

Biological Sciences— Capstone and Thesis

MASTER OF SCIENCE

NOVA SOUTHEASTERN
UNIVERSITY

NSU
Florida

Faculty and researcher fields of interest

- Anatomy/Physiology
- Animal Behavior
- Conservation Biology
- Ecology/Evolution
- Genomics/Genetics
- Microbiology
- Molecular Biology
- Science Education
- Systems Biology
- Virology/Immunology

M.S. in Biological Sciences—Capstone and Thesis Path

The thesis and capstone paths within the M.S. in Biological Sciences are designed to enhance a student's education in all fields of biology, including Ph.D. programs and professional medical programs. Traditionally, master's-degree programs in biology have placed heavy emphasis on course-based learning. Reflecting the hands-on and critical-thinking skills that are required for careers in biology, our thesis and capstone paths place increased emphasis on research. For both paths, students will have ample time to perform research in various capacities. This ensures that they can develop critical-thinking skills focused on applications, while tackling significant questions in biology. Two paths of study culminate in the creation of a novel and significant piece of writing, ensuring that graduates can effectively communicate their scientific findings to the community at large.

All students who are accepted into the M.S. program begin in the capstone path. Students take four core courses and five elective courses. They must take three capstone research courses (3 credits each) totaling a minimum of 9 credits. Given the research-centered focus of the thesis path, students will take a minimum of five thesis research courses (3 credits each) totaling a minimum of 15 credits. The total number of credits in both paths is 36 credits, designed to be completed within two years. Additional research proposal development is required for entry into the thesis path.

About the Halmos College of Natural Sciences and Oceanography

The Halmos College of Natural Sciences and Oceanography, located on both Fort Lauderdale/Davie and Oceanographic campuses, offers a variety of undergraduate and graduate opportunities.

Graduate studies include M.S. degrees in Biological Sciences (including health studies) and marine sciences (including marine biology, coastal zone management, and marine environmental science) and a Ph.D. program in marine biology/oceanography. There is also a four-course certificate in computational molecular biology (available online).

Learn More
cnso.nova.edu/biology



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Curriculum | Total Credits: 36

Core Courses (12 credits) required for both paths.

BCOR	5000	Graduate Seminar
BCOR	5585	Genomics
BCOR	5150	Immunobiology
BCOR	5350	Principles of Epidemiology

BIOLOGICAL SCIENCE ELECTIVES

Capstone Path (15 credits needed)/Thesis Path (9 credits needed)

There are two required electives for both the thesis and capstone track:

BCOR	5580	Scientific Methods and Experimental Design
BCOR	5779	Biostatistics

Students can choose from any of the electives listed as well as those listed in the M.S. in Marine Science Program

BCOR	5560	Biodiversity/Biogeography
BMHS	5200	Pathophysiology
BMHS	5250	Systems Neuroscience
BMHS	5300	Pharmacodynamics
BMHS	5400	Advanced Regional Anatomy/Lab
BMHS	5500	Advanced Biochemistry
BMME	5500	Molecular Evolution
BMME	5600	Training in Standard Molecular Biology Methods
BMME	5701	Ecosystems Applications
BMME	5750	Stable Isotopes
BMME	6000	GIS and Environmental Remote Sensing
BMME	6001	Laboratory q-PCR and Culture Techniques

BMME	6600	External Biology/Biotechnology Internship
BMME	6650	Molecular Forensics
BMME	6700	Advanced Molecular Genetics Laboratory Methods
BMME	6750	External/Biology/Biotechnology Internship II
BMME	6770	Bacterial Evolutionary Genetics
BMME	8050	Programming Data Structure/ Algorithm
BMME	8051	Database Management and Applications
BMME	8052	Data Visualization
BMME	8053	Introduction to Bioinformatics
BMME	8054	Data Mining
BMME	8058	Ichthyology
MSMS	5060	Scientific Communication
MSMS	6209	Biodiversity

RESEARCH COURSES

Capstone Path (9 Credits)/Thesis Path (15 Credits)

BMME	7000	Thesis (15 credits required)
BMME	7010	Capstone (9 credits required)

This publication should not be viewed as a substitution for official program requirements and outcomes. A student is responsible for meeting the curriculum and program requirements in the *Graduate Student Catalog* that are in effect when the student enters the program.

Nova Southeastern University admits students of any race, color, sexual orientation, gender, gender identity, military service, veteran status, and national or ethnic origin. ■ Nova Southeastern University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate's, baccalaureate, master's, educational specialist, doctorate, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Nova Southeastern University. 09-114-18_02PGA

Graduate Admissions

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