

Biological Sciences MS

Upon being accepted for admission into the Graduate School, each student will either select or be assigned an advisor from the graduate faculty within the Department of Biological and Environmental Sciences. This faculty member will chair the student's advisory committee, which will include at least two additional graduate faculty members, one of whom may be from another department. Courses may be applied to a particular master's degree program only with the approval of the student's advisory committee. Courses taken before a committee is chosen may not be approved by the committee for the student's particular degree program and, therefore, may not apply to the degree. Course selections will be based upon unique student needs as revealed by academic records and career goals. Course selections will include graduate course offerings in the Department of Biological and Environmental Sciences as well as supporting courses if deemed desirable or necessary from other departments. With committee recommendation, and approval of the Graduate Dean, a maximum of two upper level undergraduate courses may be applied to certain degree programs.

The Biological Sciences MS degree is available on campus or fully on-line.

Master of Science in Biological Sciences - Option I Thesis

The student will complete a minimum of 30 sh. The program includes: BSC 518 Thesis and other 15 sh of core courses;9 sh of electives selected and approved by the student's advisory committee.

Thesis (6 semester hours required)

BSC 518	Thesis (6 semester hours required)	3-6
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Required Course (6 semester hours)

BSC 504	Biostatistics	3
BSC 515	Cell Biology	3

Core courses (9 semester hours)

To satisfy core requirements choose one course (3 semester hours) from each topic, the second course taken from a topic will be counted towards the general electives:

Topic 1. Genetics

BSC 512	Ecological Genetics	3
BSC 513	Molecular Genetics	3

Topic 2. Ecology

BSC 510	Community Ecology	3
BSC 560	Landscape Ecology	3

Topic 3. Physiology

BSC 552	Comparative Animal Physiology	3
BSC 550	Microbial Physiology	3

Electives (9 semester hours)

Select a total of 9 semester hours from following courses:

BSC 509	Microbial Ecology	3
BSC 510	Community Ecology	3
BSC 511	Avian Biology	3
BSC 512	Ecological Genetics	3
BSC 513	Molecular Genetics	3
BSC 514	Pharmacology	3
BSC 516	Medical Microbiology	3
BSC 517	GLB/Stem Cell Biology	3
BSC 519	Gene Regulation	3
BSC 520	Immunology	3
BSC 521	Epigenetics	3
BSC 522	Reproductive Physiology	3
BSC 523	Vertebrate Endocrinology	3
BSC 524	Endocrine Toxicology	3
BSC 525	Neuroscience	3
BSC 526	Developmental Biology	3
BSC 527	Human Physiology	3
BSC 530	Virology	3

BSC 531	Biogeography	3
BSC 532	Behavioral Ecology	3
BSC 533	Invertebrate Zoology	3
BSC 534	Vertebrate Zoology	3
BSC 535	Evolution	3
BSC 537	Behavior and Conservation	3
BSC 539	Herpetology	3
BSC 540	Animal Behavior	3
BSC 541	Genetic Engineering	3
BSC 550	Microbial Physiology	3
BSC 552	Comparative Animal Physiology	3
BSC 560	Landscape Ecology	3
BSC 561	Bioremediation	3
BSC 562	Ecotoxicology	3
Total Hours		30

Master of Science in Biological Sciences - Option II Non-Thesis

The student will complete a minimum of 36 semester hours. The program includes BSC 595 Research Literature and Techniques, (3 semester hours) and 15 semester hours of core courses, plus 18 semester hours of electives selected and approved by the students advisory committee.

Research (3 semester hours required)

BSC 595	Research Literature and Techniques (3 semester hours required)	3
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Required Courses (6 credits)

BSC 504	Biostatistics	3
BSC 515	Cell Biology	3

Required Core Course (9 semester hours)

To satisfy core requirements choose one course (3 semester hours) from each topic, the second course taken from a topic will be counted towards the general electives:

Topic 1. Genetics

BSC 512	Ecological Genetics	3
BSC 513	Molecular Genetics	3

Topic 2. Ecology

BSC 510	Community Ecology	3
BSC 560	Landscape Ecology	3

Topic 3. Physiology

BSC 552	Comparative Animal Physiology	3
BSC 550	Microbial Physiology	3

Electives (18 semester hours)

Select a total of 18 semester hours from:

BSC 509	Microbial Ecology	3
BSC 510	Community Ecology	3
BSC 511	Avian Biology	3
BSC 512	Ecological Genetics	3
BSC 513	Molecular Genetics	3
BSC 514	Pharmacology	3
BSC 516	Medical Microbiology	3
BSC 517	GLB/Stem Cell Biology	3
BSC 519	Gene Regulation	3
BSC 520	Immunology	3
BSC 521	Epigenetics	3
BSC 522	Reproductive Physiology	3
BSC 523	Vertebrate Endocrinology	3
BSC 524	Endocrine Toxicology	3

BSC 525	Neuroscience	3
BSC 526	Developmental Biology	3
BSC 527	Human Physiology	3
BSC 530	Virology	3
BSC 531	Biogeography	3
BSC 532	Behavioral Ecology	3
BSC 533	Invertebrate Zoology	3
BSC 534	Vertebrate Zoology	3
BSC 535	Evolution	3
BSC 537	Behavior and Conservation	3
BSC 539	Herpetology	3
BSC 540	Animal Behavior	3
BSC 541	Genetic Engineering	3
BSC 550	Microbial Physiology	3
BSC 552	Comparative Animal Physiology	3
BSC 560	Landscape Ecology	3
BSC 561	Bioremediation	3
BSC 562	Ecotoxicology	3

Total Hours **36**

Note: Successful completion of the Comprehensive Exam is required of all students.