

# BIOMEDICAL ENGINEERING, B.S.

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**Begin Campus:** Any Penn State Campus

**End Campus:** University Park

## Program Description

The Biomedical Engineering curriculum emphasizes the continuous integration of classical and modern engineering principles with the life sciences and health care. Biomedical Engineers apply these skills to innovation in the health care industry, basic biological sciences, and the underpinning of medical practice.

Consistent with the mission of Penn State University and the College of Engineering, the Penn State Bachelor of Science program in Biomedical Engineering aims to create world-class engineers who will, after graduation, contribute to social and economic development through the application of engineering to the solution of problems in medicine and biology.

## What is Biomedical Engineering?

Biomedical engineering is the application of the life sciences, mathematics, and engineering principals to define and solve problems in biology, medicine, healthcare, and other related fields. Biomedical engineers work to design, create, and improve medical devices such as prosthetics, artificial organs and medical imaging devices. They also develop instrumentation, medical information systems, and health management and care delivery systems to improve health care organizations. Many graduates of the biomedical engineering Bachelor of Science program also go on to pursue advanced degrees in medicine, engineering and related fields such as biostatistics, public health, and health administration.

## You Might Like This Program If...

- You like applying traditional engineering skills and analysis to understand biological systems.
- You want to emphasize the integration of classical and modern engineering principles with the life sciences and healthcare.
- You are passionate about bridging the gap between medical professionals and the engineering community.