



BIO-BOTANY

DEPARTMENT OF BIOLOGICAL SCIENCES
AT EASTERN ILLINOIS UNIVERSITY

NAME	
E NUMBER	
CATALOG	

F17

A growing number of undergraduate students are searching out more specific curricular programs, contrary to the trend of merging departments into holistic biological sciences departments. This leads programs in the botanical sciences such as ours to become less visible, despite our maintained expertise in the area. The proposed option would specifically highlight the strengths of the botanical group at EIU, and promote the opportunities for students interested in the botanical sciences. The more focused coursework of the option will make students more competitive in attaining botanical jobs (public and private sector) and in pursuing advanced degrees in the botanical sciences.

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

SCIENCE CORE: 51-53 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	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* Organic Chemistry Lab	1		
Physics Courses	Hours	Grade	Semester
PHY 1151G* Principles Physics I	3		
PHY 1152G* Principles Physics I Lab	1		
PHY 1161G* Principles Physics II	3		
PHY 1162G* 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 2320 (3) Economic Botany
 BIO 3300 (4) General Microbiology
 BIO 3322 (3) Dendrology
 BIO 3450 (1-3) Independent Study
 BIO 3451 (1-3) Undergraduate Research
 BIO 3612 (3) Plant Evolution & Diversity
 BIO 3614 (3) Plant Anatomy
 BIO 3710 (3) Plant-Animal Interactions
 BIO 3810 (3) Freshwater Ecology
 BIO 3850 (3) Environmental Biology
 BIO 3888G (3) Tropical/Marine Ecology
 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 4814 (3) Conservation Biology
 BIO 4816 (3) Biotic Communities
 BIO 4818 (4) Environmental Microbiology
 BIO 4820 (4) Spatial Analysis for Environmental Sciences
 BIO 4920 (3) Medicinal Plants
 BIO 4946 (3) Bryology
 BIO 4948 (3) Plant Taxonomy
 BIO 4960 (3) Wetland & Aqua. Vasc. Plants
 BIO 4984 (3) Organic Evolution

GEO 3300 (3) Soils
 GEO 3810 (3) GIS I
 GEO 3860 (3) GIS II
 CHM 3300 (3) Survey of Biochemistry
 CHM 4750 (3) Environmental Chemistry

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.

BE PREPARED: UPDATE THIS FORM BEFORE MEETING WITH YOUR ADVISOR

GENERAL ELECTIVES:

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

Course	Hours	Grade	Semester

Course	Hours	Grade	Semester

Course	Hours	Grade	Semester

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 ¹ Gen Ed Elective (3)	ENG 1002G (3) Composition & Language CHM 1410G (3) General Chemistry II & CHM 1415G (1) General Chemistry II Lab BIO 1550G (4) General Biology II ¹ Gen Ed Elective (3) ² 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 ¹ Gen Ed Elective (3) MAT 2110 (3) Brief Calculus	BIO 3200 (4) Genetics BIO Elective (3-4) Bio Elective (3-4) ¹ Gen Ed Elective (3) ¹ 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 PHY 1151G (3) Principles of Physics I & PHY 1152G (1) Principles of Physics I Lab	BIO 4750 (4) Statistic Anly of Sci Data OR MAT 2250G (4) Elementary Statistics PHY 1161 (3) Principles of Physics II & PHY 1162 (1) Principles of Physics II Lab BIO Elective (3-4) ¹ 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) Free Elective (3)	BIO Elective (3-4) BIO Elective (3-4) ³ Free Elective (3) Free Elective (3) Exit Interview

¹ General Education Elective

² See ACT Math Placement

³ 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 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>	
Exit Interview (Final semester on campus)	See www.eiu.edu/assess for requirements	