

# **Guide to Graduate Studies 2020-2021**

Department of  
Geological Sciences & Geological Engineering

*Queen's University at Kingston*



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# Queen's University

## Guide to Graduate Studies in the Department of Geological Sciences & Geological Engineering

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### 1. Introduction

This guide outlines the Department's structure for the administration of graduate studies as well as its regulations and procedures for each program. Students must also consult the Calendar of the School of Graduate Studies (<http://www.queensu.ca/sgs/graduate-calendar>) and the relevant Procedure Manuals for the Graduate Councils of the Faculty of Arts and Science and Faculty of Engineering and Applied Sciences.

#### a) Graduate Councils and Procedure Manuals

Each Faculty Office at Queen's has a Graduate Council to establish and follow appropriate procedures which allow them to carry out their responsibilities associated with their Departmental graduate programs. The Department of Geological Sciences & Geological Engineering reports to two Councils:

- i. Faculty of Arts and Science Graduate Council for the **Sciences** (GCS)  
<http://www.queensu.ca/sgs/faculty-staff/governance/graduate-councils>
- ii. Faculty of **Engineering and Applied Sciences** Graduate Council (FEAS)  
<http://www.queensu.ca/sgs/faculty-staff/governance/graduate-councils>

Each Graduate Council reports directly to The Graduate Studies Executive Council (GSEC). Details regarding the mandate of the GSEC can be found at: <http://www.queensu.ca/sgs/faculty-staff/governance/gsec>

#### b) Programs

Within the administrative framework of the School of Graduate Studies, the Department of Geological Sciences & Geological Engineering offers the following graduate-level programs:

Degrees Offered / Length of Program:	Method of Completion:
Master of Science (M.Sc.) - 2 years	course work (12 credits), plus thesis <sup>1</sup>
Master of Applied Science (M.A.Sc.) - 2 years	course work (12 credits), plus thesis
Master of Science in Applied Geology (M.Sc.) - 1 year <i>[program runs Sept to Aug annually]</i>	I. project and course work (24 credits)
	II. course work only (24 credits)
Doctorate of Philosophy (Ph.D.) - 4 years	Ph.D. (Engineering): advanced course work plus thesis
	Ph.D. (Science): thesis
Master of Earth and Energy Resources Leadership – Part-Time, 20 months	Must complete 10 courses (7 are core, 3 elective) <sup>2</sup>

Students registered in M.Sc. and Ph.D. (Science) must consult the regulations of the Science Council, and those ones registered in M.A.Sc. and Ph.D. (Engineering) must consult the regulations of the Engineering and Applied Sciences Council.

### 2. Graduate Administration

Graduate Studies in the Department of Geological Sciences & Geological Engineering are administered by the Coordinator of Graduate Studies, who is assisted by two committees: a Graduate Curriculum and Liaison Committee, which provides general oversight for the graduate program and acts as a liaison between faculty and graduate students, and a Graduate Admissions Committee that advises on the suitability of applicants for admissions to one of our graduate programs. Both committees operate under the authority of the Head of the Department. All

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<sup>1</sup> We offer courses that are worth both 3 credits and 1.5 credits. You can combine both 3 and 1.5 credit courses to fulfill your 12 or 24 degree requirements

<sup>2</sup> This program is primarily online, approx. 2 weeks of in-person sessions in Ontario and Alberta, Canada

Departmental policy regarding the operation of the graduate program is consistent with the relevant regulations enacted by the relevant Councils of the School of Graduate Studies, and must be approved by vote of the academic staff and student representatives present at a Departmental Meeting.

#### **a) Coordinator of Graduate Studies**

The Coordinator of Graduate Studies oversees the day-to-day operation of the Departmental graduate program, with responsibility for the admission of students, the establishment of funding packages, the oversight of student progress and the arrangement of Comprehensive Examinations, promotion Assessment Examinations and Oral Thesis Examinations. The Coordinator also acts as the Departmental liaison with the Graduate Councils and School of Graduate Studies, and is the principal point of contact between the Department and the graduate students.

#### **b) Graduate Admissions Committee**

The committee consists of the Coordinator of Graduate Studies (Chair) and two or more members of the academic staff who are recruited on an *ad hoc* basis to evaluate applications for admission to graduate studies. Faculty representatives on the Committee consist of those individuals who have research expertise in the area(s) specified by the applicant and thus are capable of evaluating the academic qualifications and background experience of the candidate and who may have an interest in supervising the candidate. The Committee reviews carefully all material provided by the candidate as part of his/her application and evaluates the candidate's suitability for graduate studies. A student will be admitted only if: his/her preparation is judged to be acceptable by the Committee, one or more of the Committee members indicate their willingness to supervise the student and that the minimum grade requirement of B (70%) is met. The overall purpose of the Committee is to maintain the integrity and academic standards of the graduate program and to provide advice to the Head of the Department and the Coordinator of Graduate Studies on such matters.

If English is not the student's first language then an English Language Proficiency test may be required for consideration. Applicants must have the minimum score in each test, as well as the minimum overall score.

TOEFL IBT (Test of English as a Foreign Language Internet-based test):

<b>Section</b>	<b>Score (/30)</b>
Writing Test	24
Speaking Test	22
Reading Test	22
Listening Test	20

IELTS (International English Language Testing System) – score of 7 on the academic module

#### **c) Graduate Curriculum and Liaison Committee**

The Graduate Curriculum and Liaison Committees consist of the Coordinator of Graduate Studies (Chair), two other faculty members, and two graduate representatives elected by the graduate students from among their numbers (preferentially one from Masters and one from Ph.D. programs and from distinct disciplines and supervisors). The Committee is responsible for:

- i. continuous review of all aspects of the graduate program, including the curriculum and methods of graduate-student training and assessment;
- ii. acting as a liaison between graduate students and staff on any matter relevant to graduate training in the Department, including but not limited to curriculum, financial matters, teaching assistantships (TA) assignments and workloads, and office and research space assignment and conditions;
- iii. the formulation of recommendations for changes to Departmental regulations; and
- iv. advising students or staff members concerning specific individual problems.

#### d) Graduate Program Assistant

Under the direction of the Graduate Coordinator, the Graduate Program Assistant administers the daily operation of our graduate programs and acts as the departmental resource person for the graduate program. Duties include monitoring graduate admissions, dates and deadlines such as mark submissions, degree lists, calendar revisions and scholarship competitions, advising graduate students on the administrative aspects of their program, organizing graduate functions within the department, supporting the Graduate Committees and the Graduate Coordinator, and maintaining student records from first application to final graduation. You can find the Graduate Program Assistant in the Bruce Wing, Room #240.

### 3. General Liaison and the Handling of Student Concerns

#### a) Philosophy

The Department of Geological Sciences & Geological Engineering fosters an open and collegial atmosphere in which students, faculty and support staff are treated with mutual respect.

#### b) Approach

In general, all concerns that graduate students may have should be directed first to the most directly involved faculty or support-staff member (e.g. research supervisor, course instructor, TA supervisor, laboratory technician, etc.) in order to arrive, if possible, at a mutually acceptable resolution. If this approach does not work and/or the student is uncomfortable doing this, then the student should bring the concern to their research supervisor, Graduate Program Assistant, Coordinator of Graduate Studies, or Head of Department. All of these individuals have an “open-door” policy; students are encouraged to bring concerns to them rather than allow the concern(s) to remain unresolved.

Concerns of the more general nature relating to academic matters (e.g. curriculum issues, the availability of courses, and the application of Departmental regulations) should be brought to the Coordinator of Graduate Studies and/or the Graduate Program Assistant. The Graduate Liaison and Curriculum Committee is the formal body that considers issues brought forward by students, although it may be possible to resolve them in a less formal manner. The formal procedures for the Grievance and Appeal of various academic decisions and non-academic matters are summarized in section 15 of this Guide.

Concerns relating to office space, TA matters and/or financial matters, registration, degree requirements, course additions/deletions to programs, etc., should be directed to the Graduate Program Assistant (Bruce Wing, Room #240). While it may not be possible to resolve a particular concern, students have our assurance that an honest effort will be made to arrive at a solution.

### 4. Financial Support of Students

#### a) Sources

Financial support comes from a variety of sources:

- i. **External Scholarships** (e.g. NSERC Postgraduate Scholarships, Ontario Graduate Scholarships (OGS), industry and private scholarships)
- ii. **Internal Scholarships** (Queen's Graduate Awards (QGA), Reinhardt; all awarded by the department)
- iii. **Teaching Assistantships** (awarded by the Department); and
- iv. **Research Assistantships** (awarded by individual supervisors from their research funds).
- v. **International Tuition Awards** for International students

The Department of Geological Sciences & Geological Engineering endeavors to arrange financial support in internal scholarships as follows:

Program:	Funding Minimum: DOMESTIC/INTERNATIONAL	Funding sources:
M.Sc. - 2 years or 6 terms of full-time study	\$21,000/year (Domestic) \$23,000/year (International) *International students receive an additional \$5,000 International Tuition Award (v)	Combination of categories i to iv above
M.A.Sc. - 2 years or 6 terms of full-time study	\$21,000/year (Domestic) \$23,000/year (International) *International students receive an additional \$5,000 International tuition Award (v)	Combination of categories i to iv above
M.Sc. in Applied Geology (M.Sc.) - 1 year or 3 terms of full-time study	self-funded by student; no funding provided	N/A
Ph.D. (Sci & Eng) - 4 years or 12 terms of full-time study	\$23,000/year (Domestic) \$25,000 (International) *International students receive an additional \$5,000 International Tuition Award (v)	Combination of categories i to iv above

#### b) Conditions and Obligations

Once the terms of departmental support (categories (ii) and (iii)) have expired, support typically comes solely from category (iv). For information, note that Queen's now has a university-wide policy that all Ph.D. students should be funded at the minimum overall level of \$18,000/year for four years and the Department has a record of exceeding this official requirement. You may also want to consult the NSERC ([www.nserc.ca](http://www.nserc.ca)) and OGS ([osap.gov.on.ca](http://osap.gov.on.ca)) web pages for the current levels of support those agencies provide.

As noted above, students in the one-year M.Sc. in Applied Geology program are **not** eligible for financial support during the tenure of their program. M.Sc. in Applied Geology students are normally not allocated teaching assistantships due to the relatively heavy course load.

Note that the Provincial Government has decreed that a full-time graduate student is limited to a maximum of an average of 10 hours per week (including preparation time and marking, etc.) on work outside the degree program. Students who hold major external awards such as NSERC Postgraduate Scholarships or Ontario Graduate Scholarships may accept reasonable additional funding in the form of research and/or teaching assistantships. Major awards have their own limitations on hours worked and total remuneration, and award holders should apprise themselves of this information.

There is no limit on the level of funding a student can receive from a company, although a student receiving such funding should not expect University scholarship support concurrently. **Part-time registration can be considered if the student is working more than 10 hours per week on non-thesis work.**

## 5. Teaching Assistantships

The duties, obligations and responsibilities of graduate students, faculty and Departments associated with teaching assistantships are described in the **PSAC 901 Collective Agreement for Graduate Teaching Assistants and Teaching Fellows, Local 901, which is in effect from May 1, 2017 to April 30, 2021.** This collective agreement can be found on the Faculty Relations web site at:

<http://queensu.ca/facultyrelations/teaching-assistants-and-fellows/collective-agreement>

It is expected that teaching assistants will discharge their duties in a conscientious and professional manner. This includes adequate preparation, courteous interaction with students, and impartial evaluation.

#### a) Eligibility and Allocation of Teaching Assistantships

Assignment of teaching assistantships in the Department of Geological Sciences & Geological Engineering follows



the Preference System in accordance with Article 12.04 of the Collective Agreement. The four-level Preference System is as follows:

<b>Appointment of Teaching Assistants:</b>	
<b>12.04</b>	In the appointment to TAships within the Bargaining Unit, the Employer shall follow the four level preference system outlined below. No TAships shall be offered to candidates in Group B until the qualified candidates in Group A have been exhausted. No TAships shall be offered to candidates in Group C until the qualified candidates in Group B have been exhausted. TAships may only be offered to candidates in Group D when there remain no qualified candidates in any other Group.
	<b>A. First Preference – Group A</b>
	Is for qualified graduate students registered as:
	(i) students in a department or program in which the TAship will be offered; or
	(ii) students in an interdisciplinary program with TA budget resources,
	and for whom the TAship has been granted as part of the funding commitment offered by the Employer.
	<b>B. Second Preference – Group B</b>
	Is for qualified graduate students registered as:
	(i) students in a department or program in which the TAship will be offered; or
	(ii) students in an interdisciplinary program with TA budget resources,
	and for whom
	(iii) the TAship will not form part of the funding commitment offered by the Employer; or
	(iv) there is currently no funding commitment provided by the Employer.
	<b>C. Third Preference – Group C</b>
	Is for qualified graduate students that have previously held a TAship or TFship for the Employer.
	<b>D. Fourth Preference – Group D</b>
	Is for qualified graduate students that have not met the criteria as set out in 12.04 A, B, or C.
	<a href="http://www.queensu.ca/provost/faculty/facultyrelations/psac/collectiveagreement/CAV4Aug1911Finalwithlinks.pdf">http://www.queensu.ca/provost/faculty/facultyrelations/psac/collectiveagreement/CAV4Aug1911Finalwithlinks.pdf</a>

In a case where the English language skills of a teaching assistant are not adequate to ensure effective classroom performance, arrangements may be made to assign duties to the student that do not depend critically on oral communication (e.g. lab set-up, marking, curating). In order to be considered for a teaching assistantship, a continuing student must complete an application for a teaching assistantship before leaving campus in the spring. An incoming student should see the Laboratory and Student Training Coordinator, to be assigned a teaching assistantship as soon as possible after arriving at Queen's and, in any event, before the first day of Fall-term classes. The Department attempts to match the background qualifications and subject preference of the graduate student with course requirements.

#### **b) Financial Considerations**

Teaching Assistants are paid in accordance to Schedule A (Wages and Stipend Rates) as set by the Collective Agreement.

#### **c) Supervision, Training and Evaluation**

The Head of the Department (or delegate) oversees matters relating to teaching assistants in the Department. The Laboratory and Student Training Coordinator assigns TAs to the various courses, after discussions with the faculty members responsible for the courses' delivery, and the Departmental manager prepares letters of appointment and the Graduate Program Assistant enters employment contracts.

All graduate students in Geological Sciences & Geological Engineering are required to attend training sessions that deal with laboratory (WHMIS) and field safety. **TAs are obligated to observe and enforce safety regulations in laboratories and in the field and to report hazardous conditions to the appropriate authority. TAs have a**

**responsibility to set a good example for the students under their instruction.**

The faculty member responsible for a course is the direct supervisor of the teaching assistants assigned to that course and is responsible for informing the teaching assistants of their assigned duties, at the beginning of the course and periodically throughout the term. **Both the instructor and the TA are responsible for ensuring that the TA is adequately prepared with regard to the subject matter of the course.** TAs should be given adequate notice of weekly variations in workload and of unusual duties such as proctoring exams or taking part in field trips. A TA's period of responsibility runs from the beginning of the term until the end of the term. A TA contract is prepared for the term that the TA is teaching (Fall, Winter, or Spring) and the stipend is paid out to the TA on a monthly basis.

A graduate student may be asked by the Head of Department to take full responsibility for the teaching of a course. It is the responsibility of the Head to ensure that the student is qualified to accept this appointment and that the duty is performed satisfactorily. Such a student will normally be appointed as a Teaching Fellow and the stipend will be in accordance with Schedule A (Wages and Stipend Rates) of the Collective Agreement.

#### **d) Hours of Work and Grievance Procedure and Arbitration**

Please refer to **Article 11: Grievance Procedure and Arbitration**, and **Article 16: Hours of Work** for these details.

## **6. Safety**

### **a) Worker Safety**

Under the *Occupational Health and Safety Act of Ontario*, safety of all employees in the workplace is the responsibility of both the employees (including supervisors and workers) and the Employer (Queen's). Queen's and supervisory staff can be charged by the *Ministry of Labour* in the event of death or critical injury to a worker. A student or visitor who is injured as a result of authorized activities could bring suit against Queen's and any staff or student involved in the activity. Workers (including teaching assistants and research assistants) are expected to comply with the Act and its regulations, to use all safety equipment required by the employer, and to report defects and hazards in the workplace. They are specifically constrained from removing or deactivating safety devices; from operating equipment in a way that could be hazardous to themselves or others; and from engaging in "horseplay" in the workplace.

Safety in the Department is monitored by the Departmental Safety Officer and by the Faculty of Arts and Science Joint Health and Safety Committee. Workers are not required to work in conditions that they deem to be unsafe and can refuse to perform such work. Workers should promptly report safety hazards to the appropriate lab supervisor and then to the Safety Officer.

### **b) Laboratory Safety**

Provincial legislation requires that all persons exposed to hazardous materials in the workplace be properly trained to recognize the hazards, take appropriate precautions to avoid exposure to such materials, and deal appropriately with accidental exposure should it occur. This legislation puts in place the Workplace Hazardous Materials Information System (WHMIS).

In order to work in laboratories that contain designated hazardous materials, individuals must undergo suitable training provided by the Employer. Queen's University's Department of Environmental Health & Safety provides such training for all employees whose work involves potential exposure to such hazards. **Graduate students employed as Teaching Assistants or Research Assistants fall into this group of workers.**

**The Department requires that every incoming graduate student must successfully complete WHMIS training soon after arrival.** Information about WHMIS can be obtained from the Departmental Safety Officer, Ms. Agatha Dobosz; she will also send emails to the department advising when WHMIS courses are scheduled.

Each laboratory in the Department has a designated supervisor (normally a member of the faculty). The supervisor is responsible for ensuring that anyone who works in the lab is aware of hazards that may be encountered therein.

Before starting work in a research laboratory, a graduate student must seek permission to work in that lab. The supervisor must not grant such permission until they have ensured that the student has the requisite knowledge of the potential hazards and appropriate safety practices relevant to work in that lab.

The Department has in place regulations governing the handling and storage of radioactive rock and mineral specimens. A student whose research involves such materials must abide by these regulations, a statement of which is available from the Curator of the Miller Museum or the Head of the Department.

### c) Field Safety

Geological fieldwork is inherently dangerous, and all members of the Department are encouraged to maintain a high level of vigilance against the hazards associated with work in rugged terrain and remote areas. Graduate students are provided, upon arrival in the Department, with a brief statement on "*Student Field Safety*", which describes the procedures that must be followed to report an injury. Students are asked to sign a statement acknowledging receipt of these safety documents. Students are required to practice its precepts at all times when in the field.

Students are also expected to ensure that they and their supervisors adhere to the guidelines set down in the *Off-Campus Activity Safety Policy* (OCASP) [<http://www.safety.queensu.ca/ocasp/>]. **This includes the preparation of a Safety Planning Record in advance of undertaking any thesis-related field work.** If you as a graduate student are planning the field research see:

<http://www.safety.queensu.ca/ocasp/form1.pdf>

Students who are participating in official Departmental field trips are required to wear suitable eye protection when rock hammers are in use, and to wear hard hats when at outcrops where there is a hazard from falling rock (especially road-side rock cuts).

### d) Accident Reporting

Provincial legislation (Workplace Safety and Insurance Act) requires that work-related accidents be reported promptly to the Employer, so that the Employer can report the incident to the Workplace Safety and Insurance Board within 72 hours of the incident. Failure to report, and failure to report within the established time limit, can subject the Employer to substantial fines. This requirement applies to all injury-causing accidents, even those that may seem at first glance to be minor. **It also applies to accidents that occur remote from the normal workplace (for example accidents in the field, even in another province or country).** All employees of the University (e.g., members of faculty, graduate students employed as teaching assistants or as research assistants engaged in thesis work, and persons employed as field assistants) are required to report injuries to the Department of Geological Sciences & Geological Engineering *immediately*, so that the Department can report the incident within the 72-hour time frame.

A more detailed description of the procedures to be followed in the event of an accident is given in the Department's document, "*Accident Reporting*", a copy of which is given to each student upon first registration in a graduate program (see Appendix).

## 7. Office and Research Space

### a) Office Space

The Department will provide office space for those students for the duration which the Department has guaranteed financial support. The Graduate Program Assistant (Bruce Wing, Room #240), is responsible for assigning office space to graduate students. One year course based Master's students are provided with office space for 3 terms, two year research based Master's students are provided with office space for 6 terms, while doctoral students will have office space for 12 terms. Beyond this time period, the Department may no longer be able to provide office space. In this case the student's supervisor may provide a desk within the supervisor's research lab if space is available. A \$40 office deposit is required by the student prior to receiving an office and will be returned once the student has completed all degree requirements.

Keys are allocated by the Departmental Manager (Bruce Wing, Room #247). A key security deposit is collected when

keys are handed out, and this will be refunded when the keys are returned. All key deposits are \$10/key.

#### **b) Lab and Storage Space**

Limited space is available in the "East Stope" (east basement of Miller Hall) for temporary storage of working collections of rock samples. The Department Manager is responsible for assigning such space. No materials should be deposited in the East Stope without his/her prior approval, and unauthorized deposits may be discarded without warning. All materials left in the storage area should be identified with the owner's name, supervisor's name and date and anticipated length of storage.

#### **c) Office and Research Space Clean-up**

**Occupants of Miller Hall and Bruce Wing are required to organize and clean their office and research space upon completion of their program.**

Before submitting the final copies of the thesis for binding, students must clean up his/her office space, return all books to the library, return all borrowed keys and equipment, and sort and label rock collections that are to remain in the Department to the satisfaction of the Supervisor.

Supervisors should be consulted about storage of archive collections.

#### **d) Security**

Occupants of Miller Hall and Bruce Wing share a responsibility for building security. Incidents of petty theft by casual visitors have occurred in the past.

Occupants are strongly advised not to leave valuables at their workplaces, and to lock their office door when leaving the room vacant, even momentarily.

If you as a member of the Department should encounter an individual whom you do not recognize as a legitimate occupant of Miller-Bruce, or an individual whose behavior is suspicious, you should either challenge the individual by asking their name and business in the building, or you should report your suspicions to a member of the Departmental staff or to Campus Security (telephone 613.533.6111 or use the special security phones located in Bruce Lobby and in Bruce 4th floor corridor). It will be helpful if you can give a detailed description of the individual. **You are cautioned not to take any action that could put you in personal danger.**

**Keys are issued to occupants of Miller and Bruce for their own use and are not to be loaned to other individuals at any time. Under no circumstances should you admit a stranger to the buildings during hours when the exterior doors are locked (normally 5:00 p.m. to 7:00 a.m. during weekdays and throughout weekends).**

**Under no circumstance are exterior doors to be propped open when they are locked!**

## **8. Registration**

#### **a) Regular Registration**

With the exception of incoming students, **all registration is done electronically on SOLUS by the Graduate Program Assistant.** It is the responsibility of each student to ensure they keep themselves informed about the registration procedure annually. Information about registration is available in the summer and no one will be excused late fees because of absence from the Campus.

If you will be in the field and unable to log into SOLUS, you should make arrangements with the Office of the University Registrar (OUR) to register early and pay your fees **before** you leave.

#### **b) Payments for September Admission**

**Pay your Fees or make Fee Payment Arrangements** - All graduate students must choose a fee payment method

prior to registering. Unless paying via pre-authorization, full payment of tuition and fees must be made before you register and by September 1<sup>st</sup> (Fall term) and by January 1<sup>st</sup> (winter term). Please check the fee tables to see the amount owing for your program <http://www.queensu.ca/registrar/financials/tuition-fees>.

If you have questions, a Fees Hotline is available at 613.533.6894. Information on fee payment methods is also available on the OUR website at: <http://www.queensu.ca/registrar/currentstudents/fees/payment.html>].

Details regarding the **on-line Pre-Authorized Payment Plan** can be found on the OUR website at: <http://www.queensu.ca/registrar/students/financials/payment-methods/pre-authorized-payment-plan-ppl>

### c) Selecting and Registering for Courses

Graduate courses are normally selected in consultation with your supervisor and/or Coordinator of Graduate Studies. Please contact your Graduate Program Assistant to register your course selection. Graduate students in Geological Sciences and Geological Engineering may take courses offered in our own Department or in other Departments at Queen's providing permission of the instructor has been granted. A student must not take more than 25% of courses that are co-taught with an undergraduate course.

#### Graduate Student Enrolment in Undergraduate Courses

- Students registered in the School of Graduate Studies at Queen's who hold an undergraduate degree from Queen's may seek the permission of the Faculty of Arts and Science to enroll in undergraduate Arts and Science courses as post-degree students not on a degree program. Because of enrolment pressures, such students are restricted to online courses offered through Continuing and Distance Studies. These undergraduate courses will NOT be credited towards the graduate degree requirements.
- Students registered in the School of Graduate Studies at Queen's who do not hold an undergraduate degree from Queen's and who want to enroll in undergraduate Arts and Science courses, must apply for admission to the Faculty of Arts and Science to register as post-degree students not on a degree program. Because of enrolment pressures, such students are restricted to online courses offered through Continuing and Distance Studies. These undergraduate courses will NOT be credited towards the graduate degree requirements.
- Students registered in the School of Graduate Studies at Queen's who wish to take a course(s) in the Faculty of Arts and Science as part of their registration as a graduate students must have permission of both the School of Graduate Studies and the Associate Dean (Studies) of the Faculty of Arts and Science. Because of enrolment pressures, such students are restricted to online courses offered through Continuing and Distance Studies. Students registered in the School of Graduate Studies at Queen's who wish to take an undergraduate course(s) from Queen's University faculties other than the Faculty of Arts and Science, should consult the undergraduate faculty office to see if this is possible. These undergraduate courses would not normally be counted towards the graduate degree program.

### d) Course Requirements

All Research Masters students must complete the equivalent of two sessional (or four term-length) graduate courses with a minimum standing of B- (70%) in all courses. In certain instances, graduate credit may be allowed for an advanced undergraduate (sessional or term-length) course. However, to conform to the *Ontario Council on Graduate Studies* guidelines, students enrolled in a Pattern I Master's programs are advised that only one of their four primary courses can contain more than 50% undergraduate students. Exceptions must be approved by the Supervisor(s) and the Coordinator of Graduate Studies.

For M.A.Sc. students, one term length senior (400-series) undergraduate course as the equivalent of a graduate course from any discipline will be accepted by the Graduate Council provided that:

- a) the course is approved by the student's supervisor, and
- b) the student has not received credit for a similar course in their Bachelor's program.

The relevant Graduate Studies Calendar statements can be found at:

<http://www.queensu.ca/sgs/faculty-staff/governance/graduate-councils>

#### **e) Part-time Off-campus Registration**

A change to part-time status may be considered if:

- i. the student has been offered full-time employment (provide documentation); or
- ii. the student has been accepted in another full-time university program; or
- iii. the student has family, medical, or other circumstances that make it impossible for the student to devote themselves full-time to their graduate program.
- iv. the student expects to complete by September 30 (valid for a Fall term request made by August 31)

Application for part-time status should be submitted with supporting documentation along with a request to be granted part-time fees. For a student who obtains a summer job, the same procedure must be followed. All applications for change to part-time status must be submitted to the Department first for approval and forwarding to the School of Graduate Studies before leaving Campus.

**Financial circumstances alone are not sufficient grounds for a change to part-time status.**

**To be considered for a continuation of this part-time status, the student must re-apply by the end of the period covered by this request. If the student does not re-apply, or if a subsequent request is not granted, the student's study status will automatically revert to full-time status, with all the corresponding fees.**

Appropriate forms can be found at:

- **Request for Transfer to Part-Time On or Off Campus Status**
  - <https://webapp.queensu.ca/sgs/forms/student/forms/create?t=transfer-part-time>
- **Request for Full-Time Off Campus Status**
  - <https://webapp.queensu.ca/sgs/forms/student/forms/create?t=full-time-off-campus>

No application for part-time status will be considered after the government enrolment count date for the term concerned (November 1, February 1, and June 30).

#### **Medical Leave for Graduate Students**

Without prejudice to their academic standing, graduate students may apply for a leave of absence on medical grounds, for one term (4 months) and up to a maximum of three terms (12 months). Students are required to send a request for a medical leave of absence in writing to the Director, Admissions and Students Services, School of Graduate Studies, and must provide documentation from a doctor or health care practitioner to support a medical leave of absence for the duration requested.

Students will be registered as inactive for the duration of the approved medical leave. A tuition fee waiver for the period of the medical leave will be granted. It is understood that students on approved medical leave will not undertake academic or research work during the period of leave.

When the approved medical leave expires or is terminated by the student, it is expected that the students will return to active status with the same registration status held immediately prior to the period of medical leave. The student is responsible for clearing past debt (if any), payment of fees or making fee payments arrangements by the deadline of the term in which they return to active status, and ensuring registration in a course or courses in the term in which they return to active status.

For students granted an approved medical leave, the statutory periods for completion of degree programs (see Time

Limits for Completion of Programs), together with the prescribed maximum periods of eligibility for financial support from School of Graduate Studies sources will, on resumption of studies, be extended by the time-period taken for the leave.

Graduate students on medical leave are not eligible to receive awards or financial support from the resources of the School of Graduate Studies. This includes any and all internal awards (awards, prizes, bursaries, scholarships, fellowships) all of which will be suspended at the onset and for the duration of, and reinstated at the termination of, the medical leave period. Upon return of the student to active status, every effort will be made to make up and maintain the total financial support originally granted.

Students holding externally funded fellowships, or other forms of support derived from sources external to University, including research assistantships, must observe the regulations prescribed by the sources of the funding concerned.

A change of status to inactive may also impact repayment requirements of any student loans that the student currently receives or has ever received, including any provincial and/or federal student loans, or loans from any other student loan provider. It is the student's responsibility to be aware of how a status change to inactive impacts any student loan(s).

International graduate students should contact Queen's University UHP Administrator since UHIP coverage could be affected by a change of status to inactive for a medical leave.

#### e) Failure to Register by November 1

The Provincial Government audits the University's enrolment as of November 1 each year, and the University's government funding is established on the basis of that count. Thus, registration after November 1 results in lost revenue for the University, and the University has adopted the policy of charging departments for this lost revenue. Consequently, it is the policy of the Department of Geological Sciences & Geological Engineering that **no student's registration form will be signed by the Head after November 1**. The effect is that a student who does not register by November 1 will be deemed to have withdrawn from their program of study and will be required to apply for readmission. Furthermore, the School of Graduate Studies will charge such a student the **Late Registration Fee of \$150 (Full-time) or \$50 (Part-time) PLUS \$250 for missing the Provincial count date**.

#### f) Readmission

A student who fails to register and pay tuition fees for any term before the degree requirements are completed is normally considered by the School of Graduate Studies to have withdrawn from the degree program. Such a student will be required to apply for readmission. Upon readmission, the student will be assessed tuition fees at the appropriate current rate per term for the number of terms of lapsed registration (to a maximum of three terms).

## 9. M.Sc. and M.A.Sc. (Two Year - Pattern I Research) Program Requirements

#### g) Master's Thesis Proposal

The Supervisor(s) and thesis committee should ensure that a thesis proposal, outlining the scope and direction of the Masters Research project, is prepared by the student for approval by the committee as soon as possible after initial registration in the Master's program, and no later than 12 months after the start of the program. A copy of this proposal is to be given to the Coordinator of Graduate Studies for review and inclusion in the student's file.

#### h) Thesis Submission and Defense

The student must prepare a satisfactory thesis and successfully defend it. It must conform to the standards of form that are acceptable to the Department and the School of Graduate Studies. Before preparing the thesis manuscript, the student should examine the document, *General Form of Theses*, which can be found on the web at <http://www.queensu.ca/sgs/current-students/degree-completion>

The student is required to give a brief presentation (~20 minutes) and defend the results of the research before an examining committee following submission of the thesis for examination. The examination is based primarily on the thesis although the student may be asked to demonstrate his or her background knowledge where appropriate. The student should be:

- fully familiar with all experimental or analytical procedures used in the thesis;
- prepared to discuss and defend all approaches to the problem, the procedure, the results, and the conclusions;
- prepared to discuss and defend the format and preparation of the thesis; and
- prepared to evaluate the significance of the results and to suggest further work.

Membership and Convening of Thesis Examination Committee - Master's students according to the Engineering and Applied Sciences and Science Graduate Council Manuals:

The supervisor, in consultation with the Head of the Department, shall nominate members for the Master's Examining Committee and propose a date, time and place for the examination. The supervisor must obtain commitments to serve as examiners from those he/ she nominates for the committee. The applicable Departmental form is completed and signed by the supervisor and the Head of the Department.

The composition of the Master's Thesis Examination Committee shall be as follows:

- Chair of Committee: Head of the Department (or Head's delegate)
- Supervisor(s)
- At least one other member of the Department
- At least one other faculty member, who may be:
  - from the Department OR
  - external to the Department, OR
  - in exceptional circumstances, (see note 1. below), external to Queen's University.

**NOTES:**

1. In the exceptional case, where a faculty member of another Department, with sufficient expertise, cannot be found within Queen's University, a suitable member from another nearby institution may be recommended for the approval of the Dean of the School of Graduate Studies.
2. The Chair of the Master's Thesis examination committee is not a voting member of the committee.
3. In cases where ALL members of the Master's Thesis Examination Committee are internal to the Department, approval of both the Departmental Graduate Coordinator and the Department Head shall be required.
4. The student and/or the supervisor(s) may request that the Chair be external to the student's home department. If this is the case, the Head or Head's Delegate would assume a seat on the Examination Committee and would be a voting member.

**PROCESSING MASTER'S ORAL THESIS EXAMINATIONS:**

1. Student brings the list of examiners, tentative date and time for exam to the Graduate Program Assistant (these have been agreed to by the supervisor).
2. Graduate Program Assistant confirms room availability, secures the Examining Committee Chair and secures signatures for the Examination Form (the Graduate Program Assistant can have the student walk the form around for signatures).
3. The student provides a pdf copy of the thesis to the Graduate Program Assistant for distribution to the Examining Committee Chair; the student provides a pdf or printed copy to the remaining Examining Committee members. This step should be completed 10 working days before the thesis exam date.
4. The examiners will only submit a "negative report" if it is their opinion that the oral thesis examination should NOT proceed (see #5 below). If no negative report is submitted, it is presumed that the examiner agrees that the oral thesis examination should be held as scheduled and that they will attend the oral thesis examination. If only one such negative report is submitted, the oral thesis examination may proceed as



scheduled.

6. If two negative reports are submitted, the candidate and the supervisor shall be consulted by the Chair of the Examining Committee or the Graduate Coordinator to see if they wish to proceed with the oral thesis examination. The School of Graduate Studies shall be notified whenever two or more examiners recommend that the thesis oral examination not proceed. The onus is on the candidate to make the decision to proceed or not. If the candidate agrees that the oral thesis examination be postponed, the Chair must convey to the candidate, through the supervisor, the nature of the revisions to the thesis that are advised, and the candidate has the right to present the revised thesis at a later date. At the subsequent submission of the thesis, the oral thesis examination must be held. The School of Graduate Studies shall be informed when an oral thesis examination has been postponed due to two negative reports.
7. After the oral thesis examination, examiners are to submit reports (a standard form shall be provided) on the conduct of the examination to the Chair of the Examining Committee (Head of the Department, the Head's delegate, or the Graduate Coordinator). In particular, any member of the committee who is external to the candidate's home Department shall submit this report. The report on the outcome of the examination as well as the report on the conduct of the examination will be forwarded by the Graduate Program Assistant to the School of Graduate Studies.
8. The final version of the thesis should be submitted to School of Graduate Studies for check of format. The student and supervisor(s) are responsible for the format of the thesis.

The student is responsible for ensuring that all other degree requirements are fulfilled prior to submission of the thesis.

#### **i) Residence Requirements**

While the Graduate School has no formal requirements for length of residence, to become fully involved in a field of study and to be satisfactorily in contact with members of the Department and students in the field, it is highly recommended to be studying on a full-time basis and be full-time on-campus for some part of the degree program. This is known as being "in residence". While the School of Graduate Studies has no formal requirements for length of residence, departments/programs may impose such requirements, if they are appropriate to the program of study.

#### **j) Language Requirement**

Candidates proceeding by thesis to any degree are expected to become familiar with the literature of their subjects, in whatever language it is written.

## **10. The Master of Science in Applied Geology (Non-Research PATTERN II)**

The **Master of Science in Applied Geology** is a one-year program that normally commences in September and can be completed by the end of April or August of the following year depending on the project and/or pattern.

#### **a) Funding**

There is no departmental or university funding available for Pattern II students. Students are expected to obtain external funding prior to admission in the program.

#### **b) Method of Completion**

The **Master of Science in Applied Geology** degree is based either on a project/course-work option, or a course-work only option, as outlined in the following table:

Degree:		Council	Mandatory Course Requirements	Method of Completion
Master of Science in Applied Geology	(project/course-work)	Science Council	GEOL 898	GEOL 898 (project) plus 18 course credits
	(course-work only)	Science Council		24 course credits

Under the **project/course-work option**, a student is required to complete six primary term length course credits or equivalent (i.e. 18 credits). The project course is in addition to this and is taken under the code GEOL 898. At least four primary courses must be taken in the Department of Geological Sciences & Geological Engineering. Up to 25% (1 course) of the primary courses can be 4<sup>th</sup> year and/or graduate courses which are co-taught and co-numbered with 4<sup>th</sup> year courses. The project culminates in a written report.

The requirements for the **course-work only option** are eight term length course credits or equivalent (i.e. 24 credits), and at least four courses must be taken in the Department of Geological Sciences & Geological Engineering.

Selection of courses in both programs is subject to Supervisor and Graduate Coordinator approval.

Students must obtain a satisfactory standing in all courses B- (minimum 70%) in both programs.

### c) Binding

Students completing the **project/course-work option program** are **NOT** required to submit the final version of their written report for binding. However, if you decide to have your report bound, the number of printed copies of the report to consider for binding include:

- i. Student
- ii. Supervisor

The cost is approximately \$15 per copy to be bound, and if the Supervisor would like a copy, they should pay for their copy to be bound.

Any subsequent copies requested is the responsibility of the student, unless, if agreed to by the Supervisor and Student in advance, the Supervisor may pay for the printing costs of the report, as well as the Student and Company copies to be bound. Students should discuss this aspect of things with their Supervisor.

## 11. Promotion from M.Sc. or M.A.Sc. to Ph.D. Program

Students showing exceptional potential and progress, and conducting a research project that can be upgraded to the Ph.D. level, may transfer directly from the M.Sc. program to the Ph.D. program, bypassing the M.Sc. thesis. The transfer must normally be done no earlier than the end of the student's second term at Queen's, and no later than the end of the fifth term at Queen's.

Students who wish to transfer to the Ph.D. program:

- Should have completed at least two of the course requirements of the M.Sc. Program.
- Must have an overall average of A- in graduate courses completed
- Must have the support of their thesis supervisor(s), as well as commitments to funding the Ph.D. research.
- Must submit a written research proposal to the Graduate Coordinator that includes
  - Problem definition and proposed methodology
  - Summary of completed work
  - Research plan for future work

- Proposed budget outlining costs of research
- Timeline outlining the main milestones and deliverables
- Must have the support of the department, which first entails establishing a “promotion assessment” committee. This committee will consist of a chairperson (normally the Graduate Coordinator), and four other members appointed by the Graduate Coordinator in consultation with the Head and the Supervisor(s). The four members will include the supervisor(s) and three others. The student must then formally present (in both oral and written form) the research proposal to the committee, who will evaluate the merits of the proposal as well as the qualifications of the student to undertake Ph.D. research (in a manner similar to the Ph.D. Comprehensive Examination). The Committee Chair will then prepare a report and make a recommendation to the Head.
  - For positive recommendation, the Graduate Coordinator will make a recommendation to the Graduate School on behalf of the Department. Three members of the “promotion assessment” committee then normally becomes the student’s Ph.D. supervisory committee. The PhD comprehensive exam is waived
  - For negative recommendation, the student maintains his/her status in the M.Sc. program currently enrolled.
- As per the School of Graduate Studies rule, a student who is fully promoted to the Ph.D. program may not revert back to the Master’s program.

**Required materials needed for the Promotion Assessment Examination:**

- All undergraduate and graduate transcripts (photocopies of originals are accepted)
- A letter of support from the Department Graduate Coordinator or Department Head
- A letter from the student to acknowledge that he/she agrees with the proposal to promote him/her and that he/she knows he/she cannot revert back to the Master’s program at a future date
- A letter of support from the current research supervisor that addresses the student’s outstanding research potential, as well as a statement of expected financial support and evidence that the current Master’s project has the potential to be developed into a PhD research project/dissertation
- At least one other letter of support from a faculty member other than the current supervisor who has recently taught or supervised the student
- A paper application to the PhD program completed and signed by the student (application fee is waived)

## 12. Ph.D. Program Requirements

### a) Supervisor(s) and Supervisory Committee

Ph.D. students normally select a Research Supervisor and a thesis committee from among the Department's faculty. In some cases, two faculty members may serve as co-supervisors. A thesis committee must consist of three faculty, inclusive of the supervisor(s). If necessary a committee may also be assigned by the Coordinator of Graduate Studies or the Head. A suitably-qualified individual who is external to the Department (e.g., a Research Scientist with the Geological Survey of Canada or a member of faculty of another university) may, with the approval of the Head, serve as co-supervisor or member of the thesis committee.

The supervisor(s) and thesis committee are responsible for monitoring the student's progress in the Ph.D. program, for advising the student on matters relating to definition and performance of the research, and for scheduling the Comprehensive Examination. The student is responsible for ensuring that all other degree requirements are fulfilled prior to submission of the thesis.

The thesis committee is not obliged to meet on a fixed schedule. It normally meets early in the student's program to discuss the student's background and possible coursework, and the language requirement. It also meets at the Comprehensive Examination. Other meetings may be called either by a member of the committee or by the student, as needed. If the student requests a meeting of the committee and the meeting is not held within a reasonable time, the student should inform the Head or the Coordinator of Graduate Studies who will ensure that the meeting is held.

Each meeting of the committee should be recorded by a brief note (including a summary of decisions reached) prepared by the supervisor and lodged in the student's file.

#### **b) Course Work**

The Department has no minimum formal course requirement (beyond the M.Sc. program requirements) for Ph.D. students in the Science program. Individual students may be counseled or required to take certain courses to rectify deficiencies in their background for preparation as identified in the Preliminary Evaluation (below) or in the Comprehensive Examination (see below).

For the students in the Applied Sciences and Engineering program the requirements are: a Ph.D. student will be required to take a minimum of four term length graduate courses (or equivalent) beyond the Master's degree course requirement. Students admitted directly with a B.Sc. degree to a PhD program or promoted from a Master's program are required to take a minimum of four term length graduate courses past completion of the B.Sc. For the case of a Master's promotion, this could include credit for graduate level courses taken as a Master's student.

The relevant Graduate Studies Calendar statements can be found at:

<http://www.queensu.ca/sgs/faculty-staff/governance/graduate-councils>

#### **c) Preliminary Evaluation**

The Department requires Ph.D. students to be evaluated by the supervisory committee at a meeting held early in the first term of the student's registration in the Ph.D. program. The committee may recommend that the student make up deficiencies identified at the evaluation meeting, by taking an appropriate course (or courses) for credit or audit.

#### **d) Residence Requirements**

While the Graduate School has no formal requirements for length of residence, to become fully involved in a field of study and to be satisfactorily in contact with members of the Department and students in the field, it is highly recommended to be studying on a full-time basis and be full-time on-campus for some part of the degree program. This is known as being "in residence". While the School of Graduate Studies has no formal requirements for length of residence, departments/programs may impose such requirements, if they are appropriate to the program of study.

#### **e) Language Requirement**

Candidates proceeding by thesis to any degree are expected to become familiar with the literature of their subjects, in whatever language it is written.

#### **f) Comprehensive Examination**

Ph.D. candidates with a conventional geological undergraduate background are expected to have a broad knowledge of the principles of the Earth Sciences as well as to display more in-depth knowledge of the fields associated with their own projects. Candidates without formal geological training will not be expected to display the same level of geological sophistication as students with such a background. The purposes of the comprehensive examination are:

- (i) to establish the candidate's general knowledge, and
- (ii) to demonstrate to the examining committee that the candidate is capable of and has the clear potential for completing a satisfactory Ph.D. thesis in the chosen area.

Ph.D. students will normally take the comprehensive examination within one year of initial registration in the program and must do so within 18 months unless extenuating circumstances exist. The supervisor(s) or Supervisory Committee, in consultation with the student, will determine the appropriate time for the sitting of the exam.

The examination committee will consist of a chairperson and four other examiners appointed by the Head in consultation with the Coordinator of Graduate Studies and the Supervisor. The Coordinator of Graduate Studies or the Head of Department will normally chair the examination. The examiners will include the supervisor(s) and three

others (normally including members of the candidate's supervisory committee and possibly including appropriate members of other departments at Queen's or other institutions). The candidate may appeal the composition of the examination committee prior to the examination, if the possibility of a conflict of interest or bias is perceived. Such an appeal may be made personally or via the supervisor(s) to the Coordinator of Graduate Studies or the Head. The members of the appointed committee are obliged to familiarize themselves with the candidate's academic background as soon as possible.

The candidate must submit a research proposal to the Coordinator of Graduate Studies who will then schedule the examination for the time proposed by the student and supervisor(s). The proposal must be received at least three weeks prior to the proposed examination date. The actual examination date may vary from that proposed depending on the availability of committee members. The Chair of Graduate Studies will submit a form to the Graduate School prior to the examination attesting that the student has been provided with the appropriate information concerning the department's procedures, timing of the examination and the criteria used to judge the outcome of the examination.

The research proposal should be between 1000 and 3000 words in length exclusive of figures, literature references and appendices. It is recognized that some students may not have precisely defined their topic of thesis research. In such cases a general statement of the field of interest will suffice.

Immediately prior to the examination the examining committee will discuss the topics that each examiner intends to probe.

The examination should include a brief presentation (20 minutes maximum) of the research proposal and the scope and direction of future research. This will be followed by questions from the examining committee. These questions will be directed towards establishing that the candidate's general knowledge of the geological sciences and/or geological engineering is appropriate as a background for the more specific knowledge required by the research project. The general nature of the questions may be discussed between the candidate and the members of the examination committee prior to the examination.

Following the examination, the committee will sit *in camera* to discuss the candidate's performance. Each examiner will submit to the chairperson, in writing, an assessment of the candidate's performance on the examiner's own questions, a general assessment of the candidate's performance on the other examiners' questions, and a recommendation as to the result of the examination. This assessment should be based not only on the background knowledge displayed by the candidate but also on his/her ability to synthesize or analyze other scientific information. Examiners will also identify areas in which the candidate is deemed to be deficient, and will recommend corrective action. The committee will then discuss the results and come to collective judgment. The chairperson will prepare a written summary of the reports and will report the outcome of the examination and any conditions which the student must satisfy. This examination report will become part of the candidate's student file.

A Confidential Report is to be submitted directly to the Dean of the Graduate School after the examination by each member of the committee as well as the candidate. This report allows each participant an opportunity to comment on the conduct of the examination in light of the approved procedures.

The candidate may obtain a *pass with distinction*, a *pass*, a *conditional pass with identified deficiency*, or may *fail* the examination. Normally, the chairperson of the committee will inform the candidate about the outcome immediately after the examination. However, the committee may also defer its decision and invite the candidate to submit to a written examination on some or all aspects of the subject matter covered in the oral. Such a written examination will normally be taken within one month of the oral. In the case of a conditional pass with identified deficiency, the candidate may be required to take appropriate courses for credit. Such courses will be deemed to have primary significance to the student's program. The Committee may recommend other remedial action. The "conditional pass" status will be changed to "pass" once each member of the committee is satisfied that the deficiency has been corrected. The thesis may not be submitted for defense until the "conditional pass" status has been removed.

A student who fails the examination must withdraw unless, due to special circumstances, the examiners recommend

that the student be permitted to retake the examination within six months. A student who fails this second examination must withdraw. The candidate may appeal the decision of the committee according to the procedures for appeal of a grade outlined in paragraph 15 of this guide.

A student who fails to complete the thesis within 21 terms, if granted extension, may be required by the Department to repeat the comprehensive examination.

The relevant Graduate Studies Calendar statements can be found at:

<http://www.queensu.ca/sgs/faculty-staff/governance/graduate-councils>

#### **g) Thesis Oral Examination and Final Submission**

The student must prepare and defend a thesis that should demonstrate that the candidate has made an independent, original and substantial contribution to research in the field, and should be of such value as to merit publication. The thesis must conform to the standards of form that are acceptable to the Department and the School of Graduate Studies. Before preparing the thesis manuscript, the student should examine the document, *General Form of Theses*, which can be obtained from the Geological Sciences graduate secretary or on the web at

<http://www.queensu.ca/sgs/current-students/degree-completion/thesis-formatting-other-resources>

#### **Scheduling of the oral thesis examination:**

1. Student brings the list of examiners, tentative date and time for exam to the Graduate Program Assistant (these have been agreed to by the supervisor).
2. Graduate Program Assistant confirms room availability and secures signatures for the Examination Form
3. The student provides one copy of the thesis to the Graduate Program Assistant for distribution to the Examining Committee Chair; the student provides a pdf copy to the remaining Examining Committee members; the pdf thesis copy, and the Examination Form are distributed together. This step should be completed no later than five weeks (twenty-five working days) before the tentative examination date.

#### **Membership and Convening of Thesis Examining Committees:**

Thesis Examining Committees for all doctoral degree candidates include:

- Chair (Faculty member from a different department) – found by School of Graduate Studies
- Head (Or delegate) – found by Graduate program Assistant
- Supervisor(s)
- At least one other member of the Department (internal examiner)
- At least one faculty member from Queen's University from another Department (internal/external examiner)
- An examiner from outside Queen's University (external examiner)

#### **Travel Expenses for an External Examiner**

The external examiner will receive a \$100.00 honorarium and will be reimbursed for travel expenses as per the University's travel policy. Please note that the most reasonable and affordable means of travel and accommodation should be sought. Original, itemized travel receipts (including meal receipts) and boarding passes (air and rail travel) are to be submitted to the School of Graduate Studies. Out-of-country examiners are paid/reimbursed in US\$, at par with CAN \$.

The School of Graduate Studies will cover expenses as followed:

- Travel for an amount up to \$500
- Accommodation for one night
- Meals up to maximums specified in the Treasury Board of Canada Joint National Council guidelines (Appendix C travel). Please see:

<http://www.queensu.ca/secretariat/sites/webpublish.queensu.ca.uslclwww/files/files/policies/Travel%20and%20Expense%20Reimbursement%20Policy%20Mar2017v3.pdf>

Ph.D. candidates' Thesis Examining Committee members are nominated by the Head of the Department and the student's supervisor. The authority for confirming membership of the committee and for confirming the date of the examination lies with the Dean of the School of Graduate Studies. Examiner eligibility confirmations, if required, must be made in writing by the School of Graduate Studies to the members of the Thesis Examining Committee and to the student.

**Examiner's reports:** The thesis electronic report forms are forwarded from the School of Graduate Studies to the members of the Thesis Examining Committee. The thesis reports must be submitted, in confidence, to the Chair of the Examining Committee through the School of Graduate Studies no later than one week or five working days before the tentative examination date. Each member of the Thesis Examining Committee, in making out the report, should indicate whether the candidate should be permitted to defend the thesis, and should substantiate any criticism with specific references.

**Negative reports:** If any two of the examiners' reports recommend that the thesis oral not proceed, the candidate, the supervisor and the Head of Department should be consulted by the Chair of the Examining Committee to see if they wish to proceed with the oral defense. The onus is on the candidate to make the decision to proceed or not. If the candidate agrees that the oral be postponed, the Chair must convey to the candidate, through the supervisor, the nature of the revisions to the thesis that are advised, and the candidate has the right to present the revised thesis at a later date. At the subsequent submission of the thesis, the oral defense must be held.

The examination is based primarily on the thesis although the student may be asked to demonstrate his or her background knowledge. The student should be:

- (i) fully familiar with all experimental or analytical procedures used in the thesis;
- (ii) prepared to discuss and defend all approaches to the problem, the procedure, the results, and the conclusions;
- (iii) prepared to discuss and defend the format and preparation of the thesis; and
- (iv) prepared to evaluate the significance of the results and to suggest further research directions.

#### **Final Thesis Submission after Defense and Corrections for Ph.D. Programs:**

Go directly to the QSPACE login page, here:

<https://qspace.library.queensu.ca/ldap-login>

At the time of completion of degree requirements, the School of Graduate Studies will bind up to a maximum of 2 copies at no additional charge. The bound copies will be returned to:

- (i) Student (at address provided at time of submission)
- (ii) Supervisor (c/o Department)

Exceptions to submission of an electronic copy of the thesis will be made by the School of Graduate Studies on a case-by-case basis. If it is decided that no electronic copy can be submitted, at least one paper copy revised as recommended by the Thesis Examining Committee and finally approved by the supervisor/committee must be submitted to the School of Graduate Studies in fulfillment of degree requirements.

## **13. Collaborative Research**

Graduate students are encouraged to publish results from their thesis research in the scientific literature. Since thesis research is usually supported through the supervisor's research grant(s), and the thesis research is usually a collaborative effort involving student and supervisor, some form of joint authorship is usually appropriate. The following policies represent the practice followed by many individual faculty members in Geological Sciences &

Geological Engineering:

- (i) The graduate student is usually first author on publications arising directly from his/her thesis research.
- (ii) Where a significant amount of additional research or analysis is required to produce publishable results, or where the student does not contribute to the writing of the paper, the supervisor might be expected to claim first authorship.
- (iii) If a student expects to be sole author on publications based on all or part of his/her thesis research, this should be discussed in advance with the supervisor, keeping in mind the financial and intellectual contributions to the research program made by the supervisor.
- (iv) Students employed as research assistants for data collection or analysis should not expect joint authorship unless they have made significant original contributions to the research program.
- (v) Common courtesy demands that assistance received from Departmental professional, technical and clerical staff be duly acknowledged in the thesis or other publications, as well as financial support from Queen's, supervisors and collaborators.

While graduate students may consider research materials and data (field and lab notes, maps, analyses, photographs, etc.) and samples collected during the course of their research to be their property, the financial and intellectual contributions of the Supervisor(s) and the use of facilities provided by the University clearly give the Supervisor(s) and Queen's University proprietary interests in these materials. Such materials are not to be removed from the University without the expressed consent of the Supervisor(s) and the Head of the Department of Geological Sciences & Geological Engineering.

## 14. Academic Integrity

Queen's University and the School of Graduate Studies in particular have policies regarding academic dishonesty, which includes plagiarism. The relevant Graduate Calendar statement can be found at:

<https://www.queensu.ca/sgs/graduate-calendar/academic-integrity-policy>.

The Department expects all its members to uphold the highest standards of integrity in their work and it will follow the School of Graduate Studies and University guidelines in cases of apparent dishonesty. The first step is always to attempt to resolve the matter informally at the instructor/student/supervisor level.

## 15. Grievance and Appeal Procedures

The responsibility for academic decisions based on a course or a Ph.D. Comprehensive Examination rests with the instructor or the examining committee. Only the original examiner(s) may adjust a grade in the light of clerical error or of previously unknown extenuating circumstances that may have had a bearing on the performance of a student. If after reviewing a case the instructor or examining committee confirms the original grade, or submits one that leaves the student's status unchanged, no future action at other levels of the university can alter the grade. Appeals at higher levels (and actions resulting there from) must focus on (and reflect the answer to) the question of whether the circumstances justify the expunging of the grade from the student's record, or the waiving of Departmental or Graduate School Regulations.

### a) Procedures for Appeal of a Grade

- (i) Within two weeks of learning of the disputed grade the student should meet with the instructor or Examining Committee and report the circumstances and issues on which the appeal for review is based. The Coordinator of Graduate Studies shall be informed by the student of the appeal and of its basis.
- (ii) The instructor or examining committee, after reviewing the grade in the light of the student's appeal, shall report the final grade to the Department Head who shall inform the student in writing of this grade. The



Head shall also advise the student of the right to make a Departmental Appeal of the consequences of the grade.

- (iii) In the case of a disputed grade in a course offered in another department, the appeal procedures of that department shall be applied to establish the final mark.

#### **b) Procedures for Departmental Appeal of the Consequences of a Grade**

- (i) Within two weeks of being informed of the result of the appeal of his or her grade the student may make a Departmental Appeal of the consequences of the grade in writing to the Department Head. The Head shall in that case appoint the Coordinator of Graduate Studies or an alternate and three other members of the department to serve as a review committee. The review committee will advise the Head on whether the basis of the appeal justifies a recommendation of the expunging of the grade from the student's record, or of the waiving of Departmental or Graduate School regulations. The review committee may interview the student and the instructor or examining committee in reaching its recommendation. It is understood that neither the instructor nor any member of the examining committee shall serve on the review committee.
- (ii) On receiving the advice of the review committee, the Head shall advise the student in writing on whether the consequences of the final grade shall stand, and shall remind the student of the right to appeal to Division, and inform the Chair of the Division of the result of the Departmental Appeal.

#### **c) Procedures for Appeal of the Results of a Comprehensive Examination**

The relevant Graduate Studies Calendar statements can be found at:

<http://www.queensu.ca/sgs/faculty-staff/governance/graduate-councils>

#### **d) Procedures for Appeal of the Results of a Thesis Defense**

The mechanism for appeal of the academic decision of a thesis examining committee is specified in Regulation 8.8c of the School of Graduate Studies and Research.

#### **e) Procedures for Grievance of Non-Academic Matters**

A graduate student who perceives unfair treatment in assignment of duties relating to a teaching or research assistantship should in the first instance appeal informally to the faculty member directly involved (i.e. course instructor or supervisor). Such appeal should be lodged as soon as possible after the issue arises.

In the event that the dispute is not resolved to the student's satisfaction, the student should appeal to the Head of the Department. The Head or Coordinator of Graduate Studies may be consulted informally, but a formal appeal must be lodged with the Head in writing within two weeks of the failure to reach agreement with the faculty member. The Head will consult both parties (the student and the faculty member) and will attempt to resolve issues relating to teaching/research assistantships by mediation. If the mediation process fails to yield agreement, the Head will rule on the matter.

The Queen's University Senate document, "Statement on Grievance, Discipline and Related Matters" (approved February 1976; published as a Supplement to Queen's Gazette, Vol. VIII, No. 32, 10 August 1976) describes the process of appeal beyond the Departmental level.

The relevant Graduate Studies Calendar statements can be found at:

<http://www.queensu.ca/sgs/faculty-staff/governance/graduate-councils>

## **Appendices**

### **Accident Reporting**

It is essential that any work-related accident involving Queen's University employees or students, on or off the university premises, and any accident that is not work-related but occurs on the campus, be reported to the appropriate University authorities as soon as possible. There are three reasons for reporting accidents:

- i. The Workers' Compensation Act of Ontario imposes a legal requirement to report certain accidents (see below).
- ii. The University requires information about accidents involving third parties and accidents on university property because of the possibility of legal claims against it.
- iii. The Department (or University) must be informed of accidents so as to be able to correct unsafe conditions and educate personnel with the aim of preventing recurrence.

The question often arises whether a particular accident is of sufficient severity or occurred in circumstances which necessitate its being reported to the University. This document addresses this question and describes the required reporting channels for a range of circumstances. The term "accident" here refers to a mishap which results either in obvious bodily injury requiring first aid or medical treatment or in possible injury such that a medical opinion is needed.

The general rule is that you must report any work-related accident, regardless of where it occurs. An accident which is not work-related but which occurs on University property must also be reported. **If you are in doubt about whether an accident needs to be reported, then err on the side of caution and report it.**

**Accidents should be reported as soon as possible after they occur.** There is no excuse for delaying reporting of an on-campus accident beyond one business day. There is more latitude for reporting off-campus accidents (see below), but reporting should be done as soon as is practical.

A work-related accident which befalls an employee or student of the Department of Geological Sciences and Geological Engineering, either on or off the Queen's University campus, should be reported to the Departmental Safety Officer, or their delegate:

**Don Chipley**  
**Bruce Wing, Room 145**  
**Tel: 613.533.2597 / FAX: 613.533.6592**

**Or**

**General Office**  
**Bruce Wing, Rm. 240**  
**Tel: 613.533.2597 / FAX: 613.533.6592**

A work-related accident that occurs on the campus should be reported immediately (within one business day). If such an accident occurs while the individual is away from the campus, whether in Canada or abroad (for example, while travelling to or attending a conference or while travelling to the field), it should be reported as soon as possible, preferably by telephone. An accident which occurs at a remote location, such as in the field, must be reported expeditiously, either by telephone or by mail. It is recognised that reporting such an accident quickly may be difficult, but you are expected to make the effort.

When reporting an accident, you must provide the following information:

- i. Identity of the victim (name, Social Insurance Number, date of birth, home address, current address and telephone number).
- ii. Date, time and location of the accident.
- iii. Brief summary of the circumstances of the accident.
- iv. Name(s) of witness(es) (if any).
- v. Nature of the injury.
- vi. Location where emergency treatment was received.
- vii. Name of attending physician.

An accident which occurs on University property but not in the course of University business (i.e., an accident that

is not work-related), such as a sports injury, need not be reported to our Departmental Safety Officer, but should be reported to the appropriate University department (Campus Security **613.533.6733**), Environmental Health and Safety (**613.533.2949**), or the facility in which the accident occurred, for example the Physical Education Centre). Students should also report to the Student Health Service (**613.533.2506**).

The Workers' Compensation Act requires that all work-related accidents be reported to the Employer, and by the Employer to the Workers' Compensation Board, within fixed time limits. This is to ensure that the injured worker retains eligibility for compensation payments from the Workers' Compensation Board, and so that medical costs are assessed. The Employer can be fined if an accident is not properly and promptly reported. Employees are obliged to report to the Employer promptly so that the Employer can fulfil this legal requirement.

Employees are covered by the Workers' Compensation Act for work-related injuries that occur within Canada, and for injuries that occur while working outside of Canada within six months of departure. International coverage can be extended beyond six months if arrangements are made prior to departure. Inquiries about the Workers' Compensation Act should be directed to the University's Department of Environmental Health and Safety (**613.533.2999**).

Incidents which do not involve personal injury but which do involve damage to or loss of University property (such as University-registered motor vehicles, or research equipment) should be reported promptly to the Department of Human Resources - Insurance (**613.533.2070**).

\* \* \* \* \*

### **Directory of Telephone Numbers for Accident/Incident Reporting**

Department of Geological Sciences and Geological Engineering

**Safety Officer: Don Chipley    Tel: 613.533.2597**  
**FAX: 613.533.6592**  
**or**  
**General Office: Bruce Wing, Room 240**  
**Tel: 613.533.2597**  
**FAX: 613.533.6592**

Queen's Campus Security	613.533.6733
Queen's Environmental Health and Safety	613.533.2999
Queen's Student Health Service	613.533.2506
Human Resources - Insurance	613.533.2070

### **Library Resources**

The Liaison Librarian for Geological Sciences and Geological Engineering is Morag Coyne ([morag.coyne@queensu.ca](mailto:morag.coyne@queensu.ca), x36975). Library resources and services are available on the library's website: [<http://library.queensu.ca>]. Graduate students interested in group or individual consultations about their research (specifically, finding and/or organizing the research information they need) may contact Morag for an appointment.

#### **a) Queen's Libraries**

Queen's has six libraries housed in five buildings. Holdings for geology are kept in the Engineering & Science Library (Douglas building), and Stauffer Library. The Engineering & Science library houses geology books and journals, and a collection of geological maps on the first floor. The Maps, Data and Government Information Centre (MADGIC), located in the basement of Stauffer Library, contains geological survey publications, topographic maps, geological maps, GIS data and software, and air photos.

The online library catalogue, QCAT, contains the location records of all books, ebooks, journals, ejournals, databases, music, DVD's, government documents, and most maps at Queen's. The catalogue is available on the library's website [<http://library.queensu.ca>].

#### **b) Borrowing from the Library**

- i) Your student card is your library card. Visit the circulation desk in any campus library to activate it. Queen's graduate students can borrow up to 100 library items at any time. Notices about your library record (e.g. fines and recalls) are sent to your Queen's email (@queensu.ca, NOT @geol.queensu.ca). Please check your queens.ca email to ensure you are receiving any library notices.
- ii) Loan periods vary from 1 hour to term loans, depending on the type of item you borrow. Term loans are due in mid-January, mid-May and mid-September, and are subject to recall after two weeks.
- iii) You may access your library account online to renew books, and view holds and recalls. From the library website [<http://library.queensu.ca>] click on **My Account**, and follow the instructions.
- iv) If Queen's Library does not have the books or articles you need, you may order these items through RACER, the free interlibrary loan system [<http://library.queensu.ca/help-services/request-materials/interlibrary-loan>].
- v) Copies of article are usually scanned and sent to the patron's Queen's email account. Book loans are arranged with libraries outside Kingston for 2-3 weeks. You will be contacted by email when the book is received from the lending library. All books must be picked up and returned to the Circulation Desk. A drop box is provided. Overdue fines are \$1.00 per day, per book.
- vi) We welcome purchase suggestions for books, DVD's and journals. Please contact Morag Coyne with your suggestions.

#### **c) Specialized Resources**

- i) The Library subscribes to thousands of online journals, e-books and databases. On-campus users can connect directly to these digital collections, but off-campus users may encounter subscription barriers. Follow the **Connect from Off-Campus Access** link from any Library webpage to login and connect to these resources.
- ii) The Geology Subject Guide [<http://guides.library.queensu.ca/geol>] contains links to geology databases, geological surveys, geological societies and organizations, and selected online books.
- iii) Graduate theses are available from several databases. Links to these databases may be found at [<http://library.queensu.ca/search/database/dissertations-and-theses>]
- iv) Queen's theses are available free to Queen's faculty and students. [<https://qspace.library.queensu.ca/handle/1974/799>]
- v) Queen's University requires students to submit their theses and dissertations (ETDs) electronically. Students can use the available MS Word template to write their theses, store and develop their thesis in a secure online environment (QShare), and submit their final, accepted thesis electronically (in PDF format) for archiving and distribution via the Queen's digital repository, QSpace. Further instructions may be found at [<http://library.queensu.ca/webir/e-theses/sgs-index.html>].

#### **d) Miscellaneous**

In the summer of 2018, ITServices purchased Endnote, a popular citation manager. Students may download Endnote free of charge from Queen's software download centre: [<http://queensu.ca/its/software/enterprise-licensed-software/endnote>]