BIOL 6990. Special Topics. 1-18 Credits.
Research for the Master’s Thesis.
Prerequisite: Life sciences Graduate student.

BIOL 6991. Internship. 1-18 Credits.
On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

BIOL 6993. Independent Study. 1-18 Credits.
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

BIOL 6994. Teaching Assistantship. 1-3 Credits.
Student service as a teaching assistant, usually in an introductory-level course in the discipline, for which credit is awarded. Offered at department discretion. Prerequisite: Instructor permission.

BIOL 6995. Graduate Independent Research. 1-18 Credits.
Graduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

BIOL 7491. Doctoral Dissertation Research. 1-18 Credits.
Research for the Doctoral Dissertation.

BIOL 7990. Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

BIOL 7993. Independent Study. 1-18 Credits.
A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion. Prerequisite: Instructor permission.

BIOL 6210. Foundations Quant Reasoning. 3 Credits.
Provides the knowledge and competencies needed to tackle complex problems in data analysis using first principles of evolutionary theory. As part of this process, students will work to develop a comprehensive analysis toolbox to conduct highly reproducible quantitative research in high-performance computation (HPC) environment. These topics will be pivotal to ensure success in the student’s graduate careers in data-intensive fields. Prerequisite: Graduate student.

BIOL 6215. BiLDS Seminar. 1 Credit.
Professional development via discussion panels and other activities. Prerequisite: Life sciences Graduate student.

BIOL 6391. Master’s Thesis Research. 1-18 Credits.
Research for the Master’s Thesis.

BIOL 6000. General Biology I. 4 Credits.
An introduction to biology, emphasizing the diversity of life and the fundamental principles that underlie the processes of living systems. Prerequisite: Life sciences Graduate student.

BIOL 6010. Biology Seminar. 1 Credit.
Weekly departmental seminar attended by all faculty and graduate students. Graduate students practice giving scientific talks, presenting annual research-in-progress updates and receiving feedback from their peers and faculty. Prerequisite: Life sciences Graduate student.

BIOL 6015. Proposal Writing. 2 Credits.
Assignments help students understand the scientific method and develop strategies for writing well. By the end of the semester, students will have a complete/near complete proposal for their graduate research project. Typically, this course is taken in the second year prior to the candidacy exam. Prerequisite: Life sciences Graduate student.

BIOL 6020. Foundations in Eco & Evo. 1 Credit.
Seminar focused on reading and discussing foundational papers in ecology and evolution. Specific topics will vary by instructor. Prerequisite: Life Sciences Graduate student.

BIOL 6025. Foundations in Cell & Dev. 1 Credit.
Seminar focused on reading and discussing foundational papers in cell and developmental biology. Specific topics will vary by instructor. Prerequisite: Life Sciences Graduate student.

BIOL 6100. Computational Biology. 4 Credits.
Basic programming methods in R, including functions, data types, graphics, file input and output; computational tools for reproducible research, including regular expressions, markdown, git, github, and shell commands; and advanced topics, including batch processing, structured programming, functional programming, and randomization tests. Prerequisite: Graduate student.

BIOL 6200. Ecological Genomics. 4 Credits.
An exploration of the merger of ecology and genomics to address the genetic basis of adaptive variation in natural populations. Emphasis on integrating quantitative approaches and hands-on analysis of large genomic and ecological data sets. Pre/co-requisites: BCOR 2300, BCOR 2100, or STAT 1410; basic knowledge of statistics, probability, genetics, and evolution required; familiarity with programming in R or bash is recommended. Cross-listed with: PBIO 6800.