

BIOLOGY PH.D.

All students must meet the Requirements for the Doctor of Philosophy Degree

OVERVIEW

Students pursue coursework and conduct their dissertation research with Biology Graduate Program faculty in one or several biological sub-disciplines.

Learning goals for the Ph.D. degree students:

- Be able to design and execute an independent research project, and analyze and communicate experimental results orally and in writing
- Be proficient in analysis and visualization of experimental results
- Be able to articulate and defend the rationale and importance of research questions, study design, and analysis of results
- Be able to communicate general and specific knowledge and importance of findings to a broad audience as well as experts within sub-disciplines
- Have a broad factual and conceptual knowledge and understanding of biology

SPECIFIC REQUIREMENTS

Requirements for Admission to Graduate Studies for the Degree of Doctor of Philosophy

Satisfactory completion of a bachelor's degree, typically in the life sciences. There is no GRE requirement for any Biology graduate program.

Minimum Degree Requirements

There are 75 required credits, of which at least 30 must be graded credits. Students may take up to 6 credits of 3000- or 4000-level courses for graduate credit with approval of the course instructor, the Director of Graduate Studies, and the Graduate College. The selection of courses will be designated for each student by the advisor and graduate studies committee. At least 20, but not more than 45, credits must be earned in dissertation research. Each candidate must participate in the teaching of at least 1 undergraduate course.

Required Courses (21 Credits)		
BIOL 6005	Graduate Seminar (5 credits required)	1
BIOL 6010	Biology Seminar (4 credits required)	1
BIOL 6000	Scientific Survival Skills	2
BIOL 6100	Computational Biology	4
BIOL 6015	Proposal Writing	2
BIOL 6020	Foundations in Eco & Evo (4 credits required)	1

or BIOL 6025	Foundations in Cell & Dev	
Electives (Minimum of 9 credits)		
Research (20-45 credits)		
BIOL 7491	Doctoral Dissertation Research	1-18

Comprehensive Examination

Students take Proposal Writing the spring semester of their second semester during which they prepare a written research proposal. The comprehensive exam evaluates the written proposal and has two oral parts. The first oral part is a defense of the written proposal. The second oral part evaluates the student's understanding of the broad range of concepts in the student's discipline. The comprehensive examination takes place before the end of May of their second year.

Requirements for Advancement to Candidacy for the Degree of Doctor of Philosophy

Successful completion of the comprehensive examination is required for advancement to candidacy.