

# Major Progress Tracker: **Ecology & Evolution**

For majors declared Fall 2020 and later

Name		PS #		Date	
TARGET GRADUATION DATE:					

<b>BIOSC COURSES</b> Must total a minimum of 32 credits <i>You must earn a grade of <b>C or higher</b> in all Biology courses</i>			
Core Courses	Cr	Grade	Notes
005X Foundations Bio Lab 1	1		
006X Foundations Bio Lab 2	1		
0150 Foundations Bio 1 (UHC0155)	3		
0160 Foundations Bio 2 (UHC0165)	3		
0350 Genetics	3		
0370 Ecology*	3		
1130 Evolution	3		
0390 Ecology Lab (F)	1		
1120 Biostatistics (F)	3		
Electives	Cr	Grade	Notes
(Field Course♦)	3		
(E&E Elective*)	3		
(E&E Elective*)	3		
0391 OR 1551 (WRIT) #	1		
Capstone	Cr	Grade	Notes
1550 Sr Seminar Eco/Ev (Sp)	1		

NOTES		
Color coding	FALL ONLY	SPRING ONLY
♦ Field Course	Taking BIOSC 0370+0390 @ PLE does not satisfy the field course requirement. See next page for approved field courses.	
* Electives	See next page for approved E&E Electives.	
# Writing Practicum	BIOSC 0391 must be taken concurrently with BIOSC 0390.	BIOSC 1551 must be taken concurrently with BIOSC 1550.

## General Education Requirements (Fall 2018 & later)

Wrkshp Comp \_\_\_\_\_ Sem in Comp \_\_\_\_\_

Writ #1 \_\_\_\_\_ Writ #2 \_\_\_\_\_ (in BIOSC)

Algebra \_\_\_\_\_ Quant Formal Reas. \_\_\_\_\_

2nd Language \_\_\_\_\_

Diversity Course \_\_\_\_\_

*The Diversity course may be used to fulfill another General Education Requirement.*

## Division Requirements (Humanities, Arts, Social Sciences, Natural Sciences)

Literature \_\_\_\_\_

The Arts \_\_\_\_\_

Creative Work \_\_\_\_\_

Philosophical Thinking/Ethics \_\_\_\_\_

Social Science \_\_\_\_\_

Historical Analysis \_\_\_\_\_

Natural Sciences *Fulfilled by Major*

## Global Awareness & Cultural Understanding

Global Issues \_\_\_\_\_

Geographic Region \_\_\_\_\_

Cross-Cultural Awareness \_\_\_\_\_

120 TOTAL credits required for degree	Date	Co-req GPA	BIOSC GPA

See p.2 for GPA calculation details

## CO-REQUISITES FOR MAJOR TRACKS

*You must average a 2.000 GPA in your chosen track of co-requisite courses.*

### Track 1: CHEMIPHYSICAL

MATH	Cr	Grade	Notes
MATH 0220 Calc 1	4		
STAT 1000 Appl Stat*	4		
CHEM	Cr	Grade	Notes
0110 Gen Chem 1	4		
0120 Gen Chem 2	4		
0310 Org Chem 1	3		
0320 Org Chem 2	3		
0345/0745 Org Lab	2		
PHYS	Cr	Grade	Notes
0110 Phys 1 (alg) OR 0174 Phys 1 (calc)	3-4		
0111 Phys 2 (alg) OR 0175 Phys 2 (calc)	3-4		

### Track 2: QUANTITATIVE

MATH	Cr	Grade	Notes
0220 Calc 1*	4		
0230 Calc 2*	4		
CHEM	Cr	Grade	Notes
0110 Gen Chem 1	4		
0120 Gen Chem 2	4		
STAT	Cr	Grade	Notes
STAT 1000 Appl Stat*	4		
1221 Appl Regress <sup>o</sup> (Sp)	3		
1261 Data Science (F)	3		
1301 Stat Packages (F)	3		
* MATH 0235 = 0220 + 0230 + STAT 0200 <u>not</u> useable for the major <sup>o</sup> Pre-req: B- or higher in STAT 1000			

### Track 3: ENVIRONMENTAL

MATH	Cr	Grade	Notes
MATH 0220 Calc 1	4		
STAT 1000 Appl Stat+	4		
CHEM	Cr	Grade	Notes
0110 Gen Chem 1	4		
0120 Gen Chem 2	4		
GEOL	Cr	Grade	Notes
0055 Geology Lab	2		
0820 Nat Disast (Sp) OR 0840 Environ Sci	3 3		
1030 Atm,Ocn,Clim	3		
1445 GIS, GPS (F, Sm)	3		
1516 Env Geochem	4		

# Major Progress Tracker: Ecology & Evolution

## Note on Major Timeline

This major is designed to be completed in 4 academic years. Specific course sequencing cannot be changed. If you are looking for a major that can be completed in fewer than 4 academic years, we offer a BS in Biological Sciences which is much more flexible in course sequencing. Occasionally a student bringing in transfer credit may have a different timeline; please see a Bio Advisor to discuss.

### Approved E&E electives for the major:

Course offerings and timings may vary from year to year.

Check the Master Course List on [this page](#) for up-to-date info.

BIOSC #	Course Name	Cr
1000	Biochemistry	3
1200	Vertebrate Morphology	3
1320	Population Biology	3
1350	Plant Biology (F odd)	3
1375	Tropical Biology (F even)	3
1435	Environmental Phys of Animals	3
1440	Animal Behavior	3
1445	Animal Communication	3
1520	Developmental Biology	3
1540	Computational Biology	3
1275	Genomics	3
1850	Microbiology	3
1998	Beneficial Microbes	3

Student may also take the following to count as E&E elective credits for the major:

- Additional PLE field courses (see below).
- Appropriate graduate courses with departmental and instructor permission.

BIOSC 1690 and 1900-1909 are not usable as elective credits for major.

### Approved Field Courses: Select ONE (additional field courses may be taken for elective credits)

Pymatuning Laboratory of Ecology – Summer					
Not all courses are offered every year. Ask your advisor for details.					
BIOSC #	Course Name	Cr	BIOSC #	Course Name	Cr
1140	Behavioral Ecology	3	1330	Field Botany	3
1160	Forest Ecology	3	1340	Field Entomology	3
1170	Freshwater Ecology	3	1360	Ecology of Fungi	3
1180	Ecology of Amphibians & Reptiles	3	1390	Field Techniques in Eco & Conservation	3
1190	Aquatic Entomology	3	1400	Disease Ecology	3
1220	Ecological Field Studies	3	1415	Field Mammology	3
1230	Ornithology	3	1420	Wildlife Management	3
1260	Aquatic Botany	3	1600	Stream Ecology	3
1270	Ecology of Fish	3	1610	Conservation Biology	3
1310	Wetland Ecology & Management	3			
Alternative Option					
BIOSC 1221: Urban Ecological Field Studies (1 credit)					
On-campus (Fall-only)					
<i>*Requires an additional 2 cr of EE electives to get to 32 credits</i>					

### Ecology & Evolution WRIT Practica Courses

Select one (either satisfies the WRIT Requirement for E&E Majors when taken along with the lab or seminar):

- BIOSC 0391: Ecology Lab Writing Practicum (F, 1cr)
- BIOSC 1551: Ecology & Evolution Seminar Writing Practicum (Sp, 1cr)

### Grade and GPA Requirements:

- You must have** a grade of "C" or better in your 32 credits of Biology courses for the major. However, a C-, D+, D, D- can count towards your total 120 credits for the bachelor's degree, and is averaged into your BIOSC GPA.
- AND** an overall BIOSC GPA (32 plus any extra BIOSC credits) of 2.000 or better.
- AND** your corequisite GPA must average to 2.000 or better. [Thus, a grade lower than C in the co-reqs can be used if the co-req GPA still averages to 2.000. See **exceptions** below.]
  - **Exceptions:**
    - Students must earn a grade of C or better in CHEM 0110 and CHEM 0120 for the major.
    - Students must earn a grade of C or better in PHYS 0110/0174 to enroll in PHYS 0111/0175.
    - Students must earn a grade of C or better in MATH 0220 to enroll in MATH 0230.
    - Students must earn a grade of B- or better in STAT 1000 to enroll in STAT 1221.

**Calculating your GPA - The Bio advisors have a GPA calculator spreadsheet – ask and we'll send it to you.**