Environmental science is a multidisciplinary field that focuses on documenting the impacts that people have on our environment, on reducing the harmful effects of these impacts, and on restoring aspects of the environment to benefit both nature and people. Our program focuses on air, water, and the Earth’s solid surface, and it includes an emphasis on their interactions with life.

The environmental science degree is a multidisciplinary program that combines physics, chemistry, math, biology, and geology to give you the skills and know-how needed to actually fix things. Careers range from the assessment, remediation, and protection of air and water resources to the restoration of disturbed landscapes to helping to ensure that major industries comply with environmental regulations. In addition, the environmental science program provides fine intellectual training in the tradition of a liberal arts education, which means that you will be exceptionally well-qualified to compete for the diverse jobs on offer at Pitt’s career fairs.

**Required courses for the Environmental Science major**
The environmental science major requires completion of a minimum of 63 credits distributed as follows.

### Geology core requirements

**Introductory courses; these courses should be taken in the same academic term**
- GEOL 0055 Geology Lab
- GEOL 0840 Intro to Environmental Science

**All of the following courses**
- GEOL 1015 Geology Colloquium
- GEOL 1030 Oceans, Atmosphere, and Climate
- GEOL 1051 Groundwater Geology
- GEOL 1060 Geomorphology
- GEOL 1445 GIS, GPS, and Computer Methods for Earth Scientists
- GEOL 1515 Environmental Geochemistry
- GEOL 1641 Ecosystem Ecology

**One of the following capstone courses**
- GEOL 1903 Internship
- GEOL 1910 Undergraduate Thesis
- GEOL 1960 Field Camp

### Co-requirements

- **All of the following courses**
  - CHEM 0110 General Chemistry 1
  - MATH 0220 Analytical Geometry and Calculus 1
  - PHYS 0174 Basic Physics for Science and Engineering 1

- **Three of the following courses**
  - BIOSC 0150 Biology 1 plus BIOSC 005X Biology Research Lab 1
  - BIOSC 0160 Biology 2 plus BIOSC 006X Biology Research Lab 2
  - CHEM 0120 General Chemistry 2
  - MATH 0230 Analytical Geometry and Calculus 2
  - PHYS 0175 Basic Physics for Science and Engineering 2
  - STAT 1000 Applied Statistical Methods

### Geology electives requirement
Students must complete nine credits of GEOL at the 1000 level or above. A list of eligible courses appears on the reverse side of this sheet.

### Grade requirements
A minimum GPA of 2.0 in departmental courses is required for graduation.

### Satisfactory/No Credit option
No GEOL course that counts toward the major can be taken on an S/NC basis. No more than two of the non-geological science courses that count toward the major may be taken on an S/NC basis.
**Writing (W) requirement**
Students must complete at least one W-course in the major.

**GIS certificate**
The Geographic Information Systems certificate is a great opportunity to earn electives while acquiring a range of software and image analysis skills (aerial photos, maps, and satellite images) that are highly sought after by both public and private employers. Refer to the Geographic Information Systems Certificate Web page for classes and more information.

**Advising**
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**Checklist for the Environmental Science major**

**Geology core requirements**

Both of the following courses

- GEOL 0055
- GEOL 0840

All of the following courses

- GEOL 1015
- GEOL 1030
- GEOL 1050 or GEOL 1051
- GEOL 1060
- GEOL 1445
- GEOL 1515
- GEOL 1641

One capstone course

- GEOL 1960
- GEOL 1903
- GEOL 1910

**Co-requirements**

All of the following courses

- CHEM 0110
- MATH 0220
- PHYS 0174

Three of the following courses

- BIOSC 0150 and BIOSC 005X
- BIOSC 0160 and BIOSC 006X
- CHEM 0120
- MATH 0230
- PHYS 0175
- STAT 1000

**Geology electives requirement**
Students must complete nine credits of GEOL at the 1000 level or above. A list of eligible courses follows. Courses in bold type are recommended courses for Environmental Science majors.

- GEOL 0060 History of the Earth
- GEOL 1001 Mineralogy
- GEOL 1003 Igneous and Metamorphic Petrology
- GEOL 1020 Sedimentology and Stratigraphy
- GEOL 1052 Paleoclimatology
- GEOL 1055 Environmental Science, Ethics and Public Policy
- GEOL 1056 UHC Environmental Science, Ethics, and Public Policy
- GEOL 1100 Structural Geology
- GEOL 1240 Evolution of the Vertebrates
- GEOL 1313 Scientific Communication for Environmental Professionals (writing intensive)
- GEOL 1331 Health and Safety
- GEOL 1410 Exploration Geophysics
- GEOL 1446 Advanced Geographic Information Systems
- GEOL 1460 Remote Sensing of the Earth
- GEOL 1701 Geology of the Planets
- GEOL 1900 Internship
- GEOL 1901 Independent Study
- GEOL 1903 Undergraduate Research
- GEOL 1904 Directed Reading
- GEOL 1XXX Other upper-level class in GEOL, approved by the major advisor
- GEOL 2054 Soils: Geobiochemical Landscapes
- GEOL 2525 Stable Isotopes
- GEOL 2853 Watershed Hydrology and Biogeochemistry
- GEOL 2XXX Graduate level GEOL class, instructor permission required