



BACHELOR OF SCIENCES IN BIOLOGICAL SCIENCES

AT EASTERN ILLINOIS UNIVERSITY

NAME	
E NUMBER	
CATALOG	

2023-2024

GENERAL REQUIREMENTS: 40 HRS

LANGUAGE: 9 HRS

Grade of "C" or better is required.

COURSE	HOURS	GRADE	SEMESTER
ENG 1001G Composition & Language	3		
ENG 1002G Composition & Language II	3		
CMN 1310G Intro. to Speech Comm.	3		

HUMANITIES/FINE ARTS: 9 HRS

COURSE	HOURS	GRADE	SEMESTER
Humanities _____	3		
Fine Arts _____	3		
Humanities or Fine Arts _____	3		

SENIOR SEMINAR: 3 HRS

Senior topic must be outside the major area. See Undergraduate Catalog for Senior Seminars outside of Biological Sciences.

COURSE	HOURS	GRADE	SEMESTER
EIU _____	3		

SOCIAL/BEHAVIORAL SCIENCE: 9 HRS

Must be from two different disciplines. One course must meet Cultural & Diversity requirement

COURSE	HOURS	GRADE	SEMESTER
	3		
	3		
	3		

FOREIGN LANGUAGE: 0-8 HRS

Exempt if 2 yrs in high school with "C" average.

COURSE	HOURS	GRADE	SEMESTER
WL _____ G	4		
WL _____ G	4		

SCIENCE AWARENESS: 7 HRS

Complete in major.

MATHEMATICS: 3 HRS

Complete in major.

SCIENCE CORE: 56 HRS

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 OR BIO 3520* Animal Physiology OR BIO 2220* Anatomy & Physiology II	4		
BIO 3180* Ecology & Evolution	4		
BIO 3300* General Microbiology OR BIO 3330* Introduction to Botany OR BIO 3340* Zoology	4		

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		

MATH COURSES	HOURS	GRADE	SEMESTER
MAT 2110G* Brief Calculus	3		
BIO 4750* Statistic Anly of Sci Data OR MAT 2250* Elementry 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* Organic Chemistry 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: 21HRS

21 semester hours of elective course work in Biological Sciences (with the exception 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.

- BIO 2210** (4) Anatomy and Physiology I
- BIO 3035** (3) Economic Botany
- BIO 3210** (4) Immunology
- BIO 3312** (3) Horticulture
- BIO 3322** (3) Dendrology
- BIO 3330** (4) Introduction to Botany
- BIO 3340** (4) Zoology
- BIO 3450** (1-3) Independent Study
- BIO 3451** (1-3) Undergraduate Research
- BIO 3460** (4) Clinical Rotation
- BIO 3610** (3) Survey of Algae & Fungi
- BIO 3612** (3) Plant Evolution & Diversity
- BIO 3620** (4) Funct. Comp. Anatomy
- BIO 3622** (4) Embryology
- BIO 3624** (3) Histology
- BIO 3628** (4) Evolutionary Medicine
- BIO 3710** (3) Plant-Animal Interactions
- BIO 3720** (4) Entomology
- 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** (4) 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

COURSE	HOURS	GRADE	SEMESTER

- BIO 4833** (4) Neurobiology of Diseases
- BIO 4834** (4) Neurobiology
- BIO 4835** (4) Advanced Neurobiology
- BIO 4836** (4) Pathogenic Microbiology
- BIO 4892** (4) Intro. Paleobotany
- BIO 4914** (3) Plant Anatomy
- BIO 4920** (3) Medicinal Plants
- BIO 4940** (3) Phycology
- BIO 4942** (3) Mycology
- BIO 4944** (3) Lichens
- BIO 4946** (3) Bryology
- BIO 4948** (3) Plant Taxonomy
- BIO 4950** (3) Ichthyology

- BIO 4952** (3) Herpetology
- BIO 4954** (3) Ornithology
- BIO 4956** (3) Mammalogy
- BIO 4958** (4) Parasitology
- BIO 4960** (3) Wetland & Aqua. Vasc. Plants
- BIO 4984** (3) Evolutionary Biology

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.

BACHELOR OF SCIENCES IN BIOLOGICAL SCIENCES

GENERAL ELECTIVES

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

COURSE	HOURS	GRADE	SEMESTER

NOTES, QUESTIONS, MINOR REQUIREMENTS:

SUGGESTED 4-YEAR SEQUENCE

YEAR 1 MUST EARN 30+ SH FOR SOPHOMORE STATUS

FALL		SPRING		
ENG 1001G	3	ENG 1002G	3	
BIO 1500	4	BIO 1550G	4	
CHM 1310G/1315G	4	CHM 1410G/1415G	4	
BIO 1150	1	¹ Gen Ed Elective	3	
¹ Gen Ed Elective	3	² MAT Prereq	2-3	
Total		15	Total 16-17	

YEAR 2 MUST EARN 60+ SH FOR JUNIOR STATUS

FALL		SPRING		
CMN 1310G	3	BIO Elective	3-4	
CHM 2440/2445	4	BIO Elective (BIO 2210 if taking A& P Sequence)	3-4	
MAT 2110G	3	PHY 1161/1162	4	
PHY 1151G/1152G	4	¹ Gen Ed Elective	3	
Total		14	Total 13-15	

YEAR 3 MUST EARN 90+ SH FOR SENIOR STATUS

FALL		SPRING		
BIO 3120	4	BIO 3200	4	
BIO 3180	4	BIO Elective >3000	3-4	
BIO 3510/ BIO 3520/ OR	4	BIO Elective >3000	3-4	
BIO 2220		¹ Gen Ed Elective	3	
BIO 4750 OR	4			
MAT 2250G				
Total		16	Total 13-15	

YEAR 4 MUST EARN 120 SH TO GRADUATE

FALL		SPRING		
EIU 4XXXG	3	BIO Elective >3000	3-4	
BIO 3300/3330/OR 3340	4	BIO Elective >3000	3-4	
BIO Elective >3000	3-4	¹ Gen Ed Elective	3-4	
BIO Elective >3000	3-4	Free Elective	3	
¹ Gen Ed Elective	3	Exit Interview		
Total		16-18	Total 12-15	

¹ General Education Elective

² See Math Placement

³ Take course that was not previously taken

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

GRADUATION REQUIREMENTS:

<input type="checkbox"/>	120 Hours
<input type="checkbox"/>	40 SH of upper division courses (3000+)
<input type="checkbox"/>	30 SH in residence at EIU
<input type="checkbox"/>	30 SH junior-senior residency
<input type="checkbox"/>	12 SH senior residency
<input type="checkbox"/>	2.00 Cumulative GPA

<input type="checkbox"/>	2.00 Major GPA
<input type="checkbox"/>	Cultural Diversity
<input type="checkbox"/>	Application for Graduation (First semester junior year)
<input type="checkbox"/>	Electronic Writing Portfolio <input type="checkbox"/> 2 <input type="checkbox"/>
	See www.eiu.edu/~assess/ for requirements