QUALIFYING EXAM FOR PhD STUDENTS IN THE INTEGRATED PROGRAM IN BIOMEDICAL SCIENCES

To be admitted to candidacy for the Doctor of Philosophy degree in the Integrated Program in Biomedical Sciences (IPBS), all students must pass a Qualifying Examination. The Qualifying Examination will consist of the writing and oral defense of a mock grant proposal on a topic different from the intended dissertation research. To insure that the topic of the proposal is sufficiently different from student’s research, this topic should be approved in advance by the Examination Committee.

An Examination Committee for each student will be composed of four Graduate Faculty members from among any of the 6 IPBS academic tracks. The Examination Committee will include the student’s Advisor as a non-voting member; selection of the other three committee members will be completed by the student’s academic track Ph.D. program committee (which includes the GPD and two other faculty members) in consultation with the Advisor. The composition of the Examination Committee should be decided early in the 4th semester (Spring of Year 2) and communicated to the student in early February. The student will arrange a meeting with the Examination Committee no later than May 1st, to evaluate the Specific Aims page. The committee will approve the Specific Aims page or recommend changes that must be completed within one week. The student will then prepare a written proposal which must be defended orally to the Examination Committee by August 1st. The student should not discuss the contents of the proposal with faculty members or others with established expertise in the topic of the proposal. The Examination Committee will decide whether to pass or fail the student based on their evaluation of both the written document and the oral presentation/discussion of the proposal.

The format and procedures for the Qualifying exam are described in the Student Handbook.

Excerpt from Student Handbook regarding the Qualifying Exam:

For admission to candidacy for the PhD degree, all students must pass a Qualifying Examination. The Qualifying Examination is standardized among all IPBS tracks, and is administered at the end of the 4th semester after the required coursework is complete. The purpose of the Qualifying Exam is to evaluate the student's competency in the following areas:

1. **Hypothesis or Experimental Question.** The student must have a hypothesis or experimental question which is clearly stated, testable, and well-justified. The rationale for this hypothesis or question must be clear, and the student must be able to defend his/her proposed hypothesis or question.

2. **Experimental Approach.** The student must present an experimental approach that is clearly described and logical. The approach must directly test the hypothesis or experimental question. Discussion of expected and alternative outcomes, potential pitfalls, and alternative approaches must be included.

3. **Background Knowledge.** The student must display a deep understanding of the Qualifying Exam topic and supporting literature. The student must also have broad knowledge of the general biomedical sciences and experimental approaches, especially in their specific track.

4. **Oral Presentation.** The student must be able to clearly articulate and describe the research proposal. The student must be able to defend his/her rationale for specific approaches and respond to critiques in a professional manner. Overall oral communication skills are evaluated in this section.

Procedure

The Qualifying Examination will consist of preparation and oral defense of a mock grant proposal on a topic different from the intended dissertation research. The format of the grant proposal should be as follows: Specific Aims page, Background and Significance, Preliminary data (from the literature), and Research Design and Methods. The proposal should be a maximum of 20 pages in length and double-spaced, including figures but not including references. The topic of the grant proposal should be
determined by the student who should submit a Specific Aims page for approval no later than May 1st of the second year. An Examination Committee comprised of 4 faculty including the student’s advisor (as a non-voting member) will evaluate the Specific Aims page and approve it or recommend changes that must be completed in a satisfactory manner within one week. After approval of the Specific Aims, the student should write the rest of the grant proposal and submit the complete document to the Examination Committee within 2 to 4 weeks (no later than the first week of July).

A defense of the grant proposal must be completed by August 1. The Examination Committee will evaluate both the written document and the oral presentation/discussion of the proposal on the basis of its originality, the student’s mastery of the material, the degree of logicality/rationality of the presentation, the quality of the justification and the defense of the proposed research plan. To pass the qualifying examination the student must be assigned grades of “Pass” by at least two of the three grading examiners. The Chair of the Examination Committee will prepare a written summary of the Committee’s evaluation. If the Committee determines that there are deficiencies in performance on the exam, at the discretion of the committee a final grading decision may be deferred. In this case the student will be given the opportunity to correct the deficiencies within a specified time frame, not to exceed one month, at which time the performance will be re-evaluated and a decision rendered.

Upon completion of the Qualifying Examination the GPD will login to the GSPS (https://gsps.luc.edu/Secure/login.aspx) and initiate the Qualifying Examination form (which is found under “Student Forms”, and is called the “Comprehensive Exam” by the LUC Graduate School).