Advancing Leaders to Solve Today’s Complex Engineering Challenges

Biomedical Engineering
Master of Science Graduate Degree Program
Rutgers School of Engineering’s Master of Science (MS) in Biomedical Engineering is a thesis-based degree program that provides outstanding graduate level training in six key areas of biomedical engineering and technology: molecular systems; nanosystems and microsystems; tissue engineering and regenerative medicine; biomechanics and rehabilitation engineering; physiologic systems; and bioinstrumentation, biomedical imaging, and neuroengineering. This degree can be a pathway to our doctoral degree program.

Applied Learning
With guidance from a world-class faculty in a state-of-the-art facility, students master essential aspects of biomedical engineering practice and research. By providing students with a solid foundation in life science and engineering, as well as opportunities to engage in and conduct original research, the MS in Biomedical Engineering program prepares them for professional advancement in a dynamic, rapidly advancing field.

BME Curriculum Highlights
The core curriculum’s in-depth focus on bioengineering and technology is enhanced by opportunities for interdisciplinary collaboration in everything from genomics to advanced microscopy. We offer:

- A Certificate in Medical Device Development
- An innovative research rotation program for first-year students
- Courses in a wide range of topics from multiple areas in biomedical engineering
- Courses in entrepreneurship
- Core courses in:
  - Bioimaging Methods
  - Biosignal Processing and Biomedical Imaging
  - Biocontrol, Modeling and Computation
  - Kinetics, Thermodynamics and Transport in Biomedicine
  - Biomechanics and Materials
- Advanced courses in:
  - Mathematical Modeling for Biomedical Engineering
  - Structure and Dynamics in Adult and Stem Cell Biology
  - Medical Device Development
  - Professional Development (3 courses)

Master of Science Degree Requirements
- 33 credit thesis program – 27 course credits and 6 research credits
- Written research-based thesis
- Oral thesis defense

Academics and Research
- The program includes faculty from Rutgers science and engineering departments; Robert Wood Johnson Medical School; other area academic institutions; and local industry researchers.
- Faculty hold prominent positions in numerous university-wide Centers of Excellence.
- Students learn and conduct research in state-of-the-art facilities.

Why Rutgers Biomedical Engineering?
- Our innovative courses and programs are designed to train academic and industry leaders.
- Our collaborative, interdisciplinary academic community is committed to transformative education and research that is ethically responsible and sustainable.
- Our active student community is engaged in cutting-edge research.
- Our accomplished faculty includes internationally recognized experts in their fields, who span departments and schools within Rutgers.
- Our inclusive student population is more than 50% female.

For application deadlines and more information, visit bme.rutgers.edu