

The Geophysics concentration requires MATH 233 [33]\* and 383 [83] in addition to MATH 231 [31] and 232 [32]; requires PHYS 116 [26], 117 [27], 201 [52], 211 [58], and 331 [61] instead of one semester of physics; and requires GEOL 515 [142], 515L [142L], Shallow Surface Geophysics with lab.

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

**Departmental requirements:**

- One of the following** (students may receive credit for only one of 101 [11], 105 [13], 109 [18] and 111 [41]):
  - GEOL 101 [11], 101L [11L] Physical Geology (3 + 1 hours, fall and spring)
  - GEOL 103 [12] The Marine Environment (3 hours, fall and spring)
  - GEOL 105 [13], 101L [13L] The Violent Earth (3 + 1 hours, spring)
  - GEOL 109 [18], 109L [18L] Earth, Climate and Life (3 + 1 hours, fall and spring)
  - GEOL 111 [41] Physical Geology for Science Majors (4 hours, fall or spring).
  - GEOL 159 [16], 159L [16L] Prehistoric Life + lab (3 + 1 hours, fall or spring).
  
- All of the following:**
  - GEOL 301 [52] Earth Materials (4 hours, fall; prereq. GEOL 101 [11] or 111 [41] or permission; prereq. or coreq. CHEM 101 [11]).
  - GEOL 401 [58] Structural Geology (4 hours, fall; prereq. one of GEOL 101 [11], 103 [12], 105 [13], 109 [18], or 111 [41]).
  - GEOL 404 [53] Igneous and Metamorphic Rocks (4 hours, spring; prereq. GEOL 301 [52] or permission)
  - GEOL 515 [142], 515L [142L] Shallow Surface Geophysics (3 + 1 hours, on demand)
  - CHEM 101 [11], 101L [11L] General Descriptive Chemistry I (3 + 1 hours, fall, spring, and summer)
  - CHEM 102 [21], 102L [21L] General Descriptive chemistry II (3 + 1 hours, fall, spring, and summer)
  - MATH 231 [31] Calculus of Functions of One Variable I (3 hours, fall and spring; prereq. grade of C- or better in MATH 130 [30] or placement)
  - MATH 232 [32] Calculus of Functions of One Variable II (3 hours, fall and spring; prereq. grade of C- or better in MATH 231 [31] or placement)
  - MATH 233 [33] Calculus of Functions of Several Variables (3 hours, fall and spring, prereq. MATH 232 [32])
  - MATH 383 [83] First Course in Differential Equations (3 hours, fall, prereq. MATH 233 [33])
  - PHYS 116 [26] Mechanics (4 hours, fall and spring, prereq. MATH 231 [31] or permission)
  - PHYS 117 [27] Electromagnetism and Optics (4 hours, fall and spring, prereq. PHYS 116 [26])
  - PHYS 201 [52] Basic Mechanics (3 hours, spring, prereq. PHYS 104 [24] or 116 [26], and MATH 232 [32], or permission)
  - PHYS 211 [58] Intermediate Electromagnetism (3 hours, fall, prereq. PHYS 105 [25] or 117 [27], and MATH 233 [33])
  - PHYS 331 [61] Introduction to Numerical Techniques in Physics (4 hours, fall, prereq. PHYS 105 [25] or 116 [26], coreq. MATH 233 [33])

**Four Geology courses *above* 97:**

- 1.
- 2.
- 3.
- 4.

**At least three Geology or allied science courses from the following list:**

- any GEOL **except** GEOL 101 [11], 103 [12], 105 [13], 109 [18], 111 [41].
- ANTH 143 [43] Human Evolution and Adaptation (3 hours, fall and spring)
- ANTH 220 [110] Principles of Archaeology (3 hours, fall and spring)
- ANTH 315 [115] Human Genetics and Evolution (3 hours, fall or spring)
- ANTH 317 [117] Evolutionary Perspectives on Human Adaptation and Behavior (3 hours, fall or spring)
- ANTH 412 [112] Paleoanthropology (3 hours, fall and spring)
- ANTH 414 [114] Human Osteology (4 hours, fall or spring)
- ANTH 451 [151] Field School in Archeology (6 hours)
- any ASTR **except** First Year Seminar
- any BIOC **except** First Year Seminar, BIOC 107 [007], 108 [008] and [40]. *Not in 2006 curriculum.*
- any BIOL **above** BIOL 113 [10]
- BIOS [101] The Fundamentals of Biostatistics (3 hours, fall). *Not in 2006 curriculum.*
- any CHEM **above** CHEM 102 [21].
- any COMP  $\geq$  110 **except** 380 [96]
- any ENVR **except** First Year Seminar and ENVR 600 [101] Environmental Health
- GEOG 370 [70] Introduction to Geographic Information (3 hours, fall or spring)
- GEOG 410 [110] Fundamental Concepts of Physical Geography (3 hours, fall; prereq. GEOG 110 [10] or equiv.)
- GEOG 412 [112] Synoptic Meteorology (3 hours, fall; prereq. GEOG 110 [10] or 111 [11])
- GEOG 414 [114] Physical Climatology (3 hours, fall or spring; prereq. GEOG 110 [10] or 111 [11])
- GEOG 416 [116] Applied Climatology (3 hours, fall or spring; prereq. GEOG 412 [112] or 414 [114])
- any GEOG **above** 477 [173]
- any MASC **above** MASC 101 [12]
- any MATH **above** MATH 232 [32]
- any PHYS **except** First Year Seminar, PHYS 100 [16], 101 [20], 132 [37], [84], and 313 [113].
- any STOR 155 [STAT 31] or **above**.