Biological Sciences—Capstone and Thesis
MASTER OF SCIENCE

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
cnsbo.nova.edu/biology
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.