

## **QUALIFYING EXAM**

In order to become a candidate for the Ph.D. degree all students must take and pass a Qualifying Exam. Students should typically have attempted their Qualifying exam by the end of their 4<sup>th</sup> semester (not including summer sessions). Under extraordinary circumstances such as illness or family emergency, the Examining Committee and/or the Department Head may grant an extension at the written request of the student.

### **Examining Committee**

An Examining Committee, appointed by the Program Director, will administer the Examination. The Examining Committee will be composed of at least 5 members of the graduate faculty including one from each of the 4 major anatomy disciplines (Gross anatomy, Histology, Neuroanatomy and Developmental anatomy), the Clinical Anatomy Program director and, if already selected, the student's major professor. Any other members of the Clinical Anatomy Graduate Advisory Committee are welcome to participate in the oral portion of the qualifying exam.

The qualifying exam will have two parts. Part A will consist of written questions given over 4 days. Part B will be an oral presentation, which may include an oral defense of the student's answers to Part A.

### **Part A**

The Examining Committee will prepare the questions for the exam. These will come from the four general areas covered in the required coursework. Each day for 4 days, the student will be provided with a question, or questions, from one area and have no more than 6 hours to respond to it. The student will have full access to books, journals and the internet. This portion of the exam is OPEN BOOK, however, students may not solicit help from elsewhere.

Two committee members will read each response. The Examining Committee member who wrote the question will be the primary examiner for that question and will prepare a detailed evaluation of the response. A second committee member will act as a reader and will complete a separate shorter review. In addition to factual accuracy, the examiners will be looking for clear and concise language together with evidence of the student's understanding of the material. Written critiques should be completed within 1 week of finishing the exam.

### **Part B**

This portion of the exam should be taken within 3 weeks of completion of Part A. It will consist of an oral presentation followed by the student's oral defense

of their presentation and/or their answers to the questions in Part A. The oral presentation can take the form of either,

- a) A research seminar, of no more than 45 minutes, on a topic chosen by the student's major professor. The topic should be related to the area of research the student is expecting to pursue but should not be just a description of their intended research project.

Or,

- b) A lecture, as would be presented to a student class, on a topic in one of the anatomical specialties. The subject of this lecture will be chosen by the Program Director in consultation with the student.

Depending on the preference of the student's major professor the presentation part of the examination may be open to everyone, the Department, or just Graduate faculty.

Following the presentation the members of the Examining Committee, or any other members of the Graduate Advisory Committee present, may ask questions about the presentation or the student's answers in Part A of the exam. Follow-up questions, clarifying basic anatomy knowledge, may also be asked. In total, Part B of the examination should not take more than 4 hours.

### **Evaluation**

Following the conclusion of Part B of the exam the Examining Committee members will evaluate the student's performance overall and determine if the student passed or failed. In the unlikely event that the committee does not come to an agreement, the matter will be discussed with the Department Head.

If the student passes, they become a candidate for the Ph.D. degree. If they fail they may be given the option to retake the exam if the committee feels they did not perform to their best ability or there were extenuating circumstances. If the student is not given the option to retake the exam, he/she may be given the option to transfer to a MS degree program.

## **PRELIMINARY EXAM**

### **Research Committee**

By the end of the semester following successful completion of the Qualifying Exam a Ph.D. student should have formed their Research Committee. This committee is responsible for guiding the student through their research and the writing and defending of their dissertation. The committee will also ultimately decide if the student's dissertation is worthy of a Ph.D. The Research Committee should be composed of at least five members of LSUHSC's Graduate Faculty. It must include the student's Major Professor and the Program Director for the Clinical Anatomy Graduate Program. A majority of the members must be faculty with an appointment in the Department of Cell Biology & Anatomy, and at least one must be a faculty member from outside the Department who is knowledgeable in the research area.

### **Written Research Proposal**

Usually within two years of satisfactory completion of required course work and the qualifying exam, and at least two (2) weeks prior to the Examination date, a 'Request for Preliminary Examination' form must be submitted to the Graduate School office. Note also that the preliminary exam must be passed at least one academic year (ie. 3 consecutive semesters) before graduation. The Request for Preliminary Examination formally names the student's Research Committee and sets the date of the Preliminary Examination (Proposal Defense).

Prior to scheduling a Preliminary Exam the student must prepare a written research proposal which describes their dissertation research. This proposal should be prepared according to form PHS 398 guidelines for grant applications to the National Institutes of Health (NIH) and distributed to all members of the committee at least two weeks prior to the examination.

The Proposal should have the following sections (12 point font and double-spaced).

1. Specific Aims (What do you intend to do?) 1-2 pages
2. Background and Significance (Why the work is important, including a comprehensive literature review of the research topic.) 20-25 pages
3. Preliminary Studies (What has been done to date?) 3-4 pages
4. Research Design and Methods (How are you going to do the work?) 3-4 pages

[It is not necessary to include Budget, Resources and Environment, and Other Support pages.]

While the proposal should be prepared in R01 format, it should primarily reflect the student's dissertation project. It need not, therefore, be written as a formal funding application rigidly embodying a proposed five-year research plan. Description of experiments and sub-aims already completed should be included, either as preliminary results within the description of an Aim in the Research Plan, or (if an Aim is essentially completed) as a progress report. If the student already has a publication related to the proposed thesis work, this can be included as an addendum.

The Specific Aims page may be viewed and edited by the mentor. The mentor may also view and provide feedback on an outline of the Research Plan. However, the mentor should not extensively edit drafts of the Research Plan. If the committee believes that the submitted proposal is incomplete or otherwise unsatisfactory, then the Preliminary Examination should be postponed. The committee chair will write a memo stating why the proposal is unsatisfactory and outline how it should be revised.

At least two weeks before the scheduled Preliminary Examination, the student presents a finalized Dissertation Proposal to the members of the Research Committee.

### **Oral Presentation**

The student should prepare a PowerPoint presentation (approx. 30-45 minutes) that includes Background, Specific Aims, the major points of the proposal, and key data. While the submitted written proposal will be discussed, the exam will be graded on the oral /powerpoint presentation and related discussion. The student may be questioned on any area of science related to the project. The projected goals will normally be discussed along with the proposed timeline.

The results of the Preliminary Examination will be determined by a vote of the committee as follows:

Pass -student becomes a candidate for the Ph.D. degree.

Fail -two dissenting votes constitutes a basis for failure. The committee will discuss the following options.

Failure –no re-examination. The student may have the option to complete a Master's Degree.

Failure –re-examination. This should generally take place within six months of the first Preliminary Exam. The committee will decide on

the format: The student may be asked to rewrite the entire proposal, or particular sections, prior to the retaking the oral exam. The student may be asked to write a progress report prior to retaking the oral examination.

Once the Committee decides whether the student should proceed with the Dissertation research or not it communicates its decision to the student, the Department Head, and the School of Graduate Studies.

A Report on the Preliminary Examination must be signed by all Committee members and sent to the Graduate School.