

Cognate Courses	Credit Hours
BIO 114. Organisms	4
BIO 124. Ecology and Evolution	4
CHEM 131-132. General Chemistry I-II	6
MATH 235-236. Calculus I-II ¹	8
PHYS 240-250. University Physics I-II ²	6

¹MATH 231-232 may be substituted for MATH 235-236.²PHYS 125-126 or PHYS 140-150 may be substituted for PHYS 240-250

Core Courses	Credit Hours
ISAT 320-321. Fundamentals of Environmental Science and Technology I-II	6
ISAT 302. Instrumentation and Measurement of the Environment	1
ENVM 490. Environmental Management Seminar (optional)	2
ENVM 491-492. Senior Thesis/Project I-II (optional)	6
Concentration	
See descriptions below	15
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Concentrations

The environmental management minor concentrates in one of two areas, natural resources and industrial systems. Students should be aware that some of the listed courses may have additional prerequisites.

Natural Resources

ISAT 424. Natural Resource Management

Choose four of the following courses:

- BIO 451. Ecological Systems
- BIO 453. Microbial Ecology
- BIO 459. Freshwater Ecology
- CHEM 355. Geochemistry of Natural Waters
- ECON 340. Economics of Natural Resources
- GEOG 325. Environmental Ethics
- GEOG 327. Climatology
- GEOG 340. Biogeography
- GEOG 385. Principles of Remote Sensing
- GEOLOGY 320. Meteorology
- GEOLOGY 460. Geohydrology
- ISAT 420. Environmental Analysis and Modeling
- ISAT 421. Environmental Policy and Regulation
- ISAT 425. Environmental Hydrology
- ISAT 426. Environmental Information Systems
- ISAT/GEOG 429. Sustainability: An Ecological Perspective

Industrial Systems

ISAT 422. Environmental Management

Choose four of following courses:

- ECON 305. Environmental Economics
- HTH 352. Environmental Health
- HTH 450. Epidemiology
- ISAT 410. Sustainable Energy Development
- ISAT 421. Environmental Policy and Regulation
- ISAT 423. Environmental Remediation
- ISAT 426. Environmental Information Systems
- ISAT 427. Industrial Hygiene
- ISAT 428. Industrial Ecology

Environmental Studies

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The minimum requirement for a minor in Environmental Studies is 18 hours with a maximum of three courses from either discipline (natural or social science).

Required Courses	Credit Hours
Natural sciences (choose three from the following):	
BIO 124. Ecology and Evolution	4
BIO 451. Ecological Systems	4
BIO 452. Population Ecology	4
BIO 453. Microbial Ecology	4
BIO 459. Freshwater Ecology	4
GEOLOGY 211. Introduction to Oceanography	3
GEOLOGY 310. Management of Marine Resources	3
GEOLOGY 320. Meteorology	3
GEOLOGY 340. Soils and Land Use	3
GEOLOGY 355. Geochemistry of Natural Waters	3
ISAT 320. Fundamentals in Environmental Science	3
ISAT 421. Environmental Policy and Regulation	3
CHEM 354. Environmental Chemistry Field Camp	3
PHYS 215. Energy and the Environment	3
Social science (choose three from the following):	
GANTH 196. Biological Anthropology	3
ANTH 355. Culture and Ecology	3
ECON 305. Environmental Economics	3
ECON 340. Economics of Natural Resources	3
GEOG 300. Population Geography	3
GEOG 310A-D. Environmental Issues	1-4
GEOG 325. Environmental Ethics	3
GEOG 327. Climatology	3
GEOG 340. Biogeography	3
GEOG 341. Wilderness Techniques	3
HTH 352. Environmental Health	3
PHIL 395. Philosophy and Scientific Inquiry	3
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A student may not receive dual credit for required courses that apply to both the major and minor. The program encourages students to pursue environmental research topics through participation in the individual research options of the various departments involved.

Family Studies

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The interdisciplinary minor in family studies is designed for undergraduates seeking enhancement of their major, desiring to increase understanding of self and relationships, and seeking to make a positive contribution to society. A substantial knowledge of family-related issues, family processes, policies, laws, services and the interrelationship of families and societies will enhance majors in many fields including anthropology, early and middle education, health sciences, management, nursing, psychology, social work and sociology. The minor encourages students to make connections between their major field and family studies, thereby adding value to the major.

The family studies minor requires a minimum of 18 credit hours with no more than six credit hours in the student's major.