

# ENVIRONMENTAL GEOCHEMICAL SCIENCE

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**Phone:** (845) 257-3760

**Location:** Wooster Science Building, Room 202

Environmental Geochemical Science is an interdisciplinary undergraduate degree program administered by the Department of Geology, focusing on the environmental aspects of Geology and Chemistry. Through formal courses, laboratories, and research projects, students develop an awareness of the geological and chemical processes that impact society and the environment. Both a major and a minor in Environmental Geochemical Science are offered.

In the major program, a sophomore-level survey course, EGS370, draws on the foundation courses to bring together a truly interdisciplinary view of environmental science. Students will see how the different sciences must be combined to understand and address environmental problems. Particular emphasis will be placed on the roles of chemistry, geology, and environmental engineering. In the senior year, students will engage in a full-year Senior Research Project under the supervision of a faculty mentor or an experienced regional scientist. During the spring term of the senior year, oral presentations of student research projects will be made in a Senior Seminar. This seminar will also feature guest scientists who will relate their own work in environmental science.

This major program is a rigorous four-year sequence in science and mathematics, so it is essential that interested students seek advising early in their college studies. First-year students should take GLG201 and GLG211, CHE201 and CHE211, and MAT251 in their first semester, followed by PHY201 and PHY211, CHE202 and CHE212, and MAT252 in their second semester.

Transfer students should complete the above first-year requirements before entering SUNY New Paltz and should additionally take one year of calculus-based physics, a course in statistics, a laboratory course in historical geology, and organic chemistry.

Students must earn a grade of C- or better in all courses required for the Environmental Geochemical Science major or minor.

This information is provided as a resource for students to aid in selecting a major or degree track. Students should, however, obtain a current plan of study form and consult with an adviser before selecting a program or enrolling in coursework. Complete advising guidelines may be obtained from the Department of Geology or by consultation with the Director of the Environmental Geochemical Science program.

## Major

- Environmental Geochemical Science (<http://catalog.newpaltz.edu/undergraduate/majors-minors/science-engineering/environmental-geochemical-science/major-environmental-geochemical-science>)

## Minor

- Environmental Geochemical Science (<http://catalog.newpaltz.edu/undergraduate/majors-minors/science-engineering/environmental-geochemical-science/minor-environmental-geochemical-science>)

## Undergraduate

### EGS370. Environmental Geochemical Science. 4 Credits.

A survey course covering the broad scope of environmental science and engineering, including air pollution, water pollution, water quality control, environmental chemistry, global atmospheric change, solid waste management and resource recovery. Case studies and outside speakers. COURSE FEE.

### EGS475. Environmental Geochemical Sciences Research Project 1. 3 Credits.

Students will undertake a two semester research project, under the guidance of a faculty mentor, focusing on a detailed examination of a real world environmental problem. The project will culminate in a written document and an oral presentation in the Senior Seminar.

### EGS476. Environmental Geochemical Science Research Project 2. 3 Credits.

Continuation of EGS 475.

### EGS477. Senior Seminar in Environmental Science. 1 Credit.

a series of presentations by senior students and by invited speakers. In the course, students nearing graduation present the findings of their senior project. On alternate weeks, invited professionals from the environmental sciences present relevant aspect of their work.

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