

# BIOLOGY, MASTER OF SCIENCE (M.S.)

## General Requirements

Graduate students must complete a minimum of 30-36 graduate semester hours for the Master of Science degree, depending on whether a thesis or non-thesis program is followed. At least 50 percent of the course work hours must be at the 800 level. The planned program of study must consist of:

- at least 18-24 semester hours of biology including BIO 810 Biostatistics (3 hours), BIO 801 Scien Lit & Writing-Biology (2 hours), BIO 800 Biology and Ethics (1 hour), and
- 12 semester hours of additional electives in biology or other courses in the natural and mathematical sciences.

A grade point average of 3.0 must be maintained; a maximum of six semester hours of course work with a grade of "C" may be applied toward degree requirements.

## Admission Requirements

All applicants must meet the general requirements established by the Office of Graduate Education and Research for clear admission. Final acceptance of an applicant is determined by the Graduate Affairs Committee of the Department of Biological Sciences.

All applications to the Graduate School must include:

- Completed application for admission, including a statement of personal and professional objectives
- Application Fee
- Scores on the verbal, quantitative, and analytical portions of the Graduate Record Examination [GRE]
- Grade point average (GPA) & official transcript(s)
- Three letters of recommendation
- The departmental experience & essay form (MSWord document)
- The Graduate Studies Advisor Agreement Form.

All applicants must meet the general requirements established by the Graduate School for clear admission. In addition, applicants are expected to have verbal scores of 146 or above, quantitative scores of 140 or above, and analytical writing scores of 3.0 or above on the Graduate Record Exam. Applicants should have an undergraduate major in an area of the biological sciences, and supporting courses in chemistry, physics, and mathematics are recommended. Any deficiencies in a successful applicant's undergraduate training will be specified by the Department's Graduate Affairs Committee at the time of admission.

Prior to admission, applicants must have a faculty member from the Department of Biological Sciences agree to serve as their advisor should they be accepted to the program. Information concerning the research interests of faculty in the Department of Biological Sciences is available online at <http://biology.eku.edu/people> (<http://biology.eku.edu/people/>). Applicants should contact faculty with similar research interests to determine if they are accepting new students and would be willing to serve as their advisor. Once an advisor has been identified, applicants and/or advisors should inform the Graduate Coordinator. Applications

will not be considered complete without the Graduate Studies Advisor Agreement Form.

## Program Requirements

CIP Code: 26.0101

Courses equivalent to BIO 111 Cell and Molecular Biology and BIO 112 Ecology and Evolution, BIO 315 Genetics, BIO 348 Vertebrate Physiology, CSC 190 Object-Oriented Programming I, CSC 191 Object-Oriented Programming II, CSC 195 Discrete Structures II may be required as prerequisites.

Code	Title	Hours
<b>Biology Core</b>		
BIO 800	Biology and Ethics	1
BIO 801	Scien Lit & Writing-Biology	2
BIO 810	Biostatistics	3
<b>Tracks</b>		
Choose from one of the following tracks:		24-31
<i>Thesis Track</i>		
BIO 891	Thesis Research	
Choose from 18 hours of approved electives		
<i>Non-Thesis Track</i>		
BIO 880	Current Review of Biology	
Choose from two of the following:		
BIO 727	Immunology	
BIO 728	Virology	
BIO 731	Principles Molecular Biology	
BIO 821	Applications in Flow Cytometry	
BIO 831	Molecular Regulation	
BIO 848	Aquatic Ecosystems	
BIO 849	Field Methods in Ecology	
Choose from 20-21 hours of approved electives		
<b>Exit Requirements</b>		
GRD 857A	MS Bio 1st Written Comp Exam	0
GRD 858A	MS Bio Oral Exam	0
<b>Total Hours</b>		<b>30-37</b>

## Exit Requirements

All students must demonstrate their knowledge of biology by successfully passing an oral examination (GRD 857A MS Bio 1st Written Comp Exam) and by successfully defending their thesis (or, if pursuing the non-thesis program, their BIO 880 Current Review of Biology paper) in an oral examination (GRD 858A MS Bio Oral Exam). The committee for a student shall consist of the faculty member who has agreed to serve as the student's advisor and at least two members of the department's Graduate faculty members.

## Thesis Program

Six semester hours of Thesis Research (BIO 891 Thesis Research) are required in the 30-hour thesis program. A thesis based on the student's research must be submitted. Twenty-four hours of additional coursework will complete the requirements for the degree. Credit will not be given for BIO 880 Current Review of Biology or BIO 881 Independent Study in the thesis program.

### **Non-Thesis Program**

Three semester hours of BIO 880 Current Review of Biology are required in the 36-hour non-thesis program. Thirty hours of additional coursework will complete the requirements for the degree. Credit will not be given for BIO 891 Thesis Research in this program.