

BIOLOGY, B.S. (UNIVERSITY COLLEGE)

Seven Penn State campuses are scheduled for closure after Spring 2027: DuBois, Fayette, New Kensington, Mont Alto, Shenango, Wilkes-Barre, and York. New students are not being admitted at these campuses.

Begin Campus: Any Penn State Campus

End Campus: Beaver, Brandywine, Lehigh Valley, Schuylkill, Scranton, York

Program Learning Objectives

Beaver Campus

- **Key Literacies:** Students will describe, apply, and connect key literacy areas within and across biological subdisciplines.
- **Evolution:** Understand and give examples of the evolutionary processes that have generated the extinct and extant diversity of life.
- **Structure and Function:** Compare and contrast how the physical structures of organisms determine biological function from the molecular to ecosystem levels.
- **Information Flow, Exchange, and Storage:** Identify how the growth and behavior of organisms are regulated by the transmission, expression, and interactions of genetic information.
- **Pathways and Transformations of Energy and Matter:** Analyze how the pathways and transformations of energy and matter enable living organisms to carry out essential life processes.
- **Systems:** Living systems are interconnected and interacting; assess complex biological processes by quantifying dynamic interactions at multiple functional scales.
- **Process of Science:** Students will apply the process of science to biological studies.

Brandywine, Lehigh Valley, Schuylkill, Scranton, York Campuses

- **Key Literacies:** Students will describe, apply, and connect key literacy areas within and across biological subdisciplines.
- **Process of Science:** Students will apply the process of science to biological studies.
- **Scientific Evidence Evaluation:** Students will use evidence-based reasoning to evaluate scientific information from a variety of sources.
- **Quantitative Reasoning and Analysis:** Students will apply quantitative skills to analyze biological information.
- **Collaboration and Communication:** Students will demonstrate the ability to concisely communicate scientific ideas as individuals and/or in teams.
- **Science and Society:** Students will explain the role of scientific findings in society as well as the importance of ethical reasoning in doing and communicating research.