Program of Study Guidelines  rev. February 2022
122 total credit hours for the degree
Full time schedule: 15+ credits per semester

GEOLOGY & ENVIRONMENTAL GEOSCIENCES

PROPOSED CORE COURSE SCHEDULE (subject to change)

Required core courses listed are for GEOL majors.
Courses are 4 credits/6 contact-hour, lecture + lab format, unless noted.

<table>
<thead>
<tr>
<th>FALL 2022</th>
<th>SPRING 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>256: Mineralogy/Petrology</td>
<td>250: Introduction to Geochemistry <em>(or CHEM 112</em>)</td>
</tr>
<tr>
<td>291: Water Resources</td>
<td>272: Stratigraphy and Sedimentation</td>
</tr>
<tr>
<td>352: Structural Geology</td>
<td>291: Water Resources (tentative)</td>
</tr>
<tr>
<td>492: Senior Seminar</td>
<td>333: Paleobiology</td>
</tr>
<tr>
<td></td>
<td>492: Senior Seminar (tentative)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FALL 2023</th>
<th>SPRING 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>256: Mineralogy/Petrology</td>
<td>250: Introduction to Geochemistry <em>(or CHEM 112</em>)</td>
</tr>
<tr>
<td>291: Water Resources</td>
<td>272: Stratigraphy and Sedimentation</td>
</tr>
<tr>
<td>352: Structural Geology</td>
<td>291: Water Resources</td>
</tr>
<tr>
<td>492: Senior Seminar</td>
<td>333: Paleobiology</td>
</tr>
</tbody>
</table>

SUMMER FIELD STUDIES COURSES (B.S.)


Core courses for GEOL are in blue.

* New Course  
^See Chemistry Department for course schedule
Program of Study Guidelines  
122 total credit hours for the degree  
Full time schedule: 15+ credits per semester

Geology B.S.

Step 1
- □ GEOL 103 (Environmental Geology)
- □ MATH 120 (Calc. I)*
- □ GEOL 105 (Earth History)
- □ CHEM 111
- □ BIOL 101/111 or PHYS 101/111

Step 2
- □ GEOL 250^ or CHEM 112
- □ GEOL 256** (Min./Pet.) □ GEOL 272^ (Strat./Sed.)
- □ GEOL 250^ (Min./Pet.) □ GEOL 333^ (Paleobiology)
- □ GEOL 291 (Water Resour.) □ GEOL 352** (Structural Geology)
- □ BIOL 102/112 or PHYS 102/112
- □ MATH 220 (Calc. II) or MATH 250 (Statistics)

Step 3
- □ GEOL 303, 491, 499 (Independent Study, Senior Thesis, or Bachelor’s Essay)
- □ GEOL 492 (Senior Seminar)
- □ GEOL Elective □ GEOL Elective
- □ Field Studies course (Summer)

*Geology B.S. majors should take MATH 110 (if needed) (formerly MATH 101) and then MATH 111 (Pre-Calc) to prepare for MATH 120.

**Usually Fall only   ^Usually Spring only

Contact the Department for more information:
callahant@cofc.edu or whitekl@cofc.edu
Program of Study Guidelines  
rev. June 2022

122 total credit hours for the degree

Full time schedule: 15+ credits per semester

Geology B.S.

Required Courses:
- GEOL 103 Environmental Geology (3)
- GEOL 103L Environmental Geology Laboratory (1)
- GEOL 105 Earth History (3)
- GEOL 105L Earth History Laboratory (1)
- GEOL 256 Mineralogy and Petrology (4)
- GEOL 272 Stratigraphy and Sedimentation (4)
- GEOL 291 Water Resources (4)
- GEOL 333 Paleobiology (4)
- GEOL 352 Structural Geology (4)
- GEOL 360 (4) OR GEOL 364 (4) OR GEOL 365 (4) OR GEOL 366 (4) [All are Field Studies]
- GEOL 492 Senior Seminar (1)

Complete 9 or more Credit Hours of:
(at least 6 of these credit hours must be at the 250-level with a maximum of 3 credit hours from GEOL 260 and GEOL 260L or GEOL 460L):
- GEOL 200 The Age of Dinosaurs (3)
- GEOL 206 Planetary Geology (3)
- GEOL 213 Natural Hazards (3)
- GEOL 235 Geology and Civilization (3)
- GEOL 239 Introduction to Seafloor Mapping (2)
- GEOL 240 Special Topics in Geology (1-4)
- GEOL 253 Earth Systems Science (4)
- GEOL 257 Marine Geology (4)
- GEOL 260 NASA Space Mission Design (2)
- GEOL 260L NASA Lab (1) OR GEOL 460L NASA Leadership Lab (1)
- GEOL 275 Geomorphology (4)
- GEOL 288 Global Change: A Geological Perspective (3)
- GEOL 303 Independent Study in Geology (1-3)
- GEOL 312 Environmental Field Methods (3)
- GEOL 313 Critical Zone Science (3)
- GEOL 314 Introduction to Remote Sensing (4)
- GEOL 320 Earth Resources (3)
- GEOL 339 Seafloor Research (3)
- GEOL 357 Oceanographic Research-the Transect Program (4)
- GEOL 360 Field Studies (4)
- GEOL 364 Field Studies: Environmental Geology and Water Resources in the Developing World (4)
- GEOL 365 Field Studies: Geology and Environmental Geosciences in Africa (4)
- GEOL 366 Field Studies: Geology and Paleontology (4)
- GEOL 395 Special Topics in Geology (1-4)
- GEOL 402 Geospatial Science (4)
- GEOL 411 Tectonics (3)
- GEOL 412 Crustal Geophysics (3)
- GEOL 416 Paleocology (4)
122 total credit hours for the degree

Full time schedule: 15+ credits per semester

**Geology B.S.**

- GEOL 430 Sedimentary Petrology (4)
- GEOL 434 Geology of the Carolinas (3)
- GEOL 438 Hydrogeology (4)
- GEOL 440 Igneous & Metamorphic Petrology (4)
- GEOL 441 Pollution in the Environment (4)
- GEOL 444 Quantitative Hydrogeology (3)
- GEOL 449 Geographical Information Systems (4)
- GEOL 469 Advanced GIS - Environmental and Hazards Modeling (4)
- GEOL 495 Special Topics (1-4)
- GEOL 499A Bachelor's Essay (3)
- GEOL 499B Bachelor's Essay (3)
Program of Study Guidelines
122 total credit hours for the degree
Full time schedule: 15+ credits per semester

**Geology B.A.**

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ GEOL 103 (Environmental Geology)</td>
<td>□ MATH 250 (Statistics)</td>
<td>□ GEOL 303, 491, 499 (Independent Study, Senior Thesis, or Bachelor’s Essay)</td>
</tr>
<tr>
<td>□ MATH 111 (Pre-Calc.)*</td>
<td>□ GEOL 250^ or CHEM 112</td>
<td>□ GEOL 492 (Senior Seminar)</td>
</tr>
<tr>
<td>□ GEOL 105 (Earth History)</td>
<td>□ GEOL 256** (Mineral/Petrol.) □ GEOL 272^ (Strat./Sed.) □ GEOL 291 (Water Resources)</td>
<td>□ GEOL Elective □ GEOL Elective</td>
</tr>
<tr>
<td>□ CHEM 111</td>
<td>□ GEOL 333^ (Paleobiology) □ GEOL 352** (Structural Geology)</td>
<td>□ BIOL 102/112 or PHYS 102/112</td>
</tr>
<tr>
<td>□ BIOL 101/111 or PHYS 101/111</td>
<td>□ BIOL 102/112 or PHYS 102/112</td>
<td>□ GEOL Elective □ GEOL Elective</td>
</tr>
</tbody>
</table>

*Geology B.A. majors should take MATH 110 (if needed) (formerly MATH 101) to prepare for MATH 111.*

** Usually Fall only  ^ Usually Spring only

Contact the Department for more information:
callahant@cofc.edu or whitekl@cofc.edu
Program of Study Guidelines  
122 total credit hours for the degree  
Full time schedule: 15+ credits per semester  

Geology B.A.

Required Courses:
- GEOL 103 Environmental Geology (3)
- GEOL 103L Environmental Geology Laboratory (1)
- GEOL 105 Earth History (3)
- GEOL 105L Earth History Laboratory (1)
- GEOL 256 Mineralogy and Petrology (4)
- GEOL 272 Stratigraphy and Sedimentation (4)
- GEOL 291 Water Resources (4)
- GEOL 333 Paleobiology (4)
- GEOL 352 Structural Geology (4)
- GEOL 492 Senior Seminar (1)

[Note: one of the GEOL 360, 364, 365, 366 Field Studies courses are NOT required for the B.A. degree]

Complete 7 Credit Hours of
(at least 6 of these credit hours must be at the 250-level with a maximum of 3 credit hours from GEOL 260 and GEOL 260L or GEOL 460L):
- GEOL 200 The Age of Dinosaurs (3)
- GEOL 206 Planetary Geology (3)
- GEOL 213 Natural Hazards (3)
- GEOL 235 Geology and Civilization (3)
- GEOL 239 Introduction to Seafloor Mapping (2)
- GEOL 240 Special Topics in Geology (1-4)
- GEOL 253 Earth Systems Science (4)
- GEOL 257 Marine Geology (4)
- GEOL 260 NASA Space Mission Design (2)
- GEOL 260L NASA Lab (1) OR GEOL 460L NASA Leadership Lab (1)
- GEOL 275 Geomorphology (4)
- GEOL 288 Global Change: A Geological Perspective (3)
- GEOL 303 Independent Study in Geology (1-3)
- GEOL 312 Environmental Field Methods (3)
- GEOL 313 Critical Zone Science (3)
- GEOL 314 Introduction to Remote Sensing (4)
- GEOL 320 Earth Resources (3)
- GEOL 339 Seafloor Research (3)
- GEOL 357 Oceanographic Research-the Transect Program (4)
- GEOL 360 Field Studies (4)
- GEOL 364 Field Studies: Environmental Geology and Water Resources in the Developing World (4)
- GEOL 365 Field Studies: Geology and Environmental Geosciences in Africa (4)
- GEOL 366 Field Studies: Geology and Paleontology (4)
- GEOL 395 Special Topics in Geology (1-4)
- GEOL 402 Geospatial Science (4)
- GEOL 411 Tectonics (3)
- GEOL 412 Crustal Geophysics (3)
- GEOL 416 Paleocoeology (4)
Program of Study Guidelines  
122 total credit hours for the degree

Full time schedule: 15+ credits per semester

**Geology B.A.**

- GEOL 430 Sedimentary Petrology (4)
- GEOL 434 Geology of the Carolinas (3)
- GEOL 438 Hydrogeology (4)
- GEOL 440 Igneous & Metamorphic Petrology (4)
- GEOL 441 Pollution in the Environment (4)
- GEOL 444 Quantitative Hydrogeology (3)
- GEOL 449 Geographical Information Systems (4)
- GEOL 469 Advanced GIS – Environmental and Hazards Modeling (4)
- GEOL 495 Special Topics (1-4)
- GEOL 499A Bachelor’s Essay (3)
- GEOL 499B Bachelor’s Essay (3)
122 total credit hours for the degree
Full time schedule: 15+ credits per semester

University requirements:

**Humanities**

- 12 credits from approved Humanities courses with no more than 6 from the same discipline

**First Year Experience**

- FYE or Hons BGS

**English**

- English 110 OR a combination of approved courses (101*, 102*, 215); Exemption is possible

**Foreign Language**

- Completion of 202 or its equivalent; Exemption is possible

**History**

- Pre-modern History
- Modern era History

**Social Science**

- Social Science 1
- Social Science 2

**Course number, semester**

First Year Experience: ____________

Foreign Language: ____________ ____________ ____________ ____________

Humanities: ____________ ____________ ____________ ____________

Social Sciences: ____________ ____________

English*: ____________ ____________

History: ____________ ____________

*English 101 and 102 are not offered by College of Charleston but continue to be available through approved credit [Advanced Placement (AP, International Baccalaureate (IB), or Transfer (TR)].