

M.S. BIOLOGY – COMPREHENSIVE EXAM

SAMPLE GRADUATE DEGREE PROGRAM



Enrolling in a graduate education degree at Fredonia will give you the opportunity to gain advanced theoretical and specialist knowledge. Studying with engaged faculty and participating in applied learning experiences prepare you to meet challenges and be successful in your profession.

This degree plan map provides a sample pathway to graduation, and it can be used as a guide and a checklist for degree requirements. For complete information about this program, please consult the university catalog at:

<http://fredonia.smartcatalogiq.com>

FIRST SEMESTER

Course		Credits
BIOL 534	Animal Behavior	3
BIOL 511	Graduate Research Methods	3
BIOL 590	Graduate Seminar	1
TOTAL		7

Program Description

The **Master of Science in Biology** program requires completion of 30 credit hours of graduate-level courses.

Thesis and non-thesis options are available.

SECOND SEMESTER

Course		Credits
BIOL 550	Biological Conservation	3
BIOL 521	Graduate Science Communication	3
BIOL 590	Graduate Seminar	1
TOTAL		7-9

Admission Requirements

- Cumulative GPA 2.75 (3.0 preferred)
- Online application
Résumé
- Statement of Intent
- Recommendation letters (2)
- Undergraduate transcripts

THIRD SEMESTER

Course		Credits
BIOL 524	Aquatic Biology	3
BIOL 550	Neurophysiology	3
5xx-6xx	Graduate Elective	3
TOTAL		9

Background Preparation

- Bachelor's degree (or equivalent) in Life Science from an accredited institution
- Demonstrated motivation and training needed to succeed in graduate study
- Supporting science background includes physics, statistics, calculus and organic chemistry.

FOURTH SEMESTER

Course		Credits
BIOL 550	Cancer Biology	3
BIOL 538	Molecules and Medicine	3
BIOL 590	Graduate Seminar	1
TOTAL		7
GRAND TOTAL		30

Contact Information

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Why study Biology at Fredonia?

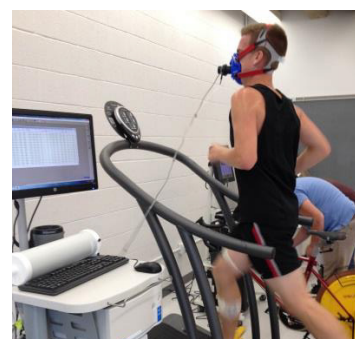
The degree comprises 30 credit hours of graduate level coursework with both a Thesis and Comprehensive Exam option available. For Thesis option students, the Department of Biology provides in-depth study in the student's thesis area. For Comprehensive Exam option students, the Department of Biology provides broad training in biology including cell and molecular, ecology and evolution, organismal and population biology coursework.

Students completing the M.S. degree at Fredonia often go on to Ph.D. programs at major research universities, earn entry into professional programs (e.g., medical school), or obtain positions in education, industry or government.

Mission Statement

Fredonia educates, challenges, and inspires students to become skilled, connected, creative, and responsible global citizens and professionals.

The university enriches the world through scholarship, artistic expression, community engagement, and entrepreneurship.



Why earn an advanced degree at Fredonia?

Graduate Studies at Fredonia supports the overall mission of our campus by offering breadth and depth of learning to students at the post-baccalaureate level through disciplinary, interdisciplinary and professional programs that will benefit the students and enrich the communities in which they live and work.

Graduate programs foster scholarly inquiry, professional research, ethical practice, artistic performance, and practical innovation, encouraging students and faculty to discover lifelong connections between their intellectual and creative aspirations and civic and global opportunities for engagement.

Your Research Experience at Fredonia

The Biology Comprehensive Exam option allows for pursuit of a research experience through a coursework. Faculty research interests include animal behavior, applied human physiology, aquatic biology, biochemistry, cell biology, developmental biology, ecology and evolution, immunology/microbiology, invertebrate biology, molecular biology, plant physiology, plant biology, and vertebrate physiology.

- Fredonia's new Science Center is a state-of-the art building which was designed with alumni input.
- The center has markedly changed the way science is taught at Fredonia, with a cross-disciplinary, collaborative approach driving everything we do, from faculty instruction and laboratory research to field experiences and corporate/institutional partnerships.
- The Master of Science in Biology degree program serves students seeking admission to Ph.D. programs in the biological and biomedical sciences; professional careers in the public and private sectors; technical work in education, medical and environmental settings; employment as instructors at two-year college levels; or permanent certification to teach in New York State schools.