



Academics

Undergraduate Programs

Undergraduate
Curriculum Sheets

Graduate Programs

Academic Policies &
Schedules



Undergraduate Programs

The Department of Biomedical Engineering (BME) offers an ABET-accredited Bachelor of Science degree in biomedical engineering, five-year combined Bachelor of Science/Master of Science degree programs, and a minor in biomedical engineering.

In addition to our undergraduate program information, this page also contains helpful information on the biomedical engineering field. We encourage you to continue reading further down this page to learn more about the biomedical engineering field.

Bachelor of Science Degree Program

- **Prospective and first-year students:** The [GW Bulletin](#) carries the definitive curriculum requirements for your degree program. Please visit the Bulletin to find the program requirements for your degree program. A [PDF of your curriculum](#) is also available.
- **All other current students:** Please visit the [curriculum sheets](#) page on this site to find the program requirements for your degree program. Each student must follow the curriculum in place during his or her year of entry.

Fall 2023 Undergraduate Electives

- BME 4482 Medical Measurements
- BME 4831 Introduction to Bioelectronics

Students can also check with their advisors and the course instructors if they are ready to take the following graduate-level BME courses as electives:

- BME 6045 Medical Device Engineering Evaluation (Prof. Krauthamer)
- BME 6488 Cell and Molecular Imaging (Prof. Entcheva)
- BME 6489 Tele-medical Robotics and Machine Learning (Prof. Park)
- BME 6492 Biology of Materials and Regenerative Medicine (Prof. Papa)
- BME 6885 Computer Vision (Prof. Loew)

Combined Five-year Bachelor's/Master's Programs: All Students

Learn more about the our combined five-year bachelor of science/master of science degree programs and their requirements:

- [Bachelor of Science/Master of Science in Biomedical Engineering](#)
- [Bachelor of Science in Biomedical Engineering/Master of Science in Computer Engineering](#)

Undergraduate Minor

The department offers a minor in biomedical engineering. Please visit the GW Bulletin to see the [requirements](#) necessary to fulfill the minor.

Understanding Biomedical Engineering

What is biomedical engineering?

Biomedical engineering is the application of engineering practices to human health issues. Biomedical engineering technologies improve the lives of people every minute of every day. Examples of the technologies that biomedical engineers have developed and improved to diagnose and treat a wide range of diseases are:

- Improved imaging methodologies for cancer detection
- Novel methods to analyze medical images and present additional information to physicians
- New technologies to understand electrical conduction abnormalities in the heart to better respond to heart attacks and arrhythmias
- New technologies to provide selective delivery of drugs, such as chemotherapy agents, to areas of interest in the body without damaging healthy tissues

Biomedical Engineering at GW

GW's Department of Biomedical Engineering offers a Bachelor of Science degree in biomedical engineering that is accredited by the Engineering Accreditation Commission of the [Accreditation Board for Engineering and Technology](#) (ABET). GW's biomedical engineering (BME) program takes advantage of the unique combination of resources and opportunities that the engineering school can provide BME students through its connection with GW's [medical school](#) and [hospital](#), as well as the biotech industries and world-class laboratories in the Washington, D.C. metropolitan area. BME students can focus their studies, depending on their interests and career goals, by selecting appropriate technical electives. Potential focus areas include: bioinformatics, telemedicine, instrumentation, pre-medicine, biomechanics, imaging, and other areas as directed by the student's academic advisor.

Students benefit from a program designed to go beyond the traditional engineering curriculum, including a BME seminar, a [capstone design sequence](#), and assistance for securing summer internships at world-class research laboratories in the Washington, D.C. area.

Career Paths

The biomedical engineering degree prepares students to enter a variety of fields after graduation. Students may work in industry developing, building, and testing new medical instrumentation, or they may choose to work in private research laboratories. They may also elect to work in government agencies such as the National Institutes of Health, the Food and Drug Administration, the National Institute of Standards and Technology, or others. Finally,



students may wish to complete professional degrees in medicine, dentistry, pharmacy, law or business) or they may undertake advanced study in biomedical engineering for a career as a university professor.



Department of Biomedical Engineering

School of Engineering & Applied Science

800 22nd Street NW
5000 Science & Engineering Hall
Washington, DC 20052

 202-994-3740
 biomed@gwu.edu



- [Undergraduate Programs](#)
- [Graduate Programs](#)
- [Campus Advisories](#)
- [EO/Nondiscrimination Policy](#)
- [Website Privacy Notice](#)
- [Contact GW](#)
- [Accessibility](#)
- [Terms of Use](#)
- [Copyright](#)

GW is committed to digital accessibility. If you experience a barrier that affects your ability to access content on this page, let us know via the [Accessibility Feedback Form](#).