

Policies for the Integrative Biology graduate program

These are the official policies for IB grad training, adopted by the IB faculty at its retreat 5/5/17, that went into effect starting with the 2017-2018 academic year. To provide guidance for both grad students and faculty, they are organized here by expectations for each cohort. The overall goal of these policies is to make expectations uniform and clear, to enable all students to complete their PhD in five years in an orderly and predictable fashion. Note that each student has three different committees during their time in the graduate program.

First years.

The *Advisory Committee* (major professor plus two other faculty, at least one from IB) needs to meet with incoming students early, ideally before classes start, during the end of summer or in orientation week. The major professor is responsible for organizing this informal meeting with his/her incoming student(s). Deadline: end of the first week of classes.

Second years.

Need to meet with their *Advisory Committee* fall semester to get advice for the year and preparing for Qualifying Examination QEs (including help in choosing *Qualifying Exam Committee*). The student should give committee a 2-page outline of developing thesis plan including likely questions, hypotheses, and goals a week in advance of this meeting. Deadline: Oct. 1st.

The Application for the Qualifying Examination form must be submitted by Oct 15th; in order to be approved by the Head Graduate Advisor, the *Qualifying Exam Committee* and the topics they represent need to represent sufficient breadth. By department policy, Evolution is required to be one of the four QE subject areas. Students should meet with each QE committee member several times during the academic year, to prepare in the area of study represented by that committee member. QE must be taken by end of spring semester.

Goals of the Ph.D. qualifying exam. As expressed by the UC Berkeley Graduate Division (<http://grad.berkeley.edu/policy/degrees-policy/-f26-qualifying-examination>):

"The intent of the Qualifying Examination is to ascertain the breadth of the student's comprehension in at least three subject areas related to the major field of study, and to determine whether the student has the ability to think incisively and critically about the theoretical and the practical aspects of these areas. The examination may consider a number of academic points of view and the criteria by which they may be evaluated."

While the qualifying exam is focused on general background in the field, specifically the broad topics represented by each committee member, rather than the dissertation plan per se, it is useful for the QE Committee to understand the research areas and approaches the student is planning. Therefore, a 2-page dissertation plan (no longer), giving the main goals, questions, and approaches to be employed, should be distributed to the committee at least one week in advance of the exam and introduced orally by the student in the first 5-10 minutes of the exam, to serve as an ice-breaker and jumping-off point. Questions by the committee, and its deliberations over whether the exam is a pass or fail, should be directed towards an assessment of **whether the student is prepared to begin independent graduate-level research in their field in terms of background knowledge, research skills, and reasoning abilities.**

Guidelines for carrying out the QE. The Chair of the committee is in charge of the exam but these guidelines are given in order to help make the experience more uniform. The student's advisor may attend, but she/he may not say anything. Committee members need to be present during the full exam, and should not be preoccupied on their computers or phones...

1. After all are assembled, the student and the major advisor (if present), steps out for a minute while the committee prepares. The student has usually been asked ahead of time what order they would like the committee members to ask their questions.
2. Start the exam with 10 minutes for the student to talk about her/his dissertation plan, and explain their goals for their graduate program and future.
3. The first round of questions should be approximately 20 minutes for each committee member, with a 5-minute break included after the second. Typically the chair allows other committee members to ask follow-up questions that are directly related to what the person whose turn it is has asked (it is more efficient that way to deal with one issue at once), but that does not count against their 20 minutes. The chair is responsible to keep things moving if the exam gets bogged down.
3. There is typically a shorter second round -- each committee member in turn asks any follow-up questions they have. The committee should be done with this round by 2.5 hours into the time slot, since the exam needs to be completely done in 3 hours.
4. When there are no more questions, ask the student and the major advisor (if present) to leave the room. Each committee member in turn gives an evaluation of their part of the exam, followed by a general discussion of the overall performance.
5. Call the student back into the room (along with advisor, if present), and give them the results, hopefully congratulations! If some aspects went badly, then close the door (since usually lab mates will be waiting out in the hall) and explain the decision to the student. This can be traumatic, so some supportive time spent with the student explaining what they can do in the future is helpful. The details about various possible outcomes are at: <http://grad.berkeley.edu/policy/degrees-policy/#f27-qualifying-examination-results>

The Application for Candidacy form, which includes appointing the *Dissertation Committee*, should be submitted as soon as possible after passing the QE, in order to facilitate the following new requirement, which the student should begin working on over the summer.

Third years.

The new annual meeting requirement for this cohort is discussion/approval of a formal dissertation plan fully attended by the student's newly constituted *Dissertation Committee*. Deadline: November 1st. The plan should be approximately 8 pages and contain goals, hypotheses, and planned methods of data gathering / analysis for each chapter of the dissertation. The committee has the right to reject the plan if insufficient, and send the student back to the drawing board. In that case the student will not be considered in good standing with the department until they produce an acceptably improved plan and have another meeting with their committee to discuss/approve it. It is important for the student to be fully engaged in their dissertation during their third year (and beyond), so this requirement should be taken very seriously and completed early in the Fall.

Fourth years and up.

The annual meeting requirement is to discuss progress with their full *Dissertation Committee*. Deadline: Dec. 1st. Sixth years and up also need to schedule a meeting with the Head Graduate Advisor.

General:

Expectation for an IB dissertation: To ensure a uniform experience by all IB grad students, it is necessary to have a fair and equitable expectation for the dissertation. The departmental standard is three chapters, each of the quality and weight to allow it to be publishable in a major journal in its field. Each chapter is expected to be primarily the student's work (see following Grad Div policy (<http://grad.berkeley.edu/policy/degrees-policy/-f38-planning-for-the-dissertation>)):

The Graduate Council has stated that joint or group work is not acceptable as the basis for awarding graduate degrees. Students may collaborate on research projects under the traditional supervision of a faculty guidance committee. However, each student must write a dissertation that represents a cohesive presentation of the research conducted and is capable of standing independently from the group project.

The ideal dissertation plan would allow these three chapters to be completed sequentially, the first chapter setting the stage for the second, etc., allowing the student to have early publications before the job search begins in the fifth year. Ideal goals would be the first chapter completed and submitted for publication (after review by the *Dissertation Committee*) by the end of the third year, the second chapter by the end of the fourth year, and the third chapter by the end of the fifth year.

Every grad student is required to give a finishing seminar attended by their committee members and open to the public. This can occur as a formal seminar in one of the regularly scheduled seminar series on campus. There will also be a special colloquium organized for spring semester in RRR week, for all finishing students who did not give a talk in one of the regular seminars. All grad students and faculty will be invited and refreshments served, thus this can serve as an excellent cross-department, integrative event.

All committee meetings should be attended in person by the full committee; this is much better for the student. Except for the incoming students (see above) it is the student's responsibility to plan well ahead of time and schedule these meetings while working around faculty travel and sabbaticals. Faculty are requested to make themselves available as flexibly as possible when on campus.

The Graduate Advisor for each cohort (first through fifth years) will hold a general information meeting with that cohort, once a year. The Head Graduate Advisor will meet individually with each student sixth year and above, once a year.