

**EXECUTIVE COMMITTEE  
COLLEGE OF NATURAL AND AGRICULTURAL SCIENCES  
REPORT TO THE RIVERSIDE DIVISION  
MAY 24, 2022**

To be adopted:

Proposed Change to Geology Major

**PRESENT:**

**Geology Major**

All courses in Geosciences that are prerequisites for other courses in the major must be passed with a grade of “C-” or better before proceeding in the sequence. For example, GEO 001 is a prerequisite for GEO 122.

All students majoring in Geology are normally required to take the core curriculum.

1. Lower-division requirements (43-44 units)

a) GEO 001, GEO 002 or GEO 009 or GEO 011, GEO 003/BIO 010

b) BIOL 002 or BIOL 005A, BIOL 05LA (or BIOL 020)

c) Either CHEM 001A and CHEM 01LA or CHEM 01HA and CHEM 1HLA, either CHEM 001B and CHEM 01LB or CHEM 01HB and CHEM 01HLB

d) MATH 007A or MATH 009A or MATH 009HA, MATH 007B or MATH 009B or MATH 009HB, MATH 046

e) PHYS 040A, PHYS 040B or PHYS 002A and PHYS 02LA, PHYS 002B and PHYS 02LB

Students interested in elective classes in Geophysics are recommended to take PHYS 040C (if they have previously taken PHYS 040A and PHYS 040B), or PHYS 002C and 02LC (if they have previously taken PHYS 002A and PHYS 02LA and PHYS 002B and 02LB).  
Students interested in elective classes in Geochemistry are recommended to take CHEM 001C and CHEM 01LC.

**PROPOSED:**

**Geology Major**

All courses in Geosciences that are prerequisites for other courses in the major must be passed with a grade of “C-” or better before proceeding in the sequence. For example, GEO 001 is a prerequisite for GEO 122.

All students majoring in Geology are normally required to take the core curriculum.

1. Lower-division requirements (43-44 units)

a) No Change

b) No Change

c) No Change

d) No Change

e) No Change

No Change

2. Upper-division requirements (52-54 units)

2. No Change

a) GEO 100, GEO 101A, GEO 101B, GEO 102A, GEO 102B, GEO 111, GEO 115, GEO 116, GEO 118, GEO 122

a) No Change

b) Two of GEO 123, GEO 124, GEO 132, GEO 136, GEO 137, GEO 140 GEO 144, GEO 145, GEO 147 GEO 151, GEO 152, GEO 157, GEO 160, GEO 161, GEO 162, GEO 169, GEO 180, GEO 181, STAT 155

b) Two of GEO 123, GEO 124, GEO 132, GEO 136, GEO 137, GEO 140 GEO 144, GEO 145, GEO 147 GEO 151, GEO 152, GEO 157, GEO 160, GEO 161, GEO 162, GEO 163, GEO 169, GEO 180, GEO 181, GEO 182, GEO 184, STAT 155

Students interested in pursuing professional licensure through the California Geologist In Training (GIT) examination should consider taking GEO 132 and GEO 162 as their elective classes

Students interested in pursuing professional licensure through the California Geologist In Training (GIT) examination should consider taking GEO 132 and GEO 162 as their elective classes

**Justification:**

These changes reflect the addition and integration of new courses into existing Geology major as options to complete the upper-division major requirements. These courses include GEO 163 (Global Physical Climatology), GEO 182 (Planetary Astrobiology), and GEO 184 (Planetary Atmospheres). GEO 163 explores the physical element components of Earth's climate system (atmosphere, ocean, land surfaces, and cryosphere) and their natural variability. GEO 182 explores the origin, evolution, distribution, and future of life in the context of its impacts on and co-evolution with planetary environments both on Earth and potentially elsewhere. GEO 184 is a generalized quantitative examination of the origins, structure, chemistry, dynamics, of planetary atmospheres that is inclusive of diverse worlds both within and outside our solar system. Climate, life, and planetary atmospheric evolution all have profound impacts on the geologic record and are of general interest to geoscientists.

**Approvals:**

Approved by the faculty of the Department of Earth and Planetary Sciences:

October 20, 2021

Approved by the Executive Committee of the College of Natural and Agricultural Sciences:

March 1, 2022

Approved by the Committee on Educational Policy:

March 30, 2022