

# BIOLOGICAL SCIENCES OPTION DEPARTMENT OF BIOLOGICAL SCIENCES

AT EASTERN ILLINOIS UNIVERSITY

NAME
E NUMBER
CATALOG

## **GENERAL EDUCATION: 30-38 HRS**

#### LANGUAGE: 9 HRS

Course	Hours	Grade	Semester
ENG 1001G	3		
ENG 1002G	3		
CMN 1310G	3		

Grade of "C" or better is required

#### **SCIENCE AWARENESS: 7HRS**

Completed in major.

#### **MATHEMATICS: 3-5 HRS**

Completed in major.

### HUMANITIES/FINE ARTS: 9 HRS

Area	Course	Hours	Grade	Semester
Humanities		3		
Fine Arts		3		
Humanities/ Fine Arts		3		

### SOCIAL/BEHAVIORAL SCIENCES\*: 9 HRS

Must be from two different disciplines.

Course	Hours	Grade	Semester
	3		
	3		
	3		

\* One course must meet Cultural Diversity requirement.

#### **SENIOR SEMINAR: 3 HRS**

Course	Hours	Grade	Semester
EIU	3		

Seminar topic must be outside the major area. See Undergraduate Catalog for Senior Seminars that exclude Biological Sciences majors.

### FOREIGN LANGUAGE: 0-8 HRS

### EXEMPT? 🖵 YES 🖵 NO

Exempt if 2yrs in high school of a single foreign language with average grade of "C" or better.

Course	Hours	Grade	Semester

Biology Courses	Hours	Grade	Semester
BIO 1150 Biology Forum	1		
BIO 1500 General Biology I	4		
BIO 1550G* General Biology II	4		
BIO 3120* Molecular & Cell Biology	4		
BIO 3200* Genetics	4		
BIO 3510 Plant Physiology <u>OR</u> 3520* Animal Physiology <u>OR</u> 2220⁺ Anatomy & Physiology II	4		
BIO 3180* Ecology and Evolution	4		
Math Courses	Hours	Grade	Semester
MAT 2110G Brief Calculus	3		
BIO 4750* Statistic Anly of Sci Data OR MAT 2250G* Elementary Statistics	4		

Chemistry Courses	Hours	Grade	Semester
CHM 1310G General Chemistry I	3		
CHM 1315G General Chemistry I Lab	1		
CHM 1410* General Chemistry II	3		
CHM 1415* General Chemistry II Lab	1		
CHM 2430/2440# Organic Chemistry	3		
CHM 2435/2445 <sup>#</sup> Organic Chemistry Lab	1		
Physics Courses	Hours	Grade	Semester
PHY 1151G* Principles Physics I	3		
PHY 1152G* Principles Physics I Lab	1		
PHY 1161* Principles Physics II	3		
PHY 1162* Principles Physics II Lab	1		

\*CHM 2440/CHM 2445 (Organic Chemistry I with Lab) and CHM 2840/CHM 2845 (Organic Chemistry II) sequence is recommended for Pre-Health or Graduate Programs.

\*Additional prerequisite classes may be required. See Undergraduate Catalog

\*BIO 2210 (Anatomy and Physiology I) prerequisite. BIO 2210 counts as BIO elective credit.

# MAJOR ELECTIVES: 21 HRS

21 hours of course work in Biological Sciences (with the exception of **BIO 3400**, workshops, and courses designed for General Education) or Mathematics or Physical Sciences courses above 2000 (with the exception of general education and **CHM 2310**). A minimum of 15 hrs must be taken in Biological Sciences.

Course	Hours	Grade	Semester

BIO 2210 (4) Anatomy and Physiology I BIO 2320 (3) Economic Botany BIO 3210 (4) Immunology BIO 3300 (4) General Microbiology BIO 3312 (3) Horticulture BIO 3322 (3) Dendrology BIO 3450 (1-3) Independent Study BIO 3451 (1-3) Undergraduate Research BIO 3610 (3) Survey of Algae & Fungi BIO 3612 (3) Plant Evolution & Diversity BIO 3614 (3) Plant Anatomy BIO 3620 (4) Funct. Comp. Anatomy BIO 3622 (4) Embryology BIO 3624 (3) Histology BIO 3690 (3) Clinical Botation BIO 3700 (4) Parasitology BIO 3710 (3) Plant-Animal Interactions BIO 3740 (3) Clinical Mycology BIO 3810 (3) Freshwater Ecology BIO 3850 (3) Environmental Biology BIO 3888G (3) Tropical/Marine Ecology BIO 3950 (3) Vertebrate Natural History BIO 3952 (3) Invertebrate Natural History BIO 3960 (1-4) Special Topics BIO 4400 (1) Teaching in the Lab BIO 4751 (3) Adv. Molec. & Cell Biol. BIO 4800 (2) Research Techniques BIO 4810 (3) Plant Ecology BIO 4812 (3) Fisheries Ecology & Mgmt BIO 4814 (3) Conservation Biology BIO 4816 (3) Biotic Communities BIO 4818 (4) Environmental Microbiology BIO 4820 (4) Spatial Analysis for Environmental Sciences BIO 4830 (3) Comp. Vertebrate Physiology BIO 4832 (4) Animal Behavior BIO 4833 (4) Neurobiology of Diseases BIO 4834 (3) Neurobiology BIO 4835 (3) Advanced Neurobiology BIO 4836 (4) Pathogenic Neurobiology BIO 4892 (4) Intro. Paleobotany BIO 4920 (3) Medicinal Plants BIO 4940 (3) Phycology BIO 4942 (3) Mycology BIO 4944 (3) Lichens BIO 4946 (3) Bryology

Courses numbered 5000-5499 inclusive, may be taken by a senior whose graduation requirements average 2.75 or higher, with the permission of the instructor and the Dean of the Graduate School.

BIO 4948 (3) Plant Taxonomy BIO 4950 (3) Ichthyology BIO 4952 (3) Herpetology BIO 4954 (3) Ornithology BIO 4956 (3) Mammalogy BIO 4960 (3) Wetland & Aqua. Vasc. Plants BIO 4964 (4) Entomology BIO 4984\* (3) Organic Evolution

## **GENERAL ELECTIVES:**

Select other elective courses in ANY FIELD to complete graduation requirement of 120 semester hours.

Course	Hours	Grade	Semester

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# **BIOLOGICAL SCIENCES OPTION SUGGESTED COURSE SEQUENCE:**

YEAR 1	FIRST SEMESTER (15 HOURS)	SECOND SEMESTER (16-17 HOURS)	
Must earn 30+ SH for Sophomore Status	ENG 1001G (3) Composition & Language BIO 1500 (4) General Biology I CHM 1310G (3) General Chemistry I & CHM 1315G (1) General Chemistry I Lab BIO 1150 (1) Biology Forum <sup>1</sup> Gen Ed Elective (3)	ENG 1002G (3) Composition & Language CHM 1410 (3) General Chemistry II & CHM 1415 (1) General Chemistry II Lab BIO 1550 (4) General Biology II <sup>1</sup> Gen Ed Elective (3) <sup>2</sup> MAT Prerequisite (2-3)	
YEAR 2	FIRST SEMESTER (14 HOURS)	SECOND SEMESTER (14-15 HOURS)	
Must earn 60+ SH for Junior Status	BIO 3120 (4) Molecular & Cell Biology CMN 1310G (3) Intro. Speech Communication CHM 2430 (3) Organic Chemistry & CHM 2435 (1) Organic Chemistry Lab <sup>1</sup> Gen Ed Elective (3) MAT 2110 (3) Brief Calculus	ion BIO 3200 (4) Genetics BIO Elective (3-4) Bio Elective (3-4) BIO 2210 if taking A& P Sequence <sup>1</sup> Gen Ed Elective (3) <sup>1</sup> Gen Ed Elective (3)	
YEAR 3	FIRST SEMESTER (13 HOURS)	SECOND SEMESTER (16-18 HOURS)	
Must earn 90+ SH for Junior Status	BIO 3180 (4) Ecology & Evolution BIO 3510 (4) Plant Physiology <u>OR</u> BIO 3520 (4) Animal Physiology <u>OR</u> BIO 2220 (4) Anatomy and Physiology II PHY 1151G (3) Principles of Physics I & PHY 1152G (1) Principles of Physics I Lab	BIO 4750 (4) Statistic Anly of Sci Data <u>OR MAT 2250G</u> (4) Elementary Statistics PHY 1161 (3) Principles of Physics II & PHY 1162 (1) Principles of Physics II Lab BIO Elective (3-4) <sup>1</sup> Gen Ed Elective (3)	
YEAR 4	FIRST SEMESTER (12-14 HOURS)	SECOND SEMESTER (12-14 HOURS)	
Must earn 120 SH to graduate	EIU (3) Senior Seminar BIO Elective (3-4) BIO Elective (3-4) BIO Elective (3-4) <sup>1</sup> Gen Ed Elective (3)	BIO Elective (3-4) BIO Elective (3-4) <sup>3</sup> Free Elective (3) Free Elective (3) Exit Interview	

<sup>1</sup>General Education Elective

<sup>2</sup> See ACT Math Placement

<sup>3</sup> Take course that was not previously taken

The suggested schedule assumes that the foreign language requirement has been completed.

## **GRADUATION REQUIREMENTS:**

120 Semester Hours (SH)	2.00 Cumulative GPA	Notes:
40 SH of upper division courses (3000+)	2.00 Major GPA	
42 SH in residence at EIU	Senior Seminar (after 75 SH)	
32 SH junior-senior residency	Cultural Diversity	
12 SH senior residency	Application for Graduation (First semester junior year)	
56 SH at senior institution	Electronic Writing Portfolio 1 🛄 2 🛄 3 🛄	
Exit Interview (Final semester on campus)	See www.eiu.edu/assess for requirements	

# WWW.EIU.EDU/BIOLOGY/BIOLOGY\_MAJOR.PHP