

ISAT 320-321. Fundamentals of Environmental Science and Technology I-II	6
CHEM 241. Organic Chemistry I	3
ISAT 302. Instrumentation and Measurement of the Environment	1
ENVT 400. Capstone Seminar	3
Concentration (See descriptions below)	9
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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 457. 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 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.

Environmental Science

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This minor is a cross disciplinary program that any student may elect. Students pursuing programs ranging from the physical, natural or social sciences to education, journalism or business could benefit from this broadly-based curriculum. The program draws from courses that focus on the application of scientific concepts and principles to the understanding of environmental problems and their solutions. The minor draws upon the expertise of faculty in the areas of biology, chemistry, geography, physics, and integrated science and technology.

The environmental science minor:

- Provides a scientific background to those students interested in environmental law, environmental economics and environmental sustainability.
- Broadens the student's understanding of how sciences are linked to environmental questions.
- Complements any major by focusing on courses related to environmental issues.

The minimum requirement for a minor in environmental science is 24 credit hours taken from the four groups outlined below. Students wishing to complete more than one of the environmental minors (environmental management, environmental science and environmental studies) may receive dual credit for the capstone course (ENVT 400), but may not receive dual credit for any other courses that might be shared by the minors. Pre-approved study abroad and/or internship experiences may be substituted for one or more of the courses listed below.

No more than two courses from a single subject area can count toward the completion of the environmental science minor. A score of four or greater in AP Environmental Science substitutes for GEOL 115 or ISAT 112. International studies and special topics courses with appropriate content may be counted (prior approval by the environmental science minor coordinator required).

Courses	Credit Hours
Group 1. Introduction to Environmental Science ¹	3-4
BIO 124. Ecology and Evolution	
GEOL 102. Environment: Earth	
GEOL 115. Earth Systems and Climate Change	
ISAT 100. Environmental and Energy Sustainability	
ISAT 112. Environmental Issues in Science and Technology	
GEOG 210. Physical Geography	
GEOL 110. Physical Geology	
Group 2. Advanced Environmental Science courses	15
BIO 354. Global Climate and Life	
BIO/GEOL 400. Geology and Ecology of the Bahamas	
BIO/GEOG 402. Forest Ecology	
BIO 452. Population Ecology	
BIO 453. Microbial Ecology and Evolution	
BIO 454. Introduction to Biometrics	
BIO 456. Landscape Ecology	
BIO 457. Biological Applications of GIS	
BIO 459. Freshwater Ecology	
BIO 465. Environmental Toxicology	
BIO 466. Toxicology Seminar	
CHEM 353. Environmental Chemistry	
CHEM 354. Environmental Chemistry Field Camp	
CHEM 450. Nuclear and Radiation Chemistry	
ENGR 411. Fundamentals of Sustainable Engineering and Design	
ENGR 472. Biological Treatment Processes and Reactor Design	
ENGR 474. Physical Chemical Treatment Processes	
ENGR 478. Water Resources Engineering	
ENVT 200. Environmental Systems Theory	

GEOG 215. Geospatial Tools I – Cartography and GIS	
GEOG 216. Geospatial Tools II – Remote Sensing and GPS	
GEOG 290. Human Interaction with the Physical Environment	
GEOG 340. Biogeography	
GEOG 365. Cartography and Geospatial Visualization	
GEOG 366. Introduction to GIS	
GEOG 385. Principles of Remote Sensing	
GEOL 211. Introduction to Oceanography	
GEOG/GEOG 310. Environmental Impact	
GEOL 320. Meteorology	
GEOL 340. Environmental Soil Science	
GEOL/CHEM 355. Geochemistry of Natural Waters	
GEOL 377. Earth Surface Processes	
GEOL 406. Paleoclimatology and Paleooceanography	
GEOL 410. Engineering Geology	
GEOL 460. Hydrogeology	
ISAT 311. Role of Energy in Modern Society	
ISAT 320. Fundamentals of Environmental Science & Technology I	
ISAT 321. Fundamentals of Environmental Science & Technology II	
ISAT 420. Environmental Analysis and Modeling	
ISAT 423. Environmental Remediation	
ISAT 425. Environmental Hydrology	
ISAT 427. Industrial Hygiene	
ISAT 428. Industrial Ecology	
MATH 321. Analysis of Variance and Experimental Design	
MATH 322. Applied Linear Regression	
MATH 324. Applied Nonparametric Statistics	
MATH 328. Time Series Analysis	
MATH/BIO 345E. Biometry	
MATH 421. Applied Multivariate Statistics	
PHYS 215. Energy and the Environment	
Group 3. Environmental Studies courses	3
One of the following courses:	
ANTH 373. Anthropological Perspectives on Environment	
ECON 305. Environmental Economics	
ECON 340. Economics of Natural Resources	
ENG 371. Literature and the Environment	
GEOG 325. Environmental Ethics	
HIST 427. U.S. Environmental History	
ISAT 311. Role of Energy in Modern Society	
ISAT 421. Environmental Policy and Regulation	
ISAT 473. Local Agriculture and Farm Internships	
SCOM 354/WRTC 326. Environmental Communication and Advocacy	
SOCI 311. Sociology of the Environment	
WRTC 416/SCOM 465. Rhetoric of Environmental Science and Technology	
Group 4. Capstone course	3
ENVT 400. Capstone Seminar ²	
¹ Can be double-counted with General Education.	
² All students must complete the capstone course ENVT 400. Students must have completed 15 hours of their environment minor in order to enroll in the capstone.	

Environmental Studies

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The environmental studies minor provides a cross disciplinary education engaging socio-cultural, scientific and technical issues raised by the oft-conflicting needs and desires of globally interacting societies. Designed to complement any major, the goals of the environmental studies minor include:

- To help undergraduates develop an awareness of the cultural, political and scientific aspects of the world's environmental problems.

- To better prepare students for further study at the graduate or professional school level and careers in the expanding field of environmental professions.

The minimum requirement for a minor in environmental studies is 24 credit hours taken from the four categories outlined.

No more than three courses from a single subject (e.g., GEOG, GEOL, ANTH, ENG, etc.) may count toward completion of the minor. Students wishing to complete more than one of the environment minors (environmental management, environmental science and environmental studies) may receive dual credit for the capstone course (ENVT 400), but may not receive dual credit for any other courses that might be shared by the minors.

Courses	Credit Hours
Introduction to Environmental Literacy ¹	3
ANTH 196. Biological Anthropology	
BIO 103. Contemporary Biology	
ENG 221. Literature, Nature, Environment (this section only)	
ENVT 200. Environmental Systems Theory	
GEOL 102. Environment: Earth	
GEOL 115. Earth Systems and Climate Change	
ISAT 112. Environmental Issues in Science and Tech	
GEOG 210. Physical Geography	
Socio-Cultural Approaches to Environmental Studies ²	15
ANTH 373. Anthropological Perspectives on Environment and Development	
ECON 305. Environmental Economics	
ECON 340. Economics of Natural Resources	
ENG 371. Literature and the Environment	
ENG 372. Eco-Criticism and Environmental Ethics	
GEOG 290. Human Interactions with the Physical Environment	
GEOG 300. Population Geography	
GEOG/GEOG 310 A-D. Environmental Impact	
GEOG 311. Endangered Environments	
GEOG 320. Human Dimensions of Global Change	
GEOG 322. Agricultural Systems	
GEOG 325. Environmental Ethics	
GEOG 341. Wilderness Techniques	
GEOG 342. Management and Protection of Natural Resources	
GEOG 343. Wildlife Management	
GEOG 345. Geography of Poverty	
GEOG/ISAT 429. Sustainability: An Ecological Process	
GEOG 430. Geography of Crop Plants	
HIST 427. U.S. Environmental History	
ISAT 421. Environmental Policy and Regulation	
PPA 484. Environmental Regulatory Policy and Politics	
SCOM 354. Communication, Environment and Environmentalism	
SOCI 311. Sociology of the Environment	
SOCI 357. Sociology of Disasters	
WRTC 416/SCOM 465. Rhetoric of Environmental Science and Technology	
Approved special topics courses	
Approved internship programs	
Approved study abroad courses	
Environmental Science Literacy ³	3
BIO 451. Ecological Systems	
BIO 452. Population Ecology	
BIO 456. Landscape Ecology	
BIO 457. Environmental Toxicology	
BIO 459. Freshwater Ecology	
GEOG 327. Climatology	
GEOG 340. Biogeography	
GEOL 211. Introduction to Oceanography	
GEOL 310. Management of Marine Resources	
GEOL 340. Soils and Land Use	