

**WHAT CAN I DO WITH A MAJOR IN:  
BIOMEDICAL ENGINEERING**

**Career Center for Science and Engineering  
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**What Activities Could Biomedical Engineering Majors Do?**

By combining biology and medicine with engineering principles and practices, biomedical engineers develop devices and procedures that solve medical and health-related problems. Many do research, along with life scientists, chemists, and medical scientists, to develop and evaluate systems and products such as artificial organs, prostheses (artificial devices that replace missing body parts), instrumentation, medical information systems, and health management and care delivery systems. Biomedical engineers also design devices used in various medical procedures, such as the cardiac pacemaker, computers used to analyze blood, the laser systems used in corrective eye surgery, and imaging systems such as magnetic resonance imaging (MRI). They develop artificial organs, imaging systems such as ultrasound, and devices for automating insulin injections or controlling body functions. Less well known, but of great importance, are the applications of basic principles to the quantitative modeling and simulation of physiological systems. Some specialties within biomedical engineering include biomaterials, biomechanics, medical imaging, rehabilitation engineering, and orthopedic engineering.

**What Industries Could Biomedical Engineering Majors Explore?**

Healthcare Institutes	Laboratories Medical Software Companies	Pharmaceuticals Universities	Biomaterials Biotechnology
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**What Employers Hire Biomedical Engineering Majors?**

Covance Laboratories	ELA Medical, Inc.	St. Jude Medical	Regeneron Pharmaceuticals
Datex-Omeda	Gamma Medical Instruments	Virginia Tech	Pennsylvania College of Technology
TCD Medical	Boston Scientific	EV3 Endovascular	American Medical Systems
NIH	Medtronic	Guidant	Beckman Coulter
Sadra Medical	Lifecore Biomedical	Merck & Company	Pfizer

**What Are Some Full-Time Job Titles For Biomedical Engineering Majors?**

Assistant Professor	Biostatistician	Project Scientist	Biomedical Engineer
R & D Engineer	Clinical Data Manager	Technical Consultant	Study Technician
Consultant Engineer	Simulation Software Engineer	Research Scientist	Microscopist
Analyst	Product Performance Engineer	Design Engineer	Operations Quality Engineer

**What Are Some Useful Websites For Biomedical Engineering Majors?**

Biomedical Engineering Central	<a href="http://www.bmcentral.com">www.bmcentral.com</a>
Biomedical Engineering Network	<a href="http://www.bmenet.org">www.bmenet.org</a>
Minnesota Biomedical Business Network – MBBNet	<a href="http://www.mbbnet.umn.edu">www.mbbnet.umn.edu</a>
National Institute of Biomedical Imaging and Bioengineering	<a href="http://www.nibib.nih.gov">www.nibib.nih.gov</a>
National Science Foundation	<a href="http://www.nsf.gov">www.nsf.gov</a>
The Whitaker Foundation	<a href="http://www.whitaker.org">www.whitaker.org</a>
U of M Biomedical Engineering Institute	<a href="http://www.bmei.umn.edu">www.bmei.umn.edu</a>