Environmental Studies, B.S. major
Environmental Health and Toxicology Emphasis

**Pending MinnState Approval**

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 Environmental Data Analysis (3 credits)
- PSY 3401 Basic Statistics for Research (4 credits)
- SOC 3001 Social Statistics (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:

- ENVR 4220 Sampling and Analysis (4 credits)
- GEOL 3120 Soils (4 credits)
  or BIOL 3630 Conservation Biology (3 credits)
- GEOL 3211 Environmental Hydrology (3 credits)

ENVIRONMENTAL HEALTH AND TOXICOLOGY EMPHASIS

Select 2 of the following:

- BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (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 Historical Geology (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 19 credits from the following courses:

- 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 Environmental Law and Policy (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 3630 Conservation Biology (3 credits)
- GEOL 3700 Environmental Geophysics (3 credits)
- GEOL 4300 Global Environmental Change (3 credits)

Select 3 semester credits of upper division (3000/4000) electives approved in advance by a Center for Sustainable Studies advisor.

**I REQUIRED CORE COURSES**

**Select 2 of the following courses:**

- BIOL 1120 General Biology: Evolution And Ecology (3 credits)
- BIOL 1211 Introductory Biology I (4 credits)
- BIOL 1212 Introductory Biology II (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 Historical Geology (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 19 credits from the following courses:

- CHEM 3311 Organic Chemistry I (3 credits)
- CHEM 3312 Organic Chemistry II (3 credits)
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- CHEM 3372 Organic Chemistry Laboratory II (1 credit)
- CHEM 3507 Analytical Chemistry (3 credits)
- CHEM 3570 Analytical Chemistry Laboratory (1 credit)
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- 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 Environmental Law and Policy (3 credits)
- ENVR 4210 Environmental Law and Policy (3 credits)
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  or BIOL 3630 Conservation Biology (3 credits)
- GEOL 3700 Environmental Geophysics (3 credits)
- GEOL 4300 Global Environmental Change (3 credits)

Select 3 semester credits of upper division (3000/4000) electives approved in advance by a Center for Sustainable Studies advisor.

**SUGGESTED SEMESTER SCHEDULE FOR ENVIRONMENTAL STUDIES MAJOR, B.S. ENVIRONMENTAL HEALTH AND TOXICOLOGY 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**

- CHEM 1111 General Chemistry I (4 credits)
  or CHEM 2211 Principles of Chemistry I (4 credits)
- ENVR 2000 Introduction to Environmental Science (3 credits)
- GEOL 1110 Physical Geology (4 credits)
- MATH 1470 Precalculus (5 credits)
  or MATH 2471 Calculus I (5 credits)
- Liberal Education Requirements
- Emphasis Electives

**Sophomore (with the emphasis already selected)**

- ENVR 3880 Environmental Controversies (2 credits)
- GEOL 3211 Environmental Hydrology (3 credits)
  or GEOL 3120 Soils (4 credits)
or BIOL 3120 Soils (4 credits)
or ENVR 4220 Sampling and Analysis (4 credits)

- ENVR 3600 Environmental Justice and Sustainability (3 credits)
  or ENVR 4210 Environmental Law and Policy (3 credits)
  or ENVR 4610 Sustainability: Theory and Practice (4 credits)
- ENVR 3800 Environmental Data Analysis (3 credits)
  or SOC 3001 Social Statistics (3 credits)
  or STAT 2610 Applied Statistics (4 credits)
  or PSY 3401 Basic Statistics for Research (4 credits)
- Liberal Education Requirements
- Emphasis Electives

Junior

- ENVR 4110 Environmental Chemistry (3 credits)
- ENVR 4220 Sampling and Analysis (4 credits)
- Liberal Education Requirements
- Emphasis Electives

Senior

- ENVR 4500 Environmental Toxicology (4 credits)
- ENVR 4880 Senior Seminar I (1 credit)
- ENVR 4970 Internship (3 credits)
  or ENVR 4990 Thesis (3 credits)
- GEOL 3211 Environmental Hydrology (3 credits)
- Liberal Education Requirements
- Emphasis Electives