

New BA Degree: Earth Science

Degree Requirements	Units
General Education (50 units, 9 units satisfied by major requirements)	41
Major requirements	51
Supporting courses	10-14
General electives	14-18
Total Units Needed for Graduation	120

Required Major Core Courses	Units
(I) One 100-level Geology course: (*1*)	
GEOL 102*§, 105*, 107, 110, or 120#	3
(II) Both of the following: (*2*)	
GEOL 303: Advanced Principles of Geology#	4
GEOL 304: Geologic Mapping and Report Writing	1
(III) Two of the following 300-level courses: (*3*)	
GEOL 307/308: Igneous and Metamorphic Petrology and Field Course†	5
GEOL 311/312: Sedimentary Geology and Field Course	5
GEOL 313/314: Paleontology and Field Course	5
GEOL 317/318: Structural Geology and Field Course	5
TOTAL	18

(IV) Major Electives: (*4*)	
Choose 33 additional units of Earth Science-related courses in consultation with major advisor. See list of suggested courses on following page. Major Elective courses must be approved by major advisor. At least 20 units must be 200-level or above and at least 15 units must be Geology courses. Courses do not count as elective units if used to fulfill a Major Core Requirement: a student completing GEOL 311/312, 313/314, and 317/318 receives 8 units towards their Major Core and 4 units towards their Major Electives.	33

Required Supporting Courses (*5*)	Units
Math 107, 161, or 165**	4
Chemistry 102*§, 110, or 115A*	3-5
Any 100 or 200-level Physics course*	3-5
TOTAL	10-14

MAJOR AND SUPPORT COURSES	61-65
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- * Also counts toward GE B.1 requirement
- # Also counts toward GE B.3 requirement
- § Satisfies GE lab requirement
- † GEOL 205 is prerequisite
- **Also counts towards GE B.4 requirement

Suggested Major Elective Courses

GEOLOGY

GEOL 102 Our Dynamic Earth (3 units)
 GEOL 105 The Age of Dinosaurs (3 units)
 GEOL 107 Introduction to Earth Science (3 units)
Recommended to students pursuing a teaching credential
 GEOL 110 Natural Disasters (3 units)
 GEOL 120 Regional Field Geology (3 units)
 GEOL 205 Mineralogy (4 units)
 GEOL 301 Natural History of the Hawaiian Islands (3 units)
 GEOL 302 The Geology of Climate Change (3 units)
 GEOL 306 Environmental Geology (3 units)
 GEOL 307 Igneous and Metamorphic Petrology (4 units)
 GEOL 308 Igneous and Metamorphic Petrology Field Course (1 unit)
 GEOL 310 Geophysics (4 units)
 GEOL 311 Sedimentary Geology (4 units)
 GEOL 312 Sedimentary Geology Field Course (1 unit)
 GEOL 313 Paleontology (4 units)
 GEOL 314 Paleontology Field Course (1 unit)
 GEOL 317 Structural Geology (4 units)
 GEOL 318 Structural Geology Field Course (1 unit)
 GEOL 320 Basin Analysis (4 units)
 GEOL 321 Burgess Shale Paleontology (3 units)
 GEOL 323 Hydrology (3 units)
 GEOL 326 Stratigraphy and Earth History (4 units)
 GEOL 420 Integrated Field Experience (4 units)
 GEOL 427 Advanced Field Geology (4 units)
 GEOL 422 Geochemistry (3 units)
 GEOL 425 Economic Geology (3 units)
 GEOL 495 Special Studies (1-4 units)

ANTHROPOLOGY

ANTH 201 Introduction to Biological Anthropology (3 units)
 ANTH 202 Introduction to Archaeology (3 units)
 ANTH 301 Human Fossils and Evolution (4 units)
ANTH 201 or BIOL 115 prerequisite
 ANTH 322 Historical Archaeology (4 units)
 ANTH 325 World Prehistory (4 units)

STUDIO ART

ARTS 202 Beginning Drawing (2-4 units)

ASTRONOMY

ASTR 100 Descriptive Astronomy (3 units)
 ASTR 231 Introductory Observational Astronomy (2 units)
ASTR 100 pre- or corequisite
 ASTR 305 Frontiers in Astronomy (3 units) *ASTR 100 prerequisite*
 ASTR 350 Cosmology (3 units) *ASTR 100 prerequisite*

BIOLOGY

BIOL 312 Biological Oceanography (3 units) *BIOL 110, 115, or 121/122 prerequisite*
 BIOL 333 Ecology (4 units) *BIOL 121, 121, and MATH 165 prerequisite*
 BIOL 335 Marine Ecology (4 units) *BIOL 121, 121, and MATH 165 prerequisite*

ENVIRONMENTAL STUDIES AND PLANNING

ENSP 200 Global Environmental Issues (3 units),
ENGL 101 or PHIL 101 prerequisite
 ENSP 302 Applied Ecology (3-4 units)
 ENSP 309 Soil Science (3-4 units)
 ENSP 322 Conservation Biology (3-4 units) *ENSP 302 and BIOL 122 prerequisite*
 ENSP 330 Energy, Technology and Society (4 units)
 ENSP 451 Water Regulation (3 units)

GEOGRAPHY

GEOG 204 Global Environmental Systems (4 units)
 GEOG 205 Introduction to Map Reading and Interpretation (1 unit)
 GEOG 315 Field Methods in Geography (2 units)
GEOG 205 and MATH 165 pre- or corequisite
 GEOG 340 Conservation of Natural Resources (4 units)
 GEOG 360 Geomorphology (4 units) *GEOG 204 or GEOL 102 prerequisite*
 GEOG 365 Biogeography and Landscape Ecology (4 units)
BIOL 115, 121, or 122 prerequisite
 GEOG 370 Weather and Climate (4 units) *GEOG 204 prerequisite*
 GEOG 380 Remote Sensing and Image Processing (4 units) *GEOG 205 prerequisite*
 GEOG 387 Geographic Information Systems (4 units) *GEOG 205 prerequisite*

**SAMPLE FOUR-YEAR PLAN FOR
BACHELOR OF ARTS IN EARTH SCIENCE**

Freshman Year: 30 Units

<i>Fall Semester (16 Units)</i>	<i>Spring Semester (14 Units)</i>
Major Core I§ (3)	MATH 107§ (4)
General Education (4)	CHEM 110 (3)
General Education (3)	General Education (4)
General Electives (6)	General Education (3)

Sophomore Year: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
GEOL 303 (4)*	Major Core II (5)
GEOL 304 (1)	PHYS 100 (3)
GEOL Electives (8)	PHYS 102 (1)
General Elective (2)	General Education (3)
	General Education (3)

Junior Year: 29 Units

<i>Fall Semester (13 Units)</i>	<i>Spring Semester (16 Units)</i>
Major Core II (5)	GEOL Electives (8)
GEOL Elective (5)	Upper Division GE (3)
Upper Division GE (3)	General Elective (5)

Senior Year: 31 Units

<i>Fall Semester (16 Units)</i>	<i>Spring Semester (15 Units)</i>
GEOL Elective (8)	GEOL Elective (4)
General Education (3)	General Education (3)
General Electives (5)	Upper Division GE (3)
	General Electives (5)

Total Semester Units: 120

* Fulfills upper level and B.3GE requirement

§ Fulfills B.4 GE requirement

**SAMPLE TWO-YEAR PLAN FOR TRANSFER STUDENTS
BACHELOR OF ARTS IN EARTH SCIENCE**

Junior Year: 30 Units

<i>Fall Semester (15 Units)</i>	<i>Spring Semester (15 Units)</i>
GEOL 303* (4)	Major Core II (5)
GEOL 304 (1)	GEOL Elective (4)
GEOL Elective (3)	MATH 165§ (4)
GEOL Elective (4)	General Education (2)
CHEM 110 (3)	

Senior Year: 32 Units

<i>Fall Semester (16 Units)</i>	<i>Spring Semester (16 Units)</i>
Major Core II (5)	GEOL Electives (14)
GEOL Electives (8)	Upper Division GE (2)
Upper Division GE (3)	

Total Semester Units: 62