



# GEOLOGY

## Transfer Requirements

The following requirements for the major are subject to change without notice. To assure accuracy of the information on this sheet, you should consult with a Geology Counselor or Articulation Officer, or review articulation agreements via the Internet at [WWW.ASSIST.ORG](http://WWW.ASSIST.ORG)

**CAREER OPPORTUNITIES:** Geological careers relate to the natural environment, earth resources, land use, pollution and other areas of critical importance to present and future world problems. About half of all geologists and geophysicists are employed by the petroleum industry. Their work usually involves exploration for new sources of oil and natural gas. In the mining industry, geologists have responsibilities for mining engineering and mineral economics. Government employs geologists for basic research, geological mapping, mineral resources studies, water supply investigation and highway studies. Geologists help develop adequate water supplies, waste disposal methods, and programs for land use and reclamation. Geologists evaluate environmental hazards in earthquake and landslide-prone states. A master's degree is generally required.

### **ASSOCIATE DEGREE FOR TRANSFER (AA-T)**

Students who have completed the AA-T in Geology will have a strong academic foundation in the field and will be prepared for upper division baccalaureate study at the university. This coursework will satisfy most of the lower-division requirements at many institutions within the California State University system. This degree is intended for students who majoring in Geology and may provide priority consideration for admission to a CSU.

**Students considering transferring to a UC, private, or out of state university: Please consult with a counselor before applying to transfer since transfer requirements may be slightly different than those required for the AA-T.**

**Required courses:** Geology 1, 2, 3, 4; Chemistry 1A, 1B; Math 190, 191

**Total Units 28**

### **CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS (2012-2013)**

**B.S. in Geology** Earth and Environment option: Chemistry 1A, 1B; Geology 1 or Geography 1; Geology 3; Geography 2; Physics 2A, 2B or 3A, 3B; Biology 101, 102

**B.A. in Geology** Earth and Environment option: Geography 1 or Geology 1; Geography 2; Geology 3

### **CALIFORNIA STATE UNIVERSITY, FULLERTON (2012-2013)**

**Geological Science:** Geology 1, 3; Geology 2, 4; Chemistry 1A, 1B; Math 190, 191; Physics 1A, 1B, 1C or Physics 3A, 3B or Physics 2A, 2B; one course from Anatomy 30 or Math 220 or 270 or Physics 1D

### **CALIFORNIA STATE UNIVERSITY, LONG BEACH (2012-2013)**

**Required Core B.S. in Geology:** Biology 10; Chemistry 1A, 1B; Geology 1, 2, 3, 4; Math 190, 191; Physics 1A, 1B, 1C with C grades or better

**Additional courses required for options listed below:**

- A. Geochemistry/Mineralogy/Petrology: add Math 220
- B. Stratigraphy/Sedimentology (All Upper Division)
- C. Petroleum Geology: add Math 220
- D. Structural Geology/Tectonics: add Math 220
- E. General Geology: (All Upper Division).

**Required Core B.S. in Earth Science:** Chemistry 1A; Geology 1, 3, Geology 2, 4; Math 190, 191, 220; Physics 1A, 1B, 1C

**Options:** Engineering Geology: add Chemistry 1B; Engineering 9

Exploration Geophysics: add Biology 10

Marine Geology/Oceanography: add Chemistry 1B; Biology 10

Geohydrology/Environmental Geology: add Chemistry 1B; Microbiology 33; Engineering 9;

### **CALIFORNIA STATE UNIVERSITY, LOS ANGELES (2012-2013)**

**B.S. in Geology Requirements:** University requirement: English 1C; Chemistry 1A, 1B; Geography 1, 2; Geology 1, 2, 3, 4; Math 190, 191; Physics 2A, 2B; Oceanography 10

**Option Environmental Geoscience:** Biology 101, 102 (Physics 2A, 2B not required)

**CALIFORNIA STATE UNIVERSITY, NORTHRIDGE** (2012-2013)

**Requirements:** Chemistry 1A and 1B; Geology 1, 2, 3, 4;

**Options:** Geology: Math 190 or 160; Math 161 or 191 or 150; Select one sequence from Physics 2A, 2B or 1A, 1B, 1C, and 1D

Environmental Geology: add Chemistry 7A, 7B; Math 160 or 190, Math 161 or 191 or 150;  
Select one sequence from Physics 2A, 2B or 1A, 1B, 1C, 1D

Geophysics: add Physics 1A, 1B, 1C, 1D; Math 190, 191, 220, 270; Computer Science 1

**CAL POLY POMONA** (2011-2012)

Chemistry 1A, 1B; Geology 1, 2, 3, 4; Math 190, 191; Physics 1A, 1B, 1C or 2A, 2B or 3A, 3B; Biology 10 or 101

**Geology:** all upper division courses

**Geophysics/Earth Exploration:** add Astronomy 25 or Oceanography 10; CS 1

**Environmental Resources:** all upper division courses

**SAN DIEGO STATE UNIVERSITY** (2011-2002)

**Geological Science B.S., General:** Geology 2 & 4; Geology 1 & 3 or Oceanography 10; Biology 10; Chemistry 1A, 1B; Math 190, 191, Physics 1A, 1C

**Emphases:**

Engineering Geology: add Physics 1B, 1D; Engineering 9; Math 220 and Math 150 or Psychology 9A or Sociology 109

Geochemistry: add Physics 1B & 1D; Biology 10 or 11; Chemistry 7A; Math 220, and one course from:  
Math 150 or Psychology 9A or Sociology 109

Geophysics: add Biology 10 or 11; Physics 1B, 1D; Math 220;

Marine Geology: add Biology 10 or 11; Physics 1B & 1D; Math 220

Hydrogeology: add Math 150 or Psychology 9A or Sociology 109; Math 220; Physics 1B, 1D;

Paleontology Emphasis: add Geology 2 & 4; Biology 101 & 102; Math 160 & 161 or Math 190; Physics 2A & 2B (Physics 1A, 1C not required)

**SAN JOSE STATE UNIVERSITY** (2012-2013)

**Geology:** Geology 1, 3; Geology 2, 4; Geology 30 or 32 or 34 or 36; Chemistry 1A, 1B; Physics 2A, 2B or Physics 3A, 3B or Physics 1A, 1C or Physics 1A, 1B, 1C, 1D; Mathematics 190; English 1B or 1C or Philosophy 5 or Psychology 3

**Earth Science:** Geology 1, 3; Geology 2, 4; Geology 30 or 32 or 34 or 36; Chemistry 1A and 1B; Math 180, Physics 2A, 2B or Physics 3A, 3B or Physics 1A, 1C or Physics 1A, 1B, 1C, 1D; English 1B or 1C or Philosophy 5 or Psychology 3

**UNIVERSITY OF CALIFORNIA, DAVIS** (2012-2013)

**Geology A.B.:** Geology 1, 2, 3, 4; Math 190, 191 or Math 160, 161; Math 150 or Psychology 9A or Sociology 109; Chemistry 1A, 1B; Physics 2A, 2B or Physics 3A, 3B

**Geology B.S.:** Geology 1, 2, 3, 4; Math 190 and 191 or 160 and 161; Chemistry 1A, 1B; Physics 2A, 2B or Physics 3A, 3B or Physics 1A, 1B, 1C, 1D

Recommended: Math 220, 270

**Options:** General Geology: recommended: Physics 1A, 1B, 1C, 1D; Geochemistry: Math 220; Physics 1A, 1B, 1D;  
Quantitative Geophysics: Math 220, 270; Physics 1A, 1B, 1C, 1D

**UNIVERSITY OF CALIFORNIA, LOS ANGELES** (2012-2013) [www.ess.ucla.edu/academics/index.asp](http://www.ess.ucla.edu/academics/index.asp)

**Geology B.S.:** Geology 1, 3; Chemistry 1A, 1B; Biology 101, 102; Math 160 and 161 and Math 3C at UCLA or Math 190, 191, 220; Physics 3A, 3B or Physics 1A, 1C, 1D; Computer Science 1

**Applied Geophysics B.S.:** Geology 1, 3; Chemistry 1A; Math 190, 191, 220, 270; Physics 1A, 1C, 1D; Computer Science 1

**Geology/Engineering Geology B.S.:** Geology 1, 3, Chemistry 1A, 1B; Math 190, 191, 220, 270; Physics 1A, 1C, 1D; Computer Science 1

**Geology/Paleobiology B.S.:** Geology 1, 3; Chemistry 1A, 1B; Math 160, 161 and Math 3C at UCLA or Math 190, 191, 220; Physics 3A, 3B or Physics 1A, 1C; Biology 101, 102

**Earth and Environmental Science B.A.** Geology 1, 3; Chemistry 1A, 1B; Biology 101, 102; Math 160 & 161 & Math 3C at UCLA or Math 190, 191; Physics 3A, 3B or Physics 1A, 1C

**Geophysics and Space Physics B.S.:** Geology 1, 3; Chemistry 1A, 1B; Math 190, 191, 220, 270; Physics 1A, 1C, 1D; Computer Science 1

**UNIVERSITY OF CALIFORNIA, RIVERSIDE** (2012-2013)

In addition to meeting published UC admission criteria for transfers, students admitted to this major will need to present an overall grade point average of at least 2.70 in UC transferable course work.

Requirements: Biology 102; Chemistry 1A, 1B; Geology 1, 2, 3, 4; Geography 1, 6; Math 190, 191; Physics 1A, 1B, 1C

**Geology B.S. Options:**

General Geology: no additional requirements

Geobiology option: add Biology 101

Geophysics option: add Math 220, 270; Physics 1D; Computer Science 1

Global Climate Change: add Oceanography 10; Biology 101

**Geophysics B.S.**: Geology 1, 3; Chemistry 1A, 1B; Math 190, 191, 220, 270; Physics 1A, 1B, 1C, 1D; Computer Science 1

\*Note: IGETC is not accepted for majors in the College of Natural and Agricultural Sciences. Courses taken for IGETC will be applied to the College's Breadth pattern as appropriate. Transfer students who wish to supplement their math and science preparation with humanities or social science courses are encouraged to follow the College of Natural and Agricultural Sciences breadth pattern as outlined under ASSIST major titled "GE Breadth: College of Natural and Agricultural Sciences"

**UNIVERSITY OF CALIFORNIA, SANTA BARBARA** (2011-2012)

**B.A. Earth Science**: Math 190, 191, 220, 270; Chemistry 1A, 1B; Geology 2, 3; Geology 1 or Oceanography 10; Physics 2A, 2B or 1A, 1B, 1C, 1D or Physics 3A, 3B; Recommended: Math 150 and a transferrable course in computer programming

**B.S. Earth Science**: Math 190, 191, 220, 270; Chemistry 1A, 1B; Geology 2, 3; Geology 1 or Oceanography 10; Physics 2A, 2B or Physics 3A, 3B or Physics 1A, 1B, 1C, 1D; Recommended: Math 150 and a transferrable course in computer programming

**Emphasis: Climate and Environment**: no additional requirements

Geohydrology: no additional requirements

Paleobiology: Math 190, 191 or Math 160, 161; Biology 101, 102, 103, 104; Math 150