



UNIVERSITY OF TORONTO  
**E**COLOGY and **E**VOLUTIONARY  
**B**IOLOGY

**Handbook for Graduate Students  
(2011-2012)**



## **WELCOME**

### **From the Associate Chair, Graduate Studies**

I am very pleased to welcome you to Ecology and Evolutionary Biology (EEB) at the University of Toronto. EEB was created 5 years ago by combining ecologists and evolutionary biologists and their students from the former Departments of Botany and Zoology into a single department. The professors and students constitute a group of very high quality and broad experience known around the world for their research. I hope your graduate experience here will be scientifically exciting and challenging, and that you will find worthy mentors and lasting friends and collaborators among the faculty and your fellow students. I urge you to get involved in the life of the department and help to make it even more lively and interesting.

I look forward to meeting you soon.

Regards,  
Nick Collins  
Associate Chair Graduate

### **From the Ecology and Evolutionary Biology Graduate Student Association (EGSA)**

The Ecology and Evolutionary Biology Graduate Student Association (EGSA) is pleased to welcome you as you kick off your graduate studies at the University of Toronto! Being a graduate student is about chasing one's academic goals, and graduate school provides a unique opportunity for building on intellectual community, reflection, and inspiration. One of the biggest resources you can access during your time as a graduate student is participation in the community life of your department and university. Through participation in the activities of your department, you will be able to connect with a diverse mix of students, post-docs, faculty and administrators. Building good rapport with your peers on both an intellectual and personal level is essential in contributing to a strong and cohesive department, and getting the most out of your graduate experience---something that the EGSA proudly supports. For more information on the EGSA, please visit <http://www.eeb.utoronto.ca/graduate/egsa>.

Welcome to EEB, and best wishes as you embark on your great academic adventure!

Sincerely,  
Patrick Friesen and Lucia Kwan  
EGSA Co-Presidents

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***NOTE: Every effort was made to ensure the information in this Handbook was accurate at press time (1 September 2011); any subsequent changes will be incorporated into the equivalent sections of the EEB web page.***

## **GRADUATE CONTACTS**

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### **Graduate Program Administrator**

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### **Graduate/Undergraduate Assistant**

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### **Ecology & Evolutionary Biology Graduate Student Association**

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Email: [lucia.kwan@utoronto.ca](mailto:lucia.kwan@utoronto.ca) and [patrick.friesen@utoronto.ca](mailto:patrick.friesen@utoronto.ca)  
Website: [www.eeb.utoronto.ca/graduate/egsa](http://www.eeb.utoronto.ca/graduate/egsa)

### **EEB Graduate Studies Website: [www.eeb.utoronto.ca/graduate](http://www.eeb.utoronto.ca/graduate)**

Email: [grad.eeb@utoronto.ca](mailto:grad.eeb@utoronto.ca)

### **School of Graduate Studies (SGS), Student Services Office**

63 St. George Street, Room 102  
Phone: 416-978-6614  
Email: [graduate.information@utoronto.ca](mailto:graduate.information@utoronto.ca)  
Website: [www.sgs.utoronto.ca/informationfor/students.htm](http://www.sgs.utoronto.ca/informationfor/students.htm)

### **School of Graduate Studies, Graduate Awards Office**

63 St. George Street, Room 202  
Phone: 416-978-2379  
Email: [graduate.awards@utoronto.ca](mailto:graduate.awards@utoronto.ca)  
Website: <http://www.sgs.utoronto.ca/informationfor/students/money.htm>

### **Graduate Student Union**

16 Bancroft Avenue  
Phone: 416-946-8699  
Email: [info@utgsu.ca](mailto:info@utgsu.ca)  
Website: [www.gsu.utoronto.ca](http://www.gsu.utoronto.ca)

## IMPORTANT DEADLINES

### 2011

**August 26:** Deadline for payment of tuition fees or to request to register without payment.

**September 15:** Final date to submit Ph.D. thesis to SGS to avoid fee charges for 2011-12.

**September 16:** Last date to register without a late registration fee.

**September 21:** Summer Session Grades available for viewing by students on the SWS.  
*Please check your academic record and ensure all information is accurate*

**September 26:** Final date to add full-year and Fall session courses.

**September 30:** Final date for receipt of degree recommendation and submission of MSc Thesis for November convocation and to avoid fee charges. (*Approval of Corrections to MSc Thesis form must be submitted to the Graduate Office by September 27*)

**September 30:** Final date to submit final Ph.D. thesis and Master's thesis for Fall Convocation.

**October 31:** Final date to drop September session full-year or half-courses without academic penalty.

**October 31:** Deadline to change immigration status or claim exemption from international student fees for the September session.

### 2012

**January 13:** Final date to register for new January registrants.

**January 16:** Final date to submit Doctoral thesis without fee payment for January session.

**January 18:** September Session Grades available for viewing by students on ROSI.  
*Please check your academic record and ensure all information is accurate.*

**January 23:** Final date to add January session courses.

**January 27:** Final date to be recommended for March (in absentia) degree conferral. Final date for receipt of degree recommendations and thesis submission for March or June graduation for M.Sc students, without fees being charged for the January session. (*"Approval of Corrections to MSc Thesis" form must be submitted to the Graduate Office by January 24*).

**February 1:** Deadline to change immigration status or claim exemption from international student fees for the January session.

**February 27:** Final date to drop full-year courses or January session courses without academic penalty. Final date to withdraw from a program without academic penalty.

**April 20:** Final date to be recommended for June Convocation.  
Final date to submit final Ph.D. thesis and M.Sc thesis for Spring Convocation.

**May 4:** Final date for registration for May session.

**May 16:** January Session grades available for viewing by students on ROSI. *Please check your academic record and ensure all information is accurate.*

**June 30:** Deadline to change immigration status or claim exemption from international student fees for May session.

***It is your responsibility to be aware of all relevant deadlines.***

## REGISTRATION & ENROLLMENT

### Registration

Students must register and pay fees at the beginning of each academic year. Registration must be completed before students attend classes or otherwise make use of university facilities. A student is considered to be registered as soon as he or she has paid tuition and incidental fees, or has made a request to register without payment. A student's registration is normally for the full year (i.e. from September 1<sup>st</sup> to August 31<sup>st</sup>). The deadline for registration is September 16, 2011 or January 13, 2012 (for students registering for the first time in the Winter session). After this date a late registration fee will be levied. Student Accounts has revised the registration invoice process and they will no longer be mailing paper invoices to students. Students can view instructions on the Student Accounts website, view the account on the Student Web Service and then make payment. Fee schedules are available at [www.fees.utoronto.ca](http://www.fees.utoronto.ca).

Students with a graduate funding package (i.e. all newly entering students and those in the Arts and Science or EEB funded cohorts) can defer their fees interest-free by filing a fee arrangement form at the Ecology & Evolutionary Biology Graduate Office. A completed form must be submitted to the Graduate Office before **August 24**. After the registration deadline, students will have to go to SGS to register and arrange for fee deferral, and they will be charged a late registration fee. The fee arrangement form is available at:

<http://www.sgs.utoronto.ca/informationfor/students/inform/stuforms.htm>. If you defer your fees, any unpaid balance will be carried interest free until April 30, 2012. Some University of Toronto Fellowship (UTF) allocations in your stipend package will be automatically paid toward your registration and fees in September and January payments. **You should monitor you ROSI account to determine whether, after the January payment, you have an unpaid balance that you need to resolve before April 30.**

New and many continuing students will be provided with a payment from their stipend package in the first week of September, to assist them in becoming established here and/or in preparing for the academic year. This payment will be mailed to the home address or deposited directly to the bank accounts of continuing students. For students arriving in September, the first payments from a Research Assistantship and/or a TA position will be deposited at the end of September and monthly thereafter, in accordance with the agreements made in early September between students and supervisors.

Academic fees paid by doctoral students in the final year of their program are pro-rated based on the 12-month academic year. The pro-rating is based on the date the thesis is submitted to the School of Graduate Studies, not the date of the thesis defense. For a table of monthly charges, refer to:

[http://www.fees.utoronto.ca/session/fall/tuition\\_fees/fee\\_refund\\_sch/sgs.htm](http://www.fees.utoronto.ca/session/fall/tuition_fees/fee_refund_sch/sgs.htm). PhD students who submit their final thesis with all corrections and modifications by September 15 do not pay tuition for the September session, but after this date a charge applies for each month in which degree requirements are not completed by the 15th of the month. Incidental fees are pro-rated differently. Students finishing between September 16, 2011 and January 16, 2012 will pay a one-session incidental fee and those finishing between January 17, 2012 and August 31, 2012 will pay a two-session incidental fee.

Graduate students may apply for affiliation with one of the U of T Mississauga or U of T Scarborough campuses if they meet specific criteria. Affiliation to UTM/UTSC makes students eligible for some fee reductions and gives them access to some benefits restricted to one of those campuses. Deadlines for requesting UTM/UTSC campus affiliation rebates are September 9, 2011 for the Fall session and January 6, 2012 for the January Session. Retroactive rebates are not allowed. Students must make this application each year in order to have incidental fees reduced.

### **Course Enrolment**

Graduate students in the Department of Ecology and Evolutionary Biology are able to access the Student Web Service (SWS) to change personal information (addresses and telephone numbers), view their academic record and current courses and to enrol in, request or drop courses.

The Department permits students to use SWS ([www.rosi.utoronto.ca](http://www.rosi.utoronto.ca)) to enroll in courses within required deadlines. Students are automatically enrolled in the required research/thesis activity but must sign up for any EEB courses on ROSI (Repository of Student Information) via the Student Web Service (SWS). Academic advisors, faculty and staff are available to assist and advise about choosing courses, but it is ultimately the student's responsibility to actually enroll in courses, to keep personal and academic information up to date at all times, and to follow all University, SGS, departmental and program regulations, requirements and deadlines. Not all departments will use ROSI for course sign up. If you wish to take a course offered by another department, contact the host department.

### **GRADUATE COURSES**

Not all courses are offered every year. Those offered in 2011-12 are asterisked in the list below. Please refer to the Ecology and Evolutionary Biology Website for a list of current and future course offerings, along with descriptions of their content: <http://www.eeb.utoronto.ca/graduate/courses>

#### **Courses Offered at the Graduate Level Only**

- EEB 1002H\* Advanced Research and Reading Course [Staff] (*This course is NOT available to students admitted in the new Ecology and Evolutionary Biology graduate programs. Student admitted into the old Zoology, Botany or Plant and Microbial Biology programs may take this course ONCE only for credit*)
- EEB 1100H\* Faculty Research Course [J. Stinchcombe coordinator]
- EEB 1210H Advanced Statistics
- EEB 1230H\* Multivariate Statistics [D. Jackson]
- EEB 1250H\* Spatial Statistics [M-J. Fortin]
- EEB 1310H\* Philosophy and Methods [N. Collins]
- EEB 1320H\* Ecology [H. Cyr assisted by others]
- EEB 1350H Evolution
- EEB 1360H Behaviour

- EEB 1420H\* Special Topics in Ecology [H. Wagner & M-J. Fortin]  
EEB 1440H\* Special Topics in Evolution [S. Wright]  
EEB 1470H Special Topics in Integrative Biology [A. Mason, M. Andrade & M. Fitzpatrick]

**Graduate Courses with Significant Undergraduate Content\*\***

- EEB 1004H Vertebrate Paleontology  
EEB 1328H\* Physiological Ecology [R. Sage]  
EEB 1330H\* Systemic Botany [J. Eckenwalder]  
EEB 1337H\* Families of Vascular Plants [T. Dickinson]  
EEB 1340H\* Comparative Plant Morphology [T. Sage]  
EEB 1341H Plant Anatomy  
EEB 1443H\* Phylogenetic Principles [S. Stefanovic]  
EEB 1459H\* Introduction to Theoretical Population Genetics [A. Agrawal]  
EEB 1460H\* Molecular Evolution [A. Baker & D. Irwin]  
EEB 1461H Advanced Evolutionary Genomics  
EEB 1462H Phylogenetic Systematics

\* courses offered in 2011-2012

\*\* these courses will normally constitute only a minor component of the credits required for degree programs

***Graduate courses and seminars officially begin in the week of September 12<sup>th</sup> for September session courses (F) and January 9<sup>th</sup> for January session courses (S). Instructors frequently modify starting dates; consult them before you assume anything.***

## GENERAL GRADUATE REGULATIONS

The School of Graduate Studies (SGS) establishes procedures for completion of an MSc or PhD degree at the University of Toronto. All students should become familiar with these procedures by referring to the printed or online version of the SGS Calendar. Ecology and Evolutionary Biology (EEB) has established additional or modified practices that are detailed under MSc and PhD Program Regulations below.

Graduate students in science at the University of Toronto, whether domestic or international, are provided financial support in the form of an annual guaranteed minimum stipend made up of a base amount of \$15,500 plus tuition and fees (including UHIP for international students). Departments may increase the stipend amount but cannot offer less than the minimum guarantee. In fact, EEB currently guarantees a minimum student income that is \$1000 above the Arts & Science guarantee. This support is provided while students are in the EEB “funded cohort” (detailed below for each program).

A graduate student’s primary academic mentor is the research supervisor. In addition, a **Supervisory Committee** comprising the research supervisor (and co-supervisor if relevant) and other faculty members from EEB help guide all students through their program of research and study. Students are also examined on their final thesis, and PhD students are further required to pass a mid-program Appraisal Examination, to deliver two research seminars to EEB and to complete all program requirements except the thesis and second seminar by the end of their third year (fourth year for direct entry with a BSc).

To assist the student in completing these milestones on time, the Graduate Office will maintain **tracking data** for every student. While EEB will make every effort to alert students if required, it is ultimately the responsibility of the student and supervisor to ensure that each milestone is completed on time, that the Graduate Office is informed ahead of time of meetings and examinations, and that appropriate documentation is submitted.

***Failure to maintain good academic standing may result in ineligibility for external and internal fellowships, lowest priority for bursaries, assistantships and travel awards, and even program termination.***

## MSc PROGRAM REGULATIONS

### Duration and Registration

The duration of the MSc program is 16 months. Students whose thesis research will involve a substantial amount of fieldwork should register on May 1, should complete most of their fieldwork by the end of August, and are expected to defend their thesis by the end of the following August. Students whose research does not involve much fieldwork will normally register in September, but may also begin in January or May. In either case students are expected to defend their thesis 16 months after registration.

## Financial Support

MSc students are guaranteed financial support for 16 months in the form of a graduate stipend. For students without external scholarship support (e.g. NSERC, OGS, CIHR, Connaught), this stipend comprises 1) four months of a Research Assistantship amounting to one-third of the Departmental guaranteed income, paid in the first or last four months of the program, depending on the starting time), and 2) a twelve-month stipend at the Departmental guaranteed income level, comprised of a Research Assistantship, a 140-hr Teaching Assistantship and a University of Toronto Fellowship (UTF). For students with external scholarships the Teaching Assistantship is reduced to 70 hours and a “top-up” is awarded in addition to the guaranteed minimum. Further details are available on the EEB web page. Students who do not complete their thesis within 16 months of registration continue to be eligible for TA positions (depending on availability), but are **not eligible for any further financial support** from the Department. Financial support for further study should be arranged through Research Assistantships with the thesis supervisor.

## Coursework

Students must complete a single one-semester graduate course chosen from the courses of instruction (see **Graduate Courses** in this document and the EEB web page). Two very different courses have been designed with newly entering students in mind. The Faculty Research Course (EEB1100H) supervised this year by John Stinchcombe (john.stinchcombe@utoronto.ca) provides an overview of current research issues in Ecology and Evolutionary Biology, and an introduction to a variety of EEB faculty. It is designed particularly for entering MSc students. Philosophy and Methods (EEB1310H; nick.collins@utoronto.ca) is designed for MSc or PhD students with more research experience, but who are still in the early stages of defining their thesis research. It focuses on research approaches, common errors in experimental design and statistics, and various other practical issues associated with planning, executing, and communicating research. Both courses will provide the opportunity to get to know other grad students. We recommend that new students consult the full course descriptions on the EEB website and talk to their supervisors and the course leaders before deciding which course is most appropriate for them.

## Supervisory Committee

The student's research supervisor, after consulting with the student, is responsible for recommending the composition of the student's Supervisory Committee to the Graduate Office within **four weeks** of the student's registration. This committee comprises the research supervisor (and co-supervisor if any) plus two other professors from EEB and **must meet at least twice during the 16-month program**. During the first committee meeting, which should be held as soon after registration as possible but **no longer than four months after**, the student's academic background is reviewed and the thesis research discussed. A second meeting of the supervisory committee must be held by the **end of the eighth month** of the MSc program in order to assess the student's academic and research progress, and to make any recommendations for completion of the degree. The second meeting may, if appropriate, also consider whether the student should switch from an MSc to a PhD program (see PhD Program Regulations below). The student must prepare a brief written report of research progress and plans for this second meeting, and send it to committee members **at least three days** in advance of the meeting. For both committee meetings the supervisor is responsible for completing a committee meeting report (see Documentation and Forms on the EEB graduate website), ensuring each committee member and the student sign it, and submitting it and a copy of the progress report to the graduate office **within one week of the meeting**. In general, MSc students

must demonstrate competence in independent research and would normally author or co-author research results for primary publication.

### Departmental Seminars

MSc students are expected to attend all seminars in the primary EEB or Biology seminar series on their campus.

### Thesis and MSc Examination

The MSc Examination Committee, jointly recommended by the supervisor and student, consists of the supervisor (and co-supervisor if any), one member of the supervisory committee and two other members from EEB who are not on the supervisory committee. These names should be sent to the graduate office for approval, following which the student and supervisor can set a date for the exam. The graduate office will choose the exam chair from among the non-members of the supervisory committee. The date for the exam should be sent to the graduate office **at least two weeks** ahead of the exam date and the Graduate Administrator will book the exam room and circulate the formal announcement to participants. Students are responsible for booking their own audiovisual equipment. A written thesis following SGS guidelines must be approved for examination by the supervisor who should **complete the "Approval of MSc Thesis"** form and send it to the Graduate Office before scheduling the defence or circulating the thesis. Once the thesis is approved for examination, the student should send it to examiners **at least two weekends** before the exam. The *in camera* examination will consist of a 20-minute oral summary of the thesis research by the student, approximately 1.5 – 2 hrs of questioning by the committee, and a committee discussion of the student's performance after the student has left the room. The exam chair is responsible for **completing the "MSc Exam Form"** detailing any required minor or major revisions, and returning it to the Graduate Office immediately after the exam. The student must complete any required revisions **within four weeks** of the exam, and the person designated to approve these revisions (typically the supervisor) should complete the "Approval of Corrections" form and return send it promptly to the graduate office. If the student does not pass the thesis exam, one retake is possible **within 2 – 6 months** and failure at this exam requires that the student withdraw from the program. Students are encouraged to submit their final thesis in digital format through the School of Graduate Studies Electronic Thesis and Dissertation utility:

<http://www.sgs.utoronto.ca/informationfor/students/finup/producingthesis.htm>)

## PHD PROGRAM REGULATIONS

### Duration and Registration

The duration of the Ph.D. program is four years if entering from an MSc degree or five years if entering directly from a bachelor's degree. First registration is normally in September, although registration in January or May is also possible.

### Financial Support

PhD students are guaranteed an annual stipend for four years if entering from a Master's program or five years if entering from a Bachelor's. For students without external scholarship support (e.g. NSERC, OGS, CIHR, Connaught), this stipend comprises a Research Assistantship, a 140-hr Teaching Assistantship and a University of Toronto Fellowship (UTF). For students with external scholarships the Teaching Assistantship is reduced to 70 hours and a "top-up" is given in addition to the

guaranteed minimum. Further details are available on the EEB web page. Students who do not complete their thesis within four or five years are **not eligible for any further financial support** from Ecology and Evolutionary Biology. Support arrangements must be made with the thesis supervisor, and may include TA positions where they are available.

### Coursework

Students entering directly from a Bachelor's program should take four one-semester graduate courses chosen from the courses of instruction (see **Graduate Courses** in this document and on the EEB web page). Course selection should be made in consultation with the supervisor and advisory committee. We suggest as an initial choice the Faculty Research Course (EEB1100H) or Philosophy and Methods (EEB1310H). Students entering with an MSc degree should take three one-semester courses. Again we suggest beginning with EEB1100H/EEB1310H and consulting advisors about the subsequent two courses. Students transferring from an MSc to a PhD program should take the same credits as those entering from a bachelor's program, minus the credit completed during the MSc.

### Supervisory Committee

The student's research supervisor is responsible for recommending the composition of the student's Supervisory Committee to the Graduate Office within **four weeks** of the student's registration. This committee comprises the research supervisor (and co-supervisor if any) plus two other professors from EEB. The committee should meet shortly after registration and at least once in the spring of the first year. Thereafter the committee should meet at least once per academic year **by the end of May**. During the first committee meeting, which should be held **no later than four months after registration**, the student's academic background is reviewed and the thesis research discussed. The student should circulate a resume and a transcript or list of previous coursework to committee members before the meeting. For the annual committee meetings, the student must prepare a brief written report of scholarly activities, research progress, and plans, and send it to committee members **at least three days** in advance of the meeting. The supervisor is responsible for completing a report for all meetings (see Documentation and Forms on the EEB website), ensuring each committee member and the student sign it, and submitting it and a copy of the progress report to the graduate office **within one week of the meeting**. A final supervisory committee meeting should be held approximately three months before the final thesis exam to ensure the student is adequately prepared and that thesis is nearing completion. In general, PhD students are expected to complete an original independent research program that makes substantial and innovative contributions to their field of research. They will typically publish a number of primary scientific papers based on their research.

### Departmental Seminars

PhD students are expected to attend all seminars in the most relevant primary EEB or suburban campus departmental seminar series.

## Appraisal Examination

PhD students in the EEB Department will be subject to an Appraisal Examination to be held **14 to 20 months** after registration (between 14 and 26 months for students who entered directly from an undergraduate degree). The appraisal is designed to:

- 1) determine whether the student's can think, conduct research, and communicate at a level sufficient to produce a quality thesis;
- 2) ensure that the proposed research is sound, and can be completed within the remaining years of the PhD program;
- 3) ensure that the student has sufficiently broad knowledge in ecology and evolutionary biology to recognize and effectively pursue opportunities for research and collaboration in these fields.

The examination consists of a public seminar by the student on the thesis work (approximately 20 minutes plus 10 minutes of questions from the audience), and a private session during which committee members ask questions about the research proposal and evaluate the student's breadth of knowledge. The private portion of the examination should normally last 2-2.5 hours.

The Appraisal Committee consists of five members chosen by the student and supervisor: the supervisor (and any co-supervisor), the two members of the supervisory committee and two other EEB faculty members. One of those latter two should be chosen to broaden the ability of the committee to evaluate the breadth of ecological/evolutionary knowledge of the candidate. The committee as a whole remains responsible for evaluating the candidate's breadth of knowledge. The student and supervisor should send a list of proposed appraisal committee members (who are available for both the seminar and examination) for approval to the Graduate Office **at least three weeks in advance** of the examination. The graduate office will choose the exam chair from those committee members not on the supervisory committee.

The student should send the title of their talk, an abstract, a list of committee members and a personal data form (see EEB webpage) to the Graduate Administrator **at least two weeks** before the seminar and appraisal. **Two weeks** prior to the exam the student should provide committee members with a written research proposal that is approximately 15 pages (20 pages maximum) of double-spaced text in 12-point-font, including tables, figures and references. Both the written proposal and the public seminar should present the conceptual framework of the study, hypotheses or objectives, methods, a timeframe for completion of the research, and analyses of preliminary data, if available.

The Graduate Office will circulate a formal announcement to the examining committee and the department in general. Students are responsible for booking audiovisual equipment needs with the appropriate personnel on the campus hosting the exam.

When the examination is taking place immediately following the public seminar, it may be most appropriate to begin the private portion of the appraisal with the proposal phase, which should involve questions designed to explore the candidate's grasp of principles and concepts underlying the study, and the adequacy of the proposed methods. The emphasis should be on the theory and proposed approach, rather than on progress to date. In this phase the student should demonstrate advanced expertise in their research specialization. At the end of that phase of the appraisal, roughly 20-30 minutes should be allocated to assessing the breadth of knowledge of the candidate using the departmental Question Bank. The questioning should also cover any substantial additional breadth

requirements that the Advisory Committee as a whole communicated in detail to the student, well in advance of the examination date.

The breadth portion of the examination will involve an over-dispersed selection of questions from the entire subject range of the departmental Question Bank (and any extensions specified in advance by the Appraisal Committee). The standard Question Bank will be continuously available to help students evaluate their level of knowledge and direct their studying. It is not expected that a student should be able to provide excellent answers to all questions. Rather, a student should be able to provide strong answers to almost all questions from his/her main discipline (as perceived by the examining committee) and provide reasonable answers for most of the questions farther from his/her center of expertise. If a student cannot answer a question, the committee should simply move on to another question, providing the student with an opportunity to demonstrate understanding of another topic. In order to better evaluate the student's level of expertise in the area, examiners may also pose questions inspired by satisfactory answers to questions from the bank, especially when they relate directly to the student's proposed research.

At the end of the examination the candidate will be asked to leave the room and the Appraisal Committee will use the entire examination (including both the public seminar and the private portions) to judge whether the candidate has met the appropriate standard under the three criteria of the appraisal. Breadth deficiencies are not to be the sole reason for failure of the initial Appraisal exam. If the student passes the overall appraisal but serious breadth deficiencies are perceived in the first exam, then the examining committee should choose a way for the student to satisfy the deficiencies (see below). A positive vote on the overall examination from at least four members of the committee confirms that the student has passed. A negative outcome requires that the student retake the exam within **four months** by considering suggestions offered by the committee for improving the thesis research proposal and remedying any breadth deficiencies. The outcome of the second exam will be either pass or withdraw from the program.

The committee should choose among the three prescriptions below to remedy a serious breadth deficiency observed during the first appraisal:

- a. Assignment of reading, followed by an oral reassessment of knowledge in the formerly weak areas by one or more appropriate members of the Appraisal Committee.
- b. Assignment of 2 or more essays on topics selected by the Appraisal Committee, the members of which would be responsible for evaluating the essays.
- c. Assignment of additional coursework. (Auditing courses will not be considered to be adequate remediation unless the weak area(s) are reassessed by oral or written examination by relevant member(s) of the Appraisal Committee after the audit is completed.)

Any breadth remediation requirements should be specified in writing by the Appraisal Committee in its report. The chair of the exam committee is responsible for returning appropriate documents and a copy of the research proposal to the graduate office after the exam. The student's Supervisory Committee will be responsible for enforcing the prescription and reporting the progress of remediation in the records of their meetings.

## PhD Exit Seminar

All PhD students are required to give a formal seminar on their thesis research at the end of their program. When possible, the seminar should be delivered on the same day as the final thesis examination (see below). If this timing is not practicable, the seminar should be held no more than **two months** before the final exam. The student should contact the graduate office well in advance so that a date and place for the seminar can be arranged and announcements distributed.

## Thesis and Final Oral Examination

The Final Oral Exam (FOE) is conducted by the School of Graduate Studies. A written thesis following SGS guidelines must be approved for examination by the supervisor (and co-supervisor if any) and one member of the advisory committee. All/both these individuals must sign the "PhD Assessment of Thesis" form (See EEB website). The examining committee comprises the supervisor and any co-supervisor, an external examiner, at least one but no more than three members of the supervisory committee (including supervisor/co-supervisor), and other professor/s from EEB or a related department, for a total of at least five, but no more than six members. An additional exam chair is chosen from outside the A&S faculty by SGS. The supervisor and student should discuss potential external examiners and other committee members. The supervisor nominates one potential external examiner using the "Choose Final PhD External Examiner" form on the EEB web page. The name of the external nominee, the Approval of Thesis form, suggestions for exam committee members, the date of the exam, a current student CV including publications and presentations, and a one-page, double-spaced abstract with thesis title should be submitted to the graduate office **at least seven weeks** prior to the intended exam date (use "PhD Final Oral Exam Booking Sheet" on the EEB web page). The Graduate Office and SGS must approve the external examiner and the other exam committee members. The student should provide the graduate office with one copy of the thesis for the external examiner **at least six weeks before** the exam date, and at this time the remaining committee members should be informed of the exam date and given a copy of the thesis. Although the FOE can be held at any campus, it is strongly recommended that it be held at SGS on the St. George Campus because the candidate and exam committee chair must complete paperwork at SGS immediately following the examination. The graduate office will book a room for the examination and must be informed of any special requirements for equipment or venue. Traditionally, students begin the FOE with an oral presentation about their thesis. Then they answer questions about their research and related general knowledge for approximately two hours. Recently, we have recognized that there can be some flexibility about the presentation. According to SGS regulations, at the beginning of the FOE *"The candidate is ... invited to summarize the research and conclusions of the thesis orally, in no more than twenty minutes."* This statement makes clear that the oral presentation is a choice, not a requirement. Given that the exit seminar required for EEB students covers this same ground, candidates may elect to arrange that the voting members of the examining committee attend the exit seminar as a replacement for the traditional oral presentation at the beginning of the formally scheduled FOE. The key complication of this arrangement is being able to ensure that the external examiner can attend. The FOE booking sheet allows students to make this substitution, and requests the date and time of the exit seminar, so that SGS can notify the FOE chair about the arrangement and give them the option of attending the seminar (The chair's attendance at the oral presentation is not a requirement). The student will have seen the external examiner's written assessment of the thesis before the examination. Students are encouraged to submit their final thesis in digital format through the School of Graduate Studies Electronic Thesis and Dissertation utility

<http://www.sgs.utoronto.ca/informationfor/students/finup/producingthesis.htm>).

## TRANSFER FROM MSc to PhD PROGRAM

Exceptional students may transfer from the MSc to the PhD program by demonstrating research excellence. Transfers can be discussed and recommended during the second MSc supervisory committee meeting held eight months after registration, or at another meeting held **no later than 11.5 months** after registration. In either case a candidate recommended for transfer would register as a PhD student on the one-year anniversary date of their first registration. No special procedures are required at the transfer-consideration committee meeting other than a thorough assessment of the student based on the written research report and past performance. Typically the thesis

supervisor will indicate to the student in advance of the meeting that the committee will consider the merits of transfer to the PhD, and discussion at the meeting should consider both the student's wishes and academic potential. If the student is in favor and transfer is approved by the committee, the thesis supervisor should ensure that an explicit recommendation for transfer, along with a brief rationale, is contained in the committee meeting report that should be submitted to the graduate office **no later than one week** after the committee meeting. The graduate office will assist the student in transferring registration from MSc to PhD.

## **CAMPUS LIFE**

### **St. George Campus Services (most serving graduate students based on all campuses)**

Academic Success Centre: [www.asc.utoronto.ca](http://www.asc.utoronto.ca)  
Accessibility Services: [www.accessibility.utoronto.ca](http://www.accessibility.utoronto.ca)  
Athletic and Recreation: [www.athletics.utoronto.ca](http://www.athletics.utoronto.ca)  
Career Centre: [www.careers.utoronto.ca](http://www.careers.utoronto.ca)  
Centre for Community Partnerships: [www.ccp.utoronto.ca](http://www.ccp.utoronto.ca)  
Centre for International Experience: [cie.utoronto.ca](http://cie.utoronto.ca)  
Family Care Office: [www.familycare.utoronto.ca](http://www.familycare.utoronto.ca)  
First Nations House: [www.fnh.utoronto.ca](http://www.fnh.utoronto.ca)  
Graduate Student Initiative: [www.studentlife.utoronto.ca/Programs/grads/gradNAV.htm](http://www.studentlife.utoronto.ca/Programs/grads/gradNAV.htm)  
Hart House: [www.harthouse.utoronto.ca](http://www.harthouse.utoronto.ca)  
Health and Wellness: [healthandwellness.utoronto.ca](http://healthandwellness.utoronto.ca)  
Office of Convocation: [www.convocation.utoronto.ca](http://www.convocation.utoronto.ca)  
Student Accounts: [www.fees.utoronto.ca](http://www.fees.utoronto.ca)  
Student Housing: [www.housing.utoronto.ca](http://www.housing.utoronto.ca)  
Student Resources – Graduate Student Programs: [www.studentlife.utoronto.ca](http://www.studentlife.utoronto.ca)  
University of Toronto Students' Union: [www.utsu.ca](http://www.utsu.ca)

### **Scarborough Campus Services**

Research and Graduate Studies: [www.utsc.utoronto.ca/~vpresearch/](http://www.utsc.utoronto.ca/~vpresearch/)  
Graduate Student Administrative Support: Lucy Pickering ([lucy@utsc.utoronto.ca](mailto:lucy@utsc.utoronto.ca))  
Graduate Students' Association at Scarborough: [www.utsc.utoronto.ca/~gsas/](http://www.utsc.utoronto.ca/~gsas/)  
Housing: [www.utsc.utoronto.ca/~residences/](http://www.utsc.utoronto.ca/~residences/)  
Child Care: [childcare.utsc.utoronto.ca/](http://childcare.utsc.utoronto.ca/)  
Centre for Teaching and Learning: [ctl.utsc.utoronto.ca/home/](http://ctl.utsc.utoronto.ca/home/)  
UTSC International Student Centre: [studentlife.utsc.utoronto.ca/isc/](http://studentlife.utsc.utoronto.ca/isc/)  
Athletics and Recreation: [www.utsc.utoronto.ca/~athletics/](http://www.utsc.utoronto.ca/~athletics/)  
Parking Services: [www.utsc.utoronto.ca/~parking/index.html](http://www.utsc.utoronto.ca/~parking/index.html)  
Academic Advising and Career Centre: [webapps.utsc.utoronto.ca/aaccweb/](http://webapps.utsc.utoronto.ca/aaccweb/)

### **Mississauga Campus Services**

Graduate Student Administrative Support: Carolyn Moon ([carolyn.moon@utoronto.ca](mailto:carolyn.moon@utoronto.ca))  
UTM Association of Graduate Students: [www.utm.utoronto.ca/utmags/](http://www.utm.utoronto.ca/utmags/)  
Physical Education, Athletics, and Recreation: <http://www1.erin.utoronto.ca/~w3physed/>  
Academic Skills Centre: <http://www.utm.utoronto.ca/asc/>  
Graduate Housing On-Campus: [http://www1.utm.utoronto.ca/~w3rez/GRAD\\_home.htm](http://www1.utm.utoronto.ca/~w3rez/GRAD_home.htm)  
Off-Campus Housing: <http://www.utm.utoronto.ca/index.php?id=11900>  
International Centre: <http://www.utm.utoronto.ca/international/>  
Transit passes: <http://www.utm.utoronto.ca/1006.0.html>  
Shuttle bus to St. George campus: <http://www.utm.utoronto.ca/index.php?id=1657>  
Child Care: <http://www.utm.utoronto.ca/index.php?id=319>  
Parking: <http://www.utm.utoronto.ca/1648.0.html>  
UTM Career Centre: <http://www.utm.utoronto.ca/careers/>