University of Pittsburgh Greensburg

Biochemistry

undergraduate program

Biochemistry

66 credits

Bachelor of Science

A biochemistry degree from Pitt-Greensburg focuses on the study of the chemical processes of life. It is an interdisciplinary program combining the study of biology and chemistry that equips students with not only the knowledge of biological processes, but also the chemical tools to modify these events. *Forbes* ranks biochemistry as one of the most valuable undergraduate majors, and it is a field with a growth potential of approximately 30 percent.

Employment:

* Pharmaceutical industries
* Cosmetics industries
* Hospitals
* Research laboratories and organizations
* High Schools
* Universities and colleges
* U.S. Department of Agriculture
* Food and Drug Administration
* Environmental Protection Agency
* Patent Office
* Department of Energy
* National Institute of Health
* Federal Bureau of Investigation
* State Health Department
* Health and Human Services Commission
* Forensic Department

www.greensburg.pitt.edu

Fall 2023

Biology Core — 7 courses - 16 credits

BIOSC 0170 & 0070	Foundations of Biology 1 & Lab
BIOSC 0180 & 0080	Foundations of Biology 2 & Lab
BIOSC 0080	Foundations of Biology 2 Lab
BIOSC 1810	Macromolecular Structure and Function
BIOSC 1820	Metabolic Pathways and Regulation
BIOSC 1825	Biochemistry Lab

Upper Level Biology Course — 1 course - 3 to 5 credits

Choose one upper level course and lab (if applicable) from the courses listed below

BIOSC 0350	Genetics
BIOSC 1500 & 1510	Cell Biology & Lab
BIOSC 1520 & 1530	Developmental Biology & Lab
BIOSC 1540	Computational Biology
BIOSC 1850 & 1860	Microbiology & Lab
BIOSC 1940 & 1950	Molecular Biology & Lab
BIOSC	Bioinformatics

Chemistry Core — 8 courses - 20 credits

CHEM 0110	General Chemistry 1 & Lab
CHEM 0120	General Chemistry 2 & Lab
CHEM 0310 & 0330	Organic Chemistry 1 & Lab
CHEM 0320 & 0340	Organic Chemistry 2 & Lab
CHEM 0250 & 0260	Introduction to Analytical Chemistry & Lab ***OR***
CHEM 1250 & 1255	Instrumental Analysis & Lab

Upper Level Chemistry Course — 1 - 2 courses - 3 to 5 credits

Choose one upper level course and lab (if applicable) from the courses listed below

CHEM 1035	Introduction to Environmental Chemistry
CHEM 1130	Inorganic Chemistry
CHEM 1311	Advanced Organic Chemistry
CHEM 1330	Medicinal Chemistry
CHEM 1380	Techniques of Organic Research * (2 credits)
CHEM 1410	Physical Chemistry 1

Other Required Science Courses — 5 courses - 18 credits

PHYS 0174	Basic Physics for Science and Engineering 1
PHYS 0175 & 0212	Basic Physics for Science and Engineering 2 & Lab
MATH 0220	Analytic Geometry and Calculus 1
MATH 0230	Analytic Geometry and Calculus 2

Additional Requirement — 2 courses - 6 credits

Biochemistry majors must take the following sequence of courses to fulfill the capstone requirement:

BIOSC 1960	Scientific Writing
BIOSC 1962 or BIOSC 1963	Biology Undergraduate Research