

ENVIRONMENTAL SCIENCE, BACHELOR OF SCIENCE WITH A CONCENTRATION IN LIFE SCIENCE

Requirements

Code	Title	Credits
Required core courses:		
(Note that in the case of cross-listed courses, Environmental Science majors must enroll in the ENVN section)		
ENVN 2010	ENVIRONMENTAL PROBLEMS AND SOLUTIONS	1
ENVN/GEOG/GEOL/BIOL 4610	ENVIRONMENTAL MONITORING AND ASSESSMENT	3
GEOL 1010	ENVIRONMENTAL GEOLOGY	3
GEOG 1050	HUMAN-ENVIRONMENT GEOGRAPHY	4
Minimum of 3 credit hours of ENVN 4800 must be completed		
ENVN/BIOL 4800	INTERNSHIP IN ENVIRONMENTAL MANAGEMENT AND PLANNING	3
ENVN/BIOL/GEOG/PA 4820	INTRODUCTION TO ENVIRONMENTAL LAW & REGULATIONS	3
Also required:		
An approved course in statistics		3-4
An approved GIS course with lab		1-4
ENVN/BIOL 4600	GIS APPLICATIONS FOR ENVIRONMENTAL SCIENCE (1 cr)	
GEOG 1090	INTRODUCTION TO GEOSPATIAL SCIENCES (4 cr)	
GEOG 3530	CARTOGRAPHY AND DATA VISUALIZATION (4 cr)	
GEOG 4050	GEOGRAPHIC INFORMATION SYSTEMS I	
Life Science Concentration requirements:		
BIOL 1450	BIOLOGY I	5
BIOL 1750	BIOLOGY II	5
BIOL 2140	GENETICS	4
BIOL 3340	ECOLOGY	4
BIOL 3530	FLORA OF THE GREAT PLAINS	4
BIOL 4120	CONSERVATION BIOLOGY	3
Select one of the following:		3-4
BIOL 2440	THE BIOLOGY OF MICROORGANISMS	
BIOL 3020	MOLECULAR BIOLOGY OF THE CELL	
Select two additional upper division courses in biology approved by an advisor. At least one course must include a lab. BIOL 3150 may not count as part of these upper division courses.		7-8
Required cognate courses:		
CHEM 1010	CHEMISTRY IN THE ENVIRONMENT AND SOCIETY	3
or CHEM 3030	ENVIRONMENTAL CHEMISTRY	
In addition, select one of the following chemistry sequences:		14-18
Sequence One:		

CHEM 1140 & CHEM 1144	FUNDAMENTALS OF COLLEGE CHEMISTRY and FUNDAMENTALS OF COLLEGE CHEMISTRY LABORATORY
CHEM 2210 & CHEM 2214	FUNDAMENTALS OF ORGANIC CHEMISTRY and FUNDAMENTALS OF ORGANIC CHEMISTRY LABORATORY
CHEM 3650 & CHEM 3654	FUNDAMENTALS OF BIOCHEMISTRY and FUNDAMENTALS OF BIOCHEMISTRY LABORATORY

Sequence Two:

CHEM 1180 & CHEM 1184	GENERAL CHEMISTRY I and GENERAL CHEMISTRY I LABORATORY
CHEM 1190 & CHEM 1194	GENERAL CHEMISTRY II and GENERAL CHEMISTRY II LABORATORY
CHEM 2210 & CHEM 2214	FUNDAMENTALS OF ORGANIC CHEMISTRY and FUNDAMENTALS OF ORGANIC CHEMISTRY LABORATORY
CHEM 3650 & CHEM 3654	FUNDAMENTALS OF BIOCHEMISTRY and FUNDAMENTALS OF BIOCHEMISTRY LABORATORY

Sequence Three:

CHEM 1180 & CHEM 1184	GENERAL CHEMISTRY I and GENERAL CHEMISTRY I LABORATORY
CHEM 1190 & CHEM 1194	GENERAL CHEMISTRY II and GENERAL CHEMISTRY II LABORATORY
CHEM 2250 & CHEM 2274	ORGANIC CHEMISTRY I and ORGANIC CHEMISTRY LABORATORY
CHEM 2260 & CHEM 2274	ORGANIC CHEMISTRY II and ORGANIC CHEMISTRY LABORATORY

Select one of the following physics sequences: 5-10

Sequence One:

PHYS 1050 & PHYS 1054	INTRODUCTION TO PHYSICS and INTRODUCTION TO PHYSICS LABORATORY
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Sequence Two:

PHYS 1110 & PHYS 1154	GENERAL PHYSICS I and GENERAL PHYSICS LABORATORY I
PHYS 1120 & PHYS 1164	GENERAL PHYSICS II and GENERAL PHYSICS LABORATORY II

Total Credits 78-93

Writing in the Discipline

All students are required to take a writing in the discipline course within their major. For the environmental science major with a concentration in life sciences, the writing in the discipline requirement can be fulfilled through one of the two options for biology majors:

Option I

Complete two courses from each of the three tiers below. All courses used to meet the writing requirement must be taken at UNO. Only courses completed in 2010 or later qualify.

Tier I

Code	Title	Credits
BIOL 1450	BIOLOGY I	5
BIOL 1750	BIOLOGY II	5

Tier II

Code	Title	Credits
BIOL 2140	GENETICS	4
BIOL 3020	MOLECULAR BIOLOGY OF THE CELL	3
BIOL 3340	ECOLOGY	4

Tier III two writing in the discipline 3000 or 4000 level biology courses designated as Tier III courses.

Option II

Complete either:

Code	Title	Credits
BIOL 3150	WRITING AND COMMUNICATION IN THE BIOLOGICAL SCIENCES	3
ENGL 3980	TECHNICAL WRITING ACROSS THE DISCIPLINES	3

Freshman

Fall		Credits
BIOL 1450	BIOLOGY I	5
ENGL 1150	ENGLISH COMPOSITION I (*)	3
GEOG 1050	HUMAN-ENVIRONMENT GEOGRAPHY	4
MATH 1220	COLLEGE ALGEBRA (**)	3

*ENGL 1150: requires EPPE score of 5, or AP score of 3.

**MATH 1220: Requires appropriate placement within the last 2 years.

Credits 15

Spring

BIOL 1750	BIOLOGY II (*)	5
CMST 1110 or CMST 2120	PUBLIC SPEAKING FUNDS or ARGUMENTATION AND DEBATE	3
ENGL 1160	ENGLISH COMPOSITION II (**)	3
ENVN 2010	ENVIRONMENTAL PROBLEMS AND SOLUTIONS (***)	1
GEOL 1010	ENVIRONMENTAL GEOLOGY	3

*BIOL 1750: requires BIOL 1450

**ENGL 1160: requires ENGL 1150 or EPPE score of 6, or AP Score of 4

***ENVN 2010: requires BIOL 1330 or GEOL 1010 or concurrent enrollment

Credits 15

Sophomore

Fall		Credits
CHEM 1140 & CHEM 1144	FUNDAMENTALS OF COLLEGE CHEMISTRY and FUNDAMENTALS OF COLLEGE CHEMISTRY LABORATORY (*,**)	5
BIOL 2440	THE BIOLOGY OF MICROORGANISMS (***)	4
Humanities and Fine Arts/US Diversity		3
Social Science/Global Diversity		3

*CHEM 1140: Requires Math 1220 or higher within last two years (C- or better). CHEM 1144 concurrent or prior with C- or better.

**CHEM 1180/1184 and 1190/1194 together can substitute for CHEM 1140/1144.

***BIOL 3020 can be taken in place of BIOL 2440.

Credits 15

Spring

BIOL 2140	GENETICS (*)	4
CHEM 2210 & CHEM 2214	FUNDAMENTALS OF ORGANIC CHEMISTRY and FUNDAMENTALS OF ORGANIC CHEMISTRY LABORATORY (**, ***)	5

Humanities and Fine Arts 3

Social Science 3

*BIOL 2140: Requires BIOL 1450, BIOL 1750, and CHEM 1140 or 1180.

**CHEM 2210: requires CHEM 1140/1144 or CHEM 1190/1194 with a C- or better. CHEM 2214 must be taken concurrently.

***CHEM 2250 and 2260/2274 together can substitute for CHEM 2210/2214.

Credits 15

Junior

Fall

BIOL 3340	ECOLOGY (*)	4
CHEM 3650 & CHEM 3654	FUNDAMENTALS OF BIOCHEMISTRY and FUNDAMENTALS OF BIOCHEMISTRY LABORATORY (**, ***)	4

Social Science^ 3

Humanities and Fine Arts# 3

*BIOL 3340: Requires BIOL 1450, 1750, and junior status

**CHEM 3650: requires CHEM 2210/2214 or CHEM 2260/2274 with C- or better. CHEM 3654 must be taken concurrently.

***CHEM 3650/3654 will not be required if student has completed through CHEM 2260/2274 of the general chemistry sequence.

^SS: must be in a 2nd discipline

#HFA: must be in a 2nd discipline

Credits 14

Spring

BIOL 4120	CONSERVATION BIOLOGY (*)	3
CHEM 1010	CHEMISTRY IN THE ENVIRONMENT AND SOCIETY (**)	3
GEOG 1090	INTRODUCTION TO GEOSPATIAL SCIENCES	4

Elective course 3

Elective course 3

*BIOL 4120: requires BIOL 1750

**CHEM 1010: requires MATH 1220 or proficiency in MATH 1220 via ACT, SAT, or Math Placement Exam

Credits 16

Summer

ENVN 4800	INTERNSHIP IN ENVIRONMENTAL MANAGEMENT AND PLANNING (*)	3
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*ENVN 4800: requires permission of instructor.

Credits 3

Senior

Fall

BIOL 3530	FLORA OF THE GREAT PLAINS (*)	4
BIOL 3000/4000 Level		3

ENVN 4610	ENVIRONMENTAL MONITORING AND ASSESSMENT (**)	3
ENVN 4820	INTRODUCTION TO ENVIRONMENTAL LAW & REGULATIONS (***)	3
*BIOL 3530: requires BIOL 1450 and BIOL 1750		
**ENVN 4610: requires permission of instructor.		
***ENVN 4820: requires permission of instructor.		
Credits		13
Spring		
BIOL 3000/4000 Level with a lab		4
PHYS 1050 & PHYS 1054	INTRODUCTION TO PHYSICS and INTRODUCTION TO PHYSICS LABORATORY (*, **, ***)	5
Statistics Course [^]		3
Elective [^]		2
*PHYS 1050: HS algebra or equivalent		
**PHYS 1054: HS algebra or equivalent; PHYS 1050 prior or concurrent		
***The two-semester sequence of PHYS 1110/1154 and 1120/1164 can be taken in place of PHYS 1050/1054.		
[^] 120 total credits are required for a degree, with a minimum of 18 upper level (3000-4000) credits in the major and 27 upper level credits throughout the degree. Selecting 3000-4000 level electives or options (when given) can help you reach these minimums.		
Credits		14
Total Credits		120

This roadmap is a suggested plan of study and does not replace meeting with an advisor. Please note that students may need to adjust the actual sequence of courses based on course availability. Please consult an advisor in your major program for further guidance.

This plan is not a contract and curriculum is subject to change

Additional Information About this Plan:

University Degree Requirements: The minimum number of hours for a UNO undergraduate degree is 120 credit hours. Please review the requirements for your specific program to determine all requirements for the program. In order to graduate on-time (four years for an undergraduate degree), you need to take 30 hours each year.

Placement Exams: For Math, English, Foreign Language, a placement exam may be required. More information on these exams can be found at <https://www.unomaha.edu/enrollment-management/testing-center/placement-exams/information.php>

**Transfer credit or placement exam scores may change suggested plan of study