

ENVIRONMENTAL, GEOGRAPHICAL & GEOLOGICAL SCIENCES: ENVIRONMENTAL GEOSCIENCE

Bachelor of Science (BS)

This degree map is based on the current Academic Catalog and is subject to change. Please note that the degree map is designed to give you a sense of roughly how courses might be distributed over a 4-year degree. Your exact schedule will differ depending on a range of factors though we recommend taking a minimum of 15 credits each fall and spring semester. Regular consultation with your academic advisor is the best way to make sure that you are taking the courses you need in the right order to ensure efficient progress through your degree program.

Sample 4-Year Plan

First Year			
Fall Courses	Credits	Spring Courses	Credits
EGGS 102 - World Cultural Geography (D)	3	EGGS 105 - Environmental Issues and Choices	3
EGGS 100 - Introduction to Environmental Science	3	EGGS 242 - Mapping and GIS Fundamentals	3
EGGS 120 - Physical Geology (N)	4	EGGS 130 - Historical Geology	4
Quantitative Requirements: Choose 2	3	Gen Ed Foundations - Writing (W)	3
Gen Ed Foundations - FYS 100 (U)	3	Quantitative Requirement: Choose 2	3
Semester Total	16	Semester Total	16

Second Year			
Fall Courses	Credits	Spring Courses	Credits
EGGS 271 - Fundamentals of Hydrology	3	EGGS 213 - Fundamentals of Soil Science	3
EGGS 360 - Principles of GIS 1	3	EGGS 361 - Principles of GIS 2	3
CHEM 121 - Chemistry for the Sciences 1 (N)	4	PHYS 208 - Introduction Physics 1	4
Gen Ed Creativity and Expression - Literature (L)	3	Gen Ed Interconnections	3
Gen Ed Foundations - Oral Communication (O)	3	Gen Ed Citizenship - Ethical Reasoning	3
Semester Total	16	Semester Total	16

Third Year			
Fall Courses	Credits	Spring Courses	Credits
EGGS 265 - Geomorphology	3	EGGS 263 - Mineralogy/Petrology	4
EGGS 259 - Oceanography	3	EGGS 380 - Dams, Reservoirs, and Rivers (EGGS Elective #2)	3
EGGS 301 - Water Resources Management (EGGS Elective #1)	3	EGGS 470 - Hydrogeology (EGGS Skills Course #1)	3
Gen Ed Citizenship - Critical Reasoning (R)	3	Gen Ed Natural World & Tech - Technologies (T)	3
		Free Elective	3
Semester Total	12	Semester Total	16

Fourth Year			
Fall Courses	Credits	Spring Courses	Credits
Free Elective	3	EGGS 491 - Research in EGGS	3
EGGS 471 - Applied Surface Hydrology (EGGS Skills Course #2)	3	Gen Ed Interconnections	3
EGGS 460 - Aqueous Environmental Geochemistry (EGGS Skills Course #3)	4	Gen Ed Creativity and Expression - Arts (A)	3
Gen Ed Foundations - History (H)	3	Free Elective	3
Free Elective	3		
Semester Total	16	Semester Total	12

Winter/Summer College - Optional

While not required, Winter and Summer sessions are offered each year and may help you stay on track or get ahead. You may take up to seven (7) credits during Winter College and up to 14 credits during Summer College.

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ENVIRONMENTAL GEOSCIENCES

Curriculum Checklist

Total of 57+ credits excluding Directed General Ed

Core Requirements – A (Choose 1, 3 credits)

- ___ EGGs 100 Environmental Sciences (3)
- ___ EGGs 105 Environmental Issues & Choices (3)
- ___ EGGs 140 Sustainability Science (3)

Core Requirements – B (Choose 1, 0 credits)*

- ___ EGGs 102 World Cultural Geography (3)
- ___ EGGs 104 World Regional Geography (3)

Core Requirements – C (Choose 1, 3 credits)**

- ___ EGGs 100 Environmental Science (3)
- ___ EGGs 101 Physical Geography
- ___ EGGs 105 Environmental Issues & Choices (3)
- ___ EGGs 140 Sustainability Science (3)
- ___ EGGs 220 Environmental Geology (3)

Core Requirements – D (Choose 1, 3 credits)

- ___ EGGs 108 Climate Change
- ___ EGGs 218 Global Water Issues
- ___ EGGs 255 Meteorology
- ___ EGGs 259 Oceanography

Cognate Requirements (0 credits)

- ___ CHEM 121 Chemistry for the Sciences 1 (4)

Cognate Electives (Choose 1, 4 credits)

- ___ BIOL 110 Principles of Biology 1 (4)
- ___ PHYS 208 Introductory Physics 1 (4)

Cognate Math (Choose 2, 3 credits)

- ___ EGGs 150 Quantitative Methods (3)
- ___ MATH 150 Essentials of Calculus* (3)
- ___ MATH 160 Calculus 1 (4)*
- ___ STAT 141 Introduction to Statistics* (4)
- ___ EGGs 342 Geostatistics (3)*

Major Requirements (23 credits)

- ___ EGGs 120 Physical Geology (4)
- ___ EGGs 130 Historical Geology (4)
- ___ EGGs 213 Fundamentals of Soil Science (3)
- ___ EGGs 242 Mapping and GIS Fundamentals (3)
- ___ EGGs 263 Mineralogy & Petrology (4)*
- ___ EGGs 265 Geomorphology (3)*
- ___ EGGs 271 Fundamentals of Hydrology (3)
- ___ EGGs 360 Principles of GIS 1 (3)*

Major Electives: Choose 3 (9+ Credits)

- ___ EGGs 275 Introduction to Surveying (3)
- ___ EGGs 325 UAV Applications (3)*
- ___ EGGs 353 Geological Mapping & Analysis (3)*
- ___ EGGs 368 Sedimentology & Stratigraphy (3)*
- ___ EGGs 369 Structural Geology (4)*
- ___ EGGs 413 Soil Morphology, Genesis, & Classification (4)*
- ___ EGGs 414 Soil Biology, Chemistry, & Fertility (4)*
- ___ EGGs 415 Hydric Soils & Wetlands Delineation (4)*
- ___ EGGs 416 Applied Soil Science & Land Use (4)*
- ___ EGGs 420 Watershed Restoration (3)*
- ___ EGGs 421 Environmental Permitting (3)*
- ___ EGGs 451 Coastal Environmental Oceanography (3)*
- ___ EGGs 455 Environmental Impact Assessment (3)*
- ___ EGGs 460 Aqueous Environmental Geochemistry (4)*
- ___ EGGs 461 Energy and Mineral Resources (4)*
- ___ EGGs 470 Hydrogeology (3)*
- ___ EGGs 471 Applied Surface Hydrology (3)*
- ___ EGGs 480 Geophysical Methods (4)*
- ___ MARSCI #### Any approved Marine Science course (3)*

Curriculum Checklist Continued

Cognate Electives (Choose 2, 6 credits)

- ___ BIOL 252 Watershed Ecology Techniques (3)
- ___ BIOL 301 Ecology (3)*
- ___ BIOL 340 Microbiology (3)*
- ___ BIOL 411 Freshwater Ecology (3)*
- ___ BIOL 419 Ecosystems (3)*
- ___ BIOL 438 Env Policy and Regulations (3)*
- ___ BIOL 456 Ecology of Streams and Rivers (3)*
- ___ EGGs 215 Fundamentals of Outdoor Recreation (3)
- ___ EGGs 220 Environmental Geology** (3)
- ___ EGGs 230 Special Topics in Field Env Geoscience (3)
- ___ EGGs 251 Sustainable Food Systems (3)
- ___ EGGs 301 Water Resources Management (3)*
- ___ EGGs 302 Land Resources Management (3)*
- ___ EGGs 304 Environmental Valuation (3)*
- ___ EGGs 305 Environmental Risks and Hazards (3)*
- ___ EGGs 313 Soil Morphology Practicum (1+)*
- ___ EGGs 320 Remote Sensing (3)*
- ___ EGGs 358 Environmental Conservation & Preservation (3)*
- ___ EGGs 361 Principles of GIS 2 (3)*
- ___ EGGs 364 Digital Cartography (3)*
- ___ EGGs 380 Dams, Reservoirs, and Rivers (3)*
- ___ EGGs 385 Outdoor Recreation Resources Management (3)*
- ___ EGGs 386 US Federal Lands: Geography, Politics, Mgmt (3)*
- ___ EGGs 465 Paleontology (4)*
- ___ EGGs 491 Research in EGGs** (3)*
- ___ EGGs 493 Independent Study in EGGs (3)*
- ___ EGGs 498 Internship in EGGs** (3)*
- ___ LAWL 350 Environmental Law and Policy (3)*
- ___ MARSCI #### Any Approved Marine Science Course (3)*

Major Capstone (Choose 1, 3+ credits)

- ___ EGGs 450 Field Experience in Environmental Geoscience (3+)*
- ___ EGGs 491 Research in EGGs** (3+)*
- ___ EGGs 498 Internship in EGGs** (3+)*

*Counts as General Education Credit

**Cannot count courses twice for different categories, e.g. EGGs 100 cannot be counted in both Core A and Core C; EGGs 496 and 498 cannot be counted in Cognate Electives and Major Capstone unless they are *separate* research projects or Internships.

() *Denotes advanced coursework

Students must take a minimum of 42 credits of advanced coursework. Advanced coursework can be met in major courses, minor courses, free elective courses, and general education courses. Courses that meet this requirement are designated in

Banner.

General Education Requirements (45 credits)

Note: Some requirements may be fulfilled by coursework in your major program including directed Gen Ed courses noted below

- Foundations (15 credits)
 - Directed Gen Ed, if applicable
- Interconnections (9 credits)
 - Directed Gen Ed, if applicable
- Citizenship & Responsibility (6 credits from at least two goals)
 - Directed Gen Ed, if applicable
- Natural World & Technologies (9 credits)
 - Directed Gen Ed, if applicable
- Creativity & Expression (6 credits)
 - Directed Gen Ed, if applicable

Degree Requirements

All students must obtain a minimum of 120 credits (a minimum of 42 credits must be advanced coursework), complete all General Education requirements, and all requirements for the selected major. Meet with your advisor and consult Degree Works to monitor your progress and for all graduation requirements.

A minimum GPA of 2.0 in the major and overall are required.