

# Biomedical Engineering – Example Program Map

## Biomechanics & Biomaterials (Cardiopulmonary)

<b>Semester 1</b>	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	
<b>Semester 2</b>	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
<b>Semester 3</b>	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
<b>Semester 4</b>	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	
<b>Semester 5</b>	Bioimaging & Bioinformatics / Lab BME:2210	Cell Biology for Engr / Lab BME:2400	Mech Def Bodies ENGR:2750	Fluid Mechanics ENGR:2510	Engr Drawing, Design, & Solid Modeling BME:2710	
<b>Semester 6</b>	Materials Science ENGR:2720	Physics II / Lab PHYS:1612	Med Device Design Fundamentals BME:3710	Cardiovascular Engineering BME:5510	Cultural Perspectives, Values, and Society	
<b>Semester 7</b>	BME Senior Design I BME:4910	Biotransport BME:5430	Biomedical Micro Devices & Systems BME:5460	Cardiopulmonary Design & Modeling BME:5525	Be Creative	
<b>Semester 8</b>	BME Senior Design II BME:4920	Quant Studies of Respiratory & CV Syst BME:5540	Approved GEC course	Approved GEC course	Approved GEC course	

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

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

**Last updated 10/11/24**