

Concord University
BACHELOR OF SCIENCE – Environmental Geosciences
Registrar's Office Official Document

2021-2022 Catalog

Name: _____

120 hours minimum for graduation with a 2.00 average overall
 56 hours from a four-year institution

Course	Title	CR	GR	QP
Written and Oral Communications (9 credit hours) Select one course from BGEN 205 or COMM 101				
ENGL 101	Composition & Rhetoric I	3		
ENGL 102	Composition & Rhetoric II	3		
COMM 101 Or BGEN 205	Fundamentals of Speech Or Fundamentals of Business Communication	3		
Literature and Humanities (6 credit hours) Select one (1) course from Literature and one (1) course from History and Philosophy. *May be repeated for 3 credit hours.				
	ENGL 203 or 204	3		
	HIST 101, 102, 203, 204, PHIL 101, 308, 316, or 361	3		
Fine Arts– (3 credit hours) Select one (1) course from the following:				
	ART 101, 103, 105, 106, 204, 205, 216, 303, 304, 308, MUS 101, *451, *453A, or THEA 102	3		
Social and Behavioral Sciences (9 credit hours) Select one (1) course from three different categories.				
	Category 1 - Business and Professional Studies BGEN 105, ECON 203, ECON 204, FIN 200, HSP 100 or SOWK 161	3		
	Category 2 - Geography GEOG 101 or 321	3		
	Category 3 - Political Science POSC 101, 104, or 202			
	Category 4 - Psychology PSY 101 or 200			
	Category 5 – Sociology SOC 101, 201, or 301			
Natural Sciences (7-8 credit hours) Select one (1) course from two different categories.				
GEOL 101	Category 1-Biological Science BIOL 101, 102, 121, or 122	4		See Major
CHEM 101/111	Category 2-Earth & Space Science GEOL 101, GEOL 140 or 150, GEOG 200, PHSC 104, or PHYS 105	3-4		See Major
	Category 3-Physical Science CHEM 100, CHEM 101/111, PHSC 103, PHYS 101, or PHYS 201			
Mathematics (3 credit hours) Select one (1) Mathematics course numbered 100 or higher.				
MATH 103	College Algebra	3		See Major
Physical Wellness (2 credit hours) Select one or more courses listed below for a total of at least two hours.				
	H ED 120, 304, P ED 101M, 117 or 118	2-3		
Modern/Classical Language – (Optional 6 credit hours) Select two courses within the same Modern/Classical Language for substitution purposes.				
	May not substitute Modern Language for ENGL 101, ENGL 102, the 3-hour Mathematics requirement or the 4-hour lab science requirement.			

Environmental Geosciences (Minimum 2.00 GPA required)				
Introductory Courses** (6-8 Credit Hours)				
Select one of the following:(3-4 Credits)				
	<ul style="list-style-type: none"> • GEOL 101 Earth Processes, Resources and the Environment (4) (Recommended) • GEOL 140 Geology and Environmental Issues in Appalachia (3) • PHSC 104 Concepts in Physical Science: Earth/Space Sciences (4) 	3-4		
Select one Earth and Environmental Science Core Electives: (3 Credits)				
	<ul style="list-style-type: none"> • GEOL 150 Oceanography (3) • GEOL 210 Natural Disasters (3) • GEOL 212 Applied Meteorology (3) • GEOG 101 Humans and the Environment (3) • GEOG 200 Digital Earth (3) 	3-4		
Earth and Environmental Sciences Core (28 Credit Hours)				
Select three of the following (12 Credits)				
	<ul style="list-style-type: none"> • GEOL 202 Evolution of Earth Systems • GEOL 205 Environmental and Applied Geology • GEOL 310 Soil, Water, and Land Use • GEOL 312 Climatology • GEOL 315 Biogeography & Environmental Change • GEOL 375 Chemistry and Petrology of the Solid Earth • GEOL 380 Sedimentary Geology 	4		
		4		
		4		
Complete all of the following (16 Credits)				
GEOL 365	Earth Materials and Minerals	4		
GEOL 385	Earth Structure and Tectonics	4		
GEOL 404	Field Geology I	3		
GEOL 405**	Field Geology II	3		
GEOL 415	Electron Imaging and X-ray Microanalysis	2		
Geospatial Science (6 Credit Hours)				
GEOG 311	GIS and Cartography	3		
GEOG 411 or GEOG 412	GIS Design and Application or Public Health GIS	3		
Supporting Courses (13-19 Credit Hours)				
Supporting Core. Complete all of the following:				
MATH 103/MATH 103C*	College Algebra	3		
MATH 104* or MATH 105/ MATH 105C	College Trigonometry or Elementary Statistics	3		
CHEM 101	General Chemistry I	3		
CHEM 111	General Chemistry Laboratory I	1		
PHSC 219	Laboratory Research Methods and Ethics	1		

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Supporting Electives.			
Select eight (8) or more hours from the following (courses in physics, calculus, and statistics recommended for professional geologists)			
<ul style="list-style-type: none"> • BIOL 121 Foundations of Biology I (4) (or higher) • CHEM 102 General Chemistry II (3) (or higher) • CS 151 Introduction to Computer Science (3) (or higher) • GEOG 321 Cultural Anthropology (3) • HS 301 Public Health Epidemiology (3) • LSPL 101 Introduction to Legal Systems (3) or • BGEN 301 Principles of Business Law (3) • MATH 104 College Trigonometry (3-4) ~ (or higher) • PSY 229 Health Psychology (3) • PHYS 101 Introductory Physics (4) (or higher) • SOC 201 Social Problems (3) • SOC 326 Medical Sociology (3) • SOWK 302 Human Diversity (3) ~ MATH 104, MATH 105/MATH 105C can only be used as an elective if it was not used as a core. 	4	4	

Elective Concentrations by Career Interest:

These are optional so you are not required to select or complete one, and you may instead select a mix of courses in collaboration with your advisor.

Public Health, Society, and Environment

All of the Following:

- HS 301, GEOG 101, GEOG 412; and four from SOC 201, SOC 326, SOWK 302, LSPL 101 or BGEN 301, PSY 239, GEOG 321, GEOL 310, GEOL 312.
- Recommended: MATH 105

Geology

All of the Following:

- GEOL 202, GEOL 375, GEOL 380, CHEM 102/112, MATH 104.

Two of the Following:

- PHYS 101 or 201, PHYS 102 or 202, MATH 253, MATH 254, GEOL 205.
- Recommended: GEOL 470 Geology Research.

Environmental Science

Five of the Following:

- BIOL 122, BIOL 201, BIOL 315, CHEM 102/112, PHYS 101 or 201, GEOL 205, GEOL 310, GEOL 312, GEOL 315. Recommended: MATH 104 and 105, GEOL 471 Environmental Science Research.

Geospatial Science

Six of the Following:

- GEOG 200, GEOG 411, GEOG 412, CS 151, CS 252, CS 282, CS 283.
- Recommended: MATH 105, GEOG 450 Internship.

Earth and Space Sciences

All of the Following:

- PHYS 105, PHYS 101 or 201, PHYS 102 or 202, CHEM 102/112.

Three of the Following:

- GEOL 150, GEOL 212, GEOL 375, GEOL 380, PHYS 335, MATH 253, MATH 254

NOTE:
Six credit hours of additional upper-level coursework in BIOL, CHEM, or PHYS (numbered between 300-449), may be substituted for any one GEOL or GEOG course; twelve hours may be substituted for two GEOL or GEOG courses.

*MATH 103 and/or 104 may be waived for those students establishing "equivalent proficiency" as outlined by the Department of Mathematics and Computer Science (Math ACT 25 or 28).

**Students in need of accessibility accommodations or unable to conduct field work or travel may petition for an appropriate course substitution or virtual field experience.

RESIDENCE CREDIT:

36 hours at Concord
16 of last 32 hours at Concord
Note: In some degree programs, this is prior to entering professional training.
9 hours in Major, Teaching Fields

TOTAL MINIMUM REQUIRED CREDITS: 120

GENERAL EDUCATION CREDITS: 39-41

ELECTIVE CREDITS: 29-32