University of Colorado Boulder
Environmental Studies Major Requirements
for Students Declaring Fall 2013 or Later

**Natural Sciences Requirements**

Introductory Course
- ENVS 1000 (4) *Introduction to Environmental Studies*

Biology Sequence  Complete one sequence and applicable lab(s)
- EBIO 1030 (3) and EBIO 1040 (3) + EBIO 1050 (1) *Biology: A Human Approach and lab*
- EBIO 1210 (3) + EBIO 1230 (1) and EBIO 1220 (3) + EBIO 1240 (1) *General Biology and labs*

Chemistry or Physics Course  Complete one course and lab if lab is co-requisite
- CHEM 1011 (3) *Environmental Chemistry*
- CHEM 1113 + CHEM 1114 (5) *General Chemistry 1 and lab*
- ENVS 1001 (4) *Introduction to Developing Environmental Solutions*
- PHYS 1110 (4) *General Physics*
- PHYS 2010 (5) *General Physics with lab*

Earth Science Sequence  Complete one sequence and associated lab(s)
- ATOC 1050 (3) and ATOC 1060 (3) + ATOC 1070 (1) *Weather and the Atmosphere / Our Changing Environment, and lab*
- GEOG 1001 (4) and GEOG 1011 (4) *Environmental Systems with labs*
- GEOL 1010 (3) + GEOL 1030 (1) and choice of: GEOL 1020 (3), GEOL 1040 (3), or GEOL 1060 (3) *Introduction to Geology and lab and choice of: Introduction to Earth History, Geology of Colorado, or Global Change-An Earth Science Perspective*
- GEOL 1010 (3) and choice of: GEOL 2001 (4) or GEOL 2005 (4) *Introduction to Geology and choice of: Planet Earth or Introduction to Earth Materials*
- GEOL 2001 (4) and GEOL 2005 (4) *Planet Earth and Introduction to Earth Materials*

Intermediate Natural Science  Complete one course
- ENVS 2000 (4) *Introduction to Applied Ecology for Environmental Studies*
- ENVS 3600/ATOC 3600/GEOG 3601 (3) *Principles of Climate**
- CVEN 3434 (3) *Introduction to Applied Ecology*

**Social Sciences Requirement**

Intermediate Social Science  Complete one course
- ENVS 3030 (3) *Topics in Environmental Social Sciences*
- ENVS 3031 (3) *Energy and Human Behavior*
- ENVS 3032 (3) *Environment, Media and Society*

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Values Requirements

**Introductory Economics** Mandatory
- ECON 2010 (4) *Principles of Microeconomics*

**Intermediate Economics** Complete one course
- ECON 3535 (3) *Natural Resource Economics*
- ECON 3545 (3) *Environmental Economics*

**Ethics** Complete one course
- ENVS/PHIL 3140 (3) *Environmental Ethics*
- PSCI 3064 (3) *Environmental Political Theory*

Purpose: Examine both the economic drivers and the underlying moral beliefs, personal and social ethics, principles, and theoretical commitments that might be informing environmental discourse and also driving human actions and decisions.

Policy Requirement

**Intermediate Policy** Complete one course
- PSCI 2106 (3) *Introduction to Public Policy Analysis*
- PSCI 2116 (3) *Introduction to Environmental Policy*
- PSCI 3206 (3) *The Environment & Public Policy*

Purpose: Learn to systematically analyze environmental problems and critically assess the ways in which public policies may help to address these problems. Students will learn a basic knowledge of existing environmental laws and policies and the processes through which environmental policies are made and implemented.

Math Requirement

Choose between statistics or calculus 1 and complete one course

**Statistics:**
- EBIO 1010 (3) *Introduction to Quantitative Thinking for Biologists*
- EBIO 4410 (4) *Biometry**
- GEOG/GEOL 3023 (4) *Statistics for Geography*
- MATH 2510 (3) *Introduction to Statistics*
- PSCI 2075 (3) *Quantitative Research Methods*
- PSYC 2111 (4) *Psychological Science 1: Statistics**
- SOCY 2061 (3) *Introduction to Social Statistics*

**Calculus 1:**
- APPM 1350 (4) *Calculus 1 for Engineers*
- MATH 1300 (5) *Calculus 1*
- MATH 1310 (5) *Calculus, Systems, and Modeling*

Purpose: Learn to use mathematical systems as a tool to quantify and understand complex issues and to use mathematical systems to help solve problems.

Writing Requirement

Complete one course
- ENVS 3020 (3) *Advanced Writing in ENVS*
- EBIO 3940 (3) *Written Communication in the Sciences*

Purpose: Develop an understanding of rhetorical situations in professional writing and be able to apply critical thinking skills when delivering or receiving information. Learn to frame a problem and develop an idea from knowledge based on research.

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**Application Requirement**

Complete one course

- ENVS 2100 (3) Topics in Applied Environmental Studies
- ENVS 3100 (3) Topics in Applied Environmental Studies+
- ENVS 3103 (3) Mining 4 Corners+
- ENVS 3173/THTR 4173 (3) Creative Climate Communication+
- ENVS/IAFS 3640 (3) Global Data Analysis+
- ENVS 3930 (3) Internship* +
- ENVS 4050 (3) Field Studies in Environmental Sciences+
- ARTS 4444 (6) Art and Rural Environments+
- CVEN 3434 (3) Introduction to Applied Ecology*
- EBIO 4090 (2) Coral Reef Ecology*+
- EBIO 4100 (3) Mountain Research Station field course*+
- EBIO/ENVS/MUSM 4795 (3) Museum Field Methods/Zoology and Botany+
- EDUC 4833 (3) Teaching and Learning Earth Systems+
- EVEN 4100 (3) Environmental Sampling and Analysis* **+
- GEOL 2700 (2) Introduction to Field Geology**

**Cornerstone Requirement**

Complete one course

- ENVS 3520 (3) Energy & Climate Change
- ENVS 3521 (3) Climate Politics and Policy++
- ENVS 3525 (3) Intermediate Environmental Problem Analysis: Topical Cornerstones++
- ENVS 3621 (3) Energy, Policy & Society++

**Specialization Requirement (continued on next two pages)**

Complete a minimum of 12 credits from the following list

- ENVS/EBIO 3040 (4) Conservation Biology
- ENVS/PHYS 3070 (3) Energy & the Environment
- ENVS/GEOL 3520 (3) Energy & Climate Change
- ENVS 3521 (3) Climate, Politics & Policy
- ENVS/SOCY 4027 (3) Inequality, Democracy, & the Environment
- ENVS 4100 (3) Special Topics in Environmental Studies
- ENVS 4120 (4) Special Topics in Environmental Studies
- ENVS/EBIO/GEOL 4160 (3) Introduction to Biogeochemistry**
- ENVS/GEOL 4201 (3) Biogeography
- ATOC 3050 (3) Principles of Weather**
- ATOC 3070/GEOL 3070 (3) Introduction to Oceanography**
- ATOC 3300/GEOL 3301(3) Analysis of Climate & Weather Observations**
- ATOC 3500/CHM 3151 (3) Air Chemistry & Pollution**
- ATOC 4200 (3) Biogeochemical Oceanography
- ATOC 4215 (3) Descriptive Physical Oceanography
- ATOC 4550 (3) Mountain Meteorology
- ATOC 4700 (3) Weather Analysis & Forecasting**
- ATOC 4720 (3) Introduction to Atmospheric Physics & Dynamics**

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*Purpose: Acquire practical and “hands-on” experience applying knowledge and skills outside the classroom. Improve the ability to integrate the knowledge and skills taught in the ENVS major and emphasize their real-world applications.*

*Purpose: A foundation course to synthesize lower-division environmental science, policy, and values courses into a cohesive knowledge base to prepare students for specialization and capstone courses.*

*Purpose: Allow more advanced students to focus on one aspect of environmental studies to develop a deeper understanding.*

To explore focus areas and learn how to select courses that align with your interests, see the ENVS Guidance Documents at:
http://www.colorado.edu/envs/current-students/undergraduate-students/curriculum/guidance-documents

*Example Focus Areas:*
- Climate
- Energy
- Hydrology
- Natural Resources
- Sustainable Development

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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ATOC 4750</td>
<td>Desert Meteorology &amp; Climate**</td>
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<tr>
<td>ATOC 4770</td>
<td>Wind Energy Meteorology</td>
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<td>CVEN 4404</td>
<td>Water Chemistry**</td>
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<td>CVEN 4414</td>
<td>Water Chemistry Laboratory**</td>
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<tr>
<td>EBIO 3190</td>
<td>Tropical Marine Ecology</td>
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<td>EBIO 3270</td>
<td>Ecosystem Ecology</td>
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<td>EBIO 4020</td>
<td>Stream Biology</td>
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<td>EBIO 4030</td>
<td>Limnology</td>
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<td>EBIO 4060</td>
<td>Landscape Ecology</td>
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<td>EBIO 4140</td>
<td>Plant Ecology</td>
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<td>EBIO 4800</td>
<td>Critical Thinking in Biology:</td>
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<td></td>
<td>Conservation Medicine</td>
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<td>Ecosystem Management</td>
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<td>Intervention Ecology</td>
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<td>Land Use Sustainability</td>
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<td>Microbial Ecology</td>
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<td>Novel Ecosystems</td>
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<td>Soil Ecology</td>
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<td>ECON 3403</td>
<td>International Economics &amp; Policy**</td>
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<td>ECON 3784</td>
<td>Economic Development &amp; Policy**</td>
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<td>ENVD 4023</td>
<td>Environmental Impact Assessment**</td>
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<td>FILM 3041</td>
<td>Environmental Cinema</td>
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<td>GEOG 3053</td>
<td>Cartography: Visualization &amp; Information Design</td>
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<td>GEOG 3251</td>
<td>Mountain Geography</td>
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<td>GEOG 3351</td>
<td>Biogeography</td>
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<td>GEOG 3402</td>
<td>Natural Hazards</td>
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<td>GEOG 3412</td>
<td>Conservation Practice</td>
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<td>GEOG 3422</td>
<td>Political Ecology</td>
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<td>GEOG 3682</td>
<td>Geography of International Development</td>
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<td>GEOG 3812</td>
<td>Mexico, Central America, &amp; the Caribbean</td>
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<td>GEOG 3822</td>
<td>Geography of China</td>
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<td>GEOG 3832</td>
<td>Geographies of South Asia</td>
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<td>GEOG 3862</td>
<td>Geography of Africa</td>
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<td>GEOG/GEOL 4093</td>
<td>Remote Sensing of the Environment</td>
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<td>GEOG/GEOL 4241</td>
<td>Principles of Geomorphology</td>
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<td>GEOG 4271</td>
<td>The Arctic Climate System</td>
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<td>GEOG 4321</td>
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<td>GEOG 4371</td>
<td>Forest Geography: Principles &amp; Dynamics</td>
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<td>GEOG 4401</td>
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<td>GEOG 4430</td>
<td>Conservation Trends</td>
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<td>GEOG 4501</td>
<td>Water Resources &amp; Water Management of Western US</td>
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<td>GEOG 4632</td>
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<td>GEOG 4742</td>
<td>Topics in Environment and Society:</td>
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<td>Food</td>
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<td>Hazard &amp; Risk Assessment</td>
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<td>Landscape, Society &amp; Meaning</td>
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<tr>
<td>GEOG 4812</td>
<td>Environment and Development in South America</td>
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<td>GEOG 4852</td>
<td>Health and Medical Geography</td>
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<tr>
<td>GEOL 3030</td>
<td>Introduction to Hydrogeology</td>
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<tr>
<td>GEOL 3040</td>
<td>Global Change: The Recent Geological Record</td>
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<tr>
<td>GEOL 3320</td>
<td>Introduction to Geochemistry**</td>
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9/7/16

Environmental Studies Major Requirements

Capstone Requirement

Complete one course

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENVS 3800 (3)</td>
<td>The Art of Research</td>
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<tr>
<td>ENVS 4800 (3)</td>
<td>Capstone: Critical Thinking in Environmental Studies</td>
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<tr>
<td>ENVS 4990 (3)</td>
<td>Senior Thesis</td>
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<tr>
<td>ENST 4150 (3)</td>
<td>Energy Policy Project</td>
</tr>
</tbody>
</table>

Purpose: The capstone requirement provides an opportunity for students to pursue intellectual integration of the multiple scientific disciplines and allows students to demonstrate competence in integrative analysis and problem solving.

Additional Notes

1. These major requirements apply to students who declared the major in Fall 2013 or later.
2. Current students who wish to change to these requirements should schedule an advising appointment or visit advisor drop-in hours.
3. If you took a course not listed as a specialization but would like to see if it can be applied, please consult your advisor.
4. Topics courses may apply to the ENVS specialization requirement, although offerings will vary semester by semester. The current semester course list includes topics classes, look at [http://www.colorado.edu/envs/current-students/undergraduate-students/curriculum/current-courses](http://www.colorado.edu/envs/current-students/undergraduate-students/curriculum/current-courses) to see applicable subtopics. Topics course numbers that may apply to the ENVS major, depending upon course content, include:

   ANTH 4020 - Explorations in Anthropology*
   Special topics in cultural and physical anthropology, as well as archaeology. Check with the department for semester offerings. May be repeated up to 9 total credit hours.

   ATOC 4500 - Special Topics in Atmospheric and Oceanic Sciences
   Acquaints students with current research in atmospheres, oceans, and climate. Topics may vary each semester. May be repeated for a total of 9 total credit hours within the degree. Students may register for more than one section of this course in the same semester.

   EBIO 4460 - Special Topics
   Familiarizes students with specialized areas of biology. May be repeated up to 9 total credit hours. Prereqs., EBIO 1210, 1220, 1230, and 1240, or equivalent. Same as EBIO 5460.

   GEOG 4100 - Special Topics in Geography
   GEOG 4110 - Special Topics in Geography
   GEOG 4120 - Special Topics in Geography
   Various topics not normally covered in the curriculum; offered intermittently depending on student demand and availability of instructors. Prereq., instructor consent.

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