

**STUDENT HANDBOOK FOR
THE INTERDISCIPLINARY PROGRAM IN
THE COLLEGE OF GRADUATE HEALTH SCIENCES
“The Molecular and Cellular Basis of Human Disease”**

The Programs of Anatomy and Neurobiology, Molecular Sciences, Pathology, Pharmaceutical Sciences, Pharmacology, and Physiology are committed to developing an interdisciplinary program in the College of Graduate Health Sciences. Many major universities in the United States have developed similar programs to provide graduate students with a richer and more diversified graduate experience, and to improve their ability to compete with other academic institutions for outstanding students. An important feature of this program is tutorial-based learning. The objective of this proposal is to bring together a faculty with complementary research expertise and a common interest in graduate education.

Academic standards

The admission, retention and graduation standards will be the same as those of the College of Graduate Health Sciences.

Student’s Faculty Committee

By the end of the first academic year, the student must select a Research Advisor from within the graduate faculty of the interdisciplinary program and with whom the student performed a research rotation. Factors involved in the final selection of a Research Advisor include: (1) mutual acceptance by the student and advisor, (2) certification of the faculty member to direct Ph.D. work by the Graduate Studies Council, (3) the ability of the faculty member to provide financial support for the research project, and (4) approval by the Chair of the involved graduate program and the Director of the Interdisciplinary Program. **Before beginning the second year of study (by June 1 of the first year)**, the student and Research Advisor will select a Faculty Committee, which will be composed of five members of the graduate faculty. No more than three members of the Faculty Committee can come from any one-graduate program. Faculty appointments in the Graduate College will occur through existing programs as according to the policies of the College.

Qualifying Examination For Admission to Candidacy

The qualifying examination, to be administered by the student's Faculty Committee, is intended to test the student's fund of information in the sciences related to the chosen field of study, and to evaluate the student's ability to reason critically and to perform independent research. Before the end of the first semester in the third year of study, a student will prepare and defend a sample dissertation proposal. The student's committee by the previous January (at the time of the student's annual evaluation) will be required to approve the general topic for the sample dissertation proposal, which must be distinct from the topic of the student's thesis project. The guidelines for this proposal are based on a mini-NIH proposal (8 to 12 pages): ~1 page of specific aims, 3 to 4 pages of rationale and background, 2 to 3 pages of preliminary results (optional), and three to four pages of experimental design and anticipated results. In addition, the proposal must include a complete list of literature cited. An appendix of up to 3 pages of supplemental material may also be included in the proposal. This proposal will be submitted to the Faculty Committee at least two weeks prior to the oral exam. The oral examination will focus on a discussion of this written proposal. The research advisor will not be allowed to serve as chair of the examining committee. The student is allowed only one failing grade from the examiners. If a student should fail the exam, he/she will be allowed to retake the examination within four months of the first examination. Failure of the second oral exam will result in dismissal from the Ph.D. program.

Course Requirements

The following course work or its equivalent is required. Credits for prior training of all listed courses are possible but require the approval of the Interdisciplinary Advisory Committee and the Director of the Interdisciplinary Program.

First year of study

Biochemistry (fall)

Integrated Study of human disease (fall)

Introduction to Research (fall): A course to present to students the diversity of research within the programs participating in the interdisciplinary program.

Molecular Biology (spring)

Cell Biology (spring)

Research Rotations (fall and spring): Students will rotate through at least four different laboratories for a period of approximately four weeks each during the first year of study. The student will not rotate through more than two laboratories based in a single program. This enables the student to be exposed to the diversity of research laboratories within the interdisciplinary program. The individual Program Directors or Chairs will determine the list of rotations for a particular year with input provided by the interdisciplinary program committee. At the end of three years, the interdisciplinary program will be evaluated to make sure that an adequate balance is maintained with respect to the distribution of students within the individual graduate programs.

Second year of study

At least two semesters of advanced coursework (representing a minimum of two elective courses) to be determined by the student in consultation with the student's Research Committee are required. In addition, the Integrity in Research course will be taken in the spring semester of the second year.