What Is the Study of Environmental Science?
Environmental Science draws on basic knowledge of the physical, chemical, biological and quantitative aspects of natural systems. The knowledge of how natural systems work is applied to solving problems largely created by human activities. Often these problems are represented by disturbances in the functioning of natural systems. Humans are altering their own life-support systems – the air, the water and soil. The scale of disturbance ranges from the molecular and cellular to individuals, populations, ecosystems, and regional and global levels.

The Environmental Science major will acquire the scientific and problem solving skills needed to conserve and restore the natural environment.

Students of Environmental Science will go directly into an environmental science career or on to graduate school to further their study.

Why Should I Consider This Major?
Are you excited by how natural systems work? Do you want to solve the problems of the natural environment caused by human activities? Do you love to work outdoors? Do you love the sciences and scientific inquiry? Then Environmental Science is for you.

How to Declare:
Pre-major: Any student may declare as an Environmental Science pre-major. Forms are available at the Huxley College Office in ES 539.

Admissions: Environmental Science major admission is selective and based upon the following four criteria:
1. Completion of required preparatory courses
2. A brief essay in response to a given question
3. Relevant experience
4. Academic performance (GPA)

Preparatory Courses: (47-52 credits)
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- MATH 124 - Calculus and Analytic Geometry I
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

Application Deadlines: Applications should be submitted to the Huxley College office by April 25 for admission summer or fall quarter; October 6 for admission winter quarter; and January 15 for admission spring quarter.

Advising Tips: Prospective environmental science majors are encouraged to call and schedule an appointment with the Huxley College admissions advisor, Kathryn Patrick, to explore their environmental science interest and develop a plan of study. Students wishing to complete the Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year.
# Environmental Science, BS (132-137 credits)

Students are advised to see the department for GPA requirements within the major.

Available Environmental Science Concentrations: Environmental Toxicology, Freshwater Ecology, Marine Ecology, and Terrestrial Ecology

## Preparatory Courses (47-52 credits)

- **BIOL 204** - Introduction to Evolution, Ecology and Biodiversity
- **BIOL 205** - Introduction to Cellular and Molecular Biology
- **BIOL 206** - Introduction to Organismal Biology
- **CHEM 121** - General Chemistry I
- **CHEM 122** - General Chemistry II
- **CHEM 123** - General Chemistry III
- **ECON 206** - Introduction to Microeconomics
- **MATH 124** - Calculus and Analytic Geometry I

- One course from:
  - **ENVS 203** - Physical Geography
  - **GEOL 211** - Physical Geology
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

## Major (85 credits)

**Choose either:**

- **CHEM 251** - Elementary Organic Chemistry
- **CHEM 351** - Organic Chemistry
- **CHEM 352** - Organic Chemistry
- **CHEM 354** - Organic Chemistry Laboratory I

- One course from:
  - **ESCI 321** - Oceanography
  - **ESCI 435** - Landscape Ecology
  - **ESCI 492** - Climate Change
  - **ENVS 325** - Geography of Landforms
  - **ENVS 326** - Climatology

- One course from:
  - **ESCI 325** - Fundamentals of Ecology
  - **BIOL 325** - Ecology

- One course from:
  - **ESCI 340** - Biostatistical Analysis
  - **BIOL 340** - Biometrics

- One course from:
  - **ESCI 470** - Ecological Restoration
  - **ESCI 490** - Environmental Risk Assessment
  - **ESCI 491** - Oceanography of Puget Sound
  - **ESCI 493** - Environmental Impact Assessment
  - **ENVS 410** - Agroecology and Sustainable Agriculture
  - **ENVS 430** - Borderlands
  - **ENVS 474** - Planning for Sustainable Communities

- **ENVS 493** - Environmental Impact

## Electives under advisement (28-37 credits)

- A minimum of 20 credits from **ESCI 300- or 400-level**
- Additional electives, if needed from:
  - **BIOL 300- or 400-level**
  - **CHEM 300- or 400-level**
  - **ENVS 300- or 400-level**
  - **ESCI 300- or 400-level**
  - **FAIR 300E - Ethnobotany**
  - **FAIR 332Q - Topics in Ecological Restoration**
  - **FAIR 434P - Advanced Studies in Field Science**
  - **GEOL 300- or 400-level**
  - **MATH 125** - Calculus and Analytic Geometry II
  - **MATH 203** - Linear Algebra and Differential Equations I
  - **MATH 204** - Elementary Linear Algebra
  - **MATH 205** - Linear Algebra Workshop
  - **MATH 307** - Mathematical Computing
  - **MATH 309** - Introduction to Proof in Discrete Mathematics
  - **MATH 224** - Multivariable Calculus and Geometry I
  - **MATH 225** - Multivariable Calculus and Geometry II
  - **MATH 226** - Limits and Infinite Series
  - **MATH 300- or 400-level**
  - Maximum 3 courses allowed from:
    - **PHYS 114** - Principles of Physics I
    - **PHYS 115 - Principles of Physics II**
    - **PHYS 116 - Principles of Physics III**
    - **PHYS 161 - Physics with Calculus I**
    - **PHYS 226 - Physics with Calculus IV**
  - **PHYS 300- or 400-level**

## General University Requirements (GUR):

The courses below satisfy GUR requirements and may also be used to fulfill major requirements.

- **BCOM/CCOM:** Any
- **GSR:** **MATH 124, 125**
- **SSC:** **ECON 206**
- **LSCE:** **BIOL 204, 205, 206; CHEM 121, 122, 123, 251; ENVS 203; GEOL 211; PHYS 115, 116, 161, 162**
- **SCI:** **PHYS 114**

### Other Environmental Science and Environmental Studies Options

- **Environmental Education, BS**
- **Environmental Studies-E-Elementary, BAE**
- **Urban Planning & Sustainable Development, BA**
- **Environmental Studies, BA**
- **Environmental Policy, BA**
- **Energy Policy Minor**

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**Academic Advising Center, a unit of Academic and Career Development Services**

Old Main 380 360.650.3850 www.edu/advising advising@wwu.edu @WWUadvising

This document has been created for advising purposes only. Please contact the appropriate department for updates and changes.