Graduate Group in Integrative Pathobiology: Application for the Qualifying Examination

Ideally, the qualifying examination (QE) should take place at or around the end of the spring quarter of the second academic year in graduate school. Extensions or modifications of this plan should be discussed with the faculty advisor. Students are evaluated both on the basis of their academic performance and the two- part oral QE. The QE is designed to determine the student's eligibility for admission to candidacy for the Ph.D. degree.

The Qualifying Examination has two parts:

1. Research Proposal (written and oral)
2. Subject Exam

Research proposal: The format of this portion of the examination is a combination of a 1-5 page research proposal and an oral presentation/defense of a novel research problem. There is an expectation that the student will develop a rationale leading to a logical and testable hypothesis followed by specific objectives that test the hypothesis. This proposal should be reviewed by the committee prior to the qualifying examination. The proposal should be developed by the student along with mentorship from their mentor; the examination committee may assist in the development. This portion of the examination is designed to assess creativity and rationality of research design. The significance, feasibility, and the relationship of the proposal with research literature will be important criteria for evaluation. The proposal, as it is written, usually becomes the foundation for the actual thesis project, but its exact relationship with the eventual thesis is not set in stone. The purpose is to defend a hypothesis driven project in both written and oral form.

Subject exam: With the help of their mentor(s), the student should choose three subject areas of special focus (e.g. general pathology, systemic pathology, immunology, immunopathology, microbiology, virology, genetics, parasitology etc.) The purpose of this portion of the exam is to assess the adequacy and depth of the student's core training - does the candidate possess sufficient breadth and depth of knowledge in molecular, cellular and systems biology to pursue independent, doctoral research?

Selection of QE committee:

In consultation with their mentor, the student should choose a QE committee whose research interests and expertise complement the proposed research project. The QE committee is comprised of 5 faculty:

- One faculty committee member will be asked (by the student) to serve as chairperson of the committee and four additional faculty should be asked to serve as members.
- Three of the five faculty must hold IPB membership.
- One member *may* be a non-Senate faculty, a faculty member from a different university, or a scholar from outside academia. However, there are restrictions on eligibility as well as additional paperwork required for such outside members. Students should contact Erin Kent to discuss details and determine eligibility.
- If at all possible, at least two of the committee members should become members of the student's dissertation committee.
- A QE application must be submitted to and approved by Graduate Studies prior to holding the oral portion of the exam. The application is online.

- A signed QE Major Professor Statement must be submitted to Erin Kent prior to holding the oral portion of the exam. The statement is at the end of this document.

The QE chairperson is charged with overseeing all aspects of the QE and should take an active role in helping to prepare the candidate for the exam. The student and chair should come to an early agreement on the structure of the QE - how much time will be allotted for the candidate's initial presentation of their research plan? Will the Research and Subject portions of the QE be separated or intermixed? These decisions should be communicated to the QE committee.

The student should choose a QE committee comprised of faculty members who have an interest in mentoring and who are willing to meet at least once, or preferably, more times with the student prior to the examination. This pre-QE mentorship is in the direct interest of the student and should help guide and improve the proposed research and increase the likelihood of a successful outcome. Such meetings also facilitate the shaping of the subject exam portion of the QE.

Pathology requirement for GGIP Qualifying Exam:

Pathology is a unifying research focus within the Graduate Group in Integrative Pathobiology (IP). As such, there is an expectation that the IP QE will include a pathology component. "Pathology" in the context of the QE should not be limited to "General Pathology", but should reflect the graduate student's individual research project. Although pathology should be addressed during the examination, there is **no requirement** for including an American College of Veterinary Pathology diplomat on the QE panel. IP graduate students should strive to assemble a panel of research experts from the GGIP faculty most able to explore and provide constructive criticism on the student's individual proposal.

Advancement to Candidacy:

Candidacy is achieved after successful completion of the Qualifying Exam *but is not automatic*. The student must complete the Candidacy – Plan B form, including payment of the $90 fee and signatures from the mentor and advisor. The candidacy form requires nomination of the 3-member Dissertation Committee. Students are encouraged to submit the Candidacy form as soon as possible after successful completion of the Qualifying Exam and no later than Spring quarter of the 3rd year.

I acknowledge that my graduate student _____(name) is adequately prepared to take their Qualifying Exam (QE) in Integrative Pathobiology within the next 3 months. This student has been given appropriate mentoring and opportunity to develop their aims and has or will be given the opportunity to practice their presentation and study for the general knowledge portion of their exam (see below for further description of QE preparedness).

_____ _____

(Signature of Major Professor) (Date)

Guidelines for QE preparedness:

1. Coursework completed with minimum required scholarship.
2. Development of the project hypothesis (hypotheses), specific aims, and experimental approach including analytical methods.
3. Successful practice of oral presentation and defense of their ideas to an audience of other scientists (faculty and peers).
4. Adequate exploration of alternate methods and solid understanding of appropriate analytical methods for their area of research.