

BIOMEDICAL ENGINEERING



KEY SKILLS

- Attention to Detail
- Communication
- Data Analysis
- Empathy
- Mathematics
- Research
- Teamworking
- Technical
- Writing (Reports/Technical)



CONCENTRATIONS/SPECIALIZATIONS

- Bioinformatics
- Bioinstrumentation
- Biomaterials
- Biomechanics
- Cellular, Tissue, & Genetic Engineering
- Clinical Engineering
- Medical Imaging
- Neural Engineering
- Orthopedic
- Pre-Medicine
- Rehabilitation Engineering
- Systems Physiology
- Telehealth/Telemedicine



SAMPLE DEGREES

- Biomedical Engineering (BS, MS, BS/MS, PhD)
(Concentrations in Bioinformatics, Biomechanics, Imaging, Instrumentation, Pre-Med, Telemedicine)
- Computer/Electrical Engineering (BS)
- Mechanical Engineering (BS)
- Regulatory Biomedical Engineering (MEng)



SAMPLE OCCUPATIONS

- Biochemist/Biophysicist
- Bioinformaticist
- Biomaterials Engineer
- Biomechanical Engineer
- Biomedical Manager
- Biomedical Technician
- Biophysicist
- Clinical Engineer
- Genetic Engineer
- Medical Equipment Repairer
- Nanosystems Engineer
- Quality Engineer
- Rehabilitation Engineer
- Researcher/Research Assistant
- Software Engineer
- Systems Physiologist



POSSIBLE WORK SETTINGS

- Consulting Firm
- Consumer Products Company
- Engineering Company
- Federal Government
- Hospital
- Medical Clinic
- Medical Equipment Supplier
- Nonprofit Organization
- Pharmaceutical/Medical Manufacturer
- Professional School
- R&D Laboratory
- Research Organization
- University/College



SAMPLE STUDENT ORGS

- Biomedical Engineering Society
- Engineering World Health GW
- Engineers Without Borders
- National Society of Black Engineers
- Society of Women Engineers
- Tau Beta Pi (Honors Society)
- The Engineers' Council



SAMPLE EMPLOYERS

- 3M Company
- Abbott Laboratories
- AstraZeneca
- Baxter International Inc.
- Bayer AG
- Boston Scientific Corporation
- Brainlab
- Bristol-Myers Squibb
- Cardinal Health, Inc.
- Celera Corporation
- Columbus Tech & Services
- Cook Medical
- Cynosure
- Dana-Farber Cancer Institute
- Dexcom, Inc.
- General Electric Company
- Howard Hughes Medical Institute
- Johns Hopkins Medicine
- Johnson & Johnson
- Kimberly-Clark Corporation
- Medispec
- Medtronic, Inc.
- Momenta Pharmaceuticals, Inc.
- Pfizer, Inc.
- Quidel Corporation
- Raytheon
- Sanofi Genzyme
- Siemens Healthineers
- St. Jude Medical, Inc.
- Stryker Corporation
- The Wallace H. Coulter Foundation
- Thermo Fisher Scientific
- US Department of the Air Force
- US Veterans Administration
- Virtua Medical Group
- Zimmer Biomet



PROFESSIONAL ORGS

- American Institute for Medical & Biological Engineering (AIMBE)
- Biomedical Engineering Society (BMES)
- IEEE Engineering in Medicine & Biology Society (EMBS)
- Institute of Physics & Engineering in Medicine (IPEM)

