

Biomedical Engineering

Graduate Program Overview

The Philosophy of Our Master's Program

The Master of Science Program in Biomedical Engineering is designed to provide a unique educational experience focused on both foundational and cutting-edge biomedical engineering topics. All students have the option to be exposed to and participate in our world-recognized research programs housed within various departments in Stony Brook University. We have taken the approach that students in our MS program have the flexibility to tailor their education degree plan to particular career-oriented tracks and sub-disciplines within those tracks as needed to further their career path.

Medical Scientist Training Program (MD/PhD)

BME Graduate students are eligible to enroll in a combined medical degree and doctoral degree program. Students typically complete 2 years of medical school followed by their PhD and then medical training is completed.

Scholars in Biomedical Sciences

BME Graduate students are eligible to apply for this program which aims to engage graduate students in translational medical research. Students in this program work with a research mentor and a clinical mentor.

CAMPEP Accredited Medical Physics Program

The Stony Brook Medical Physics track is interdisciplinary with faculty from: radiology, radiation oncology, biomedical engineering and Brookhaven National Laboratory. We offer sub-tracks in Imaging Physics, Nuclear Medical Physics and Oncology Physics. Specific course requirements apply to students that would like to graduate from the Medical Physics Program.

Our History

The Department of Biomedical Engineering was formally established in December 2000, jointly underwritten by the College of Engineering and Applied Sciences (CEAS) and the School of Medicine (SOM), and facilitated by a Development Award and two Special Opportunity Awards from the Whitaker Foundation. The mission of the Department is to fully integrate the cutting edge of engineering and physical sciences with state-of-the-art biology to advance our understanding of biomedical problems, and to use that science to drive the development of therapeutics, diagnostics and medical devices. Areas of research expertise include biomechanics, bioelectricity, tissue engineering, bioinstrumentation, cell and molecular bioengineering, bioimaging, nanobiotechnology and biomaterials.

The BME Department has grown at a rapid rate, and currently serves as the home to 15 core faculty and a student body of approximately 500 students (20% graduate, 80% undergraduate). A comprehensive description of the department and its research and education programs can be found on our website, at stonybrook.edu/bme.



Stony Brook
University

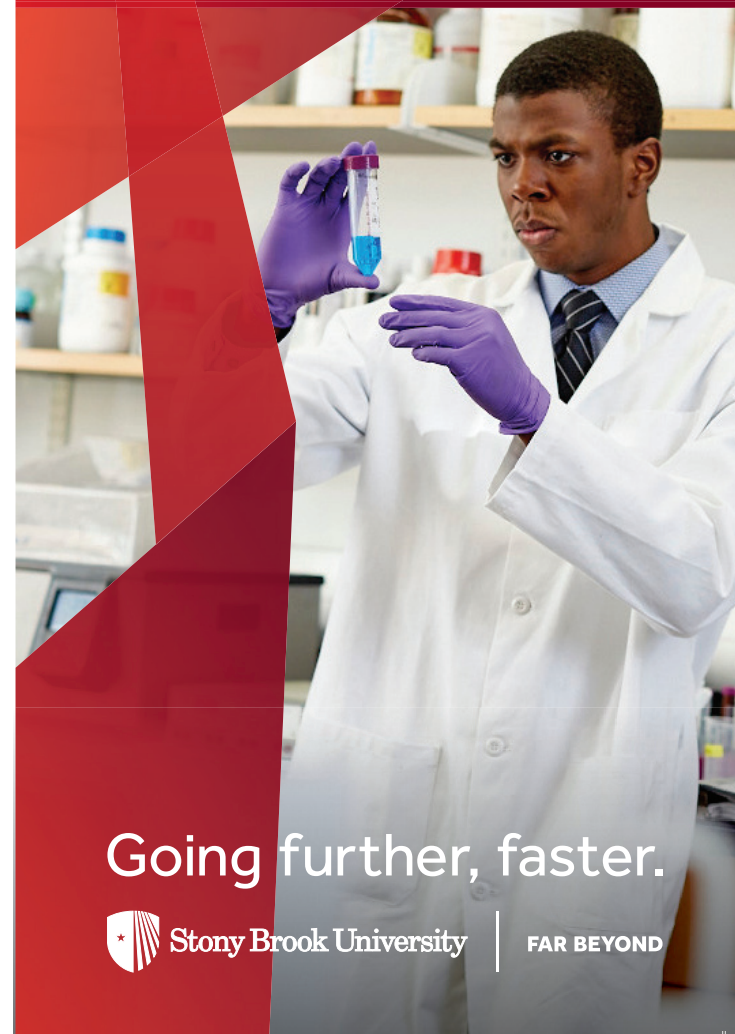
Department of Biomedical Engineering

Stony Brook University
Bioengineering Building
Stony Brook, NY 11794-5281
bme_grad_program@stonybrook.edu
stonybrook.edu/bme

Stony Brook University/SUNY is an affirmative action, equal opportunity educator and employer.
19070135 M8/19

Biomedical Engineering

Masters Program

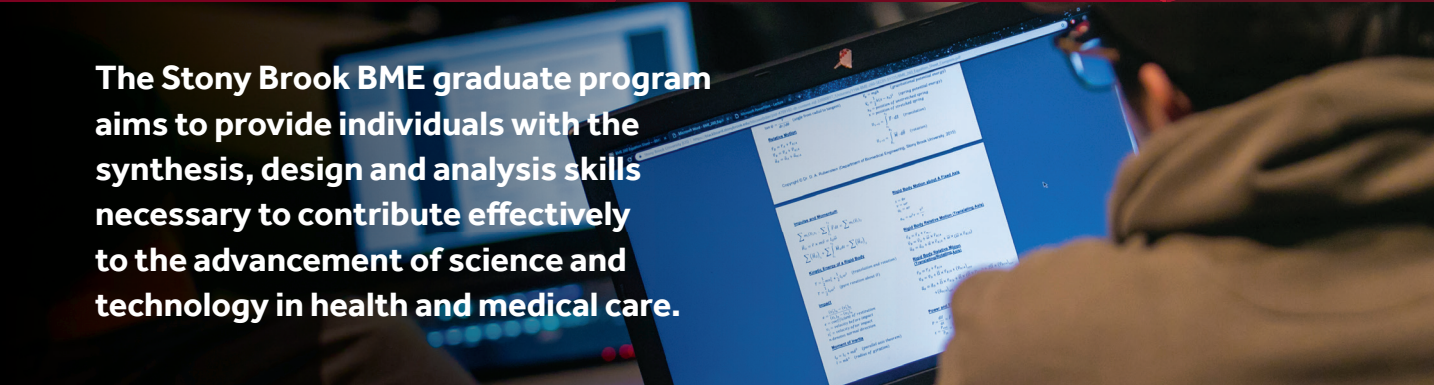


Going further, faster.



Stony Brook University

FAR BEYOND



The Stony Brook BME graduate program aims to provide individuals with the synthesis, design and analysis skills necessary to contribute effectively to the advancement of science and technology in health and medical care.

Many Fields, Many Opportunities: Our BME graduates can be found in medicine, dentistry, academic research, national laboratories, the biotechnology industry and intellectual property (law). Our program has a specific focus on training students for industry positions, continuing in academic fields or entrepreneurship opportunities.

Top-Notch Facilities: Our new building offers specialized “wet” labs and a state-of-the-art clean room. We have close ties with Brookhaven National Laboratories, Cold Spring Harbor Laboratories and the Center for Biotechnology (a New York State Center for Advanced Technologies).

Research Labs: Our faculty are conducting cutting-edge research in areas related to Biomechanics, Biomaterials, Biotechnology, Cell, Molecular and Tissue Engineering, Biosensors, Bio-system Modeling, Bioinstrumentation, Bioinformatics and Medical Imaging.

A Highly Valued Stony Brook Degree: Stony Brook University is listed in the top 1 percent of all universities in the world by the *London Times Higher Education World University Rankings*. *U.S. News & World Report* ranks Stony Brook among the top 100 public national universities and includes us on its list of notable programs for undergraduate research/creative projects. *Kiplinger* lists Stony Brook in the top 25 of the 100 best values in public colleges and universities.

Mission of Our MS Program:

Graduates of the biomedical engineering master of science program will become trained engineers that can:

1. Address clinical, industry or business needs related to standing biomedical issues
2. Design, develop and test solutions that can address standing needs
3. Communicate solutions with various stakeholders
4. Strategize implementation of solutions with constraint considerations

Research Assistantships: Based on the availability of funding from individual faculty members, students may be offered a research assistantship during their education. Students must maintain good academic standing and complete their assigned projects duties satisfactorily to maintain funding. Tuition scholarships may be awarded to students that are awarded a research assistantship.

Degree Requirements: A minimum of 33 graduate credits is required to earn the Master of Science in BME (project option) or 39 credits for the Master of Science in BME (thesis option). The program study can be chosen from any of the following approved concentrations: Biomedical Principles, Biomedical Design or Biomedical Entrepreneurship; each with their own specific core and elective requirements.

How to Apply

Stony Brook University's BME Graduate Program is highly competitive with an acceptance rate of approximately 10-15%.

All applications must be submitted electronically through the online portal, which can be found on the Graduate School website: grad.stonybrook.edu/

To receive full consideration, all student must complete and submit the following:

- Official online application
- Personal statement describing the student's educational and career goals with a list of at least 3 faculty you envision working with
- Three letters of recommendation
- Two official copies of all previous college transcripts and one copy uploaded
- A non-refundable application fee
- TOEFL scores or other documentation for proficiency in English (non-native/non-primary English speakers only)

The Deadline for Application is April 15th.

Students who excel in our rigorous program typically have an undergraduate degree in engineering, physics, applied mathematics or biological sciences (with a quantitative focus).

Students can specialize in:

- Biomedical Principles
- Biomedical Design
- Biomedical Entrepreneurship

For More Information

VISIT: stonybrook.edu/bme

CONTACT: bme_grad_program@stonybrook.edu