



Environmental Studies, B.S. *major*

Environmental Health and Toxicology Emphasis

Required Credits: 66

Required GPA: 2.25

I REQUIRED CORE COURSES

Complete the following courses:

- ENVR 2000 Introduction to Environmental Science (3 credits)
- ENVR 3880 Environmental Controversies (2 credits)
- ENVR 4880 Senior Seminar I (1 credit)

Select 1 of the following courses for 3 credits:

- ENVR 4970 Internship (3 credits)
- ENVR 4990 Thesis (3 credits)

Select 1 of the following courses:

- ENVR 3800 Sustainability Analytics & Modeling (3 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
- SOC 3001 Quantitative Research Methods in the Social Sciences (3 credits)
- STAT 2610 Applied Statistics (4 credits)

Select 1 of the following courses:

- ENVR 3600 Environmental Justice and Sustainability (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- ENVR 4610 Sustainability: Theory and Practice (4 credits)

Select 1 of the following courses:

- GEOL 3120 Soils (4 credits)
or BIOL 3120 Soils (4 credits)
- GEOL 3400 Glacial and Pleistocene Geology (3 credits)

ENVIRONMENTAL HEALTH AND TOXICOLOGY EMPHASIS

Select 2 of the following:

- BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- BIOL 1400 Cellular Principles (4 credits)
- BIOL 1500 Diversity of Life (4 credits)
- CHEM 1111 General Chemistry I (4 credits)
or CHEM 2211 Principles of Chemistry I (4 credits)
- CHEM 1112 General Chemistry II (4 credits)
or CHEM 2212 Principles of Chemistry II (4 credits)
- GEOL 1110 Physical Geology (4 credits)
- GEOL 1120 Intro to Fossils and History of Planet Earth (4 credits)

Complete the following courses:

- ENVR 4110 Environmental Chemistry (3 credits)
- ENVR 4220 Sampling and Analysis (4 credits)
- ENVR 4500 Environmental Toxicology (4 credits)
- GEOL 3211 Environmental Hydrology (3 credits)

Select 1 of the following courses:

- MATH 1470 Precalculus (5 credits)
- MATH 2471 Calculus I (5 credits)

Select 22 credits from the following courses or any other related courses (3000/4000) approved in advance by a Center for Sustainability Studies Advisor:

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
- CHEM 3371 Organic Chemistry Laboratory I (1 credit)
- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
- CHEM 4411 Biochemistry I (3 credits)
- CHEM 4412 Biochemistry II (3 credits)
- CHEM 4471 Biochemistry Laboratory I (1 credit)
- CHEM 4472 Biochemistry Laboratory II (1 credit)
- ENVR 3040 Environmental Economics (3 credits)
- ECON 3040 Environmental Economics (3 credits)
- ENVR 3300 Environmental Management and Safety (3 credits)
- ENVR 3600 Environmental Justice and Sustainability (3 credits)
- ENVR 3840 Wetlands Ecology (3 credits)
or BIOL 3840 Wetlands Ecology (3 credits)
- ENVR 4200 Wastewater Treatment (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
- ENVR 4400 Environmental Microbiology (3 credits)
- GEOG 2100 Introduction to Physical Geography (3 credits)
- GEOG 3231 Introduction to Geographic Information Systems (3 credits)
- GEOG 3232 Intermediate Geographic Information Systems (3 credits)
- GEOG 3630 Conservation Biology (3 credits)
or BIOL 3630 Conservation Biology (3 credits)
- GEOG 4130 Biogeography (3 credits)
- GEOG 4140 Landscape Ecology (3 credits)
- GEOL 3120 Soils (4 credits)
or BIOL 3120 Soils (4 credits)
- GEOL 3700 Environmental Geophysics (3 credits)
- GEOL 4300 Global Environmental Change (3 credits)

Program Learning Outcomes | Environmental Studies, B.S.

1. Ability to understand and distinguish environmental problems: It was determined that students are doing acceptably for this outcome, but there is room for improvement. Therefore, for two courses, instructors will give more detailed feedback and expectations for revisions and/or second paper or presentation to foster improved communication skills.

2. Ability to understand and distinguish environmental problems: The graduates will understand and distinguish environmental problems based on review of published literature and other media.

3. Formulate Hypothesis: The graduates will formulate reasonable hypothesis.

4. Experimental design: The graduates will design experiments and statistical procedures.

5. Data analysis and hypothesis testing: The graduates will demonstrate ability for data analysis and hypothesis testing. Also the graduates will formulate conclusions and recommendation for future study.

6. Performance and outcomes assessment: The graduates will demonstrate higher level of performance than sophomores on the program level student learning outcomes assessment rubric.

7. Effective Communication Skills: Graduates will attain skills to demonstrate effective written and oral communication.

8. Knowledge in Specialized Field: The graduates will attained learning in the specialized areas of environmental field.

**Suggested Semester Schedule | Environmental Studies, B.S.
Environemtnal Health and Toxicoloy Emphasis**

The following is a list of Environmental Studies Major Courses arranged by year. This schedule is intended to help students plan their courses in an orderly fashion; however, these are only suggestions and this schedule is flexible.

Freshman

- CHEM1111
or CHEM2211
- ENVR2000
- GEOL1110
- MATH1470
or MATH2471
- Core Curriculum requirements
- Emphasis electives

Sophomore (with the emphasis already selected)

- ENVR3880
- GEOL3400
or GEOL3120
or BIOL3120
- ENVR3600
or ENVR4210
or ENVR4610
- ENVR3800
or SOC3001
or STAT2610
or PSY3401
- Core Curriculum requirements
- Emphasis electives

Junior

- ENVR4110
- ENVR4220
- Core Curriculum requirements
- Emphasis electives

Senior

- ENVR4500
- ENVR4880
- ENVR4970
or ENVR4990
- GEOL3211
- Core Curriculum requirements
- Emphasis electives