Bachelor of Science in Environment and Society

Admission Requirements
Satisfy the Application and Admission Requirements for Baccalaureate Programs (http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate).

Graduation Requirements

- Satisfy the General University Requirements for Baccalaureate Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureatrequirements).
- Complete the General Education Requirements for Baccalaureate Degrees (http://catalog.uaa.alaska.edu/undergraduateprograms/baccalaureatrequirements/gers). Some major requirements may be used to satisfy General Education Requirements.
- Complete the major requirements below.

Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL A271</td>
<td>Principles of Ecology</td>
<td>3</td>
</tr>
<tr>
<td>BIOL A473</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td>CEL A292</td>
<td>Introduction to Civic Engagement</td>
<td>3</td>
</tr>
<tr>
<td>COMM A241</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>ECON A210</td>
<td>Environmental Economics and Policy</td>
<td>3</td>
</tr>
<tr>
<td>ENGL A478</td>
<td>Public Science Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENVI A211 &amp; A211L</td>
<td>Environmental Science: Systems and Processes and Environmental Science: Systems and Processes Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>ENVI A212</td>
<td>Living on Earth: Introduction to Environmental Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENVI A280</td>
<td>Professional Preparation in Environmental Fields I</td>
<td>1</td>
</tr>
<tr>
<td>ENVI A370</td>
<td>Environmental Field Methods</td>
<td>3</td>
</tr>
<tr>
<td>ENVI A395</td>
<td>Environmental Studies Internship</td>
<td>3</td>
</tr>
<tr>
<td>ENVI A470</td>
<td>Environmental Planning and Problem Solving</td>
<td>4</td>
</tr>
<tr>
<td>ENVI A480</td>
<td>Professional Preparation in Environmental Fields II</td>
<td>1</td>
</tr>
<tr>
<td>ENVI A490</td>
<td>Topics in Environment and Society</td>
<td>3</td>
</tr>
<tr>
<td>GEOG/ENVI A111</td>
<td>Earth Systems: Elements of Physical Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEOG A375</td>
<td>Environmental Applications of Geographic Information Systems (GIS)</td>
<td>3</td>
</tr>
<tr>
<td>WRTG A212</td>
<td>Writing and the Professions</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following 100-level math options: * 3-7

- MATH A121: College Algebra for Managerial and Social Sciences
- MATH A151 & MATH A152: College Algebra for Calculus and Trigonometry
- MATH A155: Precalculus
- MATH A221: Applied Calculus for Managerial and Social Sciences
- MATH A251: Calculus I
- PHIL A303: Environmental Ethics 3
- STAT A253: Applied Statistics for the Sciences 4

Total Credits 62-67

* Students planning on taking the Spatial Concentration below should not take MATH A121 to fulfill this requirement. Fulfilling this requirement with MATH A121 might require additional prerequisites when completing the spatial concentration.

Complete one of the following concentrations:

**Biology Concentration**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL A108</td>
<td>Principles and Methods in Biology</td>
<td>6</td>
</tr>
<tr>
<td>CHEM A105 &amp; A105L</td>
<td>General Chemistry I and General Chemistry I Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>CHEM A106</td>
<td>General Chemistry II</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete 9 credits from the following upper-division courses:

- BIOL A431: Plant Diversity and Evolution
- BIOL A467: Wildlife Population Dynamics and Management
- BIOL A472: Biogeography
- BIOL A474: Ecotoxicology
- BIOL A477: Tundra and Taiga Ecosystems
- BIOL A478: Biological Oceanography
- BIOL A481: Marine Biology
- BIOL A482: Spatial Ecology
- BIOL A483: Exploration Ecology
- BIOL A484: Experiential Learning: Exploration Ecology Field Study

Total Credits 22

**Geology Concentration**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL A102</td>
<td>Introductory Biology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM A103</td>
<td>Introduction to General Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following:

- GEOL A111 & A111L: Physical Geology

Total Credits 3-7
Bachelor of Science in Environment and Society

Complete 10 credits of the following with at least 6 credits from upper-division courses:

- BIOL/GEOL A178 Fundamentals of Oceanography
- BIOL/GEOL A179 Fundamentals of Oceanography Laboratory
- GEOL A115 Environmental Geology
- GEOL A115L Environmental Geology Laboratory
- GEOL A345 Hydrogeology
- GEOL A350 Geomorphology
- GEOL A361 Earth Resources and Society
- GEOL A445 Geothermal Energy
- GEOL A454 Glacial and Quaternary Geology
- GEOL A455 Permafrost
- GEOL A456 Geoarchaeology
- GEOL A490 Advanced Topics in Geology (with environmental topic)

Total Credits 24

GIS A101 Introduction to Geographic Information Systems 3
GIS A201 Intermediate Geographic Information Systems 3

Complete 9 credits from the following upper-division courses:

- GIS A301 Spatial Data Structures
- GIS A351 Remote Sensing
- GIS A370 GIS and Remote Sensing for Natural Resources
- GIS A458 Spatial Data Management
- GIS A466 Spatial Analysis

Total Credits 21

A total of 120 credits is required for the degree, of which 42 credits must be upper-division.

Program Student Learning Outcomes

Students graduating with a Bachelor of Science in Environment and Society will be able to:

- Explain the fundamental role of natural/living systems in supporting life and social well-being, enabling beneficial relationships between people and the natural world, and underpinning the key human threats to the environment.
- Demonstrate the ability to employ the following liberal education skills in a disciplinary and professional setting: critical thinking, problem solving, and decision making; conceptual engagement with ethics and civic issues; use of the scientific method; and technical writing skills.
- Apply the following skill sets to address environmental problems and develop solutions in professional, academic, and civic settings: communication and teamwork, stakeholder engagement, field research techniques, environmental assessment, survey design, data collection and analysis, mapping techniques, knowledge of key environmental laws and policies, environmental planning.