BIOLOGY - M.S.

Description

Admission to the Master of Science (M.S.) in Biology has been temporarily suspended as of fall 2017.

The Master of Science degree in Biology provides an advanced degree for students who have an undergraduate degree in biology or a related life science. The program is offered for working biologists in various professions including educators teaching science at the secondary level.

Admission Requirements

Admission to the Master of Science (M.S.) in Biology has been temporarily suspended as of fall 2017.

- Official transcript(s)
- Minimum 3.00 undergraduate GPA
- Goal statement
- Three letters of recommendation
- GRE scores

English Language Proficiency Requirements for International Students: All international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning a minimum 587 TOEFL score (94 on the Internet-based version), minimum 82 MELAB score, minimum 7.0 IELTS score or minimum 65 PTE Academic score. For more information on international admission, visit the Office of Global Education’s admission website. Effective spring 2018.

For more information about graduate admissions, please visit the Graduate Studies website.

Program Learning Outcomes

Graduates of this program will be able to:

1. Understand advanced biological concepts beyond the scope of the typical undergraduate degree, and increase the depth of their knowledge through coursework and hands-on experiences.
2. Apply scientific principles and appreciate work outside of their particular field.
3. Effectively communicate about science with colleagues as well as those outside of the student's area of expertise.
4. Develop the necessary laboratory skills that will allow testing of hypotheses.

Program Requirements

Major Requirements

Courses selected in consultation with academic faculty advisor 1

BSCI 60199 THESIS I 2

Students interested in cell-/molecular-/biomedical-/biotechnology-related areas are encouraged to choose from the following:

- BSCI 50158 MOLECULAR BIOLOGY
- BSCI 50142 BIOENERGETICS
- BSCI 50143 & BSCI 60144 EUKARYOTIC CELL BIOLOGY and SELECTED READINGS IN EUKARYOTIC CELL BIOLOGY
- BSCI 50174 IMMUNOLOGY
- BSCI 50432 ENDOCRINOLOGY
- BSCI 50433 MAMMALIAN PHYSIOLOGY I
- BSCI 50434 MAMMALIAN PHYSIOLOGY II

Students interested in ecology are encouraged to choose from the following:

- BSCI 50163 EVOLUTION
- BSCI 50363 MICROBIAL ECOLOGY
- BSCI 50364 LIMNOLOGY
- BSCI 50368 WETLAND ECOLOGY AND MANAGEMENT
- BSCI 50374 CONSERVATION BIOLOGY
- BSCI 50556 VERTEBRATE ZOOLOGY
- BSCI 50371 EVOLUTIONARY BIOLOGY

Teachers holding or pursuing K-12 licensure are encouraged to choose from the following:

- BSCI 50163 EVOLUTION
- BSCI 50196 INDIVIDUAL INVESTIGATION
- BSCI 60080 EXPERIMENTAL METHODS IN BIOLOGY

Minimum Total Credit Hours: 32

1 The Department of Biological Sciences frequently offers special topics classes in specialized areas of interest, which can count towards the degree when part of the approved program of study. Coursework in other fields within the natural and physical sciences may be used to meet credit hour requirements when part of the approved program of study. Teachers holding or pursuing K-12 licensure must complete a minimum of 18 credit hours of biological sciences courses toward the degree. Students holding a bachelor's degree without K-12 licensure must complete a minimum of 23 hours of biological science courses toward the degree. BSCI 50104 may not be used to fulfill degree requirements. Maximum 4 credit hours may be earned through workshops in the sciences and science education.

2 After completing 6 credit hours of BSCI 60199, students must register continually for BSCI 60299 until the degree is earned.