

ENVIRONMENTAL SCIENCE MAJOR: ENVIRONMENTAL BIOLOGY TRACK (B.S.)

CORE REQUIREMENTS (8 Courses)

Cr. 4 F, S
BIO 105

Cr. 4 F, S, Su
MIC 230

Cr. 5 F, S, Su
CHM 103

Cr. 3 F, S
ENV 101

Cr. 4 F, S
GEO 101

Cr. 3 F, S
GEO 305

Cr. 1 F, S
GEO 401

Cr. 4 F, S, Su
STAT 145

BIO 341 F** - Cr. 3
BIO 447 S** - Cr. 3
BIO 499 F, S, SU** - Cr. 1-3
CHM 413 F** - Cr. 2
CHM 479 O** - Cr. 1-3
CHM 499 F, S, SU** - Cr. 1-3

GEO 410 F** - Cr. 3
GEO 412 S** - Cr. 3
GEO 450 F, W, S, Su - Cr. 1-6
GEO 499 F, W, S, Su - Cr. 1-3
MIC 499 F, W, S, Su - Cr. 1-3

**ENVIRONMENTAL SCIENCE
FIELD EXPERIENCE**
(Min 3 Credits*)

GEO 221 F - Cr. 4
GEO 222 S - Cr. 4
**EARTH'S CLIMATE AND
LANDFORMS**
(1 Course*)

GEO 221 F - Cr. 4
GEO 222 S - Cr. 4
GEO 422 S** - Cr. 3
GEO 425 F, OY** - Cr. 3
GEO 428 S, EY** - Cr. 3
GEO 430 S, OY** - Cr. 3
GEO 460 F, EY** - Cr. 3
GEO 221 and GEO 222 can ONLY be applied to Earth's Climate OR Earth's Environmental Systems

**EARTH'S ENVIRONMENTAL
SYSTEMS (2 Courses*)**

BIO 202 W, Su - Cr. 2
BIO 419 F** - Cr. 3
CHM 301 F, S - Cr. 5
GEO 488 S, OY** - Cr. 3
MTH 207 F, S, Su - Cr. 5
STAT 405 F - Cr. 3

**QUANTITATIVE
ANALYSIS**
(1 Course*)

ENV 310 O - Cr. 3
ENV 311 O - Cr. 3
ENV 313 O - Cr. 3
ENV 315 O - Cr. 3
ENV 316 O - Cr. 3
ENV 350 O - Cr. 3
ENV 351 O - Cr. 3
ENV 352 O - Cr. 3
ENV 353 O - Cr. 3
GEO 309 F, OY - Cr. 3
GEO 310 F, EY - Cr. 3
GEO 320 S, OY - Cr. 3
GEO 321 S - Cr. 3
GEO 340 F, EY - Cr. 3
GEO 427 F, OY** - Cr. 3

**HUMANS AND
THE ENVIRONMENT**
(2 Courses*, at least
1 must be GEO)

Cr. 4 F, S
BIO 203
Cr. 3 F, S
BIO 307
**ENVIRONMENTAL
BIOLOGY CORE**
(2 Courses)

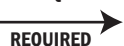
**EVS
EXIT
SURVEY**

BIO 302 F, OY - Cr. 2
BIO 304 S - Cr. 3
BIO 308 O - Cr. 3
BIO 321 S - Cr. 4
BIO 337 S - Cr. 3
BIO 341 F - Cr. 3
BIO 404 S, OY - Cr. 3
BIO 406 F - Cr. 4
BIO 412 F - Cr. 4
BIO 414 O - Cr. 3
BIO 422 F, OY - Cr. 3
BIO 441 S, OY - Cr. 3
BIO 442 F, OY - Cr. 3
BIO 444 F, OY - Cr. 3
BIO 446 A - Cr. 3
BIO 447 S - Cr. 3
BIO 456 F, EY - Cr. 4
BIO 464 S - Cr. 3
BIO 476 S, EY - Cr. 3
BIO 488 F - Cr. 3
MIC 442 F, OY - Cr. 3

BIO 341 and BIO 447 can ONLY be applied to Field Experience OR Environmental Biology

ENVIRONMENTAL BIOLOGY ELECTIVES (2 Courses*)

PREREQUISITES:



LEGEND (WHEN OFFERED):

F = FALL
SU = SUMMER
A = ANNUALLY
OY = ODD NUMBERED YEARS
EY = EVEN NUMBERED YEARS
** = JR/SR STANDING
S = SPRING
W = WINTER
O = OCCASIONAL

* See Undergraduate
Catalog for course
prerequisite details

Revised 8/4/2025

It is recommended that environmental science majors complete a minor in earth science, human and environmental geography, geographic information science, geoarchaeology, sustainability and environmental studies, biology, chemistry, and / or microbiology.

GEOGRAPHY &
ENVIRONMENTAL SCIENCE



Environmental Science Major: ENVIRONMENTAL BIOLOGY B.S.**60 - 68 CREDITS****Environmental Science Core (8 required courses):**

Name	Credits	Description	Prerequisite	Offered
BIO 105	4	General Biology	-	F, S
CHM 103	5	General Chemistry I	MTH 150 or placement in MTH 151	F, S, Su
ENV 101	3	Introduction to Sustainability	-	F, S
GEO 101	4	Earth Environments	-	F, S
GEO 305	3	Geographic Information Systems and Science I	-	F, S
MIC 230	4	Fundamentals of Microbiology	BIO 105	F, S, Su
STAT 145	4	Elementary Statistics	MTH 050	F, S, Su
GEO 401	1	Capstone Seminar in Geography and Environmental Science	Senior Standing	F, S

Earth's Climate and Landforms (Choose 1 courses)

Name	Credits	Description	Prerequisite	Offered
GEO 221	4	Weather and Climate	GEO 101	F
GEO 222	4	Earth Surface Processes and Landforms	GEO 101	S

Humans and the Environment (Choose 2 courses, at least 1 must be GEO)

Name	Credits	Description	Prerequisite	Offered
ENV 310	3	Food, Culture, and the Environment	ENV 101	O
ENV 311	3	The Mississippi River: Mighty and Managed	ENV 101	O
ENV 313	3	Woodlands of the Driftless: History, Ecology, and Mgmt	ENV 101	O
ENV 315	3	Sustainability: Principles and Practices	ENV 101	O
ENV 316	3	Occupying the Driftless: Culture, Place, and Environment	ENV 101	O
ENV 350	3	Justice, Injustice, and Activism	ENV 101	O
ENV 351	3	Feeding the Planet: Environmental Justice of our Food Sys	ENV 101	O
ENV 352	3	Americans, Global Parks, and Wilderness	ENV 101	O
ENV 353	3	Rural Livelihoods: Sustain and the Env in the Upper Midwest	ENV 101	O
GEO 309	3	Cities: Past, Present, and Future	-	F-Odd
GEO 310	3	Transportation Equity and Sustainable Communities	-	F-Even
GEO 320	3	Energy, the Environment, and Sustainability	-	S-Odd
GEO 321	3	Sustainable Development and Conservation	-	S
GEO 340	3	Polar Environments	-	F-Even
GEO 427	3	Sustainable Water Resource Management	-	F-Odd

Earth's Environmental Systems (Choose 2 courses)

(GEO 221 and GEO 222 can only be applied to Earth's Climate and Landforms or Earth's Environmental Systems)

Name	Credits	Description	Prerequisite	Offered
GEO 221	4	Weather and Climate	GEO 101	F
GEO 222	4	Earth Surface Processes and Landforms	GEO 101	S
GEO 422	3	Meteorology	GEO 221	S
GEO 425	3	Biogeography	GEO 101	F-Odd
GEO 428	3	Past Environmental Change	GEO 221 and GEO 222	S-Even
GEO 430	3	River Systems	GEO 222 or BIO 341 or BIO 464	S-Odd
GEO 460	3	Environmental Hazards	GEO 221 or GEO 222	F-Even

Quantitative Analysis (Choose 1 course)

Name	Credits	Description	Prerequisite	Offered
BIO 202	2	Intro to Biological Data Analysis and Interpretation	BIO 105	W, Su
BIO 419	3	Quantitative Methods in Ecology	BIO 307 or BIO 341; STAT 145 or MTH 265	F
CHM 301	5	Analytical Chemistry	CHM 104	F, S
GEO 488	3	Quantitative Methods in Geography	GEO 305; STAT 145	S - Odd
MTH 207	5	Calculus I	MTH 151	F, S, Su
MTH 265	4	Mathematical Models in Biology	MTH 175 or MTH 207	S
STAT 405	3	Statistical Methods	STAT 145	F

Environmental Science Field Experience (Complete a minimum of 3 credits)

Name	Credits	Description	Prerequisite	Offered
BIO 341	3	Limnology	BIO 105	F
BIO 447	3	Standard Methods / Quality Assurance Water Analyses	BIO 203 or BIO 210 or BIO 303 or BIO 304	S
BIO 499	1-3	Independent Research	-	F, S, Su
CHM 413	2	Environmental Chemistry Laboratory	CHM 300 or CHM 301 or CHM 303	F
CHM 479	1-3	Field Research Station Experience	CHM301 or CHM 302 or CHM 305 or CHM313 or CHM 325 or CHM 413 or	O

			CHM 417 or CHM 461	
CHM 499	1-3	Research		F, S, Su
GEO 410	3	Geospatial Field Methods	GEO 305	F
GEO 412	3	Geospatial Applications of Unmanned Aerial Systems	GEO 305	S
GEO 450	1-6	Internship in Geography and Environmental Science	-	F, W, S, Su
GEO 499	1-3	Research in Geography and Environmental Science	-	F, W, S, Su
MIC 499	1-3	Independent Research in Microbiology	-	F, W, S, Su

ENVIRONMENTAL BIOLOGY TRACK (4 courses required)

Environmental Biology Core – (2 courses required)

Name	Credits	Description	Prerequisite	Offered
BIO 203	4	Organismal Biology	BIO 105	F, S
BIO 307	3	Ecology	BIO 203	F, S

Environmental Biology Electives – (Choose 2 courses)

(BIO 341 and BIO 447 can only be applied to the Field Experience or Environmental Biology Electives)

Name	Credits	Description	Prerequisite	Offered
BIO 302	2	Introductory Plant Identification	BIO 203 or BIO 304	F - Odd
BIO 304	3	Plant Biology	BIO 203	S
BIO 308	3	Conservation Biology	-	O
BIO 321	4	Ornithology	BIO 203 or BIO 210 or BIO 303	S
BIO 337	3	Plant Physiology	BIO 203 or BIO 304	S
BIO 341	3	Limnology	BIO 105	F
BIO 404	3	Plant Taxonomy	BIO 203 or BIO 304	S - Odd
BIO 406	4	Parasitology	BIO 203 or BIO 210 or BIO 303	F
BIO 412	4	Mycology	BIO 203 or BIO 304 or MIC 230	F
BIO 414	3	Freshwater Invertebrate Zoology	BIO 203 or BIO 210 or BIO 341	O
BIO 422	3	Ichthyology	BIO 203 or BIO 210 or BIO 303	F - Odd
BIO 441	3	Environmental Toxicology	BIO 307 or BIO 341; CHM 104	S - Odd
BIO 442	3	Plant Microbe Interactions	BIO 203 or BIO 304; MIC 230	F – Odd
BIO 444	3	Entomology	BIO 203	F – Odd
BIO 446	3	Animal Behavior	BIO 105; BIO 203 or PSY 331 or NEU 200	A
BIO 447	3	Standard Methods / Quality Assurance Water Analyses	BIO 203 or BIO 210 or BIO 303 or BIO 304	S
BIO 456	4	Plant Ecology	BIO 307 or BIO 341	F - Even
BIO 464	3	Stream and Watershed Ecology	BIO 307 or BIO 341	S
BIO 476	3	Ecosystem Ecology	BIO 307	S - Even
BIO 488	3	Mammalogy	BIO 105; BIO 203 or BIO 210	F
MIC 442	3	Plant Microbe Interactions	BIO 203 or BIO 304; MIC 230	F - Odd

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* Offered Codes: F = Fall; W = Winter; S = Spring; Su = Summer; O = Occasionally; F-Odd = Fall, Odd Years; F-Even = Fall, Even Years; S-Odd = Spring, Odd Years; S-Even = Spring, Even Years