

Biomedical Engineering – Example Program Map

Biomechanics & Biomaterials (Musculoskeletal or Materials)

Semester 1	Chem I / Lab CHEM:1110	Engr Math I MATH:1550	Intro Engr Prob Solving ENGR:1100	Rhetoric RHET:1030	Engr Success First Year ENGR:1000	
Semester 2	Chem II / Lab CHEM:1120	Engr Math II MATH:1560	Engr Math III MATH:2550	Physics I / Lab PHYS:1611	Intro Engr Computing ENGR:1300	BME Forum BME:1010
Semester 3	Foundations of Biology / Lab BIOL:1411	Engr Math IV MATH:2560	Statics ENGR:2110	Thermodynamics ENGR:2130	Elec Circuits ENGR:2120	BME Prof Seminar BME:2010
Semester 4	Human Physiology HHP:3500 or BME:2260 Quantitative Physiology	Biostatistics BIOS:4120 or STAT:3510	Systems, Instrum, & Data Acquisition / Lab BME:2200	Biomaterials & Biomechanics / Lab BME:2500	Dynamics ENGR:2710	
Semester 5	Bioimaging & Bioinformatics / Lab BME:2210	Cell Biology for Engr / Lab BME:2400	Mech Def Bodies ENGR:2750	Materials Science ENGR:2720	Cultural Perspectives, Values, and Society	
Semester 6	Physics II / Lab PHYS:1612	Cell Material Interactions BME:5421	Biotransport BME:5430	Fluid Mechanics ENGR:2510	Be Creative	
Semester 7	BME Senior Design I BME:4910	Numerical & Stat Methods for Bioengr BME:5441 or Biomatl & Implant Design BME:5101	Musculoskeletal Biomechanics BME:5610	Engr Drawing, Design, & Solid Modeling BME:2710	Approved GEC course	
Semester 8	BME Senior Design II BME:4920	Kinetics of Musculoskeletal Syst BME:5630	Biomedical Micro Devices & Systems BME:5460	Approved GEC course	Approved GEC course	

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| Math & Science Courses | Required Engineering Courses | Focus Area Required Courses | General Education Courses |
| Engineering Core Courses | Biomedical Core Courses | Focus Area Elective Courses | Seminars |

At least two Focus Area Electives must be from the list of Engineering Topics.

Last updated 10/11/24