BIOMEDICAL & REGULATORY BIOMEDICAL ENGINEERING

Biomedical Engineers apply knowledge of engineering, biology, and biomechanical principles to the design, development, and evaluation of biological and health systems products. They may work with artificial organs, prostheses, instrumentation, medical information systems, and health management/care delivery systems. Biomedical Engineers work in manufacturing, universities, hospitals, company research facilities, educational and medical institutions, and government regulatory agencies. They frequently work in research and development or in quality assurance, serving a coordinating function by using their background in both engineering and medicine.

Regulatory Biomedical Engineers (rBME) study the fundamentals of regulatory science in order to advance medical devices, imaging diagnostics, and therapy. Students with training in engineering, physics, and/or relevant industry and government experience study the fundamentals of biomedical engineering global regulatory affairs, regulatory strategy in the development of devices and diagnostics, regulatory compliance, engineering patent law, medical measurements, and instrument design. Graduates will be prepared to create new startup companies, provide in-house regulatory expertise to device companies, or join government regulatory and compliance institutions.

### Skills Acquired
- Design and conduct experiments
- Analyze and interpret data
- Work on multidisciplinary teams
- Identify, formulate, and solve engineering problems
- Communicate effectively
- Utilize modern engineering tools

### Sample Occupations
- Biomedical Engineers
- Biochemists
- Bioengineering Researcher
- Engineering Professor
- Biochemical Engineer
- Research Engineer
- Biomedical Technician
- Biomedical Manager
- Nanosystems Engineer
- Biophysicist

### Sample Work Settings
- Medical Equipment Suppliers
- Pharmaceutical Manufacturers
- Medicine Manufacturing
- Professional Schools
- Colleges or Universities
- Federal Government
- Hospitals
- Research Laboratories

### Sample Employers
- Johnson and Johnson
- General Electric Co.
- Siemens AG/Siemens Health
- Medtronic Inc.
- Abbott Laboratories
- Boston Scientific Corp.
- Bayer AG
- Baxter International Inc.
- Stryker Corp.
- Veterans Administration
- St. Jude Medical Inc.
- 3M Co.

### Biomedical Engineer Annual Salary (BLS, 2017)
- Regional Average: $74,950
- National Average: $92,970

### PROFESSIONAL ORGANIZATIONS
Learn more about the field, network, and search for scholarship, internship, and job opportunities.
- Biomedical Engineering Society [www.bmes.org](http://www.bmes.org)
- Society for Biomaterials [www.biomaterials.org](http://www.biomaterials.org)
- Institute of Biological Engineering [www.ibe.org](http://www.ibe.org)
- Engineering in Medicine and Biology Society [www.embs.org](http://www.embs.org)
- American Institute for Medical and Biological Engineering [https://aimbe.org](https://aimbe.org)
- Regulatory Affairs Professionals Society [www.raps.org](http://www.raps.org)

### JOB SEARCH RESOURCES
Keywords: Medical Imaging, Instrumentation, Biotechnology, Regulatory Affairs
- Engineering Central [www.engcen.com](http://www.engcen.com)
- Engineering Jobs [www.engineerjobs.com](http://www.engineerjobs.com)
- Engineering.com [www.engineering.com/jobs](http://www.engineering.com/jobs)
- iHireEngineering [www.ihireengineering.com](http://www.ihireengineering.com)
- Science Careers [https://jobs.sciencecareers.org](https://jobs.sciencecareers.org)