

# Environmental Studies

## Degree

Associate in Arts Degree, Environmental Studies

## Program Description

The Environmental Studies Program is an interdisciplinary program designed to develop an understanding of living and non-living earth processes and how they affect and are affected by the human population. Courses in biology, earth sciences and history provide a foundation in the functioning of living systems including population growth, ecology, and toxicology; geologic processes including energy resources, geologic hazards, and pollution; and human attitudes towards nature including historical perspective and context for our current situation.

Through these courses students will gain a better understanding of how humans are intimately connected with the environment and how human activities impact and are impacted by the environment.

An understanding of environmental matters is essential in today's world. Careers in natural resources, land use planning, business, energy, waste management, pollution control, law and environmental administration all require knowledge of environmental issues and the functioning of ecosystems. Career opportunities may require more discipline-specific studies in biology, geology or political science.

## Program Student Learning Outcomes

1. Explain how human activities impact the environment and how the environment impacts human society over time.
2. Explain the interconnections among the lithosphere, biosphere, hydrosphere and atmosphere.
3. Apply critical thinking to establish connections and evaluate the extent to which human activities degrade, protect, or rehabilitate environmental health.

## Faculty and Offices

William Dinklage, *Earth Sciences* (EBS-111)

Adam Green, *Faculty Coordinator* (EBS-323, ext. 2394)

David Morris, *Faculty, History* (IDC-359, ext. 5145)

Jeffrey W. Meyer, *Earth Sciences* (EBS-110, ext. 4270)

Jan L. Schultz, *Earth Sciences* (EBS-113, ext. 2313)

Marilynn Spaventa, *Dean* (A-113, ext. 2539)

## AA Degree Requirements

All students majoring in Environmental Studies must complete a set of departmental requirements consisting of courses that provide a basic understanding of the physical, biological and social sciences and their application to analysis of environmental processes and issues. As a general curriculum, this option is suitable for students to maintain a broad range of choices for their degree. Additional required courses stress the need for transfer possibilities or for growth potential in the environmental professions.

## AA Degree: Environmental Studies

The following program will satisfy the core requirements and college requirements for graduation with an AA Degree, and includes additional recommended courses for transfer to most four-year institutions:

## Department Requirements (53-59 Units)

ENVS 110 — Humans and the Biological Environment .....	3
ENVS 111 — Environmental Field Studies.....	1
ENVS 115 — Environmental Geology <i>or</i> .....	3
ERTH 115 — Environmental Geology .....	3
ENVS 115L — Environmental Geology, Lab <i>or</i> .....	1
ERTH 115L —Environmental Geology, Lab .....	1
ENVS 116 — Energy and Natural Resources <i>or</i> .....	3
ERTH 116 — Energy and Natural Resources .....	3
HIST 112 — American Environmental History <i>or</i> .....	3
ENVS 112 — American Environmental History .....	3
ENVS 200 — Projects in Sustainability .....	2
BIOL 100 — Concepts of Biology <i>or</i> .....	4
BIOL 101 — Plant Biology <i>or</i> .....	5
BIOL 102 — Animal Biology <i>or</i> .....	5
BIOL 103 — Cell Biology .....	5.5

CHEM 155 — General Chemistry I .....5  
 ECON 101 — Microeconomics **or**.....3  
     ECON 102 — Macroeconomics .....3  
 ENG 110 — Composition and Reading **or** .....3  
     ENG 110GB — Composition and Reading **or** .....3  
     ENG 110H — Composition and Reading, Honors.....3  
 ENG 111 — Critical Think. & Comp. Through Lit **or**.....3  
     ENG 111GB — Critical Think. & Comp. Through Lit **or**....3  
     ENG 111H — Crit. Thk. & Comp. Thru Lit, Honors **or**.....3  
     ENG 111HG — Crit. Think. & Comp. Thru Lit, Honors .....3  
 EARTH 111 — Dynamic Earth-Physical Geol **and**.....3  
     EARTH 111L — Dynamic Earth-Physical Geol Lab **or** .....1  
     EARTH 111H — Dynamic Earth-Phys Geol, Honors **and**...4  
     EARTH 111L — Dynamic Earth-Physical Geol Lab **or** .....1  
 EARTH 151 — Introductory Physical Oceanography **and**..3  
     EARTH 151L — Intro. Physical Oceanography Lab **or**.....1  
 EARTH 141 — Physical Geography **and**.....3  
     EARTH 141L — Physical Geography Laboratory **or** .....1  
 GEOG 101 — Physical Geography **and**.....3  
     GEOG 101L — Physical Geography Laboratory **or** .....1  
     EARTH 152 — Weather and Climate **or**.....3  
 GEOG 152 — Weather and Climate .....3  
 MATH 117 — Elementary Statistics **or** .....4  
     MATH 117H — Elementary Statistics, Honors .....4  
 PHIL 101 — Introduction to Ethics **or**.....3  
     PHIL 101H — Introduction to Ethics, Honors **or**.....4  
     PHIL 105 — Business Ethics **or** .....3  
     PHIL 205 — Introduction to Logic **or**.....3  
 POLS 132 — Political Thinking .....3

*Plus choose two courses from the following:*  
 ANTH 103 — Introduction to Cultural Anthropology .....3  
 ANTH 109 — Comparative World Cultures .....3  
 EARTH 142 — Economic Geography **or**.....3  
     GEOG 105 — Economic Geography.....3  
 GEOG 102 — Human Geography.....3  
 GLST 101 — Intro. Global. Stud: Found. Global Vill .....3  
 GLST 102 — Problems of the Global Village .....3

HIST 140 — Great Issues in Public Policy .....3  
 POLS 101 — American Government and Politics .....3  
 POLS 121 — International Politics .....3  
 POLS 131 — Comparative Politics.....3  
 PSY 100 — General Psychology **or** .....3  
     PSY 100H — General Psychology, Honors.....4  
 SOC 101 — Introduction to Sociology **or** .....3  
     SOC 101H — Introduction to Sociology, Honors.....3

*Plus choose one course from Area 3A of IGETC selected from the following:*

**ART** 101, 102A, 102B, 103, 104, 104H, 106, 108, 109, 110, 111, 112, 114, 210, 211, 215, 216; **BLST** 111; **CHST** 130, 131, 160; **ENG** 242; **FS** 101, 101H, 104, 107, 112A, 113, 115, 116, 118, 119, 120, 121; **MUS** 104A, 110, 110H, 112, 114A, 114B, 115, 118, 119; **NATA** 112; **PE** 250; **TA** 103, 106, 107, 108, 120, 160

**College Requirements**

For Complete information, see “Graduation Requirements” in the *Catalog* Index.

**Planning a Program for Transfer**

Special problems confront the student planning to transfer to a four-year university. Major requirements in Environmental Studies differ from school to school and within a single institution by major emphasis. You should work closely with the Counseling Center or a faculty adviser for the Environmental Studies Program.

**Environmental Studies Courses**

**ENVS 110 — Humans and the Biological Environment (3) — CSU, UC**

*Skills Advisories: Eligibility for ENG 110 or 110H or 110GB  
 Hours: 54 lecture*

Growth and variations in populations of organisms and their interactions with the physical environment. Characteristics of living natural resources and changes caused by expanding human populations and technological developments. Satisfies SBCC General Education requirement in Natural Sciences when combined with ENVS 111. Required for the Environmental Studies major.

**ENVS 111 — Environmental Field Studies**

**(1) — CSU, UC\***

*Corequisites: ENVS 110*

*Skills Advisories: Eligibility for ENG 110 or 110H or 110GB*

*Hours: 54 lab*

Field studies designed to demonstrate general ecological/environmental principles through exposure to and analysis of many different communities and sites of environmental concern. Satisfies SBCC General Education requirement in Natural Sciences when combined with ENVS 110. (\*UC transfer limit: no credit for ENVS 111 unless taken after or concurrently with ENVS 110)

**ENVS 112/HIST 112 — American Environmental History**

**(3) — CSU, UC**

*Skills Advisories: Eligibility for ENG 110 or 110H or 110GB*

*Hours: 54 lecture*

Traces the course of American attitudes and actions towards the environment, from the Indians and the European immigrants of colonial days to the 1980s. Discusses current environmental problems and shows their context in American development.

**ENVS 115/ERTH 115 — Environmental Geology**

**(3) — CSU, UC**

*Skills Advisories: MATH 1 and ENG 103*

*Course Advisories: Concurrent enrollment in*

*ENVS 115L/ERTH 115L and 131 or 132*

*Hours: 54 lecture*

Introduction to the problems of volcanism, earthquakes, fire, floods, landslides and other geologic hazards; air and water pollution, hazardous materials and land use planning. Applications to the Santa Barbara area emphasized. Required of all Environmental Studies majors.

**ENVS 115L/ERTH 115L — Environmental Geology Laboratory**

**(1) — CSU, UC**

*Corequisites: ENVS 115/ERTH 115*

*Skills Advisories: MATH 1; ENG 103*

*Hours: 54 lab*

Laboratory approach to topics covered in ENVS 115, with emphasis on rock and mineral identification, hazard assessment, geologic resource management and land use planning. In-lab field trips.

**ENVS 116/ERTH 116 — Energy and Natural Resources**

**(3) — CSU, UC**

*Skills Advisories: MATH 4 and ENG 103*

*Hours: 54 lecture*

Study of formation, exploration, development and judicious use of natural resources in relation to present and future energy requirements, electricity, conservation, fossil fuels, solar, geothermal, nuclear and hydrogen. Required of all Environmental Studies majors.

**ENVS 200 — Projects in Sustainability**

**(2) — CSU**

*Skills Advisories: Eligibility for ENG 110 or 110H or 110GB*

*Hours: 36 lecture*

Students work in groups to develop projects that make the college and local community more sustainable. Lectures, discussions and workshops provide the student with current knowledge in environmental science, sustainable practices, and real-world skills needed to implement practical solutions to local environmental and social problems.

**ENVS 201 — Leadership in Projects in Sustainability**

**(2) — CSU**

*Prerequisites: ENVS 200 with a minimum grade of "C"*

*Skills Advisories: Eligibility for ENG 110 or 110H or 110GB*

*Hours: 36 lecture*

Students take on a leadership role in projects that make the college and local community more sustainable. Students will study consensus building and management in the context of projects in sustainability to hone their skills as project managers.

**ENVS 295 — Internship in Environmental Studies**

**(2-4) — CSU**

*Skills Advisories: Eligibility for ENG 110 or 110H or 110GB*

*Limitation on Enrollment: Student must have completed*

*a minimum of 2 units in ENVS or a minimum of 3 units*

*in any of the following: EH, GLST, BIOL or EARTH*

*Hours: 108-273 lab*

Structured on-the-job experience in a field directly related to the student's area of interest in environmental studies.