If you have an interest in engineering problems related to issues of human health and performance, biomedical engineering (BME) is a burgeoning field worth considering. An integrated, interdisciplinary endeavor, BME bridges the engineering and medical fields to meet the 21st-century needs of biomedical-related industries focused on medical devices and pharmaceuticals. Biomedical engineers discover and apply engineering principles and methods to a wide array of problems in medicine. They diagnose and determine the biological origins of disease. They also design biocompatible and living materials, prostheses, surgical implants, artificial organs, controlled drug-delivery systems, and regenerative technologies to augment the healing process.

The mission of the B.S. program at the Meinig School of Biomedical Engineering is to train students in the practice of design, fabrication, and analysis of biomedical systems, devices, diagnostics, and therapeutics for issues related to human health. Specifically, our vision for biomedical engineering focuses on a quantitative approach to understanding biology across scales—from nanoscale and molecular levels to the whole body. The quantitative nature of our program distinguishes the major from traditional programs in biology, while the focus on human health is distinct from other programs in engineering that include the study of biological systems (e.g. biological, environmental, chemical and biomolecular engineering). Additionally, its focus on multiscale analysis of biological systems is a unique signature of Cornell Biomedical Engineering relative to programs at peer institutions.

As a BME student you will:

- develop a quantitative approach to understanding biology across length and time scales with a focus on human health;
- possess an intellectual and technical foundation for innovation confidence;
- produce robust products and decisions within highly variable, uncertain environments;
- be a self-directed, life-long learner that readily identifies and applies engineering principles to biological systems;
- engage your community at the interface of the physical and life sciences as it relates to the human condition.

The BME major prepares you to bridge the engineering and medical fields, resulting in highly-flexible career prospects with opportunities in manufacturing.
at universities, hospitals, government regulatory agencies and law firms, as well as the research facilities of companies and educational and medical institutions. Many graduates continue their studies in biomedical engineering in Masters of Engineering (M.Eng.) or Doctoral programs in a specific biomedical engineering concentration. A biomedical engineering major is also excellent preparation for entry into graduate study in medicine.

Opened in 2008, Weill Hall is the home of the Meinig School of Biomedical Engineering at Cornell. This $162-million facility brings together Cornell’s top ranked programs in the life sciences, providing an avenue for building research connections across departments as well as across campuses, thanks to the extensive teleconferencing facilities designed to strengthen our connections with Weill Cornell Medical College, our medical school located in New York City. Cornell’s Veterinary College offers students a local opportunity to connect veterinary medicine and engineering.

As a BME major you will be part of a diverse community of life-long learners who are innovation confident, collaborative across disciplines, and community engaged. You will learn to be an intellectual and technical leader, ready to break the rules to advance human medicine and improve human health.

BME By the Numbers

| BME undergraduate students | 132 |
| BME graduate students (M.Eng. only) | 77 |


MASTER OF ENGINEERING DEGREE PROGRAM

Cornell’s M.Eng. degree is a one-year program that builds on your undergraduate foundation, expanding your knowledge and enhancing your career options. The focus of an M.Eng. degree is on engineering practice and design; that is, putting engineering knowledge to work developing new tools to address real-word problems in health science, learning both how to engineer solutions to health science challenges as well as what to engineer in terms of a product’s market viability. Our M.Eng. programs accomplish this through a combination of courses and a design project that ensure each student has broad knowledge as well as focused expertise in a particular area.

bme.cornell.edu