

Doctoral Degree in Integrative Biology

Doctoral students are required to complete a minimum of 60 semester hours beyond the baccalaureate degree. The coursework requirement is meant to provide students with basic understanding and skills in Integrative Biology, while allowing individuals to tailor the specific courses taken to meet their needs. Courses are selected in consultation with the student's advisor and must satisfy the following requirements:

1. 3 credit hours of Topics in Integrative Biology (BIOS 6093).
2. 9 credit hours of other graduate-level coursework.¹
3. 2 credit hours of Scientific Communication (BIOS 6022).
4. 4 credit hours of Graduate Seminar (BIOS 6091).²
5. 12 credit hours of Dissertation Research (BIOS 7050).³
6. The remaining 30 credit hours may include additional seminar (BIOS 6091) or research (BIOS 7000, 7050).⁴

¹A minimum of 3 credit hours must be at the 6000-level (i.e., 6 credit hours may be at the 5000-level). May not include BIOS 6091, 7000, 7050 or more than 3 credit hours of BIOS 6090.

²Students are expected to enroll in BIOS 6091 every regular semester in residence.

³Students are expected to enroll in BIOS 7050 every regular semester in residence after advancing to candidacy.

⁴Other specific courses may be required to address deficiencies in student preparation.

Students must maintain a cumulative GPA of 3.0 (on a 4.0 scale) in all required coursework. Any course in which a student earns a C will be reviewed by the graduate committee to determine whether it will count toward the degree requirement. In no case, will more than 6 credit hours of C be applied to the degree requirements. At least half of the total credits earned by doctoral students must be at the 6000 or 7000-level.

The Advisory Committee: All students admitted to the doctoral program will be assigned an interim advisor. During the first year in the program, the student will select a research advisor (who may be the same as the interim advisor) and assemble an advisory committee. The advisory committee consists of four associate or full members of the graduate faculty, three of whom must be faculty of the Department of Biological Sciences. Other committee members may be from other departments at UNO or other institutions. The advisory committee provides guidance on coursework and research.

A *Plan of Study* that includes coursework completed, in progress, and planned, must be approved by the graduate coordinator and submitted to the graduate school by the end of the first year in the program. Continuation in the program is contingent upon evidence of progress in the degree program provided in the form of *Annual Reports* submitted to the graduate committee.

The General Exam: Students must take a general exam before the end of their second year in the program. The major requirement of the general exam is the preparation of a well-constructed and complete research proposal describing the dissertation project in sufficient detail to judge feasibility, novelty, and relevance of the project. The proposal is presented at a public seminar and defended in a closed meeting with the advisory committee. Students need to demonstrate a

high degree of proficiency in their research area, appropriate general knowledge, and readiness to perform dissertation research. Upon passing the general exam, and with the approval of the Department Chair and Dean of the College, the student is admitted to doctoral candidacy.

Failure to meet the deadlines to submit a *Plan of Study* and pass the *General Exam* will result in a warning that will be entered into the student's departmental record. The student must satisfy the requirement before the end of the next regular semester. Failure to satisfy either requirement during the first regular semester after the deadline will result in a hold being placed on the student's registration for future semesters and potential dismissal from the program.

Dissertation: The most important requirement of the doctoral degree is a dissertation summarizing original, independent research, which is both significant and novel. Hence, the final years of study are dedicated to conducting research and preparing the dissertation. Advisory committee meetings are convened annually to monitor progress and address problems if they arise. The research is evaluated regularly and adjusted in scope or direction as needed to ensure progress toward the degree. The doctoral program culminates with the preparation, public presentation, and defense of the dissertation in front of the advisory committee. After the defense, the dissertation is revised according to committee recommendations and approved by the Graduate School.

Teaching Requirement: Students are required to have teaching experience prior to the completion of their graduate career at UNO. The experience may be attained prior to enrollment in the program (e.g., by serving as a teaching assistant during undergraduate or MS programs) or during the student's tenure in the doctoral program.