

## BIOLOGY MAJOR (BIOLE.BS) Ecology Concentration

<u>Required Courses</u>	<u>Hrs.</u>	<u>Prereq.</u>	<u>Rec.Yr.</u>
BIOL 115 Intro to Biology Profession	1	Coreq BIOL 163 or BIOL 164	Fr
BIOL 163 Principles of Molecular Biology	4		Fr
BIOL 164 Principles of Organismal Biology	4	BIOL 163 recommended	Fr
BIOL 215 Biostatistics	4	Rec enrollment in DEVL 070 if not 100 level placed	Soph
BIOL 250 Genetics	4	BIOL 164;163 for Biochem majors	Soph
BIOL 252 Physiology	4	BIOL 163, 164	Soph
BIOL 254 Research Methods in Biology	4	BIOL 163, 164, 215, 252 for Bio Majors; MATH 115, ENVS 130 for Env Sci	Soph
BIOL 310 Ecology	4	BIOL 254, CHEM 161, 163L	Jr/Sr
BIOL *** Biology elective	4		Soph-Sr

One Biodiversity course selected from:

BIOL 315 Botany	4	BIOL 215, 254	Jr
BIOL 316 Vertebrate Zoology	4	BIOL 254	Jr
BIOL 317 Invertebrate Zoology	4	BIOL 163, 164	Jr
BIOL 322 Mammalogy	4	BIOL 215, 254	Jr

One Integrative course selected from:

BIOL 305 Toxicology	3	BIOL 151, 152	Jr
BIOL 320 Animal Behavior	4	BIOL 254	Jr
BIOL 344 Evolution	3	BIOL 250	Jr
BIOL 360 Principles of Microbiology	4	BIOL 254; CHEM 221, 223L	Jr

One Molecular course selected from:

BIOL 325 Molecular Embryology	4	BIOL 250	Jr/Sr
BIOL 354 Molecular Cell Biology	4	BIOL 254, CHEM 221, 223L	Jr/Sr
BIOL 374 Immunology	4	BIOL or CHEM major	Jr

BIOL 395 Biology Internship	1	BIOL 254	Jr
OR			
BIOL 398/498 Biology Research	1-2	BIOL 254; CHEM 221, 223L	Jr/Sr

<sup>^</sup> BIOL 497 Seminar	2	Sr Stand or P/Faculty	Sr
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CHEM 161 Accel Gen Chem for Sci Majors	3	HS Chemistry and placement or CHEM 105, 107L; Coreq CHE 163L	Fr/Soph
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CHEM 163L Accel Gen Chem for Sci Majors Lab	1	HS Chemistry and placement or CHEM 105, 107L; Coreq CHEM 161	Fr/Soph
OR			

CHEM 131 General Chemistry Sci Maj I	3	Coreq CHEM 133L	Fr/Soph
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*\*Prerequisite: Must have passed at least one year of high school chemistry or one semester of college chemistry equivalent to CHEM 105/107L or above AND at least one of the following: MATH ACT score of 20, MATH SAT score of 500, grade of C or better in one of the classes: MATH 103, 110, 112, 115, 130, 161.*

CHEM 133L General Chemistry Sci Maj I Lab	1	Coreq CHEM 131	
CHEM 132 General Chemistry Sci Maj II	3	C- or better in CHEM 131, 133L; Coreq CHEM 134L	Fr/Soph

CHEM 134L General Chemistry Sci Maj II Lab	1	Coreq CHEM 132	
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CHEM 221 Organic Chemistry I	3	C- or better in CHEM 161,163L or 131, 133L,132, 134L;Coreq CHEM 223L	Soph
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CHEM 223L Organic Chemistry Lab	1	C- or better in CHEM 161,163L or 131, 133L,132, 134L; Coreq CHEM 221	
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55-60 total hrs

NOTE: Two of the following three course requirements must have a lab

One additional Biodiversity course selected from:

BIOL 315 Botany	4	BIOL 215, 254	Jr
BIOL 316 Vertebrate Zoology	4	BIOL 254	Jr
BIOL 317 Invertebrate Zoology	4	BIOL 163, 164	Jr
BIOL 322 Mammalogy	4	BIOL 215, 254	Jr

Two courses beyond the core requirements from the following:

BIOL 320 Animal Behavior	4	BIOL 254 or P/I	Jr/Sr
BIOL 344 Evolution	3	BIOL 250	Jr/Sr
BIOL 360 Principles of Microbiology	4	BIOL 254; CHEM 221, 223L	Jr/Sr
BIOL 388/488 Biology Topics	4		

**\*\*REMINDERS\*\***

1. Biology majors are expected to take BIOL 163,164, 215, 250, 252 and 254 by the end of the sophomore year.
2. Majors must take the required Chemistry courses in their freshman or sophomore year.
3. Be aware that most upper division courses are offered every other year.
4. Graduate school candidates should check entrance requirements for several graduate schools.
5. Completion of BIOL-395, 398 or 498 with a grade of C or better is required for graduation.

<sup>^</sup>Satisfies advanced writing requirement.

NAME: \_\_\_\_\_

**B.S. Degree: Biology Major (for students entering in Fall 2020/Spring 2021)  
Ecology Concentration**

In the "WHAT" column, enter the specific course number when applicable--e.g. HIST 121. In the "WHEN" column, enter the term and year in which the requirement is satisfied--e.g., sp '00.

General Education	
WHAT	WHEN
_____	ENGL 101/INDS 106* w/ C (2.0) [3 hrs]
_____	ENGL 102/INDS 102* w/ C(2.0)* [3 hrs]
_____	COMM 211/INDS 103 w/ C(2.0) [3 hrs]
	Dept senior seminar/writing course
	Met by: _____ BIOL 497 [4 hrs]
_____	BIOL/CHEM/ENVS/PHSC/PHYS w/ lab
	/INDS 112 [3-4 hrs]
_____	BIOL/CHEM/ENVS/PHSC/PHYS w/ lab
	/INDS 112 [3-4 hrs]
_____	MATH (except 112,141,203,205)/
	BIOL 215/PSYC 230/INDS 114 [3-4 hrs]
_____	RELG/INDS 111 [3 hrs]
_____	PHIL/INDS 110 [3 hrs]
_____	INDS 120/INDS 116 [3 hrs]
_____	Any literature course/INDS 113[3 hrs]
	Fine Arts
	_____ ART (except 265)/
	DANC/MUSC/THRE/ENGL 213/
	INDS 107 [3 hrs]
	OR
	_____ MUSC/THRE [2 hrs]
	_____ same discipline [1 hr]
	OR
	_____ MUSC/THRE [1 hr]
	_____ same discipline [1 hr]
	_____ same discipline [1 hr]
_____	HIST 100 or 200 level except HIST 201/
	INDS 117 [3 hrs]
_____	CJUS/ECON/GEOG/GNST/POLS/PSYC/
	SOCI/INDS 104 [3 hrs]
_____	US Cultural Studies/INDS 109 [3 hrs]
_____	Non-Western Cultural Studies/
	INDS 108 [3 hrs]
_____	EXSC 110/120/121/130/201/205/240
	/INDS 105 [3 hrs]
_____	120 semester hours required for graduation

Ecology Concentration	
WHAT	WHEN
_____	BIOL 115 [1 hr]
_____	BIOL 163 [4 hrs]
_____	BIOL 164 [4 hrs]
_____	BIOL 215 [4 hrs]
_____	BIOL 250 [4 hrs]
_____	BIOL 252 [4 hrs]
_____	BIOL 254 [4 hrs]
_____	BIOL 310 [4 hrs]
_____	BIOL *** [4 hrs]
_____	BIOL 325/354/374 [4 hrs]
_____	BIOL 315/316/317/322 [4 hrs]
_____	BIOL 305/320/344/360 [3-4 hrs]
_____	BIOL 395/398/498 w/C (2.0) [1-2 hrs]
_____	BIOL 497 [2 hrs]
_____	CHEM 161 [3 hrs]
_____	CHEM 163L [1 hr]
	OR
_____	CHEM 131 [3 hrs]
_____	CHEM 133L [1 hr]
_____	CHEM 132 [3 hrs]
_____	CHEM 134L [1 hr]
_____	CHEM 221 [3 hrs]
_____	CHEM 223L [1 hr]

NOTE: Two of the following three course requirements must have a lab

_____	_____	One additional Biodiversity course selected from BIOL 315/316/317/322 [4 hrs]
_____	_____	BIOL 320/344/360/388/488[3-4 hrs]
_____	_____	BIOL 320/344/360/388/488[3-4 hrs]

\_\_\_\_\_ 66 semester hours

➤ Except in specifically approved majors, a maximum of 52 hours in an academic discipline may count toward graduation. Three hours over the limit may count to accommodate an internship in the discipline.

➤ Only six hours of any minor may overlap with the required credit hours of a student's chosen major. The overlap constraint is not applicable to courses that majors or minors MUST take in others departments.

\*Enter NA (not applicable) if waived upon admission or if completing the honors program.