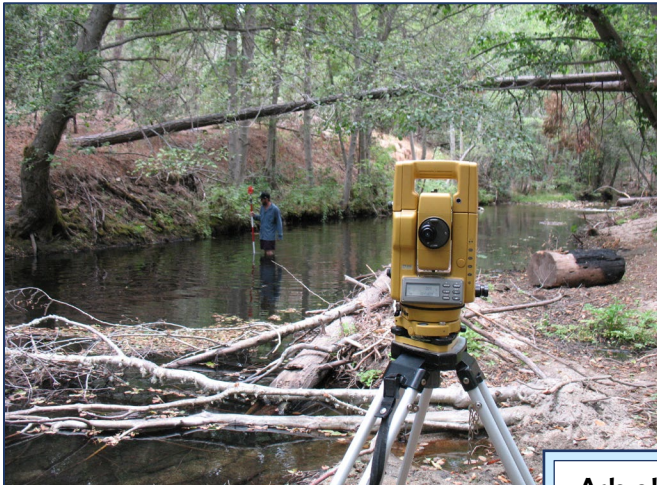


## Bachelor of Science Earth Science



SAN FRANCISCO  
STATE UNIVERSITY



The Bachelor of Science in Earth Sciences is designed for students intending to prepare for direct entry into a career as a professional in industry or government, or for graduate school in the earth sciences. Courses in the BS degree's Earth Sciences core, supported by courses in the basic science and math foundation, give students a strong understanding of the structure and behavior of Earth's systems (geosphere, hydrosphere, atmosphere, and biosphere) and the physical process through which they interact.

Ask about our  
fieldtrips!

### Explore career options in Earth Sciences!

- Geologist
- Hydrologist
- Climatologist
- Environmental Engineering
- Geoscience consulting
- Soil Science
- Environmental Science
- Seismologist
- Educator/Teacher/Professor



### Contact us!

Location | HSS 279  
1600 Holloway Ave  
San Francisco, CA, 94132  
Phone | 415.338.2061



# School of the Environment

The Earth Sciences core courses teach not only interdisciplinary science concepts but also skills in quantitative problem solving, fieldwork, and writing and oral communication, which are directly applicable to both graduate school and careers in the Earth Sciences. Students can develop disciplinary depth in one of the following areas: **Geology** **Hydrology** **Climatology**

## Structure of the BS Earth Sciences degree

### Introduction to Earth Sciences

Introduction to Earth Sciences (Choose 3 classes)	ERTH 112: Our Dynamic Earth or ERTH 210 Physical Geology
	ERTH 162: Weather and Climate
	ERTH 172: Our Dynamic Ocean
	ERTH 240: Environmental Water Resources
Basic Science & Math Foundation (3 classes)	CHEM 115: General Chemistry I or CHEM 180 Chem. for Energy & the Environment
	PHYS 111/112: General Physics I or PHYS 220/222: General Physics with Calculus I
	MATH 226: Calculus I
Introductory Methods (2 classes)	ENV 205: Our Environment through Data
	ENV 500GW: Phys. & Human Dimensions of Climate Change

### Upper division Earth Sciences

Earth Systems (take all 3 classes)	ERTH 400: Oceans and Atmosphere in Earth System or GEOG 313 Earth's Climate System
	ERTH 442: Surface Water Hydrology
	ERTH 500: Earth and Life through time
Culminating Experience	ENV 690: Senior Capstone
	ERTH 695 Senior Project or EARTH 697, 698

### Earth Sciences Techniques: (select two classes)

GEOG 602/702: Field Methods in Environmental Science & Physical Geography	GEOG 621/721: GIS for Environmental Analysis
GEOG 604 Environmental Data Science, or ERTH 505: Quantitative Methods in Earth Science	MATH 227: Calculus II
GEOG 603: Introduction to GIS	PHYS 240/242 General Physics with Calculus III
GEOG 610: Remote Sensing I	

### Earth Science Focus Area (select five classes on advisement)

ERTH 325: Geology of the National Parks	ERTH 470/870: Physical Oceanography
ERTH 330: Cal Water, or ERTH 335: Global Warming, or ERTH 365 Extreme Weather Warming World	ERTH 535: Planetary Climate Change
ERTH 410: Volcanoes and Earthquakes	ERTH 577: Climate and Ecological Interactions
ERTH 420/820: Earth Materials	GEOG 314: Bioclimatology
ERTH 425/825: Geomorphology or GEOG 312: Geography of Landforms	GEOG 317: Soils
ERTH 446/846: Quaternary Geology and Soils	GEOG 642: Watershed Assessment and Restoration
ERTH 515: Sedimentary materials and environments	GEOG 644: Water Quality