

# BIOTECHNOLOGY, B.S.

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**Begin Campus:** Any Penn State Campus

**End Campus:** University Park

## Program Description

Biotechnology may be broadly defined as the application of principles of molecular and cell science in the production of biologically important or industrially useful products. Therefore, students in the Biotechnology major will

1. acquire a strong foundation in the life and chemical sciences,
2. learn how fundamental science is applied to problems through biotechnology,
3. develop basic laboratory skills, perform standard techniques, work with state-of-the-art instrumentation, describe and evaluate analytical methodology used in biotechnology, and
4. become familiar with societal concerns and governmental regulations regarding the biotechnology industry.

One very important strength of this major is the extensive laboratory experience each student receives. In the General option, students are very strongly encouraged to consider Cooperative Education with industry as an integral part of their curriculum. In addition to the General option in Biotechnology, the major also offers the Clinical Laboratory Science option.

## What is Biotechnology?

Biotechnology is broadly defined as the application of principles of molecular and cell science to the production of biologically important or industrially useful products. Topics in biotechnology include genetic engineering, pharmaceutical development, and bio-manufacturing.

## You Might Like This Program If...

- You like learning by doing experiments.
- You enjoy complex problem solving, teamwork, and collaboration with specialists from different fields (e.g. sciences and engineering).
- You desire to understand how to apply scientific concepts to the development of new products and technologies for human benefit or to benefit human surroundings.
- You are interested in medicine but don't want to work directly with patients (Clinical Lab Science Option).