

BIOLOGY MAJOR – Ecology & Env. Science (BIOLEN.BS)

<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 163/163L	Prin of Molecular Biology + lab	3/1		Fr
BIOL 164/164L	Prin of Organismal Biology + lab	3/1	C- or better in BIOL 163	Fr
BIOL 215/215L	Biostatistics	3/1	placement in FQINQ or completion of MATH 101; C- or better in BIOL 164	Soph
BIOL 250/250L	Genetics + lab	3/1	C- or better in BIOL 163,164 for Bio majors; C- or better in BIOL 163 for Biochem maj; CHEM 221, 223L is highly recommended	Soph
BIOL 252/252L	Physiology + lab	3/1	C- or better in BIOL 163, 164	Soph
BIOL 254/254L	Research Methods in Bio + lab	3/1	C- or better in BIOL 163, 164, 215, 252 for Bio Maj; C- or better in MATH 115 & ENVS 130 for ENVS maj	Soph
BIOL 310/310L	Ecology + lab	3/1	MATH 115, ENVS 130 for Env Sci	Jr/Sr
BIOL ***	Biology elective	4	BIOL 254/254L, CHEM 161, 163L	Soph-Sr

One Biodiversity course selected from:

BIOL 315/315L	Botany + lab	3/1	BIOL 215/215L, 254/254L	Jr
BIOL 316/316L	Vertebrate Zoology + lab	3/1	BIOL 254/254L	Jr
BIOL 317/317L	Invertebrate Zoology + lab	3/1	BIOL 163/163L, 164/164L	Jr
BIOL 322/322L	Mammalogy + lab	3/1	BIOL 215/215L, 254/254L	Jr

One Integrative course selected from:

BIOL 305	Toxicology	3	BIOL 151/151L, 152/152L	Jr
BIOL 320/320L	Animal Behavior	3/1	BIOL 254/254L	Jr
BIOL 344	Evolution	3	BIOL 250 /250L	Jr
BIOL 360/360L	Prin of Microbiology + lab	3/1	BIOL 250/250L; CHEM 221, 223L	Jr

One Molecular course selected from

BIOL 325	Embryology	3	Bio/Biochem/Chem/ExSci majors	Jr/Sr
BIOL 354	Molecular Cell Biology	4	BIOL 250, CHEM 221, 223L	Jr/Sr
BIOL 374	Immunology	3	BIOL/CHEBI/CHEM/EXSC major; CHEM 221, 223L	Jr

BIOL 395	Biology Internship	1	BIOL 254/254L	Jr
	<u>OR</u>			
BIOL 398/498	Biology Research	1-2	BIOL 254/254L; CHEM 221, 223L	Jr/Sr
BIOL 401	Final Year Portfolio Showcase	1	Coreq BIOL 497	Sr
^BIOL 497	Seminar	2	Sr Stand or P/Faculty;Coreq BIOL 401	Sr

CHEM 161	Accel Gen Chem for Sci Majors	3	HS Chemistry and placement or CHEM 105, 107L; Coreq CHE 163L	Fr/Soph
CHEM 163L	Accel Gen Chem for Sci Majors Lab	1	HS Chemistry and placement or CHEM 105, 107L; Coreq CHEM 161	Fr/Soph
	<u>OR</u>			
CHEM 131	General Chemistry Sci Maj I	3	Coreq CHEM 133L	Fr/Soph

**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	
CHEM 221	Organic Chemistry I	3	C- or better in CHEM 161,163L or 131, 133L,132, 134L;Coreq CHEM 223L	Soph
CHEM 223L	Organic Chemistry Lab	1	C- or better in CHEM 161,163L or 131, 133L132, 134L; Coreq CHEM 221	

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

One additional Biodiversity course selected from:

BIOL 315/315L	Botany + lab	3/1	BIOL 215/215L, 254/254L	Jr
BIOL 316/316L	Vertebrate Zoology + lab	3/1	BIOL 254/254L	Jr
BIOL 317/317L	Invertebrate Zoology	3/1	BIOL 163/163L, 164/164L	Jr
BIOL 322/322L	Mammalogy	3/1	BIOL 215/215L, 254/254L	Jr

Two courses beyond the core requirements from the following:

BIOL 320/320L	Animal Behavior + lab	3/1	BIOL 254/254L or P/I	Jr/Sr
BIOL 344	Evolution	3	BIOL 250/250L	Jr/Sr
BIOL 360/360L	Principles of Microbiology	3/1	BIOL 250/250L; CHEM 221, 223L	Jr/Sr
BIOL 388/488	Biology Topics	4		

****REMINDERS**** 66-74 total hrs

- Biology majors are expected to take BIOL 163/163L,16/164L4, 215/215L, 250/250L, 252/252L and 254/254L by the end of the sophomore year.
- Majors must take the required Chemistry courses in their freshman or sophomore year.
- Be aware that most upper division courses are offered every other year.
- Graduate school candidates should check entrance requirements for several graduate schools.
- Completion of BIOL-395, 398 or 498 with a grade of C or better is required for graduation.

^Satisfies advanced writing requirement.

NAME: _____

**B.S. Degree: Biology Major (for students entering in Fall 2026/Spring 2027)
Ecology & Environmental Science 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 '20.

Liberal Arts Core	
WHAT	WHEN
_____	ENGL 101* w/ C (2.0) [3 hrs]
_____	ENGL 110 w/ C (2.0) [3 hrs]
_____	COMM 211 w/ C (2.0) [3 hrs]
_____	Dept senior seminar/writing course
_____	Met by: _____ BIOL 497 [2 hrs]
_____	FYEX 101 [3 hrs]
_____	FYEX 102 [1 hr]
_____	FYEX 103/104/105/106/107 [1 hr]
_____	FYEX 103/104/105/106/107 [1 hr]
_____	Foundational Scientific Inquiry [3-4 hrs]
_____	Foundational Quantitative Analysis [3-4 hrs]
_____	Foundational Humanities & Liberal Arts [3 hrs]

No more than two lens courses may come from same departmental prefix and one lens must be taken at 300 level or above.

_____	Ethical/Spiritual Explor Lens (ETSP) [3 hrs]
_____	Aesthetic Expression Lens (AEXP) [3 hrs]
_____	Per & Soc Well Being Lens (PSWB) [3 hrs]
_____	Cultural Perspectives Lens (CEXP) [3 hrs]
_____	Experimental Inquiry Lens (EXIN) [3 hrs]

39 - 41 Total semester hours

_____ 120 semester hours required for graduation

*Enter NA (not applicable) if waived upon admission

For students classified as transfers, FYEX course requirements are dependent upon total transferrable credit hours.

Ecology & Environmental Science Concentration	
WHAT	WHEN
_____	BIOL 115 [1 hr]
_____	BIOL 163 [3 hrs]
_____	BIOL 163L [1 hr]
_____	BIOL 164 [3 hrs]
_____	BIOL 164L [1 hr]
_____	BIOL 215 [3 hrs]
_____	BIOL 215L [1 hr]
_____	BIOL 250 [3 hrs]
_____	BIOL 250L [1 hr]
_____	BIOL 252 [3 hrs]
_____	BIOL 252L [1 hr]
_____	BIOL 254 [3 hrs]
_____	BIOL 254L [1 hr]
_____	BIOL 310 [3 hrs]
_____	BIOL 310L [1 hr]
_____	BIOL *** [4 hrs]
_____	BIOL 325/354/374 [3-4 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 401 [1 hr]
_____	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]

_____ 66-74 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.

➤ Students may not receive credit for BIOL 111 & 112 and BIOL-163 and 164.