The Environmental Studies Program (ENVS) is an interdisciplinary program that combines and integrates different types of knowledge to address the complex environmental, resource, and sustainability challenges in coupled human environment systems. This is accomplished by addressing the grand challenges related to sustaining the planet and its people. How do we meet the needs of a growing human population while sustaining our life support systems—climate, air and water systems, natural resources, species assemblages, and ecosystems on land and in the oceans? How do we increase the well-being of those at risk of global environmental change in an unequal world while not compromising future generations? Our research expertise include food systems; dimensions of global change; conservation biology, restoration ecology; ecosystem biogeochemistry; environmental governance, science and policy interactions; environmental inequality, and climate justice; environmental ethics; sustainable livelihoods; and behavioral dimensions of climate change mitigation and adaptation.

Undergraduate students acquire an awareness of the complexity of factors relating to human interaction with the environment. They become acutely aware that environmental problems have both human and biophysical components, and gain knowledge of the general principles of human-environmental interactions, global habitability, environmental change and sustainable societies. The ENVS majors includes introductory coursework in natural sciences, economics and mathematics; intermediate coursework in policy, ethics, economics and writing; and advanced coursework offered by several departments and programs across CU Boulder.

Requirements

Students must complete:

- the general requirements of the College of Arts and Sciences;
- foundational courses in sciences, policy, ethics, economics, writing and math;
- 12 credit hours of upper-division coursework to specialize in an area of interest;
- an internship or field course;
- a cornerstone course; and
- a capstone course.

**Required Courses and Credits**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENVS 1000</td>
<td>Introduction to Environmental Studies</td>
<td>4</td>
</tr>
<tr>
<td>ENVS 1001</td>
<td>Introduction to Developing Environmental Solutions</td>
<td>4</td>
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</tbody>
</table>

**Introductory Sequence in Biology or Earth Science**

Choose one sequence from the following: 7-8

- E BIO 1210 General Biology 1
- & E BIO 1230 and General Biology Laboratory 1
- & E BIO 1220 and General Biology 2
- & E BIO 1240 and General Biology Laboratory 2

<table>
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<tr>
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<tbody>
<tr>
<td>ATOC 1050</td>
<td>Weather and the Atmosphere</td>
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<tr>
<td>&amp; ATOC 1070</td>
<td>and Weather and the Atmosphere</td>
<td></td>
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<tr>
<td>&amp; ATOC 1060</td>
<td>Laboratory</td>
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<tr>
<td>&amp; ATOC 1060</td>
<td>and Our Changing Environment: El Nino, Ozone, and Climate</td>
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<tr>
<td>GEOG 1001 &amp; GEOG 1011</td>
<td>Environmental Systems: Climate and Vegetation</td>
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<tr>
<td>GEOG 1010 &amp; GEOG 1030</td>
<td>and Introduction to Geology Laboratory 1</td>
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<tr>
<td>&amp; GEOG 1020</td>
<td>and Introduction to Geology</td>
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<tr>
<td>&amp; GEOG 1020</td>
<td>and Dodos, Dinos, and Deinococcus:</td>
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<tr>
<td>&amp; GEOG 1020</td>
<td>The History of a Habitable Planet</td>
<td></td>
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<tr>
<td>&amp; GEOG 1020</td>
<td>(or GEO 1040 or GEO 1060)</td>
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<tr>
<td>GEOL 1012 &amp; GEOL 1030</td>
<td>Exploring Earth for Scientists</td>
<td></td>
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<tr>
<td>&amp; GEOL 1040</td>
<td>and Introduction to Geology Laboratory 1</td>
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<tr>
<td>&amp; GEOL 1040</td>
<td>and Geology of Colorado</td>
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<tr>
<td>&amp; GEOL 1052</td>
<td>Exploring Earth for Scientists</td>
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<tr>
<td>&amp; GEOL 1052</td>
<td>and Planet Earth</td>
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**Introductory Course in Chemistry or Physics**

Choose one course (and the lab, if required) from the following: 3-5

- CHEM 1011 Environmental Chemistry 1
- CHEM 1113 General Chemistry 1
- & CHEM 1114 and Laboratory in General Chemistry 1
- PHYS 1110 General Physics 1 (calculus based)
- PHYS 2010 General Physics 1 (algebra based)

**Intermediate Natural Science Requirement**

Choose one course (and the lab, if required) from the following: 3-4

- ENVS 2000 Applied Ecology for Environmental Studies
- ENVS/CVEN 3434 Introduction to Applied Ecology
- ENVS/ATO 3600/GEOS 3601 Principles of Climate
- E BIO 2040 Principles of Ecology
- GEOG 3511 Introduction to Hydrology
- GEOL 2001 Planet Earth
- GEOL 2005 Introduction to Earth Materials

**Intermediate Policy Requirement**

Choose one course from the following: 3

- PSCI 2106 Introduction to Public Policy Analysis
- PSCI 2116 Introduction to Environmental Policy and Policy Analysis
- PSCI 3206 The Environment and Public Policy

**Intermediate Social Science Requirement**

Choose one course from the following: 3-4

- ENVS/GEOG 3022 Climate Politics and Policy
- ENVS 3030 Topics in Environmental Social Sciences
- ENVS 3031 Environmental Psychology
- ENVS 3032 Environment, Media and Society
- ENVS 3033 Governing the Environment

**Economics Requirements**

- ECON 2010 Principles of Microeconomics 4
ECON 3535  Natural Resource Economics  3  
or ECON 3545  Environmental Economics  

**Ethics Requirement**  
Choose one course from the following:  3  
- ENVS/PHIL 3140  Environmental Ethics  
- ENVS/PSCI 3064  Environmental Political Theory  

**Statistics/Calculus Requirement**  
Choose one course from the following (not all courses fulfill the Gen. Ed. QRMS requirement):  3-5  
- EBIO 1010  Introduction to Statistics and Quantitative Thinking for Biologists  
- EBIO 4410  Biological Statistics  
- GEOG/GEOL 3023  Statistics and Geographic Data  
- MATH 2510  Introduction to Statistics  
- PSCI 2075  Quantitative Research Methods  
- PSYC 2111  Psychological Science I: Statistics  
- SOCY 2061  Introduction to Social Statistics  
- MATH 1300  Calculus 1  
- MATH 1310  Calculus for Life Sciences  
- APPM 1350  Calculus 1 for Engineers  

**Writing Requirement**  
- ENVS 3020  Advanced Writing in Environmental Studies  3  

**Application Requirement (An Internship or Field Course)**  
Choose one course from the following:  2-6  
- ENVS 2100  Topics in Applied Environmental Studies  
- ENVS 3001  Sustainable Solutions Consulting  
- ENVS 3100  Topics in Applied Environmental Studies  
- ENVS 3103  Applied Environmental Studies: Mining in Four Corners  
- ENVS 3173/THTR 4173/ATLS 3173  Creative Climate Communication  
- ENVS/IAFS 3640  Data Analysis for Global Environmental Affairs  
- ENVS 3930  Internship  
- ENVS 4050  Field Methods in Ecosystem Science  
- ENVS/EBIO 4340  Conservation Biology and Practice in Brazil’s Atlantic Forest  
- ENVS/MUSM 4795  Field Methods in Zoology and Botany  
- ARTS 4444  Art and Rural Environments Field School  
- CVEN 3434  Introduction to Applied Ecology  
- EBIO 4090  Coral Reef Ecology  
- EBIO 4100  Advanced Ecology  
- EDUC 4833  Teaching and Learning Earth Systems  
- EVEN 4100  Environmental Sampling and Analysis  
- GEO 2700  Introduction to Field Geology  

**Cornerstone Requirement**  
Choose one course from the following:  3  
- ENVS/GEOL 3520  Energy and Climate Change: An Interdisciplinary Approach  
- ENVS 3525  Intermediate Environmental Problem Analysis: Topical Cornerstones  
- ENVS 3621  Energy Policy and Society  

**Capstone Requirement**  
Choose one course from the following:  3  
- ENVS 3800  The Art of Research: The Essential Elements of Research in Environmental Studies  
- ENVS 4800  Capstone: Critical Thinking in Environmental Studies  
- ENVS 4990  Senior Thesis  
- ENST 4150  Energy Policy Project  

**Specialization Requirement**  
Complete a minimum of 12 credits. Upper-division courses that fulfill the Intermediate Natural Science, Intermediate Social Science, Policy, Application, Cornerstone and Capstone requirements may apply toward the specialization requirement if those areas are already fulfilled with another course. No course may apply to two areas in the ENVS major.  63-74  

**Four-Year Plan of Study**  
Through the required coursework for the major, students will complete all 12 credits of both the Social Sciences and the Natural Sciences, including the lab, areas of the Gen Ed Distribution Requirement as well 3 credits of the Arts and Humanities part of this requirement and potentially the QRMS component of the Gen Ed Skills Requirement.  

<table>
<thead>
<tr>
<th>Course</th>
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<tr>
<td><strong>Year One</strong></td>
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<tr>
<td><strong>Fall Semester</strong></td>
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<td>ENVS 1000</td>
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<td>(partially fulfills Gen. Ed. Distribution: Natural Sciences)</td>
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<tr>
<td>ENVS 1150</td>
<td>First-Year Writing in Energy, Environment and Sustainability (fulfills Gen. Ed. Skills course: Lower-division Written Communication)</td>
<td>3</td>
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<tr>
<td>One mathematics course in preparation for statistics or calculus. (may fulfill Gen. Ed. Skills: QRMS)</td>
<td>3-4</td>
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<tr>
<td>Elective or MAPS</td>
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<td>3</td>
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<tr>
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<td><strong>Credit Hours</strong></td>
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<td><strong>Spring Semester</strong></td>
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<td>Elective or MAPS</td>
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<td><strong>Credit Hours</strong></td>
<td><strong>13-15</strong></td>
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**Year Two**

**Fall Semester**

- Introductory biology or earth science, with Lab - first course: 3-4
- Elective: 3
- Elective: 3

| Credit Hours | 15-16 |

**Spring Semester**

- Introductory biology or earth science - second course: 3-4
- ECON 2010: 4
- Principles of Microeconomics (Economics requirement - first course - partially fulfills Gen. Ed. Distribution: Social Sciences)
- Introductory course in chemistry or physics, and lab if required: 3-5
- Elective(s) or Upper-division Elective(s) (if needed): 6-3

| Credit Hours | 16 |

**Year Three**

**Fall Semester**

- Intermediate natural science requirement: 3-4
- ENVS 3020: 3
- ECON 3535 or ECON 3545: 3
- ENVS Ethics requirement - may partially fulfill Gen. Ed. Distribution: Arts & Humanities: 3
- Elective or Upper-division Elective (if needed): 3

| Credit Hours | 15-16 |

**Spring Semester**

- ENVS Cornerstone requirement: 3
- ENVS Application requirement: 2-6
- ENVS Intermediate Social Science requirement - may partially fulfill Gen. Ed. Distribution: Social Sciences: 3-4
- ENVS Specialization course: 3
- Elective or Upper-division Elective (if needed): 3-0

| Credit Hours | 14-16 |

**Year Four**

**Fall Semester**

- ENVS Capstone: 3
- ENVS Specialization course: 3
- ENVS Specialization course: 4-3
- Gen. Ed. Distribution course (example: Arts & Humanities): 3