

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

To be adopted:

Proposed Change to Geophysics Major

PRESENT:

Geophysics Major

The following are major requirements for the B.S. in Geophysics. All students majoring in Geophysics are normally required to take this core curriculum.

1. Lower-division requirements (52-66 units)

a) GEO 001 and one of GEO 004 or GEO 008

b) MATH 007A or MATH 009A or MATH 009HA, MATH 007B or MATH 009B or MATH 009HB, MATH009C, MATH 010A, MATH 031, MATH 046

c) PHYS 040A, PHYS 040B, PHYS 040C (strongly recommended), or PHYS 002A, PHYS 02LA, PHYS 002B, PHYS 02LB, PHYS 002C, PHYS 02LC

d) CS 009M or CS 009P or CS 010A

CHEM 001A, CHEM 001LA, CHEM 001B, CHEM 001LB, MATH 010B are recommended as prerequisites for upper division electives in geology and geophysics, and for students looking to earn a teaching credential for high school science.

2. Upper-division requirements (46-52 units)

a) GEO 111, GEO 115, GEO 116, GEO 140, GEO 145

b) One of GEO 144 or GEO 147

c) Five of GEO 100, GEO 101A, GEO 101B, GEO 118, GEO 122, GEO 132, GEO 144 or GEO 147, GEO 157, PHYS 130A, PHYS 130B, PHYS

PROPOSED:

Geophysics Major

The following are major requirements for the B.S. in Geophysics. All students majoring in Geophysics are normally required to take this core curriculum.

1. No Change

a) No Change

b) No Change

c) No Change

d) No Change

No Change

2. No Change

a) No Change

b) No Change

c) Five of GEO 100, GEO 101A, GEO 101B, GEO 118, GEO 122, GEO 132, GEO 144 or GEO 147, GEO 157, PHYS 130A, PHYS 130B, PHYS

132 or PHYS 134, PHYS 135A, PHYS 135B, PHYS 136, PHYS 139L, PHYS 177, MATH 120, MATH 131, MATH 132, MATH 135A, MATH 135B, MATH 146A, MATH 146B, MATH 146C, MATH 147, MATH 149A or STAT 160A, MATH 149B or STAT 160B, or STAT 160C, MATH 168, GEO 180, GEO 181, STAT 155

132 or PHYS 134, PHYS 135A, PHYS 135B, PHYS 136, PHYS 139L, PHYS 177, MATH 120, MATH 131, MATH 132, MATH 135A, MATH 135B, MATH 146A, MATH 146B, MATH 146C, MATH 147, MATH 149A or STAT 160A, MATH 149B or STAT 160B, or STAT 160C, MATH 168, GEO 163, GEO 180, GEO 181, GEO 184, STAT 155

Students wishing to continue on to graduate school may wish to earn a Minor in Mathematics, Physics, Statistics, or Computer Science, requiring an additional 24 upper division units of study, and/or completion of a Senior Thesis, which includes up to 9 units of independent research.

No Change

Justification:

These changes reflect the addition and integration of new courses into existing Geophysics major as options to complete the upper-division major requirements. These courses include GEO 163 (Global Physical Climatology) 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 184 is a generalized physics-based examination of the origins, structure, chemistry, dynamics, of planetary atmospheres that is inclusive of diverse worlds both within and outside our solar system. As particularly physics-based geoscience courses, both GEO 163 and GEO 184 are of specific utility to geophysics majors.

Approvals:

Approved by the faculty of the Department of Earth and Planetary Sciences:	October 21, 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