# Environmental Studies - BS

## Program Requirements

### First Year

#### Fall

- **ECON 202**: Principles of Economics 3
- **GEOS 105**: Introduction to Environmental Geoscience 3
- **MATH 140** or **MATH 168**: Mathematics for Business and Social Sciences or Finite Mathematics 3
- **POLS 206**: American National Government 3

Select one of the following: 1

- **ATMO 201** & **ATMO 202**: Weather and Climate and Weather and Climate Laboratory 3
- **GEOG 203** & **GEOG 213**: Planet Earth and Planet Earth Lab 3
- **GEOL 101** & **GEOL 102**: Principles of Geology and Principles of Geology Laboratory 3
- **OCNG 251** & **OCNG 252**: Oceanography and Oceanography Laboratory 3

**Semester Credit Hours**: 16

#### Spring

- **ENGL 104**: Composition and Rhetoric 3
- **GEOG 201**: Introduction to Human Geography 3
- **MATH 142**: Business Calculus 3

Select one of the following: 1

- **ATMO 201** & **ATMO 202**: Weather and Climate and Weather and Climate Laboratory 3
- **GEOG 203** & **GEOG 213**: Planet Earth and Planet Earth Lab 3
- **GEOL 101** & **GEOL 102**: Principles of Geology and Principles of Geology Laboratory 3
- **OCNG 251** & **OCNG 252**: Oceanography and Oceanography Laboratory 3

Creative arts elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 2

**Semester Credit Hours**: 16

### Second Year

#### Fall

- **POLS 207**: State and Local Government 3
- **GEOS 210**: Climate Change 3
- **GEOS 205**: Environmental Geosciences Cornerstone 1

Life and physical sciences elective 3

Select one of the following:

- **BIOL 101**: Botany
- **BIOL 107**: Zoology
- **BIOL 111**: Introductory Biology I
- **BIOL 112**: Introductory Biology II

**Semester Credit Hours**: 16

### Third Year

#### Fall

- **GEOG 335**: Pattern and Process in Biogeography 3
- **GEOG 380**: Workshop in Environmental Studies 3
- **PHIL 314**: Environmental Ethics 3
- **STAT 303**: Statistical Methods 3

Theme elective 4

**Semester Credit Hours**: 15

#### Spring

- **AGEC 350**: Environmental and Natural Resource Economics 3
- **GEOG 390**: Principles of Geographic Information Systems 4
- **GEOS 444**: The Science and Politics of Global Climate Change 3

Environmental policy elective

Select one of the following:

- **BESC 367**: U.S. Environmental Regulations
- **ECON 203**: Principles of Economics
- **ECON 323**: Microeconomic Theory
- **GEOG 306**: Introduction to Urban Geography
- **GEOG 309**: Geography of Energy
- **GEOG 401**: Political Geography
- **GEOG 406**: Geographic Perspectives on Contemporary Urban Issues
- **GEOG 430**: Environmental Justice
- **GEOS 484**: Internship
- **POLS 347**: Politics of Energy and the Environment
- **SOCI 328**: Environmental Sociology
- **URPN 202**: Building Better Cities
- **URPN 360**: Issues in Environmental Quality

**Semester Credit Hours**: 16

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**CHEM 119**: Fundamentals of Chemistry I 3
**CHEM 120**: Fundamentals of Chemistry II 3

Communication elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) 3

Life and physical sciences elective 3

Select one of the following:

- **BIOL 101**: Botany
- **BIOL 107**: Zoology
- **BIOL 111**: Introductory Biology I
- **BIOL 112**: Introductory Biology II
- **CHEM 119**: Fundamentals of Chemistry I 3
- **CHEM 120**: Fundamentals of Chemistry II 3

Language, philosophy and culture elective (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 2

Theme elective 4

**Semester Credit Hours**: 15

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**AGEC 350**: Environmental and Natural Resource Economics 3
**GEOG 380**: Workshop in Environmental Studies 3
**PHIL 314**: Environmental Ethics 3
**STAT 303**: Statistical Methods 3

Theme elective 4

**Semester Credit Hours**: 15

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**AGEC 350**: Environmental and Natural Resource Economics 3
**GEOG 390**: Principles of Geographic Information Systems 4
**GEOS 444**: The Science and Politics of Global Climate Change 3

Environmental policy elective

Select one of the following:

- **BESC 367**: U.S. Environmental Regulations
- **ECON 203**: Principles of Economics
- **ECON 323**: Microeconomic Theory
- **GEOG 306**: Introduction to Urban Geography
- **GEOG 309**: Geography of Energy
- **GEOG 401**: Political Geography
- **GEOG 406**: Geographic Perspectives on Contemporary Urban Issues
- **GEOG 430**: Environmental Justice
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- **POLS 347**: Politics of Energy and the Environment
- **SOCI 328**: Environmental Sociology
- **URPN 202**: Building Better Cities
- **URPN 360**: Issues in Environmental Quality

**Semester Credit Hours**: 16
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>URPN 361</td>
<td>Urban Issues</td>
<td>3</td>
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<tr>
<td>URPN 371</td>
<td>Environmental Health Planning and Policy</td>
<td>3</td>
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<tr>
<td>URPN 460</td>
<td>Sustainable Communities</td>
<td>3</td>
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<tr>
<td>RWFM 470</td>
<td>Environmental Impact Assessment</td>
<td>3</td>
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<tr>
<td>GEOS 431</td>
<td>Environmental Regulatory Compliance in Geoscience</td>
<td>3</td>
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<tr>
<td>Theme Elective</td>
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<td>3</td>
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</table>

**Fourth Year**

**Fall**

- GEOS 430  Global Science and Policy Making  3
- American history elective [link](http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)  3

Technical elective 3

Select one of the following:

- ATMO 321  Computer Applications in the Atmospheric Sciences  3
- ATMO 464  Laboratory Methods in Atmospheric Sciences  3
- GEOG 312  Data Analysis in Geography  3
- GEOG 361  Remote Sensing in Geosciences  3
- GEOG 450  Field Geography  3
- GEOG 467  Dynamic Modeling of Earth and Environmental Systems  3
- GEOG 475  Advanced Topics in GIS (Geographic Information Systems)  3
- GEOG 352/GEOL 352  GNSS in the Geosciences or GNSS in the Geosciences  3
- GEOG 352/GEOL 352  or  3
- GEOG 470  Data Analysis Methods in Geosciences  3

General elective 3

Theme elective 3

**Semester Credit Hours** 15

**Spring**

- GEOS 405  Environmental Geosciences  3
- American history elective [link](http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history)  3

General elective 3

Theme elective 3

**Semester Credit Hours** 12

**Total Semester Credit Hours** 120

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1. Choose one introductory course in the first semester and an additional one in the second semester of the freshman year.
2. It is recommended to select a course that also fulfills an international and cultural diversity [link](http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/) and/or cultural discourse [link](http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/) requirement. The graduation requirements include three hours of international and cultural diversity courses and three hours of cultural discourse courses.
3. Choose one Life and Physical Science Elective in the first semester and an additional one in the second semester of the sophomore year.
4. Choose 15 hours of courses in your chosen environmental theme from the list below.
5. Other courses which match the Environmental Programs' technical electives definition will be allowed by adjustment. Seek guidance regarding potential adjustments from the ENVP academic advisor.
6. KINE 199, MATH 102, MATH 150, and lower level AERS [link](http://catalog.tamu.edu/undergraduate/course-descriptions/aers/), MLSC [link](http://catalog.tamu.edu/undergraduate/course-descriptions/mlsc/), NVSC [link](http://catalog.tamu.edu/undergraduate/course-descriptions/nvsc/), and SOMS [link](http://catalog.tamu.edu/undergraduate/course-descriptions/soms/) courses cannot be used as general electives.

Two courses in the degree plan must be writing intensive courses designated by the Environmental Programs in the schedule of classes. Also, international and cultural diversity electives (3 hours) and cultural discourse (3 hours) must be incorporated into the degree.

### Environmental Theme Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
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</thead>
<tbody>
<tr>
<td><strong>Urban Environment</strong></td>
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<tr>
<td>GEOS 306</td>
<td>Introduction to Urban Geography</td>
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<tr>
<td>GEOS 406</td>
<td>Geographic Perspectives on Contemporary Urban Issues</td>
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<tr>
<td>or ATMO 326</td>
<td>Environmental Atmospheric Science</td>
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<tr>
<td><strong>Occupational Health and Safety</strong></td>
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<tr>
<td>PHLT 330</td>
<td>The Environment and Public Health</td>
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<tr>
<td>PHLT 331</td>
<td>Occupational Safety and Health I</td>
<td>3</td>
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<tr>
<td>PHLT 333</td>
<td>Accident Investigation</td>
<td>3</td>
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<tr>
<td>PHLT 334</td>
<td>Fire Safety and Workplace Hazards</td>
<td>3</td>
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<tr>
<td>PHLT 335</td>
<td>Hazardous Materials</td>
<td>3</td>
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<tr>
<td>PHLT 432</td>
<td>Human Factors and Ergonomic Health and Safety</td>
<td>3</td>
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<tr>
<td>PHLT 434</td>
<td>Project Cost Benefit and Economics</td>
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<tr>
<td><strong>Environmental Regulation and Compliance</strong></td>
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<tr>
<td>GEOS 431</td>
<td>Environmental Regulatory Compliance in Geoscience</td>
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<tr>
<td>BESC 367</td>
<td>U.S. Environmental Regulations</td>
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<td>GEOS 430</td>
<td>Environmental Justice</td>
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<td>OCNG 350</td>
<td>Marine Pollution</td>
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<tr>
<td><strong>Geographic Information Science and Technology (GIST)</strong></td>
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<td>Course Code</td>
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<td>Credits</td>
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<tr>
<td>GEOG 352</td>
<td>GNSS in the Geosciences</td>
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<td>GEOL 352</td>
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<tr>
<td>GEOG 361</td>
<td>Remote Sensing in Geosciences</td>
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<td><strong>Choose the remaining courses from the following:</strong></td>
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<tr>
<td>GEOG 392</td>
<td>GIS Programming</td>
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<tr>
<td>GEOG 461</td>
<td>Digital Image Processing in the Geosciences</td>
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<td>GEOG 475</td>
<td>Advanced Topics in GIS (Geographic Information Systems)</td>
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<td>GEOG 477</td>
<td>Terrain Analysis and Mapping</td>
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<td>GEOG 478</td>
<td>WebGIS</td>
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<td>GEOG 479</td>
<td>Principles of Geocomputation</td>
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<td><strong>Global Environment</strong></td>
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<td>GEOS 410</td>
<td>Global Change</td>
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<td>OCNG 350</td>
<td>Marine Pollution</td>
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<td>GEOG 324</td>
<td>Global Climatic Regions</td>
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<td><strong>Choose the remaining courses from the following:</strong></td>
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<tr>
<td>GEOG 309</td>
<td>Geography of Energy</td>
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<tr>
<td>GEOS 401</td>
<td>Polar Regions of the Earth: Science, Society and Discovery</td>
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<td>GEOG 370/MARS 370</td>
<td>Coastal Processes</td>
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<td>GEOG 400</td>
<td>Arid Lands Geomorphology</td>
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<td>Natural Hazards</td>
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<td>GEOG 435</td>
<td>Principles of Plant Geography</td>
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