

Contact person: [Dr. Drew S. Coleman](#), undergraduate advisor in Geology

Departmental requirements:

- One of the following** (students may receive credit for only one of 11/11L, 13/13L, 18/18L, and 41/41L):
 - GEOL 11, 11L Physical Geology (3 + 1 hours, fall and spring)
 - GEOL 12 The Marine Environment (3 hours, fall and spring)
 - GEOL 13, 13L The Violent Earth (3 + 1 hours, spring)
 - GEOL 16, 16L Prehistoric Life (3 + 1 hours, spring)
 - GEOL 18, 18L Earth, Climate and Life (3 + 1 hours, fall and spring)
 - GEOL 41 Physical Geology for Science Majors (4 hours, fall or spring).

- All of the following:**
 - MATH 30 Precalculus Mathematics (3 hours, fall or spring)
 - CHEM 11/11L General Descriptive Chemistry I with lab (4 hours, fall or spring)
 - GEOL 42 Earth Through Time (3 hours, fall or spring; prereq. one of 11, 12, 13, 16, 18, or 41)
 - GEOL 52 Earth Materials (4 hours, fall; prereq. 11 or 41 or permission; prereq. or coreq. CHEM 11).

- 11 Credits of the following:**
 - GEOL 006 First Year Seminar (3 hours, fall/spring).
 - GEOL 45 Earth's Dynamic Systems (3 hours, spring; prereq. one of 11, 12, 13, 18, or 41).
 - GEOL 48 Environmental Geology (3 hours, fall/spring; prereq. one of 11, 12, 13, 18, or 41).
 - GEOL 49 Planetary Geology (3 hours, spring; prereq. one of 11, 12, 13, 18, or 41).
 - GEOL 53 Igneous and Metamorphic Rocks (4 hours, spring; prereq. 52 or permission)
 - GEOL 57 Sedimentology and Stratigraphy (4 hours, spring; prereq. 11 or 41 or equiv. and 52)
 - GEOL 58 Structural Geology (4 hours, fall; prereq. one of 11, 12, 13, 18, or 41).

- One of the following:**
 - GEOL 128, 129 Summer Field Course in Geology (6 hours, first summer session; prereq. 52, 53, 57, and 58)
 - GEOL 137 Field Paleontology (4 hours; Fall, alternate years; prereq. 57 and one of 11, 16, 18, or 41)
 - ANTH 151 Field School in Archaeology (6 hours)
 - BIOL 195 Field Biology at Highlands Biological Station (4 hours; prereq. BIOL 11 or equiv. or permission)
 - MASC 138 Barrier Island Ecology and Geology (6 hours, summer; prereq. general biology or geology or permission)
 - GEOL 199 (6 hours over two semesters with a pre-approved field component)

- At least three Geology or allied science courses from the following list:**
 - GEOL 45 Earth's Dynamnic Systems (3 hours, spring; prereq. one intro geology course)
 - GEOL 46 Geology of North America (3 hours, fall or spring; prereq. one intro geology course)
 - GEOL 48 Environmental Geology (3 hours, fall or spring; prereq. one intro geology course)

- GEOL 49 Planetary Geology: Meteorites and Asteroids (3 hours, spring; prereq. one intro geology course)
- GEOL 101 Oceanography (3 hours, fall and spring; prereq. two college-level natural science courses)
- GEOL 111 Earth Processes in Environmental Systems (4 hours, spring; prereq. MATH 31, CHEM 21, PHYS 25 or 27, GEOL 41 or 45, or permission)

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list of three Geology or allied science courses *continued*:

- GEOL 112 Oceanic Processes in Environmental Systems (4 hours, spring; prereq. MATH 31, BIOL 11, CHEM 21, PHYS 25 or 27, GEOL 41 or 45, or permission)
- GEOL 115 Biogeochemical Processes (4 hours, fall; prereq. MATH 31, BIOL 11, CHEM 51 or 61, PHYS 25 or 27, GEOL 41 or 45, or permission)
- GEOL 116 Environmental Systems Modeling (3 hours, spring; prereq. MATH 83, prereq. or coreq. PHYS 25 or 27, or permission)
- GEOL 125 Coastal Sedimentary Environments (3 hours, spring alternate years; prereq. GEOL 57)
- GEOL 132 Invertebrate Paleontology (4 hours, Fall, alternate years; prereq. GEOL 16 or BIOL 11 or permission)
- GEOL 138, 138L Geomorphology with lab (3 + 1 hours, fall; prereq. GEOL 11 or 41)
- GEOL 142 Shallow Surface Geophysics (3 hours, fall or spring; prereq. PHYS 24, 25 or 26, 27)
- GEOL 145 Geochemistry (3 hours, spring; prereq. GEOL 11 or 41, CHEM 21, or permission)
- GEOL 163 Applied Hydrology (3 hours, spring; prereq. GEOL 11 or 41, MATH 31, PHYS 25 or 26, or permission)
- GEOL 188 Geological Oceanography (4 hours, fall; prereq. GEOL 11 or 41, or permission)
- ANTH 43 Human Evolution and Adaptation (3 hours, fall and spring)
- ANTH 110 Principles of Archaeology (3 hours, fall and spring)
- ANTH 112 Paleoanthropology (3 hours, fall and spring)
- ANTH 115 Human Genetics and Evolution (3 hours, fall or spring)
- ASTR 31 Descriptive Astronomy (3 hours, fall and spring)
- BIOL 54 Ecology and Population Biology (4 hours, fall, spring, and summer; prereq. grade C or better in BIOL 11 and CHEM 11)
- ECON 10 Introduction to Economics (3 hours, fall and spring)
- ENST 103 Ecologic Processes in Environmental Systems (4 hours, spring; prereq. MATH 31, BIOL 11 and 54, CHEM 21, PHYS 25 or 27, or permission)
- ENST 104 Atmospheric Processes in Environmental Systems (4 hours, fall; prereq. MATH 31, CHEM 21, PHYS 25 or 27, GEOG 53, or permission)
- GEOG 11 Weather and Climate (3 hours, fall and spring)
- GEOG 53 Atmospheric Processes (4 hours, fall; prereq. MATH 31 and PHYS 24 or CHEM 21)
- GEOG 70 Introduction to Geographic Information (3 hours, fall or spring)
- GEOG 110 Fundamental Concepts of Physical Geography (3 hours, fall; prereq. GEOG 10 or equiv.)
- GEOG 112 Synoptic Meteorology (3 hours, fall; prereq. GEOG 10 or 11)
- GEOG 114 Physical Climatology (3 hours, fall or spring; prereq. GEOG 10 or 11)
- GEOG 116 Applied Climatology (3 hours, fall or spring; prereq. GEOG 112 or 114)
- GEOG 119 Terrain Analysis (3, spring and summer)
- GEOG 140 Earth Surface Processes (3 hours, spring; prereq. GEOG 10 or GEOL 11)
- GEOG 141 Introduction to Watershed Systems (3 hours, fall; prereq. GEOG 10)
- GEOG 144 Landscape Biogeography (3 hours, fall or spring)
- GEOG 177 Introduction to Remote Sensing and Digital Image Processing (3 hours, fall; prereq. GEOG 70 or equiv.)

- MASC 54 Introduction to Oceanographic Processes (4 hours, fall; prereq. MATH 31 and either PHYS 24 or CHEM 11)
- MASC 104 Biological Oceanography (4 hours, spring; prereq. BIOL 54 or 105 or permission)
- MASC 137 Ecology of Wetlands (4 hours, fall; prereq. one year of biology, one year of chemistry, one ecology course, or permission)
- MASC 146 Marine Ecology (3 hours, spring; prereq. BIOL 54 or 105)