

WELCOME
 New and Returning Graduate Students
 to
 the Department of Earth & Planetary Sciences (EPS)
 McGill University

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IMPORTANT NOTE

Please note that this handbook is an EPS-specific *supplement* and does not replace the **Graduate and Postdoctoral Studies Calendar** (found at <http://www.mcgill.ca/students/courses/calendars/>) or the **Policies and Procedures** (found in the right sidebar at <http://www.mcgill.ca/gps/students>). You are responsible for reading and understanding the official procedures, rules and regulations as presented in those documents. If anything is not clear, please speak to the EPS Graduate Program Director (GPD).

*** Items marked with an asterisk (*) may exist in a reduced capacity or not at all, depending on Covid-19 restrictions.**

PART I:

A GUIDE TO THE DEPARTMENT OF EARTH AND PLANETARY SCIENCES (EPS)

1. WELCOME TO NEW EPS GRADUATE STUDENTS

You have joined a dynamic scientific group in our department that is ready to support your research efforts as a new graduate student. Faculty, staff and students will do their best to make your transition to McGill as smooth as possible. Feel free to ask for advice, particularly from your fellow graduate students in EPS.

2. THE MOST WANTED PEOPLE ON STAFF AND FACULTY (OTHER THAN YOUR RESEARCH SUPERVISOR)

The human resources within the Department will be invaluable to you throughout your graduate program. They provide support for a productive academic life as a graduate student.

	Name	Position	Office	Email address
1.	Professor Jeffrey McKenzie	Chair, fearless leader of our department	FDA 231	jeffrey.mckenzie@mcgill.ca
2.	Professor Yajing Liu	Graduate Program Director (GPD)	FDA 339	yajing.liu@mcgill.ca
3.	Anne Kosowski	Administrative Officer	FDA 239	anne.kosowski@mcgill.ca
4.	Kristy Thornton	Student Affairs Coordinator	FDA 238	kristy.thornton@mcgill.ca
5.	Maria Paterniani, Sonal Patel	FST Manager (Expense Reports)	Burnside 1028	sciencefinancepod2@mcgill.ca
6.	Brigitte Dionne	Systems Administrator	FDA 209A	brigitte.dionne@mcgill.ca
7.	Lang Shi	Microprobe Laboratory	FDA 238A	lang.shi@mcgill.ca
8.	Isabelle Richer	Atomic Absorption (AA) Facility	FDA 207A	isabelle.richer@mcgill.ca
9.	Anna Jung	ICP-MS Facility	FDA 207	anna.jung@mcgill.ca

3. GETTING STARTED AT MCGILL: A SURVIVAL GUIDE FOR NEW AND INTERNATIONAL GRADUATE STUDENTS

This section serves as a chronological guide to the essential steps that you will need to take upon your arrival in Montreal. Items that pertain specifically to international students are marked with an asterisk. You will need to register at the university, open a bank account, arrange for health insurance, acquire a social insurance number (SIN), and find a place to live.

International Student Services (Brown Student Services Building, 3600 McTavish, suite 5100, 514-398-4349) offers a range of services, including providing information about Canadian visas, student authorization and immigration procedures. For more information on their services, please see their website at <http://www.mcgill.ca/internationalstudents/>. Another useful resource is the Post-Graduate Society Student Member Handbook, available at <https://pgss.mcgill.ca/en/pgss-online-handbook>.

A map of McGill University can be found here <http://www.mcgill.ca/maps/>. The Montreal transit system (STM) maps can be found at <http://www.stm.info/en/map>.

GETTING SET UP

Minerva

Minerva (<http://www.mcgill.ca/minerva-students/>) is McGill's online administrative system. It records your personal information, grades, fee and pay information. Your 6-character PIN is initially "yymmdd" where yymmdd is the year, month and day of your birthdate. A new PIN should be chosen immediately upon logging in for the first time. After logging in for the first time, you may then set your McGill password under Personal Menu → Password for McGill Username. The McGill password is used in combination with your McGill username (firstname.lastname@mail.mcgill.ca) to let you access many online services within McGill. You may use either the combination of your student number and PIN, or your McGill username and password to log into Minerva. More information on your username and password (such as what to do if you forget your password) can be found by running a search for those issues on <https://mcgill.service-now.com/itportal>.

The "Student Records" menu allows you to request official transcripts and to view information on your grades and other academic-related information. You may also view your student account and pay information from the "Student Accounts" menu. Other menus in Minerva allow you to register for a variety of things from extra courses to university events.

It is your responsibility to update your new address in Montreal on this system as

soon as possible under the “Personal Menu”. If you do not do this, any hard-copy documents from McGill will be automatically sent to the mailing address from your uApply application.

E-mail

McGill will grant you a student email account (firstname.lastname@mail.mcgill.ca). It is important to note that all official information, announcements and messages from McGill will ONLY be sent to your McGill email account (please read the official McGill policy on email communication at http://www.mcgill.ca/secretariat/files/secretariat/e-mail-communications-with-students-policy-on_5.pdf).

All EPS graduate students are added to the departmental graduate student email list. Please check your email regularly (at least once daily) as all departmental notices regarding registration, scholarships, departmental announcements, etc. will be sent by email. Pay attention to all notices and messages coming from Anne, Kristy, and Yajing, or you may miss something important!

Registration

Registration is done through Minerva (<http://www.mcgill.ca/minerva-students/>). The **deadlines** and late registration fees are given in the course calendar under “General Information, Regulations and Research Guidelines → Calendar of Dates”. Once you have logged in to Minerva, click on “Student Menu”, then “Registration Menu”, and follow the steps listed to register (either by checking the box in the **Select** column and clicking the **Register** button while in the “Look Up Course Sections” menu, or by adding the Course Registration Numbers (CRNs) into the “Quick Add/Drop Menu”.

To avoid the late registration fee, all students must register for REGN RCGR (the Registration Confirmation course) in both the Fall and Winter terms. For further information regarding required courses, please see Section 12 on Course Load and Selection.

Course selection

Consult the course listing and descriptions for the current academic year. Undergraduate course descriptions are listed by departments in the McGill University course calendar (<http://www.mcgill.ca/courses/>). See the program information for Earth & Planetary Sciences (under “Academic Units”) for the required number of credits. Consult with your research supervisor to select your courses, then register through Minerva. Courses must be at least 500-level.

McGill Student ID card

A few days after your registration, the Registrar's Office will be able to issue you a McGill student ID card. Starting in August, you can obtain your student card at Service Point (corner of Sherbrooke St and McTavish). Expect to wait in line for at least one hour.* If you arrive before classes begin, it's best to go get your ID right away, as Service Point often experiences even longer wait times in the first week of classes! You will need to bring your student ID number (e.g. given in your letter of acceptance), one piece of photo identification (e.g., passport, driver's license), as well as a document showing proof of citizenship (for Canadian students) or proof of legal status (for international students) if you have not already mailed it in. You will be registered for health insurance (International Student Health Insurance Plan or through the Post-Graduate Students' Society; see item below on health insurance). Your new student ID card also has a bar code for library access and the sports facilities.

*Covid note: An appointment may be required to obtain your ID card. Please check <https://www.mcgill.ca/student-records/personal-information/id> for updated information on how to obtain your ID card.

Fee payment

You are required to pay university fees (e.g., tuition, student society). You may access information on the amount due, as well as the breakdown of the fees, through Minerva on your Student Accounts menu. Payment of fees can be done from your bank, at a banking machine (ATM), through internet banking, or by pre-authorized debit (e-cheque, see <http://www.mcgill.ca/student-accounts/e-bill/> for information on setting this up).

If you are expecting a major scholarship (e.g., NSERC, FRQNT, Tomlinson) and have not received it yet, or you simply do not have the money at the moment until you have had the chance to build some up from your salary as a graduate student, you may apply for a **fee deferral** on Minerva. This will allow you to delay payment of your fees until the end of the current semester without incurring any penalty. Simply go to Financial Aid & Awards Menu → Defer Payment of Tuition and Fees, and choose the option that applies to you. Unless you have one of the scholarships listed, the third option is generally the most accurate ("Graduate Students – McGill awards paid in installments (i.e. stipends or fellowships)"). More information on this is available at <http://www.mcgill.ca/student-accounts/deferred/>.

Note that the amount of fees that you must pay (and at what times of year) changes according to your registration status (see section 13).

Apply for a Social Insurance Number (SIN)

McGill requires that all students supported by a graduate student stipend or a teaching assistantship (TA), have a Social Insurance Number (SIN) (<http://www.mcgill.ca/internationalstudents/work/social-insurance>). Canadian students already have one, but international students must apply for one. You can apply online through the Government of Canada website (<http://www.servicecanada.gc.ca/eng/sc/sin/index.shtml>). You can also apply by mail or in person, although it is safer to do so in person so that you do not have to part with your documents. The closest application office is located at Guy-Favreau Complex, Office 034, 200 René-Lévesque Blvd West, phone (514) 522-4444) and is open weekdays from 8:30 a.m. to 4:00 p.m. Bring your on- or off-campus work authorization on your study permit (issued by Citizenship and Immigration Canada). These documents must be originals. Expect to wait in line for 30-60 minutes. You will receive your SIN immediately, as a paper document.

Things To Do Upon Arrival In EPS

Visit the main office in the Adams Building (FDA), Room 238. You will be given some of the forms and information that you need to get started. The rest must be taken care of online through Minerva.

You will need to provide us with your address and phone number (kept in your file in case of emergency), as well as the names and amounts of any scholarships or bursaries that you have for the coming academic year. This is done using the ***EPS Registration Information form***. In the scholarship section there is no need to include the Graduate Student Stipend or Teaching Assistantships that the EPS Department pays you. We are only looking to find out any additional/outside sources of funding. You will find this form in your mailbox at the beginning of each year; please fill it out and return it to Kristy.

The ***Cobbles/Pebbles Account Application form*** will enable you to access the computers and printers that are on our departmental network, such as those in the lounge, and grants you space on a network drive. Please fill in the top part of the form and return it to the main office. Brigitte Dionne, our departmental IT support person, will create your account and give you a password on pebbles and cobbles. Check back with Brigitte within a couple of days to find out your password.

To **set up your salary payments**, please see Anne Kosowski, our administrative officer. She will have forms for you to sign (if you have not already done so through email) and will discuss tuition payments with you. If you are an international student, please bring or email a scan of your student visa and/or work permit to Anne, as a copy of it is needed for your file. Anne will also need your Social Insurance Number (SIN).

You will need to **fill in your direct-deposit banking information on Minerva** to receive payments. This form can be found under your Student Menu → Student Accounts Menu → Direct Deposit Bank Account. Be sure to fill in both parts (“Bank account used for student-initiated payments” and Bank account used for payroll-initiated payments”), as the first is for fellowships and the second is for the rest of your payments (teaching assistantships and graduate student stipends). You cannot receive any payments until this information has been entered.

Other useful information can be found in the course calendar and University Regulations and Resources (Graduate and Postdoctoral Studies), available online at <http://www.mcgill.ca/students/courses/calendars/>.

Open a bank account

To receive direct payment of your teaching assistantship and graduate student stipend, you will need to open a bank account. The major banks in the vicinity of McGill are: Royal Bank of Canada (RBC), Bank of Montreal, CIBC, TD Canada Trust and Scotia Bank. RBC has several banking machines on the McGill campus (e.g., McConnell Building, Burnside Hall). Before opening an account, be sure to ask for information about student accounts and the associated payment/credit cards. To open a student account, you will usually need two photo-bearing pieces of identification (preferably passport and student ID card) and your student visa authorization. Some banks may require that you already have your Social Insurance Number. Once you have the bank account, you will need to submit the information through Minerva to receive direct-deposit payments (as stated in the “Initial Setup” section above).

Health insurance

The Post-Graduate Students Society (PGSS, <http://www.pgss.mcgill.ca/>) offers an insurance plan to McGill graduate students. All graduate students are automatically enrolled in this plan. It functions as 'supplemental' insurance, meaning that it will cover those costs which are above and beyond what is covered by provincial Medicare. Because of this, coverage on provincial Medicare from a Canadian province is an eligibility requirement to obtain coverage on the plan. Therefore, ***international students*** are normally not eligible for coverage on the PGSS health insurance plan.

As per the University's regulations, all international students must obtain 'equivalent to Medicare' coverage so that they can be welcomed into a hospital emergency room in case of major incident. This 'equivalent to Medicare' coverage is the compulsory McGill International Health Insurance (IHI) plan,

which is administered by International Student Services. All international students are automatically charged the annual IHI fee (\$1047 in 2021-22) upon registration at McGill University in the fall and winter terms. Confirmation of coverage is done through your Student Menu on Minerva by clicking on “International Student Health Insurance Coverage Form”. We highly encourage you to read the information on the plan, at <http://www.mcgill.ca/internationalstudents/health>.

Students who are already covered under another insurance plan can choose to opt-out of the PGSS plan. Information on opting out can be found at http://www.studentcare.ca/rte/en/McGillUniversitygraduatestudentsPGSS_ChangeofCoverage_OptOuts.

Students who leave Canada after their terms of residence are completed and intend to submit from abroad (i.e. “Thesis Away”) are eligible for an exemption from the IHI. Please see this page for information on exemption eligibility and deadlines: <https://www.mcgill.ca/internationalstudents/health/exemption>.

Mandatory Academic Integrity Tutorial

All incoming graduate students must complete a mandatory online academic integrity tutorial (available through the Student Menu on Minerva). Graduate and Postdoctoral Studies sends each incoming student an email to their official McGill email address informing them of this requirement, as well as the consequences of not completing the tutorial before the end of the first term of registration (a registration HOLD will be placed on the student’s record and removed upon completion of the tutorial). One week after the end of the withdrawal deadline in a given term, one reminder will automatically be sent to students who have not completed the tutorial.

Mandatory Sexual Violence Education Tutorial (“It Take All Of Us”)

All incoming graduate students must complete a mandatory online sexual violence education program entitled “It Takes All Of Us” (accessed through myCourses; more information found at <https://www.mcgill.ca/sv-education/>). Note that there are two separate versions; one for students and one for staff. You must complete the student version in order to avoid any holds on your registration after your first semester. Note that as a TA you will also need to complete the staff version, and paid time will be set aside in your first TAship to complete it.

FINDING A PLACE TO LIVE IN MONTREAL

Most EPS graduate students live in private apartments, shared with roommates. The search for an apartment can be made easier by consulting the listings available through the McGill Off-Campus Housing website (<http://www.mcgill.ca/offcampus/>), by consulting internal postings on bulletin boards at McGill, or by searching online (such as through Padmapper, Kijiji, or Craigslist). Off-Campus Housing also includes helpful information regarding things like leases and roommates. You can also contact our department and we will put you in touch with current grad students who can help you in your search. Since you will be renting, it's important to know your rights as a renter in Quebec. Visit <https://www.rdl.gouv.qc.ca/en> for more information.

Rooms are generally not furnished. Towards the end of August and the beginning of September, garage sales provide good opportunities to purchase second-hand furniture (posted on the street in the "Ghetto" or in the halls at McGill). You can also try the Salvation Army and other stores that specialize in second-hand furniture. There are also several McGill Facebook groups dedicated to "Free & For Sale", clothing exchange, housing, roommate searches, etc.

Alternatively, McGill offers graduate student residences. They are furnished and convenient, but the monthly rent may be above the average for Montreal. More information can be found at <http://www.mcgill.ca/students/housing/rez-options/downtown-graduate>.

EPS WELCOME WEEK

To welcome new students to the Department, a series of activities are held in September. Early in the first month of the semester a special orientation session will be held to introduce new students to the faculty and staff of the Department. An EPS Research Symposium* will be held one day in which professors present their research in short (< 15 minutes) talks and undergrads, grads, postdocs and faculty present recent posters. A wine and cheese* and a special field trip* will also be held to welcome new students early in the Fall semester.

**If covid restrictions allow.*

During the first month of their first semester new students will meet with a preliminary advisory committee to help start them off on their graduate studies and research. This committee will consist of the student's supervisor and two other members of the Department (one being an expert in a field similar to that studied by the student and the other one from a different field). The committee could be similar in composition to the student's future MSc or PhD committee, but this is not required.

MCGILL SOCIETIES

Post Graduate Student Society (PGSS)

Every graduate student at McGill is automatically a member of PGSS. The headquarters are located at Thomson House (3650 McTavish, between Dr. Penfield and Pine), which serves all graduate students. Early in September, the PGSS organizes a series of events for new graduate students: Graduate Student Orientation (at Moyses Hall), Principal's reception, and a Wine & Cheese party (at Thomson House). As a graduate student, you can use all the facilities at Thomson House (e.g., study spaces, cafeteria, bar). Announcements of individual activities are available on the bulletin board at the entrance and are usually circulated on posters or by email. For more information, see <https://pgss.mcgill.ca/en/home>.

McGill International Student Network

The McGill International Student Network (MISN) is in suite 416 of 3600 McTavish, (in the Shatner Building). This society organizes language classes, various activities and social events throughout the academic year. You can find out more at <https://misen.ssmu.ca/>. There is also a MISN Facebook group at <https://www.facebook.com/mcgillisen/>.

NEED TO TALK?

If at any point during your time in EPS something comes up that affects your mental health, there are several options for you. You can talk to your supervisor, and in fact it is important that they are made aware of any problems to minimize any impact on your research and academics.

If you are unsure of who to talk to regarding a specific (or nonspecific) issue, feel free to ask anyone in the main office, who will point you in the right direction.

Student Wellness Hub

Outside the department, McGill's Student Wellness Hub is a one-stop shop for both physical and mental health care. Students can access nurses, GPs, dietitians and psychiatrists through the Hub, as well as counselors and local wellness advisors. Their counseling services assist with psychological, emotional, and interpersonal issues, as well as vocational and academic concerns. Students can book with any of the providers by email or by phone.

Please visit <https://www.mcgill.ca/wellness-hub/> for more information on their services. The Hub is located in the Brown Building (3600 McTavish), third floor,

and can be reached at wellness.hub@mcgill.ca or 514-398-6017.

Students can book an initial appointment with local wellness advisors (LWA), including graduate and international LWAs, at <https://www.mcgill.ca/wellness-hub/get-support/local-wellness-advisors>. The Faculty of Science Wellness Advisor is Fanny Elizabeth Gutierrez-Meyers (<https://www.mcgill.ca/wellness-hub/science-students-group-programming>).

If you are unsure of what service you need, what services are available or how to go about getting access, you can make an appointment with an Access Advisor by calling, emailing or by clicking on Access Advisors <https://www.mcgill.ca/wellness-hub/>.

Dealing with conflicts

If there is a conflict between you and your supervisor, or if you simply wish to talk to someone other than your supervisor, please contact the departmental Graduate Program Director, Yajing Liu (yajing.liu@mcgill.ca).

If you would prefer to have the conflict resolved with the help of someone from outside the department, the Office of the Ombudsperson for Students (<https://www.mcgill.ca/ombudsperson/>) offers confidential, informal, independent, and impartial dispute resolution services to all members of the student community by providing information, advice, intervention and referrals.

Harassment, Sexual Harassment and/or Discrimination

McGill has a handbook on student rights and responsibilities. If you feel that you have experienced harassment, sexual harassment or discrimination, please see <http://www.mcgill.ca/students/srr/personalrights/harassment> for information on your rights, McGill's policies, and what to do next.

If you have experienced sexual violence, the Office for Sexual Violence Response, Support and Education (<https://www.mcgill.ca/osvrse/>) is there to help you. They are located in 550 Sherbrooke O. Suite 585 (West Tower 1-11 Elevator), and can be reached by email (osvrse@mcgill.ca) or by phone (514-398-3954).

Additional and Peer Help Services

Keep.MeSafe is a mental health counselling service provided by Morneau Shepell (the world's largest counselling provider) that specializes in student mental health support. It is available 24/7 in over 60 languages, is free for McGill

students (Canadian and international), and is accessible when outside of Quebec. For more information please visit <https://www.mcgill.ca/internationalstudents/health/virtual-health-services/keep-me-safe>.

McGill's myInvolvement offers workshops, events and peer support groups. A list of their offerings with RSVP information can be found at: <https://involvement.mcgill.ca/organization/wellnesshub>.

The Hub has peer health ambassadors as well. Students who may wish to seek out peer support first can go through the Healthy Living Annex <https://www.mcgill.ca/wellness-hub/get-support/healthy-living-annex>.

The HLA link above also connects students to workshops and on-demand programming. Students can also follow the HealthierMcGill Facebook (<https://www.facebook.com/healthiermcgill/>) and Instagram (@healthiermcgill) that feature provider introductions, wellness tips and workshops schedules.

AMENITIES

Food on the Run

The closest cafeteria to EPS is on the ground floor of the McConnell Engineering Building adjacent to FDA. Hot lunches, soups and sandwiches are available in the basement of the Burnside Building, also adjacent to FDA. There are many reasonably priced underground food courts downtown, e.g., at the Centre Eaton, Montreal Trust, Place Ville Marie, and Place Cathedrale. Thomson House (3650 McTavish) also serves meals between 11:30 a.m. and 2 p.m.

Stationery & Photocopying

The Department photocopier (next to the main office) is available for your use (see Section 4). The McGill Bookstore (Parc), Dollarama shops (Ste-Catherine, St-Laurent, Parc, Place Montreal Trust on McGill College), and Bureau En Gros (at the train station, in the underground of Place Ville Marie), are some of the stores nearby that sell stationery items. Photocopying (including colour photocopying), binding and poster printing is available through the Engineering Undergraduate Society (Copi-EUS) in the McConnell Engineering Building and also near McGill at various graphic service outlets (e.g., Copie Express, corner of Sherbrooke and University). In the Schulich library, photocopying is available on the 1st and 5th floors.

4. GENERAL INFORMATION THAT YOU WILL NEED SOONER OR LATER

<i>General McGill Phone Number</i>	(514) 398-4455
<i>Emergency Assistance (from within McGill)</i>	For external emergency assistance (ambulance, fire department or police), dial 911. For emergency assistance from McGill personnel (e.g., hazardous materials spills, flooding, electrical problems, security), dial 3000 from a McGill phone or 514-398-3000 from your cell phone. For general maintenance problems (e.g., lighting problems, door locks, plumbing), call the McGill dispatcher at 4555.
<i>Department Mailing Address</i>	Earth & Planetary Sciences, McGill University, 3450 University St., Montreal, Quebec, Canada H3A 0E8
<i>Department Phone Number (Main Office)</i>	(514) 398-6767
<i>Main Office</i>	Most of the general information you will need can be found in the main office, Frank Dawson Adams Building (FDA), Room 238. Office hours are 9:00am to 5:00pm, Monday to Friday.
<i>Photocopier</i>	The photocopier is in the room adjacent to the main office (FDA 237) along with assorted colour papers, the paper cutter and brown wrapping paper to wrap packages for shipment. To use the room outside of office hours, you will need to obtain the entry code from Kristy. You can log into the machine by either swiping your McGill ID card or by typing your McGill email address and password. Photocopies are 6.5 cents/page, charged to your McGill student account using the uPrint system. Other photocopiers are available in the McGill libraries and on the ground floor of FDA (hallway between FDA and McConnell).
<i>Mail</i>	External mail can be sent by depositing it in the blue bag in the main office; no postage is required for research material. Similarly, internal McGill mail can be sent by depositing it in the red bag in the main office. For personal mail, The closest post offices to McGill are in the convenience store in the basement at 2001 University St, at the Pharmaprix in Place Ville-Marie, and at the Uniprix in Les Galeries.
<i>Mailboxes</i>	Graduate student mailboxes are kept in the lounge (FDA 229); they are arranged alphabetically by the first letter of your last name.

<i>Laser printing (Pcounter)</i>	Printing on the departmental printers is charged to your supervisor. You can print in black and white on the HP LaserJet 4250dnt printer (12 cents/page) and in colour on the HP Color LaserJet 5550hdn (50 cents/page). Both printers are in the back of the lounge (FDA 229). You are on your honour not to take advantage of your supervisor's funds for personal printing. Please send personal documents to be printed by a uPrint printer, which is only 6 cents/page.
<i>Telephone</i>	Phones are not available in student offices, but there is a common telephone in the lounge by the student mailboxes (local 00020) that can be used for local outgoing calls only. Dial "9" before all non-McGill numbers. For long-distance calling codes, see your research supervisor.
<i>Phone Messages</i>	Phone messages that are left for you in the main office will be transmitted by email. Only in the case of an emergency will the Department seek you out in person to relay the message.
<i>DVD Collection, Digital Camera</i>	There is a DVD library in the main office from which items can be borrowed against your student ID card. A digital camera is also available to be signed out from the main office--when returning it, please ensure that the cables are in the case and the batteries are charged.
<i>Office Equipment</i>	Equipment (staplers, hole punchers, etc.) that is made available on the counter in the main office or the photocopy room can be used there but should not be removed.
<i>Department Letterhead</i>	Departmental letterhead is available from the main office upon request at no charge.
<i>Labeling</i>	The P-touch labeling system is used to label file folders, lab drawers, supply shelves and more. It is available in the main office but must be signed out.
<i>Lounge</i>	The lounge (FDA 229) is the heart of the Department for lunch and FREE afternoon coffee and cookies (3-3:30 p.m. Monday through Friday). A fridge, coffee machine and sink are available, as are several journals and magazines. All materials should be kept in the lounge. Please do your part in maintaining the cleanliness of our lounge. The lounge is under controlled access via ID card. See Kristy to get access.
<i>Poster Printing</i>	Copi-EUS, which is in the McConnell Engineering Building, provides poster printing services on a variety of paper types. Pricing and info at https://www.copieus.mcgilleus.ca/posters .
<i>Recycling</i>	Recycling bins are available throughout the campus. Receptacles for paper recycling are in almost every room in EPS. There is a box in the main office where you can drop off used batteries for recycling.

<i>Study Space</i>	You will be assigned a desk and chair by Kristy in one of the graduate student offices or labs when you arrive. You are <i>strongly</i> advised not to leave valuable items in your office even when locked!
<i>Office and Lab Keys</i>	Consult with your supervisor to find out which office and laboratory keys you will need. To obtain the keys you will need to fill out a key requisition form and submit it to Anne. You will be expected to pay a deposit per key; \$10 for regular keys and \$25 for Medeco keys (deposits will be returned in full upon return of the keys when you leave McGill).
<i>Seminar Room</i>	The Gill Room (FDA 232) is used for lectures, guest speakers, oral examinations, thesis defences, and internal departmental talks.
<i>Meeting Room</i>	The small meeting room (FDA 233) is available for meetings of 10 people or less.
<i>Room Bookings</i>	EPS rooms are to be booked through Kristy for presentations, meetings or guest speakers.
<i>After Hours Library Access (AHA)</i>	To obtain access to the Schulich (PSE) in FDA Library (currently closed for renovations until 2022) outside regular library hours , please see Anne in the main office. More info: https://www.mcgill.ca/library/branches/schulich/afterhours
<i>Courier Service</i>	Courier waybills are available in the main office. Please be sure to put the address on the package as well. When your package is ready to be sent, you can leave it with Kristy in the main office for pick up. Deliveries are also made in the main office.
<i>Purchasing</i>	Please see your supervisor for information and permission when purchasing items pertaining to your research.

5. THE ADAMS CLUB

The Adams Club is the society of graduate students within EPS and is responsible for coordinating several of the departmental academic and social activities, usually in conjunction with our undergraduate counterpart, the Monteregian Society. Every grad student within the Department is an automatic member of the Adams Club although a nominal yearly membership fee is charged to participate in social events at a reduced (or no) cost; in the end, it is a bargain.

Responsibilities

The Adams Club is responsible for coordinating the Brown Bag Seminars (See Departmental Academic Activities). In addition, the Adams Club also organizes

some of the main social events within the Department (e.g., Christmas Party, New Grads Field Trip) in collaboration with the Montereyan Society. Graduate students help supply labour for the events and provide financial support for the Christmas Party.

Executive Positions

Normally, elections and/or volunteers for executive positions are held or declared early in the Fall term.

President
Vice-President
Secretary
Treasurer
Representatives – Departmental (2)
Representatives -- Post Graduate Student Society (PGSS) (2)
Representatives – AGSEM (2)
Representative – GEOTOP
Representative – Departmental Facilities Committee
Representatives to geology organizations (SEG, MAC, CSPG)
Representatives – Speakers (2)
Oleg McNoleg Talks Coordinator
Social Events Coordinators (2+)
Webmaster
Outreach Representative
Grad Trip Coordinators (2)

Support for Fellow Grad Students

One of the most important aspects of the mandate of the Adams Club as a society for graduate students is to provide advice to fellow grad students in a variety of functions:

- orientation to newcomers
- preparation of thesis proposals
- preparation for the preliminary PhD oral exam
- research, analytical or technical challenges
- conference preparation for oral and poster presentations
- an environment for interaction and camaraderie among peers

6. DEPARTMENTAL ACADEMIC ACTIVITIES

Announcements for our departmental academic activities are usually made in advance by email and on the departmental website: <http://www.mcgill.ca/eps>.

Departmental Seminar Series*

Two professors (this duty changes each year) coordinate the hosting of guest speakers from outside the Department who give 50-minute oral presentations within various fields in the Earth and planetary sciences. There is a question period after the presentation and guest speakers are encouraged to make themselves available during the day of their visit for less formal questions and discussion. **It is expected that graduate students attend these seminars, even if the topic is outside their research specialization.**

**May be online due to covid restrictions.*

Brown Bag Seminars (Masters and PhD Presentations)*

All graduate students are required to give one talk to the Department each academic year. These talks take place over the lunch hour, and students are expected to contact the professor(s) in charge of organizing seminars to schedule their talks. There are two exceptions to this rule: 1) PhD students who are doing their comprehensive exam or defence in that year; 2) students who present at one of the EPS Research Symposiums in the Fall or Winter semester of that year.

Masters presentations are talks given by all Master's students in the second semester of their first year in which they present their thesis proposals and report on the progress of their research. They are generally 15 minutes long with 5 minutes for questions. Master's students are also required to give a final presentation at the end of their second year.

PhD talks should be ~15 minutes in length, with 5 minutes for questions. The goal of these presentations to keep everyone abreast of the research performed in the Department and to provide an opportunity for graduate students to practice giving talks to non-experts in their field. Note that presentations to individual research groups do not fulfill this requirement.

**May be online due to covid restrictions.*

EPS Research Symposium*

The EPS Research Symposium is held at least once a year, and the Department strives to have one in the Fall and one in the Winter semester. It is a one-day

event in which departmental research is presented in short (less than 15 minutes) talks and posters. The Fall symposium is an important part of welcoming new grad students to the department. Its format includes talks by professors while students and postdocs present posters; while in the Winter semester, some students and postdocs give talks, and others present posters. Student presentation awards are given to the best student presentations.

**If covid restrictions allow.*

PhD Defences

You are welcome to attend PhD thesis oral defences, which are normally held in the seminar room. They are open to the public and other graduate students are encouraged to attend. When there is an upcoming defence, Kristy sends out announcements by email and in the form of a pamphlet that is usually available in the main office. The PhD candidate gives an oral presentation that is followed by questions by the examining committee and the audience. A successful defence is followed by a wine and cheese party to celebrate the occasion*.

**If covid restrictions allow.*

Annual “Willy Trip”*

Students in the Department organize an annual trip to a foreign destination for "Geotourism". The trip, led by Professor A.E. “Willy” Williams-Jones, lasts up to two weeks in late February/early March (one of the two weeks is the study break week at McGill). Recent destinations have included Peru, Colombia, Tanzania, South Africa, and Indonesia. The trip is open to both graduate and undergraduate students. Organizers are sensitive to students' travel budgets. Planning starts in the Fall semester, with email notices of organizational meetings to identify a destination.

**If covid restrictions allow.*

McGill Student Chapter of the SEG

The McGill Student Chapter of the Society of Economic Geologists (SEG) is an organization within EPS with a mandate to help students gain a better understanding of ore deposits. Cost for membership for grad students is \$20 USD/year. The group invites guest speakers to cover a variety of topics within economic geology, such as ore deposit models, economic aspects of the mining industry, environmental consequences of mining, and environmental management. The SEG also organizes field trips in which members are invited to participate.

7. DEPARTMENTAL SOCIAL ACTIVITIES

A variety of social events take place throughout the academic year. Some occur on a regular basis; others are initiated more spontaneously. Take advantage of the chance to get to know the faculty and your fellow grad students and undergrads in a less formal setting. These events are normally announced well in advance by email.

FREE Coffee & Cookies EVERY weekday at 3-3:30 p.m. in the lounge. (Get there early before the cookies disappear).*
--

BBQ on Mount Royal (mid-September)*

Homecoming Wine & Cheese Party (late September)*
--

Thomson House Christmas Party (early December)*

**If covid restrictions allow.*

Oleg McNoleg Talks*

Oleg McNoleg Talks are informal talks given by students about their field experiences in different parts of Canada or in international locations. These non-academic talks usually include lots of photos, interesting anecdotes, and some memorable and often humorous adventures by your fellow students. Usually taking place after 5pm, they are accessible to everyone and enjoyed by all!

**May be online due to covid restrictions.*

Outreach

EPS coordinates several outreach activities and groups. Doing outreach can be a great way to learn valuable skills such as presenting to different audiences, translating knowledge, leadership and much more. If you are interested in participating in any outreach activities, please contact Kristyn Rodzinyak, EPS Outreach Administrator, at kristyn.rodzinyak@mcgill.ca. Here are some of the EPS groups and activities:

SMOrES (Students at McGill Outreach in Earth Sciences) is a group of graduate and undergraduate students who work together to share how cool Earth sciences are, especially all the things that are studied and researched at EPS McGill. Events include workshops for school groups, March Break with Redpath Museum, and collaborations with other outreach organizations (<https://www.mcgill.ca/eps/outreach>).

GéoBlog is a student-led and staff-supported initiative to highlight discussions about including equity and diversity in research labs, queerness in geosciences, outreach activities and so much more! Read articles, interviews and discussions at <https://blogs.mcgill.ca/eps/>.

Metro@Monteregie is a series of virtual fieldtrips using Google Earth to explore the geology of the Montreal and surrounding regions. More trips to come! We'd love to have your input. Check it out at <https://www.mcgill.ca/eps/outreach/virtual-fieldtrips>.

Equity, Diversity and Inclusion

The EPS Equity and Workplace Climate Committee is open to any students interested in helping with initiatives to create a more equitable, inclusive and diverse environment in EPS. You can find more information about the committee at <https://www.mcgill.ca/eps/ewc-committee>.

8. DEPARTMENTAL FACILITIES

ANALYTICAL FACILITIES

The Department hosts state-of-the-art analytical facilities for the analysis of fluid and solid samples for major, minor and trace elements, and isotopes. These labs are run by technical staff and overseen by a faculty member. These central facilities are: 1. Sample Preparation; 2. Major and Minor Elements; 3. Inductively Coupled Plasma Spectroscopy; and 4. Microanalysis Laboratory.

Almost all laboratories operate under the principle that students will conduct their own analyses following training. These training sessions can be on an individual basis or in groups. When the user has shown proficiency in the technique, she/he will be able to use the instrument and facilities independently upon making a reservation. To arrange training, please contact the person in charge of the relevant facility (see below). Some labs have hired grad students as trainers, but these students should not be contacted directly for training without the permission of the person in charge of the facility.

The labs represent, and operate as state-of-the-art research-grade facilities, and full involvement of students is expected in analytical design, sample preparation, data collection, and results processing. ***It is critical that users, once trained, treat the equipment and facilities with care.*** Leave the workbench or instrument clean and tidy, as you would expect to find it. Technical staff is available to assist, and provide advice in all aspects of sample analysis, but as a user, you are expected to be the expert in your samples, and analyses and data quality are ultimately the responsibility of the user.

Use of the facilities (including training) is arranged with the lab technician and generally involves filling out a sample intake or analysis request form (available on the lab web site or from the lab technician). Analyses (and training) are charged to your supervisor's research grants, and a fund number will be required before analyses can commence. User fees and pricing structures of the various facilities vary and are available from the lab technician.

The Adams Club appoints a student representative to the Departmental Facilities Committee, whose responsibilities are to meet with the Departmental Facilities Committee and discuss the state of the labs, to raise concerns on behalf of the students if important equipment is missing or inadequate to use, and to manage the facilities Slack channels.

Safety

Workplace Hazardous Materials Information System (WHMIS) training is a legal requirement for all individuals working with chemicals, and therefore all students who will be working in *any* of the departmental laboratories must take a WHMIS course. McGill offers the course several times a year, and you will be informed by email at the beginning of each term of the dates that WHMIS courses will take place during that semester. It is your responsibility to ensure that you sign up for this course to obtain your certification. This certification should be updated every three years. Any questions should be addressed to the Department Safety Officer, Anna Jung (anna.jung@mcgill.ca).

Sample preparation

To prepare samples for analysis, the Department has a facility for rock cutting, crushing and grinding, located in the basement (FDA 009 and 010). The rock saw uses a diamond blade to cut samples for thin sections and for further processing in crushing and grinding. A tungsten-carbide jaw crusher reduces rock fragments to small chips, and several ball and ring grinders are available to prepare fine-grained powders. Depending on what elements are to be analyzed, and the mineralogy of the sample, we have steel and alumina grinders. To use the facilities, training is required. Training and access to the preparation facility should be arranged through Isabelle Richer (isabelle.richer@mcgill.ca).

Petrographic Services

The Department has a limited thin section laboratory. Access for experienced users may be arranged through Jamie Kirkpatrick (james.kirkpatrick@mcgill.ca).

Students who wish to have thin sections made should consult their supervisor for

more information on their company preference and that company's contact information.

Major and Minor Elements

This facility, directed by Galen Halverson (galen.halverson@mcgill.ca) houses one (flame or furnace) Atomic Absorption (AA) spectrometer and one Inductively Coupled Optical Emission Spectrometer (ICP-OES) for analysis of fluid samples for major and minor elements. A hydride generation system is also available to analyze elements such as mercury down to very low levels (ppt). The facility includes a support laboratory for sample digestion and preparation of standards for AA or ICP-OES analysis, including a water distillation system, analytical balances, and fume hoods. Request for use of the facility should be directed to Isabelle Richer (isabelle.richer@mcgill.ca).

ICP-MS Laboratory

The ICP-MS Laboratory houses a Thermo Finnigan iCAP Qc ICP-MS instrument that allows for analysis of trace elements to low ppt levels. It has a reaction cell to break down interferences for difficult elements such as V, As and Se. It accepts both fluid samples, and solid materials sampled by a laser ablation system. This laser allows for routine analysis of trace elements in 80 µm spots at the ppm level in thin sections, grain mounts and any other solid material, and can be optimized for the analysis of a small element set at spots as small as 5 µm. The laboratory is supported by a clean lab to prepare the ultra-clean solutions necessary for fluid ICP analyses, as well as facilities for wet ashing and flux digesting of rock samples and organics. More information and a booking calendar can be found on the laboratory's website at <http://eps.mcgill.ca/ICPLab/Welcome.html>. Requests for access should be directed to Anna Jung (anna.jung@mcgill.ca).

A new, state-of-the-art Laser Induced Breakdown Spectroscopy (LIBS) system is housed in the same lab. This system can be run in standalone LIBS mode (light elements, major and minor elements), or be run in tandem LIBS-LA-ICP-MS mode. In tandem mode, major, minor, trace metals and halogens can be detected simultaneously, in-situ, on rocks and fluids. The LIBS is run by Kim Berlo's group, for information please contact Kim Berlo (kim.berlo@mcgill.ca).

Electron Analytical Laboratory

The electron microanalytical laboratory houses a Cameca SX100 FE Electron Microprobe, a Hitachi Su5000 Field Emission SEM, a Renishaw inVia Reflex Raman and an Edwards AUTO306 Carbon Coater. Don Baker (don.baker@mcgill.ca) is the director of the electron microanalytical laboratory.

For use of the microanalysis facilities, grad students should discuss their applications with their research supervisor, obtain authorization, and then contact Lang Shi (lang.shi@mcgill.ca), who supervises the facilities. Grad students who want to use the instruments are trained by Lang and become qualified operators for their own research. For more information on the capabilities of these instruments, contact Lang Shi or visit the website: <http://castaing.eps.mcgill.ca/>.

X-ray Diffraction Laboratory

The Department has a [Rigaku Smartlab X-ray Diffractometer](#) that is directed by Professor Christie Rowe. The XRD is equipped with two detectors: a high-efficiency scintillation detector and the D/tex Ultra 250 high speed silicon strip 1D detector for faster analyses. We have a monochromator for use with the scintillation detector for eliminating iron fluorescence. The system is fully automated, with software to help beginning users set up and run simple analyses safely. For current information about the XRD lab, consult the facility webpage at <http://www.eps.mcgill.ca/xrd>. For training and booking time on the XRD, contact Christie Rowe (christie.rowe@mcgill.ca).

Other facilities

Our analytical facilities are not limited to those listed here. Individual research groups also host a diversity of analytical and experimental facilities, including furnaces, a freeze-drier, centrifuges, coulometer, UV-Vis spectrophotometers, cathodoluminescence microscope, field gear, etc. We recommend that you ask your fellow grads or your supervisor whether the instrument you need is available. Moreover, most faculty, and hence their students, are associated with the GEOTOP-UQAM-McGill research centre (www.geotop.ca), which groups researchers from UQAM, McGill, Concordia, INRS, UQAR and Laval.

Two stable isotope ratio mass spectrometers are hosted within the Department. One instrument (Nu Perspective), supervised by Galen Halverson, is used for C and O isotope analyses on carbonate minerals, and is housed on FDA 205. A second instrument (Thermo Delta V Plus) supervised by Peter Douglas is used for C and H isotope analyses of individual organic molecules in sediments, soils, or gas samples. A Picarro cavity ring-down spectrometer for H and O isotope analyses of waters is also housed in FDA 205. For access to any of these instruments, contact Dr. Thi Hao Bui (thi.h.bui@mcgill.ca). A second Picarro cavity ring-down spectrometer, this one a portable device for measuring C isotopes in CO₂ and CH₄ gases, is supervised by John Stix (john.stix@mcgill.ca).

Distilled and Nanopure water

The Department has a reverse osmosis system in FDA 222 that produces distilled and Nanopure water. Students are asked to contact Isabelle Richer (isabelle.richer@mcgill.ca) for access and instructions.

Users should be aware that Nanopure water is a very aggressive leaching agent. Within a few hours of storage in any container, except possibly Teflon, it will leach material from the walls of its containers, whether they are made of glass or of some plastic material. That is why Nanopure water should never be stored. It should always be prepared fresh just before use and must not be used for any procedure unless specified. Therefore, **when in doubt, use distilled water.**

Hazardous Waste Disposal

For full details on hazardous waste disposal, you should consult the McGill Laboratory Safety Manual (<http://www.mcgill.ca/ehs/laboratory/labsafety/>).

Wastes should not be discharged into the building's drain system, but into containers provided for this purpose. Improperly labeled waste will not be accepted. Over-filled and/or leaking containers will not be accepted. Incompatible chemicals should not be combined. When in doubt, ask the technical staff or phone Waste Management at 5066.

Empty waste containers can be obtained from your laboratory manager or the staff of the Geochemical Laboratories. Liquid waste is picked up on a regular basis, but Waste Management must be informed of its location and access must be provided when required.

MICROSCOPY

A petrographic microscope with camera was donated to the graduate students by former Professor Don Francis. To use this instrument contact John Stix (john.stix@mcgill.ca).

Petrographic microscopes for teaching are stored in lockers in FDA 210 and 315. Advanced undergraduate students are assigned individual microscopes each semester for use in labs. Some of these microscopes can be borrowed for research use, should there be any surplus to teaching requirements. Contact Kim Berlo (kim.berlo@mcgill.ca) regarding availability. Note that these microscopes must be returned in good working order at the end of each semester (11th of December or 11th of April). Failure to return the microscope in good working order to its locker and the key to the main office by these dates will result in an automatic fine of \$250 to the student's account.

9. FREQUENTLY USED FACILITIES OUTSIDE THE DEPARTMENT

ELECTRON MICROSCOPY

The Facility for Electron Microscopy Research (FEMR, <https://www.mcgill.ca/femr/>) is an outgrowth of research undertaken at the *informally named* Electron Microscopy Centre (EM Centre) of McGill University. The state-of-the-art imaging and analytical facilities of FEMR are used to derive structural, compositional, morphological, elemental, and molecular information from diverse materials. These materials include biological tissues, biomimetic materials, high-performance synthetic materials, polymers, colloids, and materials of importance in both Earth and interplanetary studies. The facilities and instruments of FEMR are housed in the Strathcona Anatomy & Dentistry (SAD) Building (transmission electron microscopes -TEM) and the Wong Building (scanning electron microscopes - SEM). Information about access to the TEM facilities is available from the Research Manager, Dr Kelly Sears (kelly.sears@mcgill.ca or femr@mcgill.ca). The SEM facilities available within the Department of Mining, Metals and Materials Engineering (Wong Building) include a field-emission SEM and variable-pressure SEM and a gold-palladium coating facility.

X-RAY MICROTOMOGRAPHY

There is tabletop X-ray microtomography system in the Wong building (part of the McGill Institute for Advanced Materials, <https://www.mcgill.ca/miam/characterization/characterization-equipment-list>) that can provide three-dimensional images with spatial resolutions down to a few microns. For information about, and access to, this machine you can contact Dr. Florence Paray (florence.paray@mcgill.ca).

GEOTOP

In addition to the facilities listed above, the GEOTOP-UQAM facility allows for analysis of stable isotopes in a variety of materials (H, C, N, O, S, as well as metals), as well as long- and short-lived radionuclides and radiometric dating. Access to the GEOTOP-UQAM-McGill facilities is generally arranged through your supervisor.

McGILL LIBRARIES

Every academic session, the McGill libraries offer workshops for users. Announcements are usually posted in the libraries and are frequently circulated by email. There are several libraries on campus; those most frequently used by EPS students are Schulich (Science and Engineering; currently closed for renovations) and Walter Hitschfeld Geographic Information Centre (Burnside, 5th floor). The Islamic Studies library in Morrice Hall has a book scanner that you may find useful.

You will need your student ID card to check out any library materials. Most of the journals and databases that you will need are available online from the McGill library system. The McGill Libraries website, www.mcgill.ca/library, is also an excellent resource. The Library also hosts workshops on using their services.

10. FINANCIAL SUPPORT: WHERE TO LOOK

Graduate students admitted to the Department are guaranteed a minimum level of financial support for a period of two years in the case of a MSc and four years in the case of a PhD (five years if enrolled as a PhD1). This support includes a TAsip and graduate student award (top-up) from the Department and a graduate student stipend from your supervisor. The amount is indicated in the letter of acceptance, which you will have received when you were admitted to the Department. If you are unsure of your entitlement, you should see Anne Kosowski for clarification. Students who arrive in the Department with a major scholarship (e.g., NSERC or FQRNT) do not receive a full graduate stipend but are eligible to hold TAsips.

It is important to note that the salary you receive will likely not be evenly distributed throughout the year, due to factors such as the lack of a TAsip during the summer months or possible delays in setting up the reception of their first pay cheques upon arrival. Students should not assume that they will be able to evenly divide their yearly net salary by 12 in order to make a monthly budget for personal expenses such as rent. If you have any questions or concerns regarding your salary breakdown, please see Anne in the main office.

GRADUATE STUDENT FUNDING PACKAGE

Graduate students at the Department of Earth and Planetary Sciences receive funding from several different sources during their enrollment at McGill. The total financial support will come from a combination of:

- guaranteed funding (tuition subsidies, research stipend) for progress towards your degree
- expected salary from employment, for example, as a Teaching Assistant (TA),
- external or internal scholarships/awards (if applicable)

In the tables below are the amounts of financial support from all sources for students not holding scholarships/awards, and tuition, miscellaneous fees, health insurance that students will pay out of the total funding package during the 2021-2022 academic year. Note the exact amount in each category may vary with program year, with a guaranteed total take-home salary. Continued financial support from McGill is dependent on satisfactory progress towards your degree as evaluated annually by your advisory committee. Receipt of either an internal or external scholarship will result in additional take-home salary to this basic package. The take-home amount increases annually based on the Canadian Cost of Living or Consumer Price Index and the TA hourly rate increase.

MSc fee table

	Quebec MSc		Canadian (ROC) MSc		International MSc	
	MSc1	MSc2	MSc1	MSc2	MSc1	MSc2
Dept Contribution ¹	\$6,937	\$6,937	\$12,718	\$9,827	\$22,874	\$14,905
Research Stipend	\$17,024	\$17,190	\$17,024	\$17,190	\$18,071	\$18,237
Total Funding	\$23,961	\$24,127	\$29,742	\$27,017	\$40,945	\$33,142
Tuition and Misc. fees	\$4,316	\$4,482	\$10,097	\$7,372	\$20,253	\$12,450
Health Insurance ²	\$0	\$0	\$0	\$0	\$1,047	\$1,047
Total Take-home ³	\$19,645	\$19,645	\$19,645	\$19,645	\$19,645	\$19,645

¹Dept. contribution includes tuition subsidies, TAships and top-up. ²Optional dental insurance not included. ³Total take-home is total funding minus tuition, fees and health insurance.

PhD fee table

	Quebec PhD		Canadian (ROC) PhD		International PhD	
	PhD1-4	PhD5	PhD1-4	PhD5	PhD1-4	PhD5
Dept Contribution ¹	\$6,937	\$6,937	\$6,937	\$6,937	\$20,963	\$6,937
Research Stipend	\$17,024	\$16,070	\$17,024	\$16,070	\$18,071	\$17,117
Total Funding	\$23,961	\$23,007	\$23,961	\$23,007	\$39,034	\$24,054
Tuition and Misc. fees	\$4,316	\$3,362	\$4,316	\$3,362	\$18,342	\$3,362
Health Insurance ²	\$0	\$0	\$0	\$0	\$1,047	\$1,047
Total Take-home ³	\$19,645	\$19,645	\$19,645	\$19,645	\$19,645	\$19,645

¹Dept. contribution includes tuition subsidies, TAships and top-up. ²Optional dental insurance not included. ³Total take-home is total funding minus tuition, fees and health insurance.

Graduate students that receive funding from foreign agencies to pay for tuition, fees and/or living expenses may have a different guaranteed base, stipend or tuition funding amounts. Details will be communicated separately if this case applies to you.

Department contribution: Tuition and fees

The EPS Department currently provides tuition fee subsidies to out-of-province Canadian students and International students such that the tuition amount paid is identical to that of a Quebec resident. In summary, all graduate students pay the same tuition amount and miscellaneous fees, while health insurance may differ from student to student. The most up-to-date information on tuition and fees may be obtained from the Graduate Fee Calculator (<https://www.mcgill.ca/student-accounts/tuition-charges/fallwinter-term-tuition-and-fees/graduate-fees>).

Department contribution: TAship and Top-Ups

We expect graduate students will have the opportunity to work approximately 160 hours over the course of the academic year as a teaching assistant, an approximate salary of \$5180 (\$2590 per term), assuming that they are legally allowed to work in Canada, apply for the recommended number of posted employment positions, and meet all stated requirements of those positions. The

conditions of TAs are governed by the union (AGSEM) collective agreements, and graduate students are considered to be in a *priority pool* for the first two years of their MSc program, and the first four years of their PhD program (first five years if enrolled as a PhD1). While the department typically is able to offer TAs to all *priority pool* students, eligibility for TA employment depends on existing union collective agreements, so **cannot be guaranteed**. The TA salary increases annually according to the union collective agreements.

All students in our program also receive a TA top-up amount of \$1757 per academic year when they are in the 'priority pool', assuming satisfactory progress. This top-up appears as the "Reinhardt C Fellowship" in your student award records.

Note that all amounts above are amounts before federal and provincial tax. Employment salary (i.e. TAs) is subject to tax deductions at the source (employment insurance, Quebec Parental Insurance Plan, etc.). Employment salary does not include your graduate student stipend, which is not taxable. All employees in Canada are required to file yearly tax returns, typically before April 30 each year. For more information, visit <https://www.mcgill.ca/student-accounts/your-account/tax-information> or consult a tax specialist.

Research stipend

The research stipend is provided by supervisor(s) for students who are in session (MSc1-2, PhD1-5). The exact amount is adjusted for inflation each year, and depends on whether the student is from Quebec, the rest of Canada or outside Canada. Supervisors may raise their support level above those recommended as the minimum. If students receive merit-based financial awards (e.g. departmental scholarships), supervisors are expected to ensure that these awards are reflected in the students' ultimate remuneration. See the "Example Funding Scenarios" tables in the next section for stipend and take-home amounts for non-scholarship and scholarship holding students.

Please take note that the Department does not guarantee any financial support to grad students who are beyond their MSc2 or PhD5 years (in the form of TAs or departmental scholarships), so plan carefully. Any additional financial support beyond MSc2 or PhD5 is strictly up to the individual research supervisor.

McGill's official funding information on stipends can be found at <http://www.mcgill.ca/gradapplicants/funding/>.

Pay schedule

There are currently two pay schedules. TA salary is paid every two weeks while stipends/awards are disbursed twice a month on the 1st and 15th. Note that if you receive both stipend/award disbursements and TA salary, the total amount directly deposited to your bank account in a month varies during the year. For example, stipends/awards are received throughout the year; however, TA salary is paid by term. Therefore, the amount you receive in the Summer term will differ from that of the Fall and Winter terms. Other variations in the amount of the paycheque (up to a few hundred dollars) can occur at other times in the school year. For example, the amount you receive on your TA paycheque at the beginning of each term and the end of each term may vary due to the number of days you work in a given pay period.

SCHOLARSHIPS

External Scholarships and Fellowships

There is a wide range of scholarships/fellowships available for excellent students. Canadian citizens and permanent residents are encouraged to apply for NSERC scholarships and those who are residents of Québec should also compete for FRQNT scholarships. The annual award amounts are currently:

- NSERC MSc: \$17,500 (CGS M)
- NSERC PhD: \$21,000 (PGS D) / \$35,000 (CGS D)
- FRQNT MSc: \$17,500
- FRQNT PhD: \$21,000

There are also scholarships available for international students. For a comprehensive list, please visit the McGill international funding webpage at <https://www.mcgill.ca/studentaid/scholarships-aid/international-students>. Also see details on eligibility and how to apply for internal and external awards at <https://www.mcgill.ca/gps/funding/opportunities>.

Other external fellowships are available from various geological organizations. For example, the SEG Foundation Graduate Student Fellowship Program also offers major fellowships for student SEG members who will be performing research in economic geology and its related fields (https://www.segweb.org/SEG/Students-and-Early-Career/Student_Funding/SEG/Students/Student_Funding.aspx). Your supervisor may be able to help you find fellowship possibilities in your research area.

There are also scholarships that are awarded strictly to cover the cost of a small research project that could be part of your main research and which might not

otherwise be funded, e.g., from GSA, MSA and SEG. The value of these scholarships is typically in the range of \$1,000 to \$5,000. If you are successful in obtaining one of these scholarships, you may request that your supervisor pay for costs associated with applying, i.e. society membership.

EPS and Geotop Scholarships

EPS departmental scholarships (typically, \$2500 to \$15,000) are awarded to eligible graduate students. Students who have exceeded their eligibility period (i.e. are in or beyond MSc3 or PhD6 in the following academic year) are not eligible. **In order to be considered for EPS scholarships, all eligible students must submit a short annual report stating an overview of research work done in the past year, articles published/submitted, conferences abstracts/presentations, outreach and/or EDI work, etc. (please note that this is in addition to your yearly progress report that must be completed by April 30 each year). The annual report webform is found at <http://www.eps.mcgill.ca/eps/studies/graduate/gradReport.php>.**

A scholarship committee consisting of the GPD and two/three other faculty members evaluate the annual reports and make recommendations for scholarships. A departmental scholarship meeting is normally held in May to decide on the distribution of scholarships for the following academic year.

Geotop offers graduate scholarships at MSc (\$5000) and PhD (\$7000) levels. Please refer to <https://www.geotop.ca/index.php/en/formation/bourses/bourses-geotop> for eligibility criteria.

Scholarships, Awards and Top-Ups: Funding Scenarios

Internal awards: Students with EPS and Geotop scholarships (both considered internal) receive up to \$5000 increase in take-home; extra goes to offset supervisor research stipend contribution.

External awards: Students with external fellowships (e.g., NSERC, FRQ) receive a top-up in supervisor research stipend that brings their take-home to non-scholarship take-home minimum + \$5000 (2021-2022 level \$19,645 + \$5000 = \$24,645). Students with external, one-off awards of a combined value of less than \$5000 are eligible for EPS internal scholarships, and these (external, one-off, with a combined value less than \$5000) are not included in the 'ceiling' (\$24,645) calculation.

Example Funding Scenarios

Internal scholarships (EPS or Geotop)					
Scholarship	\$0	\$2,500	\$5,000	\$10,000	\$15,000
Research Stipend/ top-up ¹	\$17,024	\$17,024	\$17,024	\$12,024	\$7024
Dept. net contribution to take-home ²	\$2,621	\$2,621	\$2,621	\$2,621	\$2,621
Total take-home	\$19,645	\$22,145	\$24,645	\$24,645	\$24,645

External awards				
	NSERC MSc	NSERC PhD	NSERC CGSD	Vanier
Scholarship	\$17,500	\$21,000	\$35,000	\$50,000
Research Stipend/ top-up ¹	\$4,524	\$1,024	\$0	\$0
Dept. net contribution to take-home ²	\$2,621	\$2,621	\$2,621	\$2,621
Total take-home	\$24,645	\$24,645	\$37,621	\$52,621

¹Based on 2021-2022 EPS minimum stipend for Canadian MSc1/PhD1-4

²Dept. net contribution to take-home = (TA salary + TA top-up + department tuition subsidy) – (tuition + misc. fees), example of MSc1/PhD1-4

GREAT AWARDS

The Graduate Research Enhancement and Travel Awards (GREAT Awards) are used to support research travel and dissemination of research, including, but not limited to conference presentations, field research and collaborative research outside the university. The Department is allocated a certain amount of money for these awards each year and winners are then decided by internal competition. Competitions will be announced by email and are typically run twice a year. All students engaging in any of the travel activities listed above are encouraged to submit an application to the Graduate Program Director, Yajing Liu, with copy to Kristy Thornton.

GRADUATE MOBILITY AWARDS

The Graduate Mobility Awards are for students who wish to study and conduct research abroad. Award values depend on where the mobility activity takes place, its duration and the availability of funding at the time of application. Note that conference travel is **not** eligible. The procedure for submitting an application is outlined at <http://www.mcgill.ca/gps/funding/travel/grad-mobility-award>. Note that step 3 says to “Follow instructions from your Faculty to obtain the approval and signature of the Faculty designate”. Faculty of Science GMA instructions, including deadlines, can be found at <https://www.mcgill.ca/science/graduate/graduate-mobility-award>.

Ask Kristy to create a Travel Registry (see Section 14) for you, including the dates and location of your travel in your request. You will then need to fill out the Travel Registry form on Minerva and save a screenshot of it to include in your application. The screenshot must include the status of the form, and travel information as presented on the second page.

You will be notified by email if your application has been approved for funding. (If your travel dates change, please contact the Faculty of Science (gradstudies.science@mcgill.ca) to determine if they can approve the change by email or if you should submit a revised application. You will also need to update the Travel Registry to indicate the correct dates.)

It is possible to receive a GMA in more than one award round, but priority will be given to students who have not previously received one.

DIFFERENTIAL FEE WAIVERS

Differential Fee Waivers (DFW) are available to international MSc1, PhD1, PhD2 and PhD3 students for a full academic year. The Department is allocated a varying number of DFWs each year to award to deserving international PhD students (no application required). Students who are awarded a DFW must register for REGN RCGR in both semesters to be full-time students for the full year. Note that the student does not actually receive money for this award; it simply means that McGill will be paying your international tuition supplement instead of EPS.

LOANS AND BURSARIES

Consult the Graduate Fellowships and Awards handbook for student loans, bursaries, and fellowships for student exchanges and travel.

EMPLOYMENT

Here are some additional sources of information and opportunities for employment within McGill:

- Department of Earth and Planetary Sciences:
<https://www.mcgill.ca/eps/department/employment-opportunities>
- Association of Graduate Students Employed at McGill (AGSEM):
<https://www.agsem.ca/>
- Association of McGill University Research Employees (AMURE):
<http://www.aerum-amure.ca/>
- McGill Course Lecturer and Instructor Union (MCLIU):
<https://mcliu.ca/?lang=en>

11. TEACHING ASSISTANTSHIPS

Teaching Assistants (TAs) who are assigned to undergraduate/graduate courses usually have a combination of the following responsibilities:

- to be present at every lab of the course or appoint a replacement (with the instructor's approval)
- to become familiar with the lab material before the lab session
- to take specimens required for the lab out of storage and organize them for use during the lab
- to prepare and present an introduction to the lab if required
- to help students understand lab material by asking and answering questions
- to clean up the lab at the end of the lab period and store all materials
- to photocopy teaching materials for the instructor
- to help in the preparation of teaching materials
- to correct and mark assignments, mid-term exams and finals
- to help invigilate mid-term exams and in-house finals
- to attend course lectures (if requested by the course instructor)

The type and intensity of TA workloads vary depending on the course and the instructor. However, note, in all cases, the TAship is a job: fulfilling your TA duties throughout the course of the semester is required! Do not assume that you can miss significant amounts of time during the semester to complete research off campus. If an extended absence is required for your research, then you should not apply for a TAship. In this situation, you may choose to discuss alternative funding with your supervisor to take the place of the lost TAship (e.g. "buyout").

TAships are based on **80 hours** of work over the semester. Payment for your TAship will be made in bi-weekly installments by direct deposit to your bank account during the academic term. TA contracts begin on a Sunday and end on a Saturday, and are currently based on 16 weeks at 5 hours per week. As such,

you may find that the contract dates do not quite align with the actual beginning and end dates of the semester.

As a TA, you are automatically part of the Association of Graduate Students Employed at McGill (AGSEM). Information on this TA union is available online at <http://agsem-aeedem.ca/>. It is highly encouraged that you familiarize yourself with the Teaching Assistants Collective Agreement found at <https://www.agsem.ca/collective-agreements>.

Note that MSc3+ and PhD6+ students are not eligible for TAships.

MSc and PhD students have the option to forego one semester of TAing during the course of their study in order to focus on their research, with their supervisor providing the funding to maintain their guaranteed level of financial support. It is expected that students will exercise this option in the final term of their in-term program (i.e., MSc 2 or PhD 5) in order to facilitate completing their theses, but they may also use this option at another time, e.g., when their research requires a long absence from McGill during the academic year. Students should discuss this option with their supervisor.

APPLYING FOR TEACHING ASSISTANTSHIPS

Teaching assistantships (TAships) are positions for which you apply. TA postings are done through Workday, McGill's HR platform. The postings are set up under one general link, usually named "Teaching Assistants - EPSC and ESYS courses". This link lists all the courses available under one posting umbrella, and remains available for at least 15 working days, although it may be up for longer at the discretion of the Department. When the posting goes up, Kristy will send out an email to all incoming and returning grad students containing the following information:

- the link to the posting
- the link to a document on the EPS website containing all information about the specific requirements of each individual course
- the deadline
- instructions for how to apply
- helpful notes

Applications to this posting contain a questionnaire that allows you to apply for the TAship of your choice by rating your top three preferences. You can also indicate that you are willing to be assigned to any other TA position for which you are qualified (i.e., based on your research discipline or courses previously taken), and students with lower seniority are highly encouraged to respond "yes" to this question as their preferred choices may not be available. Keep in mind that your

TA assignment is subject to the needs of the Department, TA union rules (i.e. seniority and the priority pool), student course requirements and scheduling conflicts.

TA positions will be decided within 35 days of the application deadline. Kristy will inform all students by email that the decisions have been made and that their offer letters are available through Workday. You will then need to log into Workday, view your letter and accept the TAship.

If for any reason you find that you cannot accept the TAship offered to you, please contact Kristy before declining the offer and she will provide you with instructions on how to proceed depending on your situation.

Most tasks in Workday require that you be logged into the **McGill VPN** (information and instructions for setting up the VPN are at <https://mcgill.ca/itsupport/vpn>) with **2FA enabled** (<https://www.mcgill.ca/2fa/>) (if you are not already using a computer/laptop within McGill that is directly connected to the McGill network). Please set yourself up with these two important tools as soon as possible. Anytime that you log into Workday using a McGill account, please ensure that you are always also logged into the VPN.

Due to the constraints of Workday, the procedure for applying for and accepting TAships is different depending on the semester.

Applying for and accepting Fall semester TAships (new and returning students)

TAship postings for Fall usually become available in May. At this time all grad students will have finished their previous TAship contracts (except perhaps for any field school TAs) and are considered to be “external” candidates. External candidates must create a Workday account using a personal (non-McGill) email and apply using that account. Instructions can be found at https://www.mcgill.ca/hr/files/hr/workday_guide_for_candidates_extenal_en.pdf.

When you are informed that your offer letter is ready, you must log into Workday using your personal email account, view the letter and accept the offer. Once you have done so, you will receive an automated email to your McGill email from Workday regarding your “onboarding” tasks. This is where your personal Workday account ends and your McGill account begins!

To log in with your McGill account, you **must** be on the McGill VPN (with 2FA enabled). These onboarding tasks need to be completed before your contract begins, but we encourage you to complete them as soon as possible. You can find the Onboarding Guide at https://www.mcgill.ca/igsf/files/igsf/ess-workday-onboarding_guide_for_all_hires-en.pdf. Keep watching your Workday inbox for

tasks that need to be done, as the tasks do not all come into your inbox at the same time since there are HR actions in each process that must be approved before we/you can proceed to the next step/task in Workday. Keep checking until the last task has been completed.

Note that new international students who do not yet have their study permit and SIN cannot be hired until they send a scan of their study permit and SIN confirmation to Anne. The onboarding email will only be sent out once Anne can complete your hire, so please send her those documents as soon as you have them! Since you can only receive your SIN upon arrival in Canada, please let Anne know if you will be arriving close to or after your TA contract start date.

Applying for and accepting Winter semester TAs (new students beginning in January)

TAs for Winter usually become available in November. As a student without a current (Fall) TAs contract, you will need to apply as an external candidate. Please follow the same process as outlined for the Fall semester above.

Applying for and accepting Winter semester TAs (returning students)

TAs for Winter usually become available in November. At this time all returning grad students are still within their previous (Fall) TAs contracts and are considered to be “internal” candidates. Internal candidates must log into Workday using their McGill email **while logged into the McGill VPN** and apply using that account. Instructions can be found at <https://deptkb.mcgill.ca/pages/viewpage.action?pageId=29797041>.

When you are informed that your offer letter is ready, you must log into Workday using your McGill email account **while logged into the McGill VPN**, view the letter and accept the offer. Once you have done so, you will receive an automated email to your McGill email from Workday regarding your “onboarding” tasks. You can find the Onboarding Guide at https://www.mcgill.ca/igsf/files/igsf/ess-workday-onboarding_guide_for_all_hires-en.pdf. Keep watching your Workday inbox for tasks that need to be done, as the tasks do not all come into your inbox at the same time since there are HR actions in each process that must be approved before we/you can proceed to the next step/task in Workday. Keep checking until the last task has been completed.

It is imperative that you complete your onboarding tasks as soon as possible, before the deadline stated by Kristy or Anne. This deadline must be respected because these tasks, as well as Anne’s and HR’s hiring tasks

behind the scenes, must be completed **before** your current TA contract ends (i.e. while you are still an active McGill employee), since the application and offer were all made through your McGill account. If your employee account lapses before your onboarding is complete, it will constitute a “break in service” and wreck the entire process. We will then need to start everything over from the beginning: The Department will then need to repost the position and you will need to reapply as an external. Because there is so little time between the end of your Fall contract and the start of your Winter one, this will likely result in a late start to your Winter TAship. This will be a huge headache for everyone involved!

Common Workday problems and troubleshooting

First question: Are you logged into the McGill VPN? Any task in Workday that requires you to log into it using your McGill email also requires that you be on the McGill VPN. If you can't log in or something isn't working in Workday, always check to be sure that you are on the VPN.

If for any reason you cannot view your offer letter, please inform Kristy and await further instructions. Do not accept the offer without having viewed the offer letter!

New international students trying to accept their offer will find that they cannot pick their country under “nationality”. The trick here is to choose “Canada” and then “foreign national”. This will allow you to proceed to the next step.

For Fall TAships for which you applied using your personal email account, you may not be able to log in using your McGill email account as soon as you receive the “onboarding” email. Sometimes it can take several days for your employee account to be created.

If you are having trouble with your account or a certain task, ask Kristy or Anne first. We will do our best to help, but some account and login problems are unfortunately outside of our expertise and may require you to contact IT Support (514-398-3398, itsupport@mcgill.ca) or HR (514-398-4747, or submit a ticket through <https://www.mcgill.ca/hr/contact>).

AGSEM MEMBERSHIP FORM

When you accept your TA offer, you automatically become part of AGSEM, the Teaching Assistant union. Your offer letter will give you a link to the AGSEM Membership form (found at <https://www.agsem.ca/membership-forms>). You must fill out this form and return it directly to AGSEM at grievance.1@agsem-aedem.ca or mail@agsem-aedem.ca.

TEACHING ASSISTANT WORKLOAD FORM

All TAs are required to sign the Teaching Assistant Workload Form (https://www.mcgill.ca/hr/files/hr/7-teaching_assistant_workload_formenglish_version_feb_2012.pdf). The course instructor will meet with the TAs to fill out this form together. The signed form must be returned to Kristy by the deadline. Please note that although the form says that a full TAship is based on 180 hours of work per semester, the TAships for Earth & Planetary Sciences courses are based on 80 hours of work per semester, so the “Partial Teaching Assistant” box on page 1 should be checked, with the indicated number of hours being 80. Each TA should keep a copy of the fully signed form.

Students who have never TA'd before must take the *It Takes All Of Us* training (employee version) during their first TAship. One hour will be set aside in your TA workload form for this training, as it is mandatory and part of your paid TA hours. This hour should be listed under the “f) other” section on page 2 of the Workload Form. You only need to complete this training once.

ADDITIONAL TEACHING ASSISTANTSHIPS

During the summer session, the Department has field school TA positions available. This is a good opportunity for additional TA experience and financial support. Kristy advertises these positions through email when they become available on Workday. You must apply through Workday as with any other TAship. Since these postings will happen during the Winter semester (usually in March), your Winter TAship contract will still be active and you must apply as an internal candidate using the same procedure as for Winter TAships (returning students).

TEACHING ASSISTANTSHIP STUDENT EVALUATIONS

It is now mandatory that TAs be evaluated by students as part of the course evaluation system. You can find your results through the Mercury Course Evaluation system found at <https://www.mcgill.ca/mercury/teaching-assistants>.

12. COURSE LOAD AND SELECTION

The graduate program constitution (see Appendix) stipulates course loads and selection for MSc and PhD programs.

MSc:

Item 19:

“A student in the MSc program is required to take at least 4 graduate courses (12 credits) during his/her 2 years of graduate study.”

There is no requirement to fulfill all of your course requirements in the first year of the Masters program, you can spread out your course load over the duration of your degree program if you wish. However, if you plan to fast-track then it's a good idea to get as many of your courses out of the way in your first MSc year as possible. If the available courses do not meet your needs, consider the reading-course option and discuss it with your research supervisor and advisory committee (Part II, Section 16). It may be more prudent to satisfy your course requirements during your first year of study since the workload of the thesis typically becomes heavier as deadlines approach during your second, and final, year of study.

PhD:

Item 11:

“Students entering at the PhD1 level must take a minimum of 6 courses (18 credits) by the end of their PhD2 year. Assignment of courses in the PhD1 year is by the Thesis Advisory Committee.”

Item 12:

“In the PhD2 year, students should take a minimum of 2 graduate-level courses (6 credits).”

PhD students should take 2 courses (6 credits) during the PhD2 year, whether they entered the program at the PhD1 or PhD2 level, so that their courses are completed as early as possible and they can then focus on their research. However, one course could be taken the following year if there are no relevant courses being offered during the PhD2 year.

Therefore, a student who entered at PhD1 should have accumulated a total of 6 courses (12+6=18 credits) at the end of their PhD2 year (recommended 4 courses in their PhD1 year and 2 courses in their PhD2 year).

General Registration Information

To avoid the late registration fee, all students must register for REGN RCGR (the Registration Confirmation course) in both the Fall and Winter terms. MSc students must register for EPSC 697, 698 and 699 (Thesis Preparation I, II and III) over their first three semesters, and PhD students must register for EPSC 700

(Preliminary Doctoral Examination) in their PhD2 year.

You are not required to register for the Summer semester while you are still within your residency period; this will happen automatically and your transcript will show it as “Thesis Continuing” (see Section 14 below). You do not have to pay fees during this time.

Courses can also be taken in other departments at McGill with the permission of your supervisor and the Graduate Program Director if those courses are relevant to your research topic. **Please inform Kristy when you are registering for a non-EPS course, as a special note must be made in myProgress to allow the credits from that course to be applied to your degree.**

Note that the course load guidelines in the graduate program constitution are the minimum requirements. You, your research supervisor and/or thesis advisory committee may consider that additional courses are necessary to properly prepare you for your research.

Students must register (and pay fees) annually up to and including the term of graduation. Outstanding tuition fees must be paid *before* graduation. A graduate student registered in the Winter term who graduates in February will have their Winter registration and fees cancelled at the end of February.

Inter-University Transfers (IUT)

With the permission of their supervisor and the Graduate Program Director, students can take one course at other Quebec universities (e.g., UQÀM) for credit. These are called Inter-University Transfers (IUT). If the course is recognized and approved by the Graduate Program Director, the credits will then be automatically submitted to and recognized by McGill, although the grade received in the course will not be included in your GPA calculation. More information regarding IUTs is available at <http://www.mcgill.ca/students/iut/>.

The Quebec IUT agreement allows you to apply online to take a course at another university through the AEHE website at <http://www.bci-qc.ca/en/students/aehe/>. Select McGill as your home university, then log in using your McGill credentials. Once you have completed the application, it will be automatically sent to our Graduate Program Director for their approval, followed by further approvals from McGill and from the host institution. Tuition fees for the course are then paid through McGill rather than the host university. It is important for students to look up and follow the host university IUT application deadlines, and note that the host university may refuse registration in their courses at their discretion.

Students wishing to take an IUT course in their first semester may encounter an

error message when attempting to submit an application. This is due to rules built into the system that prevent undergrads from taking an IUT in their first semester, but tends to get in the way for grad students. If this occurs, please let Kristy know right away and she will arrange for Student Records to override the error so that you can continue.

For MSc students: As a rule, no more than one-third of the McGill program formal coursework (not thesis, project, stage, or internship) can be credited with courses from another university.

Transfer Credits

If you have taken a course at an institution outside Quebec that can be used as a substitute for an EPSC graduate-level course, it is possible to have the course credited toward your degree. The first thing that you should do is to discuss the course with both your supervisor and the Graduate Program Director to find out if the course would be an acceptable 3-credit substitute. Once you have that approval, you may register for the course. When the course is complete, please send the following information to Kristy: the course number, name and credit value of the course that you took, the name of the institution, and the final grade for the course. Kristy will then submit a Request to Add Transfer Credits form on your behalf. Following the submission of that form, you will then need to have an official transcript from that institution sent to Enrolment Services (Service Point). Note that short courses cannot be used to fulfill credit requirements.

Extra courses

Extra courses such as English language (CESL 400+) or writing (EDEC 635 – Research Writing, REDM 610 – Writing Science Articles 1 and REDM 710 – Writing Science Articles 2) courses do not count toward your credits or GPA, but will appear on your transcript. It is important to note that you must pay extra fees for these courses. More information is available at <http://www.mcgill.ca/student-accounts/tuition-fees/general-tuition-and-fees-information/grad-studies-information>. If you want to take a French course (FRSL), please note that it will NOT be automatically flagged as an extra course. You will have to follow the procedure below (same as taking an undergraduate course) to have it flagged as an extra course. If you do not do so, then the course will be included in your GPA and the failure policy (where any grade lower than a B- is considered an F for grad students) will apply.

If you wish to take an undergraduate course, you must first get permission from the host department to do so, then submit the Request for Course Change Form found at <https://mcgill.ca/student-records/cc>. In doing so, please be sure to choose the proper reason for requesting undergrad registration. Here are the

explanations of the reasons listed on the form:

1. Additional coursework only: This course will not count for course work credit towards the program requirement but is an additional requirement for the program and will be included in the student's CGPA calculation. The Failure policy applies.
2. Research background only: This course will not count for course work credit towards the program requirement, but is an additional requirement for the program and will be included in the student's CGPA calculation. Course is needed to be able to do the research necessary for the present graduate program. Note: Must include explanation memo from the Graduate Program Director. The Failure policy applies.
3. Language Requirements only: This course will not count for course work credit towards the program requirement, but it will be included in the student's CGPA calculation. The Failure policy applies.
4. Extra course: Course is not required for the present graduate program requirements. Course will not count in the student's CGPA calculation and is not taken for credit in present graduate program. Student must be aware that additional tuition fees will be assessed according to student's program and citizenship status. The Failure policy does not apply.

This form will go to the Graduate Program Director for approval. It will then be passed along to Graduate Records; processing may take 1-2 weeks.

Exam deferrals

If you need to defer an exam, the first thing to do is to discuss your situation with the Graduate Program Director. Kristy will then submit a Deferred Exam Request form on your behalf. If the request is due to medical reasons, an official medical note will need to be provided to Kristy to complete the request. For more information, please see <https://www.mcgill.ca/gps/students/registration/exam>. **It is important to note that graduate students cannot use the Deferred Exam Application on Minerva.** Attempting to do so will result in your request not reaching the proper channels.

Failure Policy

Students are allowed one failure while still being allowed to remain in the graduate program. If a student fails a course, they can either retake the course, write a supplemental exam, or complete another course (not previously taken) to fulfill this course requirement. This decision is made in consultation with the student, the student's supervisor, and Graduate Program Director. Once the decision is made, a webform will be submitted to Enrolment Services. The student will receive a copy of the webform submission as the official notification of their first failure.

After a second failure, the department will submit a webform to Enrolment Services recommending that the student must be withdrawn from the program. Enrolment Services will process the University Withdrawal and send an official letter to the student confirming their withdrawn status. This letter will include conditions for possible readmission.

Second failures include the following combinations:

- Two failed courses (either in the same or separate semesters)
- One course failure and one unsatisfactory progress report
- Two unsatisfactory progress reports
- Second failure of a PhD Comprehensive Exam
- Failure of a supplemental exam of a failed course

Students can appeal the withdrawal within 30 days, but this requires evidence of their case and letters of support from both their supervisor and the Graduate Program Director. The case will be reviewed by the Associate Dean, whose decision will be final.

For more information please see the Graduate Failure Policy at https://www.mcgill.ca/study/2021-2022/university_regulations_and_resources/graduate/gps_gi_failure_policy.

13. REGISTRATION STATUS

You will find your registration status listed on your transcript underneath each semester. Our programs do not allow a student to be part-time. All of the statuses listed below are full-time, with all of the benefits (such as services and access to facilities) and requirements (such as study permits for international students) therein. **Note that registration status affects the amount of your tuition fees and the time(s) of year at which those fees must be paid.** Here is what they mean:

Thesis Full-time

MSc students are full-time for their first three semesters. PhD students are considered to be full-time until the end of their PhD4 year. This is your residency period, during which you pay full tuition fees.

Thesis Continuing

You will only see this status appear on the Summer semester. All continuing thesis students still within their residency period are automatically registered for

the Summer. This is a full-time status but does not require payment of any tuition fees.

Thesis Additional Session

MSc students reach Additional Session at the beginning of their fourth semester, and PhD students reach it at the beginning of their PhD5 year. This is still a full-time status, but tuition fees are reduced. However, **students are required to pay fees in the Summer Additional Session semesters. The fees are spread out over three semesters rather than just Fall and Winter to reduce student monthly expenses.** To find out how much your fees will be, please see <http://www.mcgill.ca/student-accounts/tuition-charges/fallwinter-term-tuition-and-fees/graduate-fees> (choose your residency status, then choose Additional Session).

By this point international students may find that they will need to renew their CAQ and study permit in order to continue studying. Kristy can provide the departmental letter outlining the student's timeline for degree completion, and students should see Anne about CAQ renewal fee reimbursement.

Because the residency requirements have been completed, the student could conceivably finish up their thesis from elsewhere (if necessary due to location of facilities, collaborative research, etc.). International students who intend to finish and submit their thesis from outside Canada and whose study permits will expire during this time will need to consult the section labeled "Thesis Away" at <https://www.mcgill.ca/legaldocuments/international> and complete the webform found at <https://www.mcgill.ca/legaldocuments/away>. It is expected that you have already left Canada when you fill out this form. Please note that if you leave Canada after the Fall semester begins, you may still be charged for the International Health Insurance for that semester.

Thesis Evaluation

After a student submits the initial copy of their thesis, their following semester will automatically become a Thesis Evaluation semester. This is also still a full-time status but carries even lower tuition fees than the Additional Session semester. To find out how much your fees will be, please see <http://www.mcgill.ca/student-accounts/tuition-charges/fallwinter-term-tuition-and-fees/graduate-fees> (choose your residency status, then choose Thesis Evaluation).

Time Limitation

If a MSc student does not submit their thesis by the end of their MSc3 year, or if a PhD student does not submit by the end of their PhD7 year, they will be subject to Time Limitation. This means that the student will not be allowed to register for the following semester until the initial copy of their thesis has been submitted. During this time student status is lost (including access to services, libraries, insurance, etc.). This is particularly problematic for international students, as without their student status they must leave Canada.

Students who have passed Time Limitation can be readmitted only once they are ready to submit their thesis (i.e., the thesis has already been approved by the supervisor(s) and all thesis submission forms are complete). To be readmitted, the student must fill out the webform found at <https://www.mcgill.ca/students/records/request-readmission>. The form will be forwarded to the Graduate Program Director, who will send their approval to Graduate Records. It is best if the student lets Kristy know when their thesis is almost ready for submission and they are about to apply for readmission. It is important to ensure that all your legal documentation is in order (i.e. study permit and CAQ) at the time of readmission. The student will be charged fees for the term of readmission and any future terms of registration up to and including their term of graduation. It is a good idea to try to time readmission and thesis submission for the beginning of a semester as it will improve the chance that the thesis examination process will be completed within that semester (so that registration and fees will only be required for one semester). More information can be found at <https://www.mcgill.ca/gps/students/progress/time-limitation>.

Summer and Vacation Policy

Graduate students who receive a summer stipend are expected to devote the Summer semester to working on their theses. If they do not do so, then they are likely to go overtime and may run into Time Limitation.

Graduate students and Postdocs should normally be entitled to vacation leave equivalent to university holidays and an additional total of fifteen (15) working days in the year. Funded students and Postdocs with fellowships and research grant stipends taking additional vacation leave may have their funding reduced accordingly (see <http://www.mcgill.ca/gps/students/progress/leave-vacation>).

Leave of Absence Policy

A leave of absence may be granted for reasons such as maternity/parenting leave, personal/family health, professional development, required military service, or employment that precludes progress towards the degree. A leave

must be requested on a term by term basis by filling out the webform found at <http://www.mcgill.ca/students/records/forms/>, and the appropriate supporting documentation must be provided. Supporting documentation (i.e. medical notes) must be sent as a PDF attachment to the Graduate Program Director, who will then forward it to Enrolment Services along with the webform confirmation. Students can request confidentiality of their medical condition by contacting the Associate Dean of Graduate and Postdoctoral Studies for advice before submitting their request.

Note that the use of the Non-Resident status is limited to situations where a graduate student has their department's approval to spend a semester (or maximum of a year) at another institution for full-time work. For full information please see <https://www.mcgill.ca/gps/students/progress/leave-vacation>.

***Parental leave: A guide for grad student expectant moms
(useful info for dads too!)***

First of all, congratulations! Here are the steps put together by previous EPS student moms to help you set up your parental leave.

- 1) Visit the GPS website: <https://www.mcgill.ca/gps/students/graduate-policies-and-regulations/parental-leave>. You will find information on their site prompting you to:
 - Read “Think you might be extending your Family?” A guide from Graduate and postdoctoral studies.
 - Complete the Environmental Health and Safety Office risk assessment form and if concerns are flagged, send to EHS for consultation: <https://www.mcgill.ca/ehs/forms/forms/lab-safety>.
 - Determine paid leave requirements depending on your funding source.
- 2) Meet with your healthcare practitioner to ask about any additional concerns regarding prenatal health while working in your lab/work environment.
- 3) Meet with your supervisor and Graduate Program Director should you wish to ask any questions about support, etc. Note that you are not obliged to inform them until you are ready or wish to discuss accommodations in your work routine. Information on your rights is here: <https://www.chrc-ccdp.gc.ca/en/resources/publications/pregnancy-human-rights-the-workplace-policy-and-best-practices>.
- 4) After 21 weeks, request a medical certificate from your healthcare provider with the following information: your name, as well as complete contact information for the physician. A clear statement by the physician justifying

- your inability to perform their academic duties, with start and end dates. Note that you can request that the leave start before the due date if justified in your medical document.
- 5) **At least one month** before the expected leave, two documents are required to be filled out, signed, and submitted to GPS along with the supporting medical certificate. Make sure to leave enough time for obtaining multiple signatures depending on which form matches your type of funding:
 - a) **ONE** of the following funding forms:
 - Graduate students and postdocs holding FRQ fellowships: https://www.mcgill.ca/gps/files/gps/think_you_might_be_expanding_your_family_frq_fellowships.pdf
 - Graduate students and postdocs paid from research grants: https://www.mcgill.ca/gps/files/gps/think_you_might_be_expanding_your_family_research_grants.pdf
 - Graduate students and postdocs holding Tri-Council (NSERC) fellowships: https://www.mcgill.ca/gps/files/gps/think_you_might_be_expanding_your_family_tri-council_fellowships.pdf
 - b) The online webform requesting leave (must log into student account to submit): <https://www.mcgill.ca/gps/students/registration/progress/leave-vacation>
 - 6) Confirm approval of the leave and that GPS has sent the required documents on to the funding agencies for funding continuation. You will be automatically registered for the semesters during which your leave takes place, with the notation "Leave Of Absence" on your student record.
 - 7) Send GPS proof of birth after your leave begins, and enjoy motherhood!

14. TRAVEL REGISTRY

Students who will be traveling internationally (e.g. anywhere outside of Canada, including the United States) must fill out a Travel Registry, even if the travel will only last for a day or two. To be able to fill one out, you must first send an email to either Anne or Kristy and request that a registry form be created for you. This email should include information on what type of activity you will be doing (e.g. research, field work, attending a conference, etc.), when it will take place, and the country in which you will be doing it. Note that a Travel Registry is part of the application for a Graduate Mobility Award (GMA).

Anne or Kristy will then send you an email notifying you that the form has been created, and you will also receive a notification when you sign into Minerva. The created form can be found under the Student Records menu in your Student menu on Minerva. You must then fill out all the mandatory fields in the form before leaving on your trip, and you will receive monthly email reminders through Minerva until the form has been successfully completed. If you need to change something later and find that you cannot do so because the form has been completed, contact Kristy or Anne to open the form again for you.

If you are going to be doing field work in a remote area of Canada it is suggested that you fill out a travel registry (so that we know where you are!). In this case you will not have the information needed for the Supplemental Health Insurance, as such things are not required when traveling within Canada. Since the insurance-related fields on the form are mandatory, just put in 0's.

15. TRAVEL ADVANCES AND EXPENSE REPORTS

Travel Advances

For all travel advances and expense reimbursements please make sure you speak to your supervisor before you start planning your trip. Your supervisor or Anne Kosowski (anne.kosowski@mcgill.ca) can process the travel advances for you.

For more information on "How To" please refer to the McGill Financial Services Knowledge Base (<http://kb.mcgill.ca/fskb>) → select "HOW TO Request an Expense Reimbursement" on the right hand side (or search "expense report" to find that article) → select "Submit an Expense Report for Yourself (Student menu)".

There are 3 types of Advances:

- 1) For a **Cash Advance** your supervisor will decide how much you will need for your trip. A budget breakdown must be included in the description (e.g. \$1000 per diem; \$500 transportation; etc.). This must be processed by your supervisor.
- 2) An **"Out-of-Pocket" Advance** is for purchases before your trip, i.e. airfare, conference registration/abstract fees, deposits on accommodations, etc. This will enable you to pay off your credit card. Upon your return you will have to add these items to your expense report in order to reconcile the advance. This must be processed by your supervisor.
- 3) A **third party prepayment** is mostly for airfare or accommodations; in this

case you make a request to one of the Travel Management Companies found at <http://www.mcgill.ca/travelservices/transport/tmc> to book a flight to your destination on your requested date. The company will then forward a form to you, which must be filled out (including a fund number) and signed by your supervisor. You can email or fax the form back to the company, who will then book the flight and send you your invoice and itinerary. Please note that there is an extra fee for this service. Keep copies of the itinerary and the charges for the airfare. An advance will be processed for you and will need to be cleared once you return from your trip.

No matter which type of advance you use, be sure to keep your boarding passes and all original and detailed receipts for when you will be submitting the expense report on your return.

Expense Reports

Each student must fill out and submit their **own** expense reports!

Expense reports can be processed through Minerva using Student Menu → Expense Report Menu → Submit an Expense Report. If your supervisor has given you the Default Fund Code, then Select Submit an Expense Report for Yourself. If your supervisor has **not** provided you with the Default Fund Code, then Select Start an Expense Report to be Finished by Someone Else and select “Earth and Planetary Sciences” in order to forward it to a reviewer, then click on “Continue”.

The “responsible McGill ID” is your own ID number. Fill in the rest of the fields: destination city, start/end date, purpose (select “Travel”). For “Describe Purpose”, make sure that you include a detailed description of who your supervisor is, your degree, where you went, name of conference (acronyms, i.e. “GAC-MAC” will not be accepted), etc.

Enter all your receipts one at a time. Once completed you can click on “Save and View” and then click on Complete and Submit (bottom of page), or “Forward to Reviewer” if this is your case. Your expense report will be finished by someone else. You **must** print at this point in order for the forms to be properly submitted and saved. The printed Expense report is to have all your original and detailed receipts attached. You must then sign as the “Claimant”. Please have your supervisor review the completed expense report and sign it as “Approver”.

Please bring your signed Advance OR Expense Report (with all your original receipts attached) to the main office (FDA 238) and leave it in Anne Kosowski's mailbox. A staff member from the FST pod comes by twice weekly to pick up the Advances and Expense Reports for processing.

If you need more information or have questions please do not hesitate to contact Anne Kosowski (anne.kosowski@mcgill.ca) or the account administrators located in Burnside Rm 1029 or e-mail them at sciencefinancepod2@mcgill.ca.

Things to Remember:

- **Please keep all of your boarding passes** when you travel. They must be submitted with your expense report, especially since Tri-Council Agency requires them to be included.
- Keep all of your **original** receipts (taxi, gas, car rentals, accommodation, bus, conference registration fees, abstract fees, printing, airline etc) **or you will not get reimbursed by Travel Desk**. Electronic receipts such as an email confirmation of your airline ticket are acceptable. Capturing pictures of receipts with a Smartphone is *not* considered an acceptable substitute for original receipts.
- Restaurant receipts **MUST** show a detailed list of items; if not, a per diem will be given (your supervisor will decide on the amount). Per diems are for overnight stays only (i.e. meals for conferences in Montreal are not considered eligible for per diem). Alcohol costs will NOT be reimbursed.
- If you are entertaining guests for networking purposes and research-related activities, professors and students must submit the detailed itemized receipts along with the names of attendees if 10 people or less. If more than 10 people please indicate in the description the number of people that attended.
- If your receipts are in a foreign language please translate as to what was purchased.
- Receipts need to show the method of payment. If it is not clear, we will need a copy of your credit card statement or bank statement as backup (you can blank out your personal information).
- If you are traveling in a remote area it is best practice to bring with you a "receipt booklet" for when you pay in "CASH ONLY" places. Ask that they (vendor/Field Assistant/local person etc.) sign the receipt. Indicate what the service was for (i.e.: for local rental of personal (name) boat to be transported to little island for soil sample collection) so that you have proof that you have paid the person in "Cash".
- If you are claiming mileage on your personal car please indicate your Start/End destination, # of kilometers (if traveling multiple days please include a spreadsheet with all information). Also include Google maps as an added reference. If claiming mileage you cannot claim any gas receipts.
- Please avoid paying on behalf of other fellow students. Every student should be paying for their own expenses and should be submitting their

own expense report OR receiving their own cash advances in order to pay for their receipts.

- Please include the conference prospectus showing dates of the conference and location, and if you are a presenter please also print out the page with your name and title of your presentation.
- Please do not use acronyms (i.e. AGU) in your descriptions. Please refer to the full name (i.e. American Geophysical Union conference).
- If you extend your dates of travel for personal reasons, this can affect your expense report. Please print and keep copies of the quotes you have seen as these will be needed in your expense report as reference.
- When entering the transmitted amount in the Minerva form, enter the amount as it appears on the receipt and in the currency of the destination of the trip. You will need to select the currency (if not Canadian) and tab to the currency rate (which will default to the rate of the date of the purchase OR put in the rate as it appears on your credit card statement).
- When submitting a per diem, please use the Per Diem Calculator to calculate your total per diem amount. Then in the item entry of your expense report, enter the sum of the per diem requested.

PART II:

AN INSIDER'S GUIDE TO THE EPS GRADUATE PROGRAM

16. SUCCESSFUL LAUNCHING OF YOUR RESEARCH

NETWORKING WITHIN THE DEPARTMENT

It is to your advantage to become an active member of the graduate student community within EPS as soon as you arrive and to make valuable contacts with faculty, fellow students and our technical and support staff.

Starting to network is as simple as taking up an executive position in the Adams Club or attending internal events such as our EPS ritual of afternoon coffee and cookies in the lounge, departmental talks, and departmental social events. Not only will you begin to meet other students who share the same research supervisor as you, but also other students in the Department from different disciplines. The resource provided by your peers is of inestimable value, and can range from sorting through the bureaucratic tasks of registration to receiving a critical evaluation of your research.

The contribution of the technical and support staff can be extremely valuable during your graduate program. Analytical and computer expertise is outstanding in this department; it is there for the asking. In the main office, Anne and Kristy are excellent resources for administrative challenges and can handle most inquiries and requests efficiently by email.

There are several ways to interact with members of faculty. You will take graduate courses and work as a TA in EPS. These are opportunities to become acquainted with the faculty. You may discover an overlap with your own research and, consequently, seek scientific input, possibly by inclusion of a faculty member in your thesis advisory committee on the basis of research discipline, knowledge of analytical methods or research approach. With a greater awareness of the resources at McGill, you will be better able to take full advantage of them during your graduate program. Consider that any member of faculty in EPS, regardless of whether they are your research supervisor or on your advisory committee, can be approached for advice and consultation.

The graduate students form an integral part of the research in this Department and can play a major role in communicating enthusiasm for our research disciplines. Attending talks is one way to network but giving an oral presentation within the Department also allows you to get acquainted with your peers and with faculty and for them to learn about your research (Section 17). The distinct advantages in presenting your research internally are exposure and feedback.

Don't hesitate to become a part of the academic community in EPS. You will benefit in the long run.

HUMAN RESOURCES

Your greatest source of support is obviously your research supervisor and thesis advisory committee. However, if an academic or research-related problem arises that cannot be resolved directly with those most involved in your research, you can consult the Graduate Program Director or the Departmental Chair. Their doors are open to discuss any problems or conflicts you might be having in your graduate program, be they bureaucratic, financial, logistical, scientific or with the student-supervisor relationship. Although it may be worthwhile at times to discuss your concerns with fellow graduate students, in the end, the Graduate Program Director and the Departmental Chair are in the best positions to help resolve a problem or conflict. Naturally, you can also consult with other faculty who may not be on your thesis committee or seek university resources.

IDENTIFYING A THESIS TOPIC

The earlier you choose a thesis topic, the sooner you can get started on your research program. Research topics are chosen in conjunction with your supervisor(s). Although your topic may change as you collect data and make preliminary interpretations that can lead in different research directions, having some idea at the start is instructive and required for the MSc presentation and PhD preliminary oral examination. The choice of a thesis topic should consider a combination of priorities:

- your own research interests beyond your graduate program
- tools that you wish to learn
- logistical support from your supervisor, in EPS, or from collaborators
- availability of or accessibility to the appropriate analytical facilities
- academic support and availability of scientific exchange within or outside McGill
- research budget
- timing
- potential contribution to science and current knowledge

Several considerations stem from whether you choose to pursue a research topic that is "off the beaten path" or not directly in your research supervisor's field of expertise. If you select a topic that is in your supervisor's research field, the advantage is that you are more likely to get better in-house facilities, advice and scientific contacts. However, if you choose a topic slightly away from your supervisor's main research interests, you should be prepared to operate more autonomously, and seek expert advice and support from outside EPS. It may also be more challenging for your supervisor to fund your research if it is outside

her or his research interests. There are advantages and disadvantages to the two choices that you should weigh carefully before taking the plunge. You should also consider the duration of your degree program, particularly in areas of research that are field- or lab-intensive.

THESIS ADVISORY COMMITTEES

Advisory committees are mandatory for all graduate students at McGill. Your advisory committee should be formed by the end of the first month.

Item 9:

“Each graduate student has a Thesis Advisory Committee consisting of the Supervisor and one (in the case of MSc) or two (in the case of PhD) other faculty member(s), selected by the Supervisor in consultation with the student. The function of the Thesis Advisory Committee is to supply regular advice to the student and to monitor his/her progress. It must meet with the student at least once a year and submit a written report to the Department on the student's progress after each meeting

You may discuss inclusion of a faculty member in your thesis advisory committee with your supervisor and take part in selecting its members. The members are not restricted to faculty in EPS or at McGill.

There is no strict format for the thesis committee meetings, but normally the student is expected to briefly present research results, interpretations and progress and to propose a timetable for future work. The main purposes of the committee meetings are to monitor the student's progress, to ensure that the supervisor-student relationship is on the right track, and to provide an expert forum for research discussion.

It is a good idea to become active in forming your thesis advisory committee, to hold regular meetings and to make the most of it as a resource throughout your graduate program. You should also plan ahead, because it can be difficult to find a time for your committee to meet. **Once you have a committee, let Kristy know who the members are so that your myProgress file can be updated.**

PHD STUDY PLAN

PhD students should meet with their committees within the first two months of their program to complete a study plan. There may be a specific form to fill out in the future, but for now it is freeform. It may include an outline of what courses will be taken and when (including the comprehensive exam), as well as an idea of short-term and long-term goals to guide your research. This is a required milestone in McGill PhD programs, and the document must be uploaded to

myProgress in order for the milestone to be considered complete (see information on myProgress below).

PHD LETTER OF UNDERSTANDING

The PhD Letter Of Understanding (LOU) is a document created with and agreed upon with your supervisor. Note that this is not a binding contract, but rather a tool to clarify the expectations of both the supervisor and the student. More information, including a link to the GPS framework for the letter and the Faculty of Science template letter can be found here: <https://www.mcgill.ca/gradsupervision/resources/examples-templates-and-tools>. This is a required milestone in McGill PhD programs, and the document must be uploaded to myProgress in order for the milestone to be considered complete (see information on myProgress below).

PROGRESS REPORTS AND myPROGRESS

Students are **required** to meet with their advisory committee at least once a year (usually in March or April) to discuss their research progress. All students must use the official Graduate Student Research Progress Tracking Form (a fillable pdf form that can be signed with digital signatures) found at https://www.mcgill.ca/gps/files/gps/gps_graduate_student_research_progress_tracking_report_2021.pdf. The student fills out the first page, and the supervisor and advisory committee fill out the second page (the check boxes and the comment box). The signature page must include the date and the signatures of the student, the supervisor and all advisory committee members. The student is then responsible for obtaining the Graduate Program Director's signature. If for some reason you do not agree with what your supervisor has written, you may refuse to sign the report, but then you must provide a written explanation of your refusal. **Students must then upload the completed and signed progress report under the correct "milestone" (i.e. "PhD2 progress report") in myProgress (see below).**

All NSERC award holders must also submit the form to graduatefunding.gps@mcgill.ca each year by August 15th to retain their funding for the following year. For more information on the progress tracking policy, please see <http://www.mcgill.ca/gps/students/research-tracking>.

myProgress and Milestones

The myProgress program (<https://www.mcgill.ca/gps/myprogress>) ensures that student milestones are tracked and met. It will help you keep track of your courses and degree requirements, and the system will send out automatic email

reminders when milestones such as your yearly progress report are coming due. Kristy will update your record in myProgress when she receives the necessary documents and information.

Students must upload their own documents to myProgress once the documents are complete and have all the necessary signatures. Kristy will then approve them and check off your milestones.

MSc students have the following required milestones:

- MSc Supervisory Committee members (send member list to Kristy)
- MSc1 and MSc2 progress reports

PhD students have the following required milestones:

- PhD Study Plan
- PhD Letter Of Understanding (LOU)
- PhD Supervisory Committee members (send member list to Kristy)
- PhD2-6 progress reports (PhD1-6 if you began in PhD1)
- Comprehensive Examination (Kristy checks this off once you have passed your exam)

PREPARING YOUR THESIS PROPOSAL

The earlier you begin to prepare your thesis proposal, the sooner you will be launched into your research activities. The act of writing a proposal forces you to think about it in earnest. You can discuss it with your research supervisor in advance, but be advised that your supervisor is not expected to participate in the actual writing. You can also discuss it with other people in the Department, such as your colleagues, other members of faculty and technical staff. You can also look at previously submitted proposals in the Department to get an idea of what is expected in terms of depth, breadth and format. A thesis proposal should include the context of your research within the current scientific literature, your research hypothesis, the main objective(s), the methods you will use to reach your objective(s), preliminary results (if any), and interpretations.

MSc proposals are usually 7-10 pages long (including figures and references) and should also include a timeline for data collection and thesis writing.

For PhD students, normally the proposal is not to exceed 15 pages (including figures, references and appendices). Do not include extraneous material, especially if you are not very familiar with it. Since the thesis proposal is a requirement for the PhD preliminary oral exam, you should consider its contents in that context (see Section 15, under preliminary PhD oral exam). The thesis proposal must be circulated to the examining committee at least a month before

the scheduled exam. It is recommended that you schedule a meeting with each member of the committee prior to your oral exam to discuss the proposal and prepare for possible questions during the oral exam.

THE MSc FIRST-YEAR PRESENTATION

The Seminar Coordinator (one of our faculty members), coordinates the MSc presentations, which take place as part of the Brown Bag Seminars.

Item 20:

“MSc1 students must submit a written statement of their proposed thesis research to the Department by March 1st (November 1st for January entrants) and give a public presentation (~20 minutes in duration) of their plans to the Department, followed by questions, later in the month.

The purpose of the MSc presentation is to ensure that students have developed a research proposal early in their program and have a chance to get initial feedback on the project design and preliminary results. The presentations last 20 minutes each, including time (about 5 minutes) for questions. All members of the Department are encouraged to attend. Although there is no formal evaluation of the MSc presentations, they are required for fulfillment of the MSc degree.

**May be online due to covid restrictions.*

THE PRELIMINARY PhD ORAL EXAM

The preliminary PhD oral examination or “comps” is required by the end of the first semester of the student’s PhD3 year. According to the EPS Graduate Program Constitution (<https://www.mcgill.ca/eps/studies/graduate/constitution>):

14:

“All PhD students must take their PhD Comprehensive Oral Examination before the end of their first semester of their PhD3 year. (Student may take the exam earlier, in consultation with their supervisor.) Students who begin their PhD program in September must complete their Exam by November of their PhD3 year. Students who begin their PhD program in January must complete their Exam by the end of March of their PhD 3 year. In preparation for this examination the student must submit a written research proposal to their committee at least 6 weeks prior to their exam. The written proposal must be prepared independently of the Supervisor, although the Supervisor may have provided advice in the scientific design of the project. Provided the committee considers the written proposal acceptable, the proposal and the science associated with it are the subject of an oral examination. The examination may include questions pertaining to the Earth Sciences in general, in addition to ones related specifically to the thesis proposal. Each graduate student is expected to demonstrate a knowledge base equivalent to that taught in our 100-level courses and/or EPSC 201 (Understanding Planet Earth) during this exam. During this exam the student is

expected to demonstrate numerical competency, especially in the methods required for their own research.”

Item 15:

“The PhD Comprehensive Oral Examination is conducted by a committee, distinct for each student, consisting of 5 faculty selected by the Supervisor in consultation with the Graduate Program Director. This committee examines the candidate orally and, based on its assessment of the examination and the written proposal, as well as the student's academic record, recommends either that the student has passed the examination, or that he/she has failed but may retake the examination, or that the student must take a written examination, or that (in the case of a second failure) the student has failed and must withdraw from the doctoral program. The committee will provide the student with a written evaluation of the exam suggesting areas of the student's knowledge that need improvement and ways of improving that knowledge, such as guided reading or taking a formal course.”

Item 16:

“If a student chooses to retake the PhD Comprehensive Oral Examination he/she must submit a new written proposal, which may be a revised version of the original one, by the beginning of the following semester and take the oral examination before the end of that semester. Under most circumstances the examining committee will be the same as for the first examination.”

The purpose of the PhD preliminary oral exam is to ensure that the student is truly prepared and competent to continue in the doctoral program. Not only does the examination test your knowledge and ability to design and articulate your research intent, but also your ability to think critically. Much of the questioning targets your ability to think “on your feet” and to make links between different themes in the Earth and planetary sciences. The examining committee is also interested in determining the depth and breadth of your knowledge base in your specific field of research and more generally.

Preparation

To prepare for the preliminary oral exam, you must first write your thesis proposal. Be aware that anything that is included in your thesis proposal, particularly the underlying scientific principles, is fair game for questioning in your exam. Consequently, it is prudent to write a succinct proposal and eliminate extraneous information. Make sure that you are extremely familiar with its content, including the necessary analytical techniques. After it is written, you are required to circulate the proposal to the members of your examination committee, usually at least one month in advance of your scheduled exam.

You can discuss selection of your exam committee with your research supervisor and will be informed of its final composition by the Graduate Program Director.

After the committee members have had a chance to peruse your proposal, you should make individual appointments with them to discuss the proposal and the exam. Timing and organization are critical; committee members cannot be of much help to you during your preparation if you plan a meeting a few days before the exam. Often members of the committee will give you suggestions to improve your proposal. You may choose to incorporate their suggestions and circulate the revised version. Several faculty members may also tell you in which domains of the Earth and planetary sciences they will focus their questioning. Heed them carefully. They might even give you a sample of their questioning style. During your meeting, you can also ask them for advice on which areas you should concentrate your preparation. The exam questioning will focus mainly on the scientific principles which underpin the proposal. However, you should expect some questions designed to ensure that you have a firm knowledge of the basic background geology/geochemistry/geophysics associated with your research.

The PhD preliminary oral examination is an important qualifying hurdle that requires careful preparation, organization and a significant preparation-time commitment. There are several strategies that can help. You may choose to TA a course that is relevant to your research. You may audit an undergraduate course in case your background is lacking in a given area. If you are not accustomed to the oral format of the exam, you could form a “mock” oral committee with your colleagues from various disciplines, give them your research proposal and arrange a time to give them a brief presentation (20 minutes) and accept questions as though it were the real thing. To gain confidence in the oral format before the exam, you might consider giving a talk in any of the venues available within the Department (Section 17) or at a scientific meeting.

Format

Normally, the student is asked to leave while the chair of the exam and committee deliberate over the order of examiners. The entire exam is overseen by the chair of the committee, who cannot be the student’s supervisor. The student is expected to give a brief presentation that summarizes the thesis proposal, not exceeding 20 minutes in duration. Questioning begins, usually with the committee member whose own research is most distant from that of the student. Usually each questioner is given a 20-minute time slot. The chair will signal when the period is over and indicate from which examiner the next round of questioning will come. The chair is also an examiner and will have a turn at asking questions. If deemed appropriate during the exam, the chair may decide to allow a short recess. The research supervisor is normally the final examiner. A second round of questioning will be offered to the examiners by the chair. Afterwards, the student is asked to leave while the committee deliberates the outcome. The entire exam is strictly a closed affair with only you and your examination committee.

Strategies

During the exam, if you have not understood an examiner's question, ask him/her to repeat it. Instead of rushing to give a response, take your time to answer as fully as possible. Use the blackboard liberally to clarify the question or to illustrate your response. Be prepared to face different styles of questioning even from the same examiner. The examiners may continue on a single narrow theme to determine where your limits of knowledge lie. Alternatively, they may cut you off if they detect that you are competent in a given line of questioning. If you don't know the answer to a question, try to follow the train of thought within the question and address it as best you can. If you really haven't got a clue or have drawn a blank, say so. If you are guessing, say so, and provide the arguments that led you to your conclusions. Try to let the examiners see your own train of thought in formulating an answer. They are not interested in your ability to retain trivia, but in your thinking process.

Evaluation and Possible Outcomes

The chair of your committee will give you the final decision immediately after a few minutes of deliberation, so stay near the examination room. Currently the possible outcomes are: pass, or fail with chance to retake the exam. Some committees may advise the student who has passed to take additional courses to strengthen an existing area of weakness.

In the event of a failure, a student may retake the exam once. The grade of HH will be entered on the student's record as a placeholder until the outcome of the second exam is determined. The student will be informed of the failure and of the conditions relating to the retake; at this time the student should discuss options with their supervisor(s). For more information, please see the "Failures" section of the PhD Comprehensives Policy at https://www.mcgill.ca/study/2021-2022/university_regulations_and_resources/graduate/gps_gi_phd_comprehensives_policy. If the student fails the retake, they will be given a grade of F and will be withdrawn from the PhD program as per the Failure Policy (see above).

DEADLINES, DEADLINES AND MORE DEADLINES!

While at McGill there will be numerous times when you must meet a deadline—either a departmental deadline or a university deadline. Perhaps the best examples of these deadlines are the thesis submission deadlines (discussed in Section 20). The deadlines are almost never flexible, and you are responsible for meeting these deadlines. In some cases, you may need input from your supervisor(s) to meet a deadline; an example of this is the need for your supervisor(s)'s approval to submit a MSc or PhD thesis. In such cases you need

to provide all necessary documentation (e.g., your thesis) to the supervisor(s) at least two weeks (14 days) in advance of the deadline unless you and your supervisor(s) have previously agreed upon another time frame. **Do not assume that your supervisors are aware of all the deadlines!**

17. FAST-TRACKING AND BACK-TRACKING

According to the Graduate Program Constitution, transfers within the graduate programs are possible.

MSc to PhD (fast-tracking):

Item 21:

“A student may apply to transfer from the MSc program into PhD2 at the end of MSc1 if he/she has taken 4 courses and has a GPA of not less than 3.5, with no course grade lower than 3.0 (B). In selected cases students who have completed 3 courses may request to be fast-tracked, but they must provide compelling reasons as to why they could not finish 4 courses in their MSc1 year. Criteria that will be considered in assessing such an application are the grades and academic level of the courses taken and the progress reports from the Thesis Advisory Committee.”

A student who is fast-tracking from MSc to PhD must submit a fast-track application through uApply for the PhD program. **This application must specifically be opened for the student by Kristy, so the student and supervisor should inform her of the intention to fast-track as early as possible to ensure that application deadlines are met.** No fee is levied, and no additional transcripts or letters are necessary. This program change requires supervisor support, and the Graduate Program Director is informed. More information can be found at <http://www.mcgill.ca/gps/students/progress/fast-track>.

It is important to note that international students who fast-track MUST update their CAQ immediately as it is degree-specific (the study permit can be updated sometime before it expires).

PhD to MSc (back-tracking):

Item 17:

“A PhD student may back-track to the MSc program at any time. This MSc program is terminal (i.e., they cannot later enter the PhD program). Courses taken in the PhD program are in this case creditable towards the MSc requirements provided they meet the criteria for the MSc program.”

Item 18:

“A student who fails the PhD Comprehensive Oral Examination may, on the recommendation of the Examining Committee, apply to back-track to a terminal MSc program (i.e., they cannot later enter the PhD program). Courses taken in the PhD program are in this case creditable towards the MSc requirements provided they meet the criteria for the MSc program.”

A student who is back-tracking from PhD to MSc must submit a back-track application through uApply for the MSc program. **This application must specifically be opened for the student by Kristy, so the student and supervisor should inform her of the intention to back-track as early as possible to ensure that application deadlines are met.** No fee is levied, and no additional transcripts or letters are necessary. Back-tracking requires permission from the Graduate Program Director based on a case made by the student’s supervisor.

It is important to note that a student who back-tracks *cannot* be re-admitted into the PhD program in EPS after their MSc is complete. More information can be found at <http://www.mcgill.ca/gps/students/progress/fast-track>.

International students who back-track MUST update their CAQ immediately as it is degree-specific (the study permit can be updated sometime before it expires).

18. ORAL AND POSTER PRESENTATIONS WITHIN THE DEPARTMENT

Every graduate student must give at least one oral or poster presentation internally to be considered for teaching assistantships and departmental scholarships in the subsequent academic year. These are great opportunities to receive scientific feedback, to “test drive” a presentation destined for an upcoming scientific meeting, and to practice your presentation skills. The following venues count towards fulfilling this requirement:

- Poster presentation at the EPS Research Symposium
- MSc Presentations (Brown Bag seminars)
- Preliminary PhD Oral Comprehensive Exam
- PhD Presentations (Brown Bag seminars)
- PhD Oral Thesis Defence

To receive credit for your presentation, send an email message to Yajing Liu (yajing.liu@mcgill.ca) and Kristy Thornton (kristy.thornton@mcgill.ca) with the time, title and venue of your talk.

19. PREPARATION OF YOUR THESIS AS A DOCUMENT

GUIDELINES FOR THESIS PREPARATION

Regardless of the thesis format (traditional versus manuscript-based), you must comply with the “Guidelines for Thesis Preparation” as outlined by the Graduate and Postdoctoral Studies Office. It is available on the web (<http://www.mcgill.ca/gps/students/thesis/guidelines>). You must get the most recent copy of this document as its contents change episodically. It includes general comments, thesis specifications, the manuscript-based thesis, thesis formatting and withholding your dissertation (e.g., for sensitive content).

TRADITIONAL VERSUS MANUSCRIPT-BASED THESIS

Your thesis can be submitted either in classical format or as a collection of manuscripts that is a combination of papers already published, submitted for publication or to be submitted for publication. Consult with your research supervisor. The choice of a traditional thesis versus a series of articles for publication is a subjective one with advantages and disadvantages for each option. In the long run, most students find that writing a manuscript-based thesis saves time since it does not need to be rewritten or re-formatted for subsequent publication although, initially, it does take longer to write it succinctly for publication. Even if several individual manuscripts within the thesis have been published, it is no guarantee of thesis success. A manuscript-based dissertation will go through the same rigorous critical examination as would a classical thesis.

To accommodate the manuscript-based thesis, the Graduate and Postdoctoral Studies Office has set very specific instructions (found at <http://www.mcgill.ca/gps/thesis/guidelines/preparation>). The main requirements are: to include connecting texts to form logical bridges between the different papers and to make a statement of your original contribution and that of your co-authors

If, in the examiners’ opinion, the thesis does not conform to the guidelines, re-submission of an amended version may be required.

20. SUBMITTING YOUR THESIS FOR EVALUATION AND/OR DEFENCE (INITIAL SUBMISSION)

The “Thesis Preparation and Submission Guidelines” (found at <http://www.mcgill.ca/gps/students/thesis/guidelines>) are absolutely essential. This section of the handbook cannot replace the official guidelines, but does emphasize the highlights.

myThesis

Initial thesis submission is now done through the myThesis platform (<https://mythesis.mcgill.ca/>). For information and instructions, please go to <https://www.mcgill.ca/gps/thesis/thesis-guidelines/initial-submission>. There are different instructions for MSc and PhD students. Note that unlike with undergraduate or non-thesis programs at McGill, there is no need to “apply to graduate”. Your initial thesis submission is considered to be your application to graduate.

The instructions suggest declaring your intent to submit on myThesis a month in advance of your intended submission date. This is not a hard deadline, but it’s good to plan ahead, as there are several steps involved that depend on several people’s responses. You will need to enter the date that you intend to submit, along with information about your thesis, such as the abstract (French abstract not required at initial submission), number of pages, etc. You will also need to enter the names of potential examiners.

Examiners

Before initial submission, you and your supervisor should choose your examiners together. Although myThesis will send a request to your examiner, best practice is to have already contacted and secured the agreement of your preferred examiner(s) before submitting their names and contact information on myThesis. For more information on examiners please see <http://www.mcgill.ca/gps/thesis/guidelines/examination>.

To check on possible conflicts of interest before finalizing the choice of examiner(s), please use the checklist found at http://www.mcgill.ca/gps/files/gps/conflict_of_interest_checklist_2017.pdf.

Be sure to discuss any potential issues with potential examiners about meeting the deadline that GPS will impose on them before finalizing your selection! If a deadline change is required because of the examiner’s schedule, you must agree to it in order to move forward. If not, please choose another examiner. It’s much easier to do this before you have submitted the examiner on myThesis than to try to change your examiner later.

An MSc thesis only requires one examiner. The examiner's qualifications are that he/she be sufficiently knowledgeable in the field to evaluate the thesis but not be the supervisor nor on the advisory committee. He/she can be from any Faculty or department from any university, including our own department, as long as there is no conflict of interest). Although only one examiner is required, the myThesis instructions state that the information for two potential examiners be entered, with one selected as your preferred examiner. The EPS Graduate Program Director will then approve your examiner selection, and an automated email will be sent to your preferred examiner. If that examiner agrees, then the other examiner will not be contacted.

A PhD thesis requires two examiners, one internal examiner (not the supervisor) and an external examiner. The internal examiner should be someone from our department or a closely affiliated department (such as Geography, ATOC, or Civil Engineering), and may be someone from the advisory committee. The internal examiner **must** attend the oral defence. The external examiner must be a specialist in the field, have a doctorate, have no conflict of interest, and not have an academic appointment at McGill. Ideally the external examiner would be someone who has had a reasonably long record of evaluating theses; they are apt to give your dissertation a fair assessment in comparison with others they have examined. Although only one internal and one external examiner are required, the myThesis instructions state that the information for two potential examiners of each type be entered, with one selected as your preferred examiner. The EPS Graduate Program Director will then approve your examiner selection, and an automated email will be sent to your preferred examiners. If those examiners agree, then the second-choice examiners will not be contacted.

Deadlines

Submission deadlines are posted on the web at <http://www.mcgill.ca/gps/thesis/deadlines>. Currently they are:

<i>Initial Submission</i>	<i>Final Submission</i>	<i>Additional Session</i>	<i>Thesis Evaluation</i>	<i>Graduation</i>
Aug 15	Dec 15	Summer	Fall	February
Dec 15	Apr 15	Fall	Winter	June
Apr 15	Aug 15	Winter	Summer	October

In this case both the initial and final submission dates are hard deadlines.

If you do your initial submission long before the deadline then you could still make the final submission deadline in that same semester and thus never have a Thesis Evaluation semester. For example, for February graduation, if you made your initial submission in May or June (rather than waiting all the way to the August 15 deadline to submit), and everything went quickly and smoothly with

your examiners and corrections, you could still make the final submission deadline of August 15. This means that your initial and final submissions are done in the same semester (during which you were registered as Additional Session) and you will not need a Thesis Evaluation semester. Below are those possibilities:

<i>Initial Submission</i>	<i>Final Submission</i>	<i>Additional Session</i>	<i>Thesis Evaluation</i>	<i>Graduation</i>
Apr 16 – Aug 15	Aug 15	Summer	None	October
Aug 16 – Dec 15	Dec 15	Fall	None	February
Dec 16 – Apr 15	Apr 15	Winter	None	June

In this case only the final submission dates are hard deadlines, but recognizing that external examiner's reports can take anywhere from 6 to 8 weeks (not even counting delays!) to be returned, it is strongly suggested that MSc students make their initial submission at least two months before the final submission deadline and PhD students make their initial submission at least three months before the final submission deadline. You may be lucky with swift external examiners, but don't count on it, especially during the summer months when many are off doing field work or otherwise traveling.

Submit as soon as you are ready to submit! Don't feel that you should or have to wait for the deadlines—theses will process faster when not in the crunch time caused by those deadlines.

Plan for external thesis examination to take a minimum of 6 weeks. Delays can be caused by submission during busy periods in the academic year, both for GPS and for your external examiner. You can check on the status of your thesis with Kristy in the main office.

Final reports from the internal and external examiners must reach GPS one week before the defence with a passing grade for a PhD oral defence to continue as planned.

Please note that meeting the suggested deadlines for initial submission does not guarantee graduation (although missing them means that you will not get to take advantage of the reduced fees of a Thesis Evaluation semester). They are suggested deadlines that should allow for enough time for the external examiner to submit their report to GPS, and for the student to then make their corrections and submit their final copy of their thesis online. Neither GPS nor EPS is held responsible for delays caused by the external examination process. Conversely, even if you do not make the suggested deadlines, a rapid return by the external examiner and quick corrections on your part may result in you finishing in time to have your degree granted earlier than you expected!

Readmission

If you are not currently registered at the time that you wish to submit your initial thesis (due to having passed your time limitation or because you have not been registering due to personal reasons), you will need to request to be readmitted in order to submit your thesis. Please see the instructions and links listed under *Time Limitation* in Section 13 of this handbook.

Internal and External Thesis Evaluation Reports

Evaluation of the MSc and PhD thesis are identical in format. The evaluation form that each examiner will use can be seen here: https://www.mcgill.ca/gps/files/gps/phd_examiner_report_gps.pdf. The form outlines the categories that will be assessed and the possible final outcomes of the examination.

Should one or both of your examiners give your thesis an outcome of “Not Passed”, you will need to follow the instructions at <https://www.mcgill.ca/gps/thesis/thesis-guidelines/examination/failures>.

21. PHD ORAL THESIS DEFENCE

You must look up the guidelines for Doctoral Oral Examinations online at <http://www.mcgill.ca/gps/thesis/guidelines/oral-defence>. This handbook only provides the highlights and is inadequate on its own.

It is advisable for students and their supervisors to begin planning the composition of the defence committee directly after the initial thesis has been submitted. An oral defence form, stating the earliest date that the defence can be scheduled, will be sent to the EPS main office once the thesis has been sent to the external examiner (usually about a week after submission). Kristy will inform you of this date. You can contact Kristy to schedule a defence date, keeping in mind that GPS requires a minimum of **four** weeks' notice. In the summer, six weeks' (or more) notice is best, due to the difficulty of finding a Pro-Dean at that time or year. It is important to note that reports from the internal and external examiners must be received by GPS at least one week prior to the defence date so that they can be communicated in time to all oral defence members. If the reports are not in by then, the defence will be postponed, so scheduling your defence before the date listed on the defence form (i.e. before the date the reports are due back) is a bad idea!

Kristy will also email you a template for a PhD defence booklet. You will be asked to enter your own information (thesis abstract, publication list, brief curriculum vitae) and return it to her. This booklet is used as an advertisement/souvenir for your defence.

Oral Defence Committee

After discussing the composition of your defence committee with your supervisor and confirming it with the Graduate Program Director, please email Kristy the names and contact information of its members so that she can begin scheduling a defence date. Keep in mind that GPS requires a minimum of two weeks' notice. Please note that the internal examiner *must* be included in the committee, although the external examiner does not. If you would like to invite your external examiner to also be your external member, Kristy must send the invitation, as the student and supervisor are not allowed to contact the external examiner about any part of the examination process.

A majority of the committee members must not have been closely involved with the thesis research. Also, if a student is co-supervised and if both supervisors plan to participate in the defence, choosing a "closely involved" Internal Examiner (i.e. making three members of the committee people who have been closely involved with the thesis) will necessitate a 7-member oral defence committee to achieve a majority of members who were not closely involved with the work.

These are the accepted possible compositions of an oral defence committee:

Five-Member Committee:

- Departmental representative (Chair or delegate)
- Supervisor
- Internal Examiner
- Internal Member (or Co-Supervisor as appropriate)
- External Member

Seven-Member Committee:

- Departmental representative (Chair or delegate)
- Supervisor
- Internal Examiner
- Internal Member
- Internal Member (or Co-Supervisor as Appropriate)
- External Member
- External Member

The Defence

In the oral defence, the candidate is expected to give an introductory 20-minute presentation that emphasizes the contributions of the dissertation to existing knowledge in the presentation format of a scientific meeting. The defence is chaired by the Pro-Dean (a faculty member from another department chosen by the Graduate and Postdoctoral Studies Office). Each member of the examining committee will question the student on the thesis for 10 to 20 minutes. Many of the strategies you used in your preliminary PhD oral exam can be used again during your final defence. Typically, there is one full round of questioning followed by an invitation from the Pro-Dean for additional questions from the examining committee. Afterwards, the Chair will invite the audience to question the candidate as well. At the end of the question period, the candidate and audience leave while the committee discusses examiners' comments, the thesis and the entire student record. The final PhD oral defence is open to all graduate students and members of faculty. A successful defence is followed by a wine and cheese reception.

Note: During covid times, defences took place online, in a Zoom meeting which was livestreamed (with the permission of the student and all committee members) so that the student's friends and family could watch without participating. The livestream ended after the question period. Whether or not GPS will continue to offer the option of a fully or partially online defence is not yet decided as of the time of publication of this handbook.

22. FINAL THESIS SUBMISSION

The "Guidelines for Thesis Submission" (found online at <http://www.mcgill.ca/gps/students/thesis/guidelines>) include instructions for final thesis submission. After all required corrections have been made, usually in consultation with the research supervisor, the student must submit their final thesis copy online (more information at <http://www.mcgill.ca/gps/thesis/guidelines/final-submission>). The supervisor will receive a prompt to approve the thesis online. If you are co-supervised, both supervisors must approve the final thesis online. It is important to note that if you have a co-supervisor who is not a McGill faculty member and therefore cannot log in to approve the thesis, they must send an email to thesis.gps@mcgill.ca to request that the thesis be approved on their behalf. Remember that the final thesis submission deadlines listed in Section 20 must be met to graduate at those convocations, so make sure that your supervisors are informed and given plenty of time (2 weeks or more) to approve your thesis!

Make the most of your graduate program in the Department of Earth & Planetary Sciences. You will spend a large proportion of your time within FDA; it is worth investing in the graduate student community. Not only will it help you in your own research and self-development, but it will also benefit your current colleagues and graduate students to come. Since the graduate student population is one of the principal driving forces for research in the Department, they can make a positive contribution to the Department by active participation during their time in EPS.

Hopefully, this handbook has provided you with some of the tools and resources for productive years as a graduate student.

Original version: 26 August 1998, compiled by Sam Alpay

Revisions 1999-2005: Sam Alpay, Andrew Hynes, A.E. Williams-Jones, Kristy Thornton

Subsequent updates: Kristy Thornton, Don Baker, Galen Halverson, Jeffrey McKenzie, Yajing Liu

Suggestions for modifications and/or additions to the handbook can be emailed to Kristy Thornton (kristy.thornton@mcgill.ca).

APPENDIX

GRADUATE PROGRAM CONSTITUTION

1. The Department will have a Graduate Admissions Committee, consisting of 2-3 members, appointed by the departmental Chair, in consultation with the Director of Graduate Admissions, whose functions are, in general terms, to consider whether applicants are admissible and, if so, at what level, and to oversee the bureaucratic aspects of graduate application and admission.
2. Membership of the Graduate Admissions Committee is determined by the departmental Chair in consultation with the Chair of the Admissions Committee. At least two members must change every year and no member except the Chair may serve more than two successive years.
3. Students with only a BSc may be admitted directly into the PhD program, at the PhD1 level.
4. Admission to the PhD program directly from a Bachelors degree will require a CGPA of 3.5 (or equivalent) in the prior two full-time years of academic study. Students with a CGPA below that will be admissible in the first instance only into the MSc1 year ('MSc1').
5. Admissible doctoral applicants with an MSc (or a qualification equivalent to a McGill MSc) enter the PhD2 year, unless their MSc is not considered equivalent to a McGill MSc or is in a field significantly different from the subject of their proposed doctoral study, in which case they enter PhD1.
6. Admissible MSc applicants, or those desiring the PhD but whose grades are too low for direct admission, enter MSc1.
7. Students entering the Department at the MSc1 or PhD2 level do so with an identified supervisor. Supervisors are assigned by the Admissions Committee, following consultation with the faculty concerned.
8. During their first week at McGill new students will meet with a Preliminary Advisory Committee to discuss the student's goals and how to best achieve them. The committee will help the student prepare for their research by making written recommendations concerning knowledge that the student needs to gain in order to be successful in their graduate studies at McGill and in their professional career. This committee will consist of the student's supervisor and three other members of the Department (one being an expert in a field similar to that studied by the student and the other two from different fields).
9. Each graduate student has a Thesis Advisory Committee consisting of the Supervisor and one (in the case of MSc) or two (in the case of PhD) other faculty member(s), selected by the Supervisor in consultation with the student. The function of the Thesis Advisory Committee is to supply regular advice to the student and to monitor his/her progress. It must meet with the student at least once a year and submit a written report to the Department on the student's progress after each meeting.

10. New graduate students are expected to attend the majority of departmental seminars during their first year. All other graduate students and post-docs are encouraged to frequently attend departmental seminars. These seminars are important for broadening exposure to the range of current Earth science research.
11. Students entering at the PhD1 level must take a minimum of 6 courses (18 credits) by the end of their PhD2 year. Assignment of courses in the PhD1 year is by the Thesis Advisory Committee.
12. In the PhD2 year, students should take a minimum of 2 graduate-level courses (6 credits).
13. With the exception of PhD students in the year that they are taking their comprehensive exam or their defence, all PhD students are required to give one talk to the entire department each academic year. The talks will be ~20 minutes in length and will be given over lunch time during the academic year. The goal of these presentations to keep everyone abreast of the research performed in the Department and to provide an opportunity for graduate students to practice giving talks to non-experts in their field. Note that presentations to individual research groups will not fulfill this requirement.
14. All PhD students must take their PhD Comprehensive Oral Examination before the end of their first semester of their PhD3 year. (Student may take the exam earlier, in consultation with their supervisor.) Students who begin their PhD program in September must complete their Exam by November of their PhD3 year. Students who begin their PhD program in January must complete their Exam by the end of March of their PhD 3 year. In preparation for this examination the student must submit a written research proposal to their committee at least 6 weeks prior to their exam. The written proposal must be prepared independently of the Supervisor, although the Supervisor may have provided advice in the scientific design of the project. Provided the committee considers the written proposal acceptable, the proposal and the science associated with it are the subject of an oral examination. The examination may include questions pertaining to the Earth Sciences in general, in addition to ones related specifically to the thesis proposal. Each graduate student is expected to demonstrate a knowledge base equivalent to that taught in our 100-level courses and/or EPSC 201 (Understanding Planet Earth) during this exam. During this exam the student is expected to demonstrate numerical competency, especially in the methods required for their own research.
15. The PhD Comprehensive Oral Examination is conducted by a committee, distinct for each student, consisting of 5 faculty selected by the Supervisor in consultation with the Graduate Program Director. This committee examines the candidate orally and, based on its assessment of the examination and the written proposal, as well as the student's academic record, recommends either that the student has passed the examination, or that he/she has failed but may retake the examination, or that the student must take a written examination, or that (in the case of a second failure) the student has failed and must withdraw from the doctoral program. The committee will provide the student with a written evaluation of the exam suggesting areas of the student's knowledge that need improvement and

ways of improving that knowledge, such as guided reading or taking a formal course.

16. If a student chooses to retake the PhD Comprehensive Oral Examination he/she must submit a new written proposal, which may be a revised version of the original one by the beginning of the following semester and take the oral examination before the end of that semester. Under most circumstances the examining committee will be the same as for the first examination.
17. A PhD student may back-track to the MSc program at any time. This MSc program is terminal (i.e., they cannot later enter the PhD program). Courses taken in the PhD program are in this case creditable towards the MSc requirements provided they meet the criteria for the MSc program.
18. A student who fails the PhD Comprehensive Oral Examination may, on the recommendation of the Examining Committee, back-track to a terminal MSc program (i.e., they cannot later enter the PhD program) at any time. Courses taken in the PhD program are in this case creditable towards the MSc requirements provided they meet the criteria for the MSc program.
19. A student in the MSc program is required to take at least 4 graduate courses (12 credits) during his/her 2 years of graduate study.
20. MSc1 students must submit a written statement of their proposed thesis research to the Department by March 1st (November 1st for January entrants) and give a public presentation (~20 minutes) of their plans to the Department, followed by questions, later in the month.
21. A student may apply to transfer from the MSc program into PhD2 (fast-track) at the end of MSc1 if he/she has taken 4 courses and has a GPA of not less than 3.5, with no course grade lower than 3.0 (B). In selected cases students who have completed 3 courses may request to be fast-tracked, but they must provide compelling reasons as to why they could not finish 4 courses in their MSc1 year. Criteria that will be considered in assessing such an application are the grades and academic level of the courses taken and the progress reports from the Thesis Advisory Committee.
22. MSc2 students must present a summary of their research during the second semester of their second year (a ~20 minute talk). During this presentation the student is expected to demonstrate numerical competency, especially in the methods required for their own research.
23. Any graduate student wishing to use the analytical facilities of the Department and of our sister universities must attend WHMIS training.

Andrew Hynes, 9 April 1993
Don R. Baker Revised 28 July 2016
Jeffrey McKenzie Additional Revisions 24 August 2018