



Biomedical Engineering

bme.psu.edu

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Biomedical engineering (BME) is **central to the future of Penn State**, not only for the University's research impact, but for the education of future engineers and scientists.”

DANIEL HAYES, department head



WATCH: What is Biomedical Engineering?

VOICES

“Penn State BME students are problem solvers who are driven to develop novel, innovative health care solutions that impact millions of people.”

— **MEGHAN VIDT**, assistant professor of Biomedical Engineering

Undergraduate Excellence

Our bachelor of science program emphasizes the integration of modern engineering principles with the life sciences and health care. Students are prepared for careers in the design, manufacturing, and improvement of medical devices; diagnostics, pharmaceuticals, biologics, medical information systems, and health management and care delivery systems; and for the further pursuit of advanced degrees in engineering and health care.

- > **Degree options:** Biochemical, Biomechanics, Biomaterials, and Medical Imaging and Devices
- > **Available minor:** Biomedical Engineering
- > **All undergraduate students complete Biomedical Senior Design (BME 450W) prior to graduation, which partners student teams with industry professionals.**

SPOTLIGHT



2023 graduate **Sydney Gibbard** is the founder of Girls Code the World, a nonprofit focused on improving diversity in STEM fields by providing resources, opportunities, and role models.

WATCH: I Engineer “Mentorship”



344

Undergraduate
Students

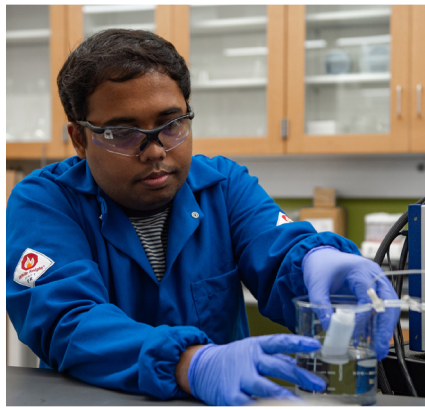
112

Graduate Students

29

Full-Time Faculty

\$10.5M

Externally Funded
Research Expenditures

NEW HOME FOR BME

The Chemical and Biomedical Engineering Building opened in 2019 and features state-of-the-art classrooms, common areas, and laboratory areas to support student success.



Graduate Excellence

We offer both thesis and non-thesis master of science (M.S.) programs that prepare graduates for leadership roles in industry or for additional graduate-level opportunities.

Our doctor of philosophy (Ph.D.) in biomedical engineering program provides students with a strong foundation in traditional engineering and the life sciences and a specialization in cutting-edge research applications.

VOICES

"The Penn State community is unique and provides a supportive environment for students to learn and create."

— **ATIP LAWANPRASERT**, doctoral candidate

BME graduate students have access to world-renowned centers and laboratories across campus, including two biotech core facilities, nanofabrication spaces, microscopy facilities, and a materials characterization lab.

Discovery and Impact

BME faculty across all levels support undergraduate- and graduate-level teaching; student advising; and a robust research enterprise spanning biomaterials and drug delivery, biomechanics and mechanobiology, biomedical devices, biomedical imaging, computational modeling of biological systems, and regenerative medicine.

> **The Center for Structural Oncology joins researchers with a common goal of conquering cancer, taking a multi-dimensional approach to investigating the molecular culprits of the disease.**

SPOTLIGHT



Sri-Rajasekhar (Raj) Kothapalli, associate professor of biomedical engineering, was recognized in 2023 by the National Science Foundation with a Faculty Early Career Development Award.

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PennState
College of Engineering

**BIOMEDICAL
ENGINEERING**