

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

2022-2023 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 | | |
| 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 200 | Digital Earth | 3 | | |
| GEOG 311 or GEOG 411 or GEOG 412 | GIS and Cartography GIS Design and Application Public Health GIS | 3 | | |
| Supporting Courses (13-19 Credit Hours) | | | | |
| Supporting Core. Complete all of the following: | | | | |
| MATH 103/103C* and MATH 104* or MATH 107 | College Algebra and College Trigonometry or Precalculus | 4-6 | | |
| CHEM 101* | General Chemistry I | 3 | | |
| CHEM 111* | General Chemistry Laboratory I | 1 | | |
| PHSC 219 | Laboratory Research Methods and Ethics | 1 | | |
| Select one of the following four (4) options (4 Credit Hours): | | | | |
| | <ul style="list-style-type: none"> •CHEM 102 General Chemistry (3) and CHEM 112 General Chemistry Laboratory (1) •PHYS 101 Introductory Physics (4) •PHYS 201 University Physics with Calculus, Part I (4) •MATH 253 Calculus with Analytical Geometry I (4) | 4 | | |

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| Supporting Electives. | | | |
|--|---|--|--|
| Select seven (7) 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 101 Humans and the Environment (3) (or higher) ● GEOL 202 Earth Systems History (4) (or higher) ● HS 301 Public Health Epidemiology (3) ● LSPL 101 Introduction to Legal Systems (3) or ● BGEN 301 Principles of Business Law (3) ● MATH 105 Elementary Statistics (3) (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) | 3 | | |
| | 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 three (3) from SOC 201, SOC 326, SOWK 302, LSPL 101 or BGEN 301, PSY 229, GEOG 321, GEOL 310, GEOL 312.
- Recommended: MATH 105

Geology

All of the Following:

- GEOL 375, GEOL 380, CHEM 102/112.

Two of the Following:

- PHYS 101 or 201, PHYS 102 or 202, MATH 253, MATH 254, GEOL 205, GEOL 470.

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, GEOL 471, MATH 105.

Geospatial Science

Six of the Following:

- GEOG 311, GEOG 411, GEOG 412, CS 151, CS 252, CS 282, CS 283, MATH 105, GEOG 450.

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 and/or 107 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 for GEOL 405 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