Pitt | Kenneth P. Dietrich School of Arts and Sciences

Environmental Science Major

www.Geology.Pitt.edu/Undergraduate
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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 they 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