

**2016-2017**  
**EARTH SCIENCES**

**Lower-Division Requirements**

Math            20A \_\_\_\_\_ 20B \_\_\_\_\_ 20C \_\_\_\_\_ 20D \_\_\_\_\_  
 Chemistry     6A \_\_\_\_\_ 6B \_\_\_\_\_ 6C \_\_\_\_\_  
 Physics        2A \_\_\_\_\_ 2B \_\_\_\_\_ 2C \_\_\_\_\_ or 4A \_\_\_\_\_ 4B \_\_\_\_\_ 4C \_\_\_\_\_  
 Biology        BILD 3 \_\_\_\_\_  
 SIO 50\*        \_\_\_\_\_

**Group A: Earth Science Upper-Division Core Requirements (all courses are required):**

SIO 100            \_\_\_\_\_            Introduction to Field Methods  
 SIO 102            \_\_\_\_\_            Introduction to Geochemistry  
 SIO 103            \_\_\_\_\_            Introduction to Geophysics  
 SIO 104            \_\_\_\_\_            Paleobiology and History of Life\*

**Group B: Upper-Division Earth Science Restricted Electives (choose at least 3 of the following):**

SIO 105            \_\_\_\_\_            Sedimentology and Stratigraphy  
 SIO 106            \_\_\_\_\_            Introduction to Hydrogeology  
 SIO 113            \_\_\_\_\_            Introduction to Computational Earth Science  
 SIO 120            \_\_\_\_\_            Introduction to Mineralogy  
 SIO 141            \_\_\_\_\_            Chemical Principles of Marine Systems  
 SIO 144            \_\_\_\_\_            Introduction to Isotope Geochemistry  
 SIO 152            \_\_\_\_\_            Petrology and Petrography  
 SIO 160            \_\_\_\_\_            Introduction to Tectonics  
 SIO 162            \_\_\_\_\_            Structural Geology  
 SIO 182            \_\_\_\_\_            Environmental & Exploration Geophysics

**Group C: Upper-Division Restricted Electives: (choose at least 5 of the following):**

Student may use any additional course(s) from the Earth Science Restricted Electives list (Group B, above) as a Group C elective

SIO 101 _____ California Coastal Oceanography	CHEM 173 _____ Atmospheric Chemistry
SIO 108 _____ Introduction to Paleoclimatology	CHEM 120A _____ Inorganic Chemistry
SIO 110 _____ Introduction to GIS & GPS for Scientists	CHEM 127 _____ Physical Chemistry
SIO 111 _____ Introduction to Ocean Waves	CHEM 140A _____ Organic Chemistry I
SIO 115 _____ Ice and the Climate System	CHEM 140B _____ Organic Chemistry II
SIO 117 _____ The Physical Basis of Global Warming	CHEM 171 _____ Environmental Chemistry I
SIO 119 _____ Physics and Chemistry of the Oceans	CHEM 172 _____ Environmental Chemistry II
SIO 135 _____ Satellite Remote Sensing	
SIO 138 _____ The Coral Reef Environment	
SIO 143 _____ Ocean Acidification	PHYSICS 100A _____ Electromagnetism I
SIO 150 _____ Physics & Chemistry of Planetary Interiors	PHYSICS 100B _____ Electromagnetism II
SIO 155 _____ Whole Earth Geochemistry	PHYSICS 100C _____ Electromagnetism III
SIO 170 _____ Introduction to Volcanology	PHYSICS 105A _____ Mathematical and Comp Physics I
SIO 171 _____ Introduction to Physical Oceanography	PHYSICS 105B _____ Mathematical and Comp Physics II
SIO 172 _____ Physics of the Atmosphere	PHYSICS 110A _____ Mechanics I
SIO 173 _____ Dynamics of the Atmosphere and Climate	PHYSICS 110B _____ Mechanics II
SIO 180 _____ Communicating Science to Informal Audiences	PHYSICS 121 _____ Experimental Techniques
SIO 199 _____ Independent Study	MAE 131A _____ Solid Mechanics I

Courses marked with an “\*” indicate 6 unit courses. All other SIO courses are 4 units