Environmental Management

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The cross disciplinary environmental management minor prepares students to apply the principles of environmental science and engineering to contemporary environmental problems in natural resource, industrial and public policy contexts. The minor is particularly suitable for students interested in professional careers in industrial environmental management, natural resources management, and environmental policy and planning. After fulfilling prerequisite requirements in biology and statistics, students pursue the minor by completing core courses and electives.

The environmental management minor strives to develop graduates who can apply science and technology to a broad range of practical environmental problems in a variety of professional settings. Students are expected to be literate and competent in the sciences and mathematics underlying environmental problem solving.

The environmental management minor requires a total of 29 credits, including prerequisite courses. The prerequisites must have been completed successfully before the student may be enrolled in the environmental management minor. Prerequisite courses may be fulfilled as part of the student's major. At least one elective course must be outside of the student's major.

Prerequisites

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BIO 124</td>
<td>Ecology and Evolution</td>
<td>4</td>
</tr>
<tr>
<td>Three hours from one of the following:</td>
<td></td>
<td>3</td>
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<tr>
<td>GISAT 251</td>
<td>Topics in Statistics for ISAT</td>
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<tr>
<td>MATH 220</td>
<td>Elementary Statistics</td>
<td></td>
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<tr>
<td>MATH 285</td>
<td>Data Analysis</td>
<td></td>
</tr>
<tr>
<td>MATH 307</td>
<td>Principles of Probability and Statistics</td>
<td></td>
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<tr>
<td>MATH 318</td>
<td>Introduction to Probability and Statistics</td>
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Required Courses

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ISAT 320-321</td>
<td>Fundamentals of Environmental Science and Technology I-II</td>
<td>6</td>
</tr>
<tr>
<td>CHEM 241</td>
<td>Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>ISAT 302</td>
<td>Instrumentation and Measurement of the Environment</td>
<td>1</td>
</tr>
<tr>
<td>ENVT 400</td>
<td>Capstone Seminar</td>
<td>3</td>
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Concentration

See descriptions below

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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Concentrations

Students completing the environmental management minor must concentrate in one of three areas: natural resources, industrial systems or environmental policy. Students should be aware that some of the listed courses may have additional prerequisites.

Natural Resources

ISAT 424. Natural Resource Management

Choose two of the following courses:

- BIO 402. Forest Ecology
- BIO 456. Landscape Ecology
- BIO 467. Biological Applications of Geographic Information Systems
- BIO 459. Freshwater Ecology
- BIO 465. Environmental Toxicology
- CHEM 354. Environmental Chemistry Field Camp
- CHEM/GEOL 355. Geochemistry of Natural Waters
- GEOG 340. Biogeography
- GEOG 341. Wilderness Techniques
- GEOG 342. Management and Protection of Natural Resources
- GEOG 343. Wildlife Management
- GEOL 340. Soils and Land Use
- ISAT 420. Environmental Analysis and Modeling
- ISAT 425. Environmental Hydrology
- ISAT 429. Sustainability: An Ecological Process

Industrial Systems

ISAT 422. Environmental Management

Choose two of the following courses:

- HTH 352. Environmental Health
- HTH 450. Epidemiology
- ISAT 423. Environmental Remediation
- ISAT 427. Industrial Hygiene
- ISAT 428. Industrial Ecology

Environmental Policy

ISAT 421. Environmental Policy and Regulation
ISAT 422. Environmental Management or
ISAT 424. Natural Resource Management

One of the following courses:

- BIO 465. Environmental Toxicology
- ECON 305. Environmental Economics
- ECON 340. Economics of Natural Resources
- GEOG 325. Environmental Ethics
- GEOG/ISAT 429. Sustainability, An Ecological Process
- HIST 427. US Environmental History
- ISAT 411. Energy Economics and Policy
- ISAT 420. Environmental Analysis and Modeling
- ISAT 423. Environmental Remediation
- ISAT 471. Transportation: Energy, Environment, and Society
- ISAT 472. Transportation: Air Quality Monitoring and Regulation
- PPA 484. Environmental Regulatory Politics and Policy
- SCOM 354. Communication, Environment and Environmentalism
- SOCI 311. Sociology of the Environment

Other courses may apply by permission of the coordinator.