## Ecology & Evolutionary Biology UNIVERSITY OF TORONTO

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### **GUIDELINES FOR THE EEB PhD APPRAISAL EXAMINATION**

<u>Students and Supervisors</u>: Please also see the accompanying documents for more specific details: Checklist for the Appraisal Exam, Advice for the Appraisal Exam, and the relevant sections in the EEB Grad Handbook.

<u>Appraisal Exam Committee members</u>: See sections I (Goals of the Appraisal Exam) and III (Appraisal examination) indicated below with an \*

#### I: Goals of the Appraisal Exam\*

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 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. If completion of all of the proposed components of the thesis in a reasonable amount of time may not be possible, the components should be prioritized so that it is clear which of them could be dropped without compromising the ability of the student to satisfactorily complete the degree.

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.

4) provide feedback on the proposed research (e.g., provide suggestions on approach, methodology, statistics, etc.)

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.

# **II: Overview of the Appraisal Exam and Preparations for the Appraisal Exam**

The written **research proposal** must be 15-20 double-spaced pages (4000-5000 words), in 12-point font, with 1" margins; note that this length limit does not include figures, tables or citations. When a research proposal exceeds this word limit, the appraisal exam will be delayed until a revised research proposal has been provided. The student must provide examiners with both a Word file as well as a PDF file. Appendices may also be used for additional figures/text/manuscripts that might be relevant. See the "Advice on the Appraisal Exam" document for more details. The student should also prepare answers to the Question Bank.

The **examination** consists of a public seminar given by the student on the thesis work to the whole department (25-30 minutes plus 5-10 minutes of questions from the audience), usually followed immediately by an *in camera* examination during which committee members ask questions about the research proposal and, with the Question Bank, evaluate the student's breadth of knowledge. The private portion of the examination (i.e., where only the members of the examination committee are present) should normally last 2-2.5 hours. Allow at least 4 hours for the talk, questions from the audience, a short break before the exam starts, the exam, faculty discussions before and after the exam, and feedback after the exam

The Appraisal Committee consists of at least five members chosen by the student and supervisor including: a) at least three members of the supervisory committee including the supervisor and co-supervisor (if there is one), and b) two other EEB faculty members who have not been closely involved in the supervision of the student's progress. One of those latter two faculty members should be chosen to broaden the ability of the committee to evaluate the breadth of ecological/evolutionary knowledge of the candidate. The appraisal committee members must be approved by the EEB Graduate Office (grad.eeb@utoronto.ca) before the seminar and exam are scheduled and **at least three weeks** before the exam (see the *Checklist for the Appraisal Exam document* for details). The committee as a whole is responsible for evaluating the candidate's breadth of knowledge. The Graduate Office will choose the exam chair from those committee members not on the supervisory committee.

All members of the appraisal committee must be able to attend the seminar. See the "*Checklist for the Appraisal Exam*" document for information on booking the seminar and exam.

Once the committee members have been approved, the student should submit the title of their seminar, an abstract, a personal data form (see Documents, Forms, and Links on the Current Graduate Students webpage) and the research proposal to the EEB Graduate Office (grad.eeb@utoronto.ca) at least **two weeks** before the examination. The student will email the personal data form and research proposal (as a Word file and as a PDF) to committee members at least **two weeks** before the examination. Please arrange a time and location for your appraisal seminar **well before your exam** with the seminar organizer for your campus; at least two

weeks before your exam, provide the seminar organizer with the title for your seminar.

The Graduate Office will circulate a formal announcement to the appraisal committee a week before the exam and the seminar coordinator(s) will send the seminar information to the department.

### III: Appraisal examination\*:

The *in camera* examination will normally last 2-2.5 hours and will be divided into two phases. The first phase should involve **questions about the research** proposal. Questions on the proposal should explore the candidate's grasp of principles and concepts underlying the projects, and gauge the adequacy of the proposed methods. In this phase of the exam, the student should demonstrate advanced expertise in their research specialization. Some of the guestioning should be on the theory and proposed approach(es). Questions should also evaluate progress-to-date, but there is not an expectation that a lot of data will have been collected and analyzed (indeed, taking the appraisal exam after many proposed experiments have already been completed is strongly discouraged); rather, discussions about the data collected so far (e.g. in a pilot study or a partly completed experiment) will help the committee to evaluate whether the structure and design of the thesis are sound. Progess-to-date provided in the appraisal proposal will also help the committee to determine whether the student is competent at stating clear questions, analyzing data, and interpreting their results. Note that the committee's expectations will be higher for appraisals done late, so candidates should take the appraisal exam during the required time period (see the EEB Appraisal Guidelines document). The Appraisal Committee should also determine whether, based partly on progress-to-date, it will be feasible for the student to finish the proposed projects and complete the thesis before the student exits the funded cohort. If the student's work has been of low quality, unfocused or slow, then this indicates red flags in achieving goals #1 (conducting research) and #2 (completing the thesis in the time remaining).

Students can expect to get approximately 10-15 min. of questions from each faculty member in the first round of questions on the proposal; a second round of questions usually follows and sometimes there will be a few questions in a third round.

During the second phase of the appraisal, the **Question Bank phase**, roughly 20-30 minutes should be allocated to assessing the breadth of knowledge of the candidate using the departmental Question Bank. The student is expected to demonstrate senior undergraduate competence in general biological principles, mastery of fundamental ecological and evolutionary concepts, and advanced expertise in their research specialization. The breadth portion of the examination will involve an over-dispersed selection of questions from the entire subject range of the departmental Question Bank. 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 appraisal 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.

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 (at least one month) of the examination date.

At the end of the examination the candidate will be asked to leave the room while the committee discusses the results of the examination.

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 standards 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 appraisal committee will choose a way(s) for the student to satisfy the deficiencies (see below).

The three possible outcomes of the appraisal committee discussions are:

(a) A **positive vote of at least four members** of the committee confirms that the student has passed.

(b) If the **student passes conditionally**, that is, the committee decides they must fulfill post-examination requirements before they are approved for continuation of their program, these conditions and deadlines for each one must be clearly specified on the Appraisal Exam Report. The (co)-supervisor(s) is/are responsible for ensuring that the conditions are met. The supervisor or student must submit the completed Post-Appraisal Requirements Completion Form to the EEB Graduate Office within two weeks of the last deadline specified on the Appraisal Exam Report. If the Post-Appraisal Exam Requirements Completion Form is not submitted on time, the student will cease to be in good standing. They may not be allowed to register and funding may be withheld. Normally, the requirements

should be fulfilled 6 months but a longer timeframe can be granted if the situation is unusual and the committee specifically approves the longer period.

### (c) A negative outcome:

(i) A negative outcome of the first appraisal exam requires the student to retake the exam within *four months* (a longer timeframe can be granted if the situation is unusual and the committee and the Associate Chair (Graduate) specifically approve the longer period). The student will consider suggestions offered by the committee for improving the research proposal and, if required, ways to remedy any breadth deficiencies. Normally, the student will not be required to do another public talk. For the other components of the exam, the exam committee will decide which components must be retested (for example, if the student did well on the Question Bank questions, they will not be required to repeat that component of the exam). Which components must be redone and which ones will not be retested must be indicated by the appraisal committee on the Appraisal Exam Report form. The student or supervisor will inform the EEB Graduate Office about the date and time of the retake exam at least two weeks before the exam.

(ii) If the student fails to pass the second attempt at the exam, they have failed to meet the required academic standards of the graduate program and may be advised by the Associate Chair (Graduate) that they may no longer be eligible to proceed in the program.

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

- i. 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.
- ii. Assignment of one or more essays on topics selected by the appraisal committee. The appraisal committee members would be responsible for evaluating the essay(s).
- iii. Assignment of additional coursework. (Auditing courses will not be considered to be adequate remediation unless the weak area(s) is/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 student's supervisory committee will be responsible for enforcing the prescription and reporting the progress of remediation in the records of their meetings. The supervisor(s) are responsible for completing

the Post-Appraisal Exam Requirements Completion Form and returning it to the EEB Graduate Office (Kitty Lam).

The Chair of the appraisal exam committee is responsible for returning the Appraisal Examination Report and other appropriate documents to the Graduate Office within 24 hours of the exam. The Chair of the exam or the Graduate Office will provide copies of the Appraisal Examination Report to the student and (co-)supervisor(s).

--Last modified Aug. 9, 2015 (combining the two previous guidelines documents, plus revisions)