

College of General Studies

NATURAL SCIENCES

Natural sciences is a liberal arts major with a focus on courses from three natural sciences departments. This major can be customized to meet your interests and personal or career goals. Choose from a variety of courses with a concentration in three areas, such as anthropology, biological sciences, chemistry, computer science, geology and planetary science, history and philosophy of science, mathematics, neuroscience, physics, psychology, and statistics.

Required Course Work

A minimum total of 120 credits (approximately 40 courses) is required for a Bachelor of Science degree with a major in natural sciences. Of this total, students must take a minimum of 36 credits (approximately 12 courses) according to the specifications below. The remaining credits required for the degree are outlined on the College of General Studies Degree Requirements information sheet.

The natural sciences major can be used to fulfill prerequisite requirements for certain graduate programs, including education, medicine, and dentistry.

Choose a minimum of 36 credits (approximately 12 courses) from any three departments below. All courses taken must be related to natural sciences.

1. At least five courses must be taken from one department, and at least three courses each should be taken from two other departments.
2. All courses selected for the natural sciences major must be approved by an academic advisor.

Anthropology (natural sciences-related course)

Astronomy

Biological Sciences

Chemistry

Computer Science (courses numbered 0401 and above)

Geology and Planetary Science

History and Philosophy of Science

Mathematics (courses numbered 0220 and above)

Neuroscience

Physics

Psychology (natural sciences-related course)

Statistics

Pre-Education Options

The College of General Studies and the School of Education have collaborated on a concentration in the natural sciences major that incorporates the science prerequisite coursework needed for admission into the postbaccalaureate teacher certification programs in earth and space science and general science. These options may be used by students interested in the professional year or the Master of Arts in teaching programs offered in the School of Education. Completion of the prerequisites for the School of Education does not guarantee acceptance to their programs. See specific courses, below.

Earth and Space Science Concentration (43–46 credits)

ASTRON 0089 Stars, Galaxies, and the Cosmos (or equivalent)	3 cr.
CHEM 0110 General Chemistry 1 and Lab	4 cr.
CHEM 0120 General Chemistry 2 and Lab	4 cr.
GEOL 0040 Physical Geology	3 cr.
GEOL 0055 Geology Laboratory	2 cr.
GEOL 0890 Oceanography	3 cr.
GEOL 1000-level Upper-Level Geology Elective	3 cr.
GEOL 1000-level Upper-Level Geology Elective	3 cr.
MATH 0220 Analytical Geometry and Calculus 1	4 cr.
PHYS 0110 Introduction to Physics 1	3 cr.



PHYS 0111 Introduction to Physics 2	3 cr.
PHYS 0212 Introduction to Laboratory Physics	2 cr.

General Science Concentration (41 credits)

ASTRON 0089 Stars, Galaxies, and the Cosmos (or equivalent)	3 cr.
BIOSC 0150 Foundations in Biology 1	3 cr.
BIOSC 0050 Foundations in Biology 1 Lab	1 cr.
BIOSC 0160 Foundations in Biology 2	3 cr.
BIOSC 0060 Foundations in Biology 2 Lab	1 cr.
BIOSC 0370 Ecology	3 cr.
BIOSC 1000 Biochemistry	3 cr.
CHEM 0110 General Chemistry 1 and Lab	4 cr.
CHEM 0120 General Chemistry 2 and Lab	4 cr.
CHEM 0310 Organic Chemistry	3 cr.
GEOL 0800 Geology	3 cr.
MATH 0220 Analytical Geometry and Calculus 1	4 cr.
PHYS 0110 Introduction to Physics 1	3 cr.
PHYS 0111 Introduction to Physics 2	3 cr.

Pre-Medicine/Pre-Dental Option

This natural science concentration incorporates the course work needed for admission to most medical and dental programs. Completion does not guarantee acceptance into graduate study.

Pre-Medicine/Dental Option (39 credits)

BIOSC 0150 Foundations of Biology 1	3 cr.
BIOSC 0050 Foundations of Biology 1 Lab	1 cr.
BIOSC 0160 Foundations of Biology 2	3 cr.
BIOSC 0060 Foundations of Biology 2 Lab	1 cr.
BIOSC 1000 Biochemistry	3 cr.
CHEM 0110 General Chemistry 1 and Lab	4 cr.
CHEM 0120 General Chemistry 2 and Lab	4 cr.
CHEM 0310 Organic Chemistry 1	3 cr.
CHEM 0330 Organic Chemistry 1 Lab	1 cr.
CHEM 0320 Organic Chemistry 2	3 cr.
CHEM 0340 Organic Chemistry 2 Lab	1 cr.
MATH 0220 Analytic Geometry and Calculus 1	4 cr.
PHYS 0110 Introduction to Physics 1	3 cr.
PHYS 0111 Introduction to Physics 2	3 cr.
PHYS 0212 Introduction to Laboratory Physics	2 cr.

Additional recommended courses for this option:

BIOSC 1850 Microbiology	3 cr.
MATH 0230 Analytic Geometry and Calculus 2	4 cr.
NROSCI 1000 Introduction to Neuroscience	3 cr.
NROSCI 1070 Human Physiology	4 cr.

If you are taking course work in preparation for graduate study, we recommend that you contact the schools in which you are interested to request information on their required course work, as requirements may vary.

For information on admissions, financial aid, and other majors, contact:

University of Pittsburgh
Office of Admissions and Financial Aid
Alumni Hall, 4227 Fifth Avenue
Pittsburgh, PA 15260
412-624-PITT
Fax: 412-648-8815
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