting date is confirmed.

Students will be assigned grades by each of their committee members. If marginal grades are given by any one member, another committee meeting must be held within 3 months to re-assess their progress. If unsatisfactory is given by committee members, the supervisor will confer with our Department Assistant Chair of Graduate Education to decide what further course of action is required.



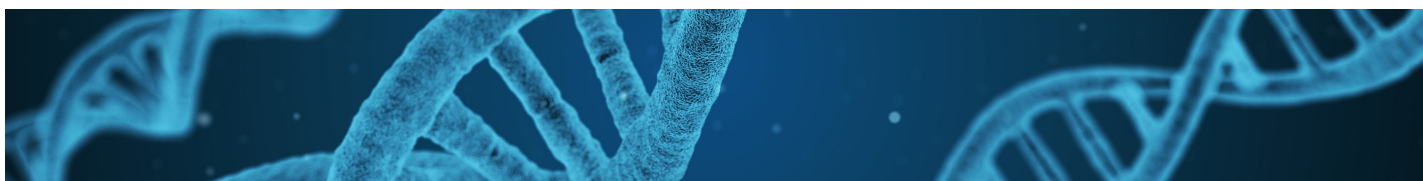
# COMMITTEE MEETINGS OVERVIEW

## WHAT TO EXPECT

Students should come prepared to give a ~20 minute presentation on what they have described in their meeting report. The presentation should provide the rationale of the project, a description of the experimental approaches being used, an overview of progress, on-going work, and future directions. The Committee will then discuss the project in detail with the student.

Students should feel free to bring up any issues they would like guidance on and to clearly articulate their expectations with their committee members. During the presentation, the committee members may ask questions that are relevant to the project. This can include challenges on the interpretation of data, first principles, and scientific questions that are relevant to the topic or to planned experiments. Committee members may ask the student to briefly explain any of the references they cite in their report.

Students are asked to bring lab notebooks containing relevant experimental observations to each meeting. One important aspect of the scientific method is the reproducibility of each important observation: typically, the most publishable version of an experiment will be shown in the meeting report, however, students must be able to provide evidence that each observation has been made more than once.



# MASTERS COMMITTEE MEETING TIMELINE

## MSC STUDENTS MEET EVERY 6 MONTHS

<b>First Meeting</b> 4-6 Months	The first supervisory committee meeting is to be held within 4-6 months of registration in the graduate program. The goal of this initial meeting is to determine whether the student has a well-defined project and whether the student is making the necessary effort to become well versed in the background literature to their field. We expect all students to attempt to master this material within their first year of graduate school. At this first meeting, the student should also have made some basic progress towards their research goals although it may be of a preliminary nature.
<b>Second Meeting</b> 9-12 Months	The second committee meeting is to be held between 9 and 12 months after arrival in the program. It is expected the student will have made further progress in mastering the literature relevant to their field and to have made headway in their research. Students may present a request to be reclassified to the PhD program to their supervisor and supervisory committee members.
<b>Third Meeting</b> 18-20 Months	The third committee meeting will be held no later than 18 months after initial registration in the program. The purpose of this meeting is to decide what the student needs to do to complete their MSc thesis. Alternatively, if the student has the support of their supervisor and committee members, they may request permission for reclassification into the PhD program.

## FORMS

Committee form can be found on the [Biochemistry Graduate Website](#). It is the student's responsibility to ensure their form is complete and submitted to the [Committee Meeting MS Forms](#).

## TRANSFER TO PHD PROGRAM

Students may request to be reclassified to the PhD program no sooner than 12 months after initial registration in the MSc program. The candidate must present a request for transfer to the supervisor and the supervisory committee and all must be in agreement to proceed with the transfer. Students enrolled in the Master's program beyond 22 months must complete the MSc degree requirements including all course work and the thesis defense prior to admission to the PhD program.



# MASTERS THESIS DEFENSE PROCESS

PLEASE CONSULT THE [SCHOOL OF GRADUATE STUDIES GUIDE FOR THE PREPARATION OF THESES.](#)

## 1 SCHEDULING DEFENSE

Permission to write is given by the student's committee at the third supervisory meeting usually held at the 18-month mark. Acting on behalf of the chair, the time of the defense will be set by the Department Graduate Administrator. The candidate is to inform the Administrator they have started to prepare for their defense approximately 8-12 weeks prior to the anticipated oral examination. Note: A master's thesis defense committee must include a chair (your supervisor), a second faculty member from Biochemistry and a third faculty member.

## 2 THESIS APPROVED BY SUPERVISOR

Produce a draft of your thesis to your supervisor 8-12 weeks before your defense. Your draft should be correctly formatted with attention to detail (see [MSc guidelines](#)). You will be assessed mainly on its content, but also on its appearance. The draft should be free of typos and illustrations should be sharp. In addition to your supervisor, you should get a colleague to read over your thesis as well. Your supervisor should try to give you a reasonable "turnaround time" on drafts and your revision time should be factored in.

## 3 REQUEST FOR THESIS DEFENSE FORMS

When your supervisor has agreed the thesis is ready to defend, then you must have your supervisor sign the "Request for Thesis Defense" form two-three weeks prior to the defense. The signed form is to be returned to the Department Graduate Administrator. This is an important part of the process. By signing this form, your supervisor is stating they feel the thesis is defensible.

Plagiarism check maybe required. Please review the Thesis Defense section in the Graduate Calendar for details.



# MASTERS THESIS DEFENSE PROCESS

## 4 INITIATION OF DEFENSE ON MOSAIC

In your Student Center, select "My Academics" and then the "Thesis Intent – Defend Thesis" link. Check that your supervisor, committee members and academic plan are correct. If any information is incorrect, you should contact the Department Administrator before proceeding. You can enter your abstract the date, time and room of your defense.

## 5 SUBMIT THESIS TO COMMITTEE MEMBERS

Provide a copy of your thesis to your committee members a minimum of two weeks prior to your defense.

## 6 DEFENSE DAY

Make sure your presentation is loaded and all fonts, images, animations etc. appear as intended. You will be asked to present a 15-20 minute oral statement of the research that comprises the thesis. Your brief presentation should highlight any major issues dealt with in the thesis, the conclusions which have been reached and the significance of the findings. Notes or other aids may be used, however the statement may not be read from a prepared script.

## 7 FOLLOWING DEFENSE

Students who have successfully completed their thesis oral examination including all the revisions and corrections required by the examining committee, must obtain the appropriate signature(s) on the "Final Thesis Submission Sheet," "McMaster University Licence" and "Oral Defense" forms. These forms are to be emailed to the Department Administrator who will then submit the forms to SGS as a service request in Mosaic. Students must submit their final thesis copy (pdf format) to MacSphere.



# MASTER DEGREE CHECKLIST

PROGRAM START DATE	EXPECTED GRADUATION DATE
_____	_____

**NOTES** The MSc program is typically 18-24 months in length. A candidate is required to spend at least one calendar year in full-time study. The maximum permissible time for completion is limited to THREE years from initial registration in the program.



**A STUDENT WHOSE WORK IS UNSATISFACTORY MAY AT ANY TIME BE REQUIRED TO WITHDRAW FROM THE PROGRAM**

- Present a thesis in a final oral examination that embodies the results of their original research
- Have meetings with the supervisory committee every six months
- Complete minimum one full (or two half) 700-level graduate courses with a minimum B- standing, which must include at least one half, 700-level in biochemistry
- Present one public seminar in second year
- Participate in the research ethics workshop
- Obtain a passing grade in SGS 101 and SGS 201

# DOCTORAL COMMITTEE MEETING TIMELINE

## First Meeting

4-6 Months

The first supervisory committee meeting is to be held within 4-6 months of registration in the graduate program. The goal of this initial meeting is to determine whether the student has a well-defined project and whether the student is making the necessary effort to become well versed in the background literature to their field. We expect all students to attempt to master this material within their first year of graduate school. At this first meeting, the student should also have made some basic progress towards their research goals although it may be of a preliminary nature.

## Subsequent Meetings

Once every academic year

Every PhD student must have a committee meeting at least once every academic year (between September 1 and August 31). However, if desired or considered necessary by their supervisor, additional meetings may be arranged. The committee meeting report **MUST** be received by the School of Graduate Studies within two weeks of the end of the academic year.

## FORMS

Students will use the online forms through Admin Tools to document their committee meetings. Students should complete the Committee Meeting MS Forms to initiate their forms. It is the student's responsibility to confirm their committee members, and complete their portion of the virtual forms before submitting using Admin Tools. Once rated, the student must review their supervisor's comments and submit the completed forms to the Assistant Dean of the Biochemistry graduate program for approval using the online system.



# DOCTORAL CANDIDACY EXAMINATION

All PhD candidates must pass a PhD candidacy examination consisting of a written research proposal representing the student's original proposed work, followed by an oral examination. The PhD candidacy examination typically takes place 12 months after the student has begun PhD studies, with an upper limit of 20 months. Students will be assigned a date for their exam 4-5 weeks in advance of their exam.

## WHY THE EXAMINATION?

- 1 Tests the student's preparation for PhD level research by determining whether they have mastered the theoretical background to their fields. Students will therefore be expected to have researched and read the publications that form the foundation of their field as well as the necessary background for the technology they intend to employ.
- 2 Provide independent assessment of performance to-date and the student's ability to execute the longer-term strategy of the proposed PhD research project.
- 3 This exam will help reveal the student's strengths and weaknesses. While questioning in the exam can be expected to be rigorous, students are not expected to have the correct answers for everything. A student coming out of this examination therefore will have had an independent evaluation of their project and background knowledge and will have been made aware of areas in which they need improvement. This last point may include the recommendation of specific coursework.



# DOCTORAL CANDIDACY EXAMINATION

## Proposal

Students will complete a proposal using the format of a CIHR operating grant. The aim of this proposal is to describe the theoretical background to the project and outline the goals of the research. This document should illustrate that the student's goals have sufficient depth to form the basis of a PhD project and must clearly demonstrate the progress that the student has made during the first 12-18 months as a PhD graduate student. This proposal is expected to be a major exercise in writing and should describe novel research in a concise and informative manner. It must be comprehensible to faculty members who are not necessarily experts in the field. This proposal should include an abstract of no more than 300 words, an introduction to the student's field and basic research direction, a summary of progress and a detailed discussion of the research to be carried out towards a PhD, including hypothesis, rationale and aims. It is important to explain and justify the approach being taken and include a projected time line for the completion of each goal.

There is an absolute length limitation of 20 pages (double-spaced, 12-point font, not including figures or references). The first 2-3 pages should introduce the subject of the student's thesis. Following the introduction there should be a 2-3 page summary of the student's progress. The remaining 14-16 pages should explain the proposed research. Students may subdivide each section in whatever manner they deem to be the most readily digested by the examining committee. References must conform to accepted practices.

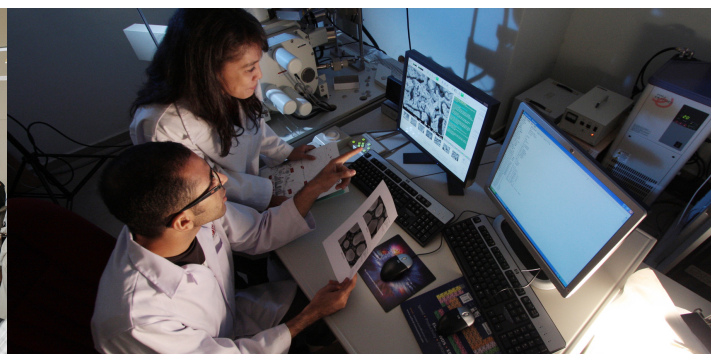
The report must be submitted to the committee members and examination chair at least one week prior to the exam.



# DOCTORAL CANDIDACY EXAMINATION

## Oral Examination

The student will give a 15-20 minute presentation outlining the major points of their proposal, including accomplishments to-date and the research proposed for the PhD. The exam will then consist of two rounds of questioning from each of the voting committee members, which can deal with any aspects of the presentation and proposal. The total time for the questioning will not exceed two hours. This committee will consist of members of the candidate's supervisory committee, as well as the examination chair, who will be a member of the BBS Graduate Curriculum and Recruitment Committee. The supervisor will verify the originality of the proposal at the outset of the examination. The Chair will ensure that the exam is conducted in a fair manner in keeping with the objective of this document. In the event that a student is at a loss to answer a particular question, the Chair may ask the examiner for clarification or to move on to a more fruitful line of questioning. Additionally, the supervisor does ask questions and the Chair is a voting member, who does not examine and is an impartial observer. The outcome of the exam will be: pass with distinction, pass, or fail. At the end of the examination, the chair secures the written votes of the examining committee on a form, provided by an administrator. In the case of a negative vote(s), the committee will determine the requirements for re-examination. The chair will then communicate the decisions of the examining committee to the student and send the signed form to the program office. The form will then be submitted in mosaic by service request for Graduate Studies to post the final grade on the student's transcript. Failure of the exam will normally result in the candidate repeating the exam within six weeks of the initial exam and prior to the maximum 24-month period. Two failures will lead to withdrawal from the PhD program



# DOCTORAL THESIS DEFENSE

Please consult the [School of Graduate Studies' Guide](#) for the preparation of theses. Please contact the School of Graduate Studies Thesis Coordinator at [gthesis@mcmaster.ca](mailto:gthesis@mcmaster.ca) if you have any questions.

## PLANNING AND SCHEDULING DEFENSE - TWO OPTIONS



### Standard Process

Student initiates process minimum 8 weeks prior to defense.

OR



### Accelerated Process

Student initiates process minimum 5 weeks prior to defense. The timeline is shortened giving students 3-4 more weeks before submitting their thesis. Supervisor is responsible for recruiting External Examiner and chair.



### Initiation

The process begins when a student and their supervisory committee members agree that the thesis is acceptable to defend. The student will initiate the defense process electronically approximately 5 weeks before submitting their thesis to the School of Graduate Studies. In Mosaic, navigate to your Student Centre and under the "My Academics" tab, select "other academics" and then select "Thesis Intent-Defend my Thesis".

## ORAL EXAMINATION

The PhD final oral examination takes the form of a brief statement by the candidate and questioning by their committee. Students should prepare a statement that will take 15 to 20 minutes to deliver. When preparing, students should consider they are speaking to an audience who has read their thesis. Thus, students should stress the main points of their contribution to the advancement of knowledge and the principal technical difficulties either of an experimental or theoretical nature which they have overcome. Notes or other aids may be used but the statement may not be read from a prepared script.





# DOCTORAL THESIS DEFENSE PROCESS

## DEFENSE PROCESS FLOWCHART:

Student initiate PhD defense in Mosaic

Supervisor chooses between the Standard or Accelerated Stream

### Standard

Supervisor inputs 3 External Examiner nominees to be approached by the SGS Thesis Coordinator

Department Chair/Approver approves the External Examiners to ensure they are at arm's length and appropriate

Student proposes date and time, and uploads thesis to be approved by Supervisory Committee members while Thesis Coordinator recruits External Examiner and Chair for the defense

External Examiner receives a link to fill in the online report including a due date, a link to the thesis, and upload link for PDF with additional comments (optional).

### Accelerated

Supervisor agrees to invite the External Examiner, select the date & time of the defense and find the Chair

Supervisor inputs External Examiner nominee information so the Supervisory Committee members and Department Chair can approve

Supervisor selects External Examiner, inputs date, time and location, and uploads student's thesis

External Examiner receives a link to fill in the online report including a due date, a link to the thesis, and upload link for PDF with additional comments (optional).

Report from the External Examiner is due at least 1 week prior to the defense date

Thesis Coordinator emails student and Examining Committee, including the External and Chair, to confirm details of the defense and send the Chair package with forms

Chair and Supervisor will decide who will "host" the defense and send the Zoom or WebEx invite if required

# DOCTORAL DEGREE CHECKLIST

PROGRAM START DATE	EXPECTED GRADUATION DATE
_____	_____

**NOTES** The minimum time to complete a PhD is THREE calendar years beyond the bachelor's level or TWO calendar years beyond the master's level. Completion of the PhD degree is normally limited to SIX years from initial registration.



**A STUDENT WHOSE WORK IS UNSATISFACTORY MAY AT ANY TIME BE REQUIRED TO WITHDRAW FROM THE PROGRAM**

- Present a thesis in a final oral examination that embodies the results of their original research
- Pass a PhD Candidacy Examination, typically scheduled at 12 months after initial registration with an upper limit of 20 months. This examination is designed to test students for breadth of knowledge and the ability to integrate ideas.
- Meet six months after initial registration in the program with their supervisory committee, followed by subsequent annual meetings.
- Present two public seminars in the departmental seminar program.
- Obtain a passing grade in SGS 101 and SGS 201. Note: There are no other formal course requirements.

# COMBINED MD/PHD PROGRAM

## ABOUT THE PROGRAM

The program seeks to train individuals who will pursue research as a major priority and to prepare graduates for leadership roles in integrated research initiatives, particularly those involving interdisciplinary and translational health research endeavours. The program expects that McMaster MD/PhD graduates will contribute significantly to the need for clinician scientists in a variety of roles. The MD/PhD program is offered in an integrated format with specific blocks of time provided for activities in either program. There will be opportunity for flexibility in the arrangement of a student curriculum, if requested and/or deemed appropriate. The MD/PhD program committee and the student's doctoral program will review these requests before making a recommendation to the Associate Deans.

## PROGRAM REQUIREMENTS

- Must fulfill all the requirements of our PhD program.
- Are responsible for the successful completion of the McMaster MD program, including all aspects of the curriculum, electives and clerkship rotations required for graduation with an MD degree. For further details, please refer to the [MD/PhD website](#).



# COMBINED ASTROBIOLOGY PROGRAM

## ABOUT THE PROGRAM

The Origins Institute in collaboration with five “home” departments offers Canada’s first graduate program in Astrobiology. The “Collaborative Graduate Program in Astrobiology” offer students a MSc or PhD in the interdisciplinary science of Astrobiology. Students must be accepted to do graduate studies in any of five participating home departments: Biochemistry, Biology, Chemistry and Chemical Biology, Physics and Astronomy, and the School of Geography and Earth Sciences. Researchers must possess expertise in specific fields such as astrophysics, microbiology, planetary sciences, biochemistry and chemistry, etc. but also must have the training that allows them to work effectively within multidisciplinary teams. For more information, please refer to the [Origins Institute homepage](#)



# CONVOCATION

## DIPLOMAS

Graduates have the option to receive a digital diploma via bitcoin blockchain. You will receive your printed diploma around the time of your convocation. You may also request early conferral to receive your diploma before your convocation date. For more information, go to [Digital Diplomas](#).

## NEXT STEPS

You will need to fill out the graduation forms after you successfully defend. The form will verify the name which will be written on your diploma and the address that your diploma will be mailed to. To fill out the forms, click on the "Graduation" tile on Mosaic.

To get your graduation photos please book an appointment with [Lifetouch Graduation Photos](#).

## THINGS TO CONSIDER

The Approved to Graduate/Post-Graduate Work Permit letter is available to you once your status on Mosaic is 'Approved to Graduate'. Transcripts and Degree Awarded Letters indicating that your degree was awarded with the conferral date will be available to you the day after convocation.

## DETAILS

For dates and more information, go to [Grad Details](#).



# HOUSING & FINANCIAL RESOURCES

## HOUSING

### OFF-CAMPUS HOUSING

Mac Off-Campus services can help you find rental properties that are close to McMaster University and are exclusively offered to McMaster students, staff and faculty. Go to [Off-Campus Housing](#) for more information.

### LEARN YOUR RIGHTS

If you are renting a house it is crucial for you to learn about your tenant rights. Go to [Renting in Ontario](#) for information.

### IMPORTANT RENTING INFORMATION

To learn about the types of housing, lease agreements, credit checks, rents & deposits and what you should consider when renting a house, please visit [Rental Housing](#).

### COMMUTING FROM HOME

Living at home while transitioning into graduate studies can be a challenge. To learn tips and find resources to help you as a commuter student please visit [Off-Campus Commuting](#).



## FINANCIAL HEALTH

### MACS MONEY CENTRE RESOURCES

To learn how to build a budget, compare credit, manage your savings plan and evaluate investing opportunities please visit [Mac's Money Centre](#).

### PAYING FOR SCHOOL

To find financial opportunities to help you pay for your schooling such as scholarships, bursaries, OSAP, student line of credit and emergency funding please visit [Paying For School](#).

### FINDING A JOB

The [Student Success Centre](#) will provide you with strategies, resources and guidance throughout your job search process



# PROFESSIONAL DEVELOPMENT RESOURCES

## MENTORING, NETWORKING & LEADERSHIP

There are many opportunities for students to connect with employers and seeks clarity on their career goals. See below for a list of some of the opportunities available to you.

- Alumni & Partners Advisor Network: Receive advice and coaching from individuals in the industry
- Women in Science & Engineering Initiative: Provides opportunities for students to attend conferences, workshop and creates networking opportunities for women in science and engineering.
- MaRS: Helps you in your journey to startup your own business in one the following sectors: healthcare, clean technology, financial technology and enterprise



## ONLINE LEARNING

There are a variety of professional development courses available to you to gain skills in technology, leadership, management, communication and entrepreneurialism. Additionally, you can receive training on a variety of topics covering business, creativity and technology using your free subscription to [LinkedIn Learning](#).



## CAREER PREP AND JOB SEARCH

There are tons of resources available to you as a graduate student to help you prepare and find a job. See below for a list of some of the services and events available to you:

- Careers Fairs
- Career Opportunities at McMaster
- Career Access Program for Students: Program that helps students from equity-seeking groups or facing barriers for employment find a job

## LEARN MORE

Go to [Careers & Professional Development](#) to learn about the resources available to you.



# ON CAMPUS SERVICES

## ON-CAMPUS PROFESSIONAL SERVICES

### SEXUAL VIOLENCE AND PREVENTION OFFICE

Click on the titles to learn more

McMaster is committed to fostering a safe environment. For more information, please email [svpro.mcmaster.ca](mailto:svpro.mcmaster.ca)

### EQUITY AND INCLUSION OFFICE

McMaster University is a place where everyone is treated equitably and respectfully. There are many programs in place such as confidential complaint resolution, educational opportunities, and identification and removal of barriers to accessibility.

### OMBUDS OFFICE

Ombuds Office provides dispute-resolution advice and assistance.

### INDIGENOUS STUDENTS SERVICES

They offer counselling, elder-in-residence program, writing skills workshops etc.

### STUDENT ACCESSIBILITY SERVICES (SAS)

SAS provides academic accommodation assistance and related supports to students with disabilities at McMaster.

## ON-CAMPUS PEER-LED SERVICES

### GRADUATE STUDENT ASSOCIATION

Organizes events, workshops and learning opportunities for graduate students.

### FOOD COLLECTIVE CENTRE (FCC)

FCC is a food bank and food security resource for students. They ensure that food is always accessible to food insecure individuals.

### PRIDE COMMUNITY CENTRE (PCC)

PCC is a space for those identified as gender and sexual minorities and their allies.

### WOMEN AND GENDER EQUITY NETWORK (WGEN)

WGEN has services and events to help create a safe space on campus for women-identified people, trans\* people and survivors of sexual assault.