

Bachelor of Arts: Biology – Ecology, Evolution and Organismal Biology Emphasis (84G)

2017 -2018

58 hours

The Ecology, Evolution and Organismal Biology emphasis provides education for students interested in a career with private and governmental organizations conducting endangered species recovery, ecological restoration, biological surveys, toxicity evaluations, environmental impact analyses, field research, museum or herbarium curation, or who wish to work in zoos, nature centers, museums, or botanical gardens. This emphasis also provides suitable background for students wishing to pursue graduate degrees in animal behavior, botany, conservation biology, ecology, environmental toxicology, evolutionary biology, systematics, population biology, and zoology.

Introductory Track

- ___ BIOL2051 Gen Bio: Organismal Diversity, 4 hrs
- ___ BIOL2052 Gen Bio: Cell Structure & Function, 4 hrs
- ___ BIOL3100 Evolution, Ecology & the Nature of Science, 3 hrs
- ___ BIOL3140 Genetics, 4 hrs

Required Chemistry*

- ___ CHEM1110 General Chemistry I, 4 hrs
- ___ CHEM1120 General Chemistry II, 4 hrs

Required Chemistry Options (choose one option)

1. ___ CHEM2040 Applied Organic & Biochem, 4 hrs
OR
2. ___ CHEM2210 Organic Chemistry I, 3 hrs
___ CHEM2230 Organic Chemistry Lab, 2 hrs

Required Math (choose one option)

1. ___ MATH1120 Math for the Biological Sciences, 3 hrs AND ___ MATH1130 Trigonometry, 2 hrs
OR
2. ___ MATH1140 Precalculus, 4 hrs
OR
3. ___ MATH1420 Calculus I, 4 hrs

Required Earth Science OR Physics

(choose one course)

1. ___ EARTHSCI1300 Introduction to Geology, 4 hrs
OR
2. ___ PHYSICS1511 General Physics I, 4 hrs

Major Electives (21-23 hrs to equal 58 credit major)

- ___ BIOL3106 Vertebrate Anatomy (Fall/Spring), 4 hrs
- ___ BIOL3107 Environmental Physiology (Fall), 3 hrs
- ___ BIOL3112 Invertebrate Zoology (Spring), 4 hrs
- ___ BIOL3118 Marine Biology (Fall), 3 hrs
- ___ BIOL3120 Plant Diversity & Evolution (Spring), 4 hrs
- ___ BIOL3160 Field Zoology of Vertebrates (Spring), 4 hrs
- ___ BIOL3170 Entomology (Even Falls), 3 hrs
- ___ BIOL3174 Field Biology: _____ 1-3 hrs
- ___ BIOL3185 Readings in Biology, 1-3 hrs
- ___ BIOL3190 UG Research in Biology, 1-3 hrs
- ___ BIOL4105 Wildlife Ecology & Management (Odd Falls), 4 hrs
- ___ BIOL4108 Biodiversity Conservation Policy (Even Falls), 3 hrs

- ___ BIOL4114 Comparative Animal Physiology (Even Falls), 4 hrs
- ___ BIOL4122 Plant Physiology (Spring), 4 hrs
- ___ BIOL4137 Vertebrate Physiology (Odd Falls), 4 hrs
- ___ BIOL4142 Evolutionary Biology (Spring), 3 hrs
- ___ BIOL4146 Developmental Biology of Animals (Fall/Spring), 4 hrs
- ___ BIOL4154 Aquatic Ecology (Fall), 3 hrs
- ___ BIOL4157 Biostatistics (Fall), 3 hrs
- ___ BIOL4164 Mammalogy (Fall), 4 hrs
- ___ BIOL4166 Plant Systematics (Fall), 4 hrs
- ___ BIOL4167 Conservation Biology (Spring), 3 hrs
- ___ BIOL4168 Ecology (Fall), 4 hrs
- ___ BIOL4172 Developmental Plant Anatomy (Fall), 4 hrs
- ___ BIOL4180 Restoration Ecology (Spring), 4 hrs
- ___ BIOL4198 Independent Study, 1-3 hrs
- ___ EARTHSCI3328 Fossils & Evolution, 4 hrs
OR
- ___ GEOG3310 Geographical Info Systems, 3 hrs
OR
- ___ GEOG4220 Geography of Soils, 3 hrs

Science courses at **Iowa Lakeside Laboratory** satisfy elective requirements. Check with your advisor for specific information

NOTES:

- Biology majors must have both a UNI cumulative and a UNI major/PLAN GPA minimum of 2.50, with a grade of C- (1.67) or higher in all courses that are applied to the major.
- A minimum of 7 credits of 4000 biology electives required. BIOL4198 Independent Study does not count toward 4000 biology elective requirement.
- At least 4 credits of biology electives at the 4000 level need to be taken at UNI.
- Cannot count more than a **combined 4 credits** from, BIOL3185 Readings in Biology, BIOL3190 Undergraduate Research, BIOL 4198 Independent Study to the biology major.
- If *CHEM 1130 General Chemistry I-II, 5 hrs, is taken, then 3 additional biology electives are required to reach a 58 credit major.
- Honors Research requires completion of 4 credit hours of BIOL 3190 UG Research and 1 credit hour of BIOL 3191 Senior Thesis.

BA: Biology -- Ecology, Evolution and Organismal Biology

Possible Plan of Study

Year 1-Freshman Year		Year 2-Freshman Year	
BIOL2051 Gen Bio: Organismal Diversity	4	BIOL2052 Gen Bio: Cell Structure & Function	4
CHEM1110 General Chemistry I*	4	CHEM1120 General Chemistry II	4
Math course for major 4-5 credits*	4	Liberal Arts Core	3
[Calculus/Precalc/Math for Bio Sciences & Trig]		Liberal Arts Core	3
Liberal Arts Core	3		
*Based on ALEKS score			
TOTAL HOURS = 15		TOTAL HOURS = 14	
Year 2-Sophomore Year		Year 2-Sophomore Year	
BIOL3100 Evolution, Ecology & Nature of Science	3	BIOL3140 Genetics	4
Advanced Chemistry Course (4-5 hrs)	4	Biology Major Electives 3000 level	4
Liberal Arts Core	3	Liberal Arts Core	3
Liberal Arts Core	3	Liberal Arts Core	3
Liberal Arts Core	3		
TOTAL HOURS = 16		TOTAL HOURS = 14	
Year 3-Junior Year		Year 3-Junior Year	
Intro to Geology OR General Physics I	4	Biology Major Elective 3000 or 4000 level	4
Biology Major Elective 3000 or 4000 level	4	Biology Major Elective 3000 or 4000 level	4
Liberal Arts Core	3	Liberal Arts Core	3
Liberal Arts Core	3	University Electives	5
TOTAL HOURS = 14		TOTAL HOURS = 16	
Year 4-Senior Year		Year 4-Senior Year	
Biology Major Elective 4000 level	4	Biology Major Electives 4000 level	3
Liberal Arts Core	3	Liberal Arts Core	3
University Electives	9	University Electives	9
TOTAL HOURS = 16		TOTAL HOURS = 15	

1. This is a tentative long-term plan that is not meant to replace your official advisement requirements found on myUNiverse.
2. UNI Biology majors must have an UNI cumulative and UNI major GPA of 2.5 or higher, with a grade of C- (1.67) or higher in major courses.
3. University Policies & Procedures can be found online: www.uni.edu/catalog
4. After earning 85+ credits meet with your Record Analyst, Diana Harwood, in 115 Gilchrist Hall to discuss graduation.