

# DEPARTMENT OF EARTH AND PLANETARY SCIENCE

## ENVIRONMENTAL EARTH SCIENCE MAJOR

The Environmental Earth Science major focuses broadly on the natural sciences, using earth science as a base to expand outward. Interrelationships are key to this course of study – the emphasis is on how the physical, biological, and chemical processes at the earth's surface affect each other. The interdisciplinary nature of environmental earth science will bridge a wide range of interests by incorporating classes in biology, hydrology, hazardous waste management, ecology, and natural resources.

This track is excellent preparation for graduate study in environmental science, but it also provides a strong foundation for work within governmental agencies such as the Environmental Protection Agency, Bureau of Land Management, United States Geological Survey or consulting firms. Additional possibilities are broader involvement in land use through planning, business, policy, law or management. If you are interested in teaching science in elementary or secondary education, this is a great way to obtain a good science foundation.

### Lower Division Required Courses:

EPS 50 The Planet Earth (4)

Chemistry 1A+1AL General Chemistry (3+1)

or Chemistry 4A (4)

Math 1A+1B Calculus (4 each)

or Math 16A+16B Analytic Geometry &  
Calculus (3 each)

or Math 10A+10B Methods of Mathematics (4 each)

Physics 7A+7B Physics for Scientists and Engineers

or Physics 5A+5B (3 each)

or Physics 8A-8B Intro to Physics (4 each)

(\*Note: Math 53 is a prerequisite for Physics 5&7B)

Biology 1B General Biology (4)

### Upper Division Required Courses:

EPS 102 History and Evolution of Planet Earth (4)(Sp)

EPS 117 Geomorphology (4)(Fa)

EPS 150 Case Studies in Earth Systems (2)

ERG 102 Quantitative Aspects of Global  
Environmental Problems (4)(Sp)

**PLUS 12 Elective Course units approved by your Faculty Adviser - Look for special topic and new courses appropriate to your interest and discuss with your advisor. If suggested courses below are not offered, talk to faculty adviser about a substitution:**

EPS 100A Minerals: Constitution and Origin (4)(FA)

EPS 100B Genesis and Interpretation of Rocks (4)(SP)

EPS C100 Communicating Ocean Science (4)(SP)

EPS 103/203 Intro to Aquatic and Marine Geochemistry  
(4)(SP)

EPS 108 Geodynamics (4)(FA)

EPS 109 Computer Simulations in EPS (4)(FA)

EPS 115 Stratigraphy and Earth History (4)(SP)

EPS 122 Physics of the Earth & Planetary Interiors (3)(SP)

EPS 124 Isotopic Geochemistry (4)(SP *odd years*)

EPS 125 Stable Isotope Geochemistry (4)(SP *even years*)

EPS 131 Geochemistry (4)(FA)

EPS C178 Applied Geophysics (3)(FA)

EPS C180 Air Pollution (3)(SP)

EPS C181 Atmospheric Physics and Dynamics (3)(FA)

EPS C182 Atmospheric Chemistry and Physics Lab  
(3)(SP)

ESPM 120 Soil Characteristics (3)

ESPM 124 Soil as Medium for Plant Growth (3)

ESPM 125 Soil Physics (4)

ESPM C128 Chemistry of Soils (3)

ESPM C130 Terrestrial Hydrology (4)

CIV ENG 115 Water Chemistry (3) + Lab 115L (1)

CIV ENG 116 Environmental Aqueous  
Geochemistry (3)

GEO 134 Natural Hazards and Problems (4)

GEO 136 Terrestrial Hydrology (4)

GEO C139 Atmospheric Physics and Dynamics (3)

GEO 140A Physical Landscapes: Process and Form (4)

GEO 140B Physiography & Geomorphologic  
Extremes (4)

GEO 142 Climate Dynamics (4)

GEO 143 Global Change and Biogeochemistry (3)

GEO 144 Principles of Meteorology (3)

IB 113L Paleobiological Perspectives on Ecology and  
Evolution (4)(SP)

IB 152 Environmental Toxicology (4)

IB 153 Ecology (3)

IB 155 Holocene Paleoecology: How Humans  
Changed the Earth (3)

IB 159 The Living Planet (3)(FA)

IB 160 Evolution (4)

IB 184L Morphology of Vertebrate Skeleton Lec+Lab (4)

**For more detailed information about this specialization, please contact:**

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**Be sure and ask about the Ramsden Scholarships for EPS declared majors.**

**DEPARTMENT OF EARTH AND PLANETARY SCIENCE**  
**ENVIRONMENTAL EARTH SCIENCE MAJOR WORKSHEET**

**Name:** \_\_\_\_\_ **SID #:** \_\_\_\_\_ **Expected Degree Date:** \_\_\_\_\_  
**Email:** \_\_\_\_\_ **Phone:** \_\_\_\_\_ **Last updated:** \_\_\_\_\_

*Lower Division Requirements*

Class	Term	Units	Grade	Comments
EPS 50		4		
Biology 1B		4		

*Upper Division Requirements*

Class	Term	Units	Grade	Comments
EPS 102 History and Evolution of Planet Earth	Sp	4		
EPS 117 Geomorphology	Fa	4		
EPS 150 Case Studies		2		For seniors only
ERG 102 Quantitative Aspects of Global Environmental Problems	Sp	4		

*Elective Course: Minimum of 12 units – Faculty Advisor approval needed*

Class	Term	Units	Grade	Comments

UPPER DIV. IN MAJOR GPA \_\_\_\_\_  
OVERALL MAJOR GPA \_\_\_\_\_  
UC BERKELEY OVERALL GPA \_\_\_\_\_