

**Purpose.** The dissertation is formal document which presents the background, hypothesis, methods, data and discussion for a coherent project. Its completion and approval by a dissertation committee is required for the award of the Doctor of Philosophy (Ph.D.). The dissertation mentor and committee serve to guide the student's research, analysis and publication of the dissertation to fulfill the requirements for a Ph.D. The dissertation proposal is a preliminary document which outlines the problem of interest and provides specific, testable hypotheses as well as a series of experiments to test the hypotheses. This document must be approved by the student's dissertation committee and is intended to guide students and mentors in forming and deriving maximum benefit from this process.

**Mentor.** The dissertation mentor must be a full time member of the Graduate Faculty of the University of Mississippi Medical Center. In addition, the dissertation mentor must be a member of the faculty of the Program in Neuroscience. Finally, the mentor must be able to demonstrate funding for at least three years of graduate research and stipend.

**Committee.** The dissertation committee is normally composed of five members, including the dissertation mentor who chairs the committee. At least three members of the committee must be members of the faculty of the Program in Neuroscience. The committee should include no more than two faculty whose primary appointment is in the same department. The student must form a dissertation committee within six months of successfully passing the Comprehensive Examination.

**Dissertation proposal.** A dissertation proposal providing a brief background, preliminary data, hypotheses and a series of experiments to test the hypotheses should be presented to a dissertation committee within nine months of successful completion of the Comprehensive Examination. In the PIN, this proposal is to be written in the format of an NRSA predoctoral proposal. The guidelines for this can be found at <http://grants.nih.gov/grants/guide/pa-files/PA-07-002.html>. In fact, it is expected that successful dissertation proposals will be submitted after approval by the dissertation committee unless this is not feasible due to factors such as immigration status, mentor funding source etc.

**Committee review.** The dissertation committee should review the student's progress every six months. Student progress must be reviewed every 12 months. A brief summary of progress and estimated time to dissertation completion is then forwarded to the Director of the PIN.

**Publication.** Publication in rigorous, peer-reviewed journals is the standard for the scientific worth of research. The PIN therefore requires at least two first-author manuscripts published or in press for completion of a Ph.D. Although the PIN does not set a minimum impact factor for the journals in which students

publish, it is expected that each publication will be subject to at least two external reviews.

**Dissertation.** As the student nears the end of collecting the data proposed for the dissertation, he/she should begin preparing the dissertation. Normally, the student's publications form the core of the dissertation. The dissertation should consist the following:

- a thorough review of the relevant literature in the style of a review for publication. In fact, it is anticipated that most dissertation background sections will be submitted for publication, although this is not required.
- a section on the hypotheses and specific aims of the project.
- the manuscripts published or submitted for publication by the student.
- A concluding section which summarizes the data and conclusions as well as the limitations of the project and future directions for study.
- The dissertation will be evaluated with the PIN Grading – Scientific Writing rubric.

**Dissertation Defense.** Not less than four weeks after submitting the dissertation for review by the dissertation committee, the student will present a formal seminar summarizing the dissertation research. The seminar will be open to the public and will be no more than 60 min. in duration. After the seminar, the student will defend the dissertation in a final oral examination by the dissertation committee. The dissertation defense will be evaluated with the PIN Grading – Presentation rubric.

**Revisions.** Any revisions of the dissertation required by the dissertation committee must be completed and submitted before student will be recommended for award of the doctorate.

**Time limits.** It is anticipated that completion of a Ph.D. will require two years of formal classroom training and three years to complete the dissertation. Although five years to completion is the target in the PIN, it is recognized that circumstances may prevent the student from finishing the dissertation in that time.

At the beginning of the sixth year of graduate training, the student and mentor must submit a brief explanation of the delay in completion to the dissertation committee and the director of the PIN. This explanation should also include a revised timeline and target date for completion. A progress report will be submitted to the committee and the director of the PIN every four months until the start of the seventh year when reports will be required every three months.

Students must successfully complete the requirements for the Ph.D. in Neuroscience by the end of the seventh year. Students failing to do so will be dismissed from the PIN.