



# Biomedical Engineering – Example Program Map

## Bioimaging (Medical Physics)

<b>Semester 1</b>	Chem I / Lab CHEM:1110	Engr Calc 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 Calc II MATH:1560	Engr Matrix Alg 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 Diff Equat MATH:2560	Statics ENGR:2110	Elec Circuits ENGR:2120	Thermodynamics ENGR:2130	BME Prof Seminar BME:2010
<b>Semester 4</b>	Fund Human Physiology HHP:2400 or Quantitative Physiology BME:2260	Biostatistics BIOS:4120 or STAT:3510	Systems, Instrum, & Data Acquisition / Lab BME:2200	Bioimaging & Bioinformatics / Lab BME:2210	Comp in Engr ENGR:2730	
<b>Semester 5</b>	Cell Biology for Engr / Lab BME:2400	Biomaterials & Biomechanics / Lab BME:2500	Medical Imaging Physics BME:5210	Physics II / Lab PHYS:1612	Cultural Perspectives, Values, and Society	
<b>Semester 6</b>	Intro to Software Design ECE:3330	Physics IV PHYS:2704	Biomed Signal Processing BME:5200	Approved GEC course	Be Creative	
<b>Semester 7</b>	BME Senior Design I BME:4910	Electricity & Magnetism I PHYS:3811	Intro to Quantum Mechanics I PHYS:3741	Digital Image Processing ECE:5480	Approved GEC course	
<b>Semester 8</b>	BME Senior Design II BME:4920	Multidim Image Analysis Tools & Tech ECE:5490	Intermed Lab PHYS:3756	Electricity & Magnetism II PHYS:3812	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.**