

Quarter	Bioinstrumentation Track	Category (Credit)	
	Course		<i>Engrg credit</i>
1 st Year Fall	Hum 101, Eng Composition I		
	Physics, Physics 111, Physics I		
	Physics, Physics 111A, Physics Lab		
	Physics, Physics 111W, Physics Workshop		
	Chemistry, Chem 125, General Chemistry I		
	Math, Math 111, Calculus I		
	FED, Fundamentals of Eng Design		2.00
	Biomedical Engr, BME 105, Intro to Human Physiology		
1 st Year Spring	Hum 102, Eng Composition II		
	Physics, Phys 121, Physics II		
	Physics 121A Physics II Laboratory		
	Chemistry, Chem 124, Gen Chem Lab		
	Chemistry, Chem 126, Gen Chem II		
	Computer Science, CS 101, Computer Programming and Problems Solving		
	Math, Math 112, Calculus II		
	Biomedical Engineering, BME 106, Introduction to Human Physiology II		

2 nd Year, Fall			
	History, History 2xx – Communication, Cultural History		
	Biomedical Engineering, BME 301, Intro to BME I , Electrical Foundations		3.00
	Biomedical Engineering, BME 302, Intro to BME II, Mechanical Foundations		3.00
	Biomedical Engineering, BME 303, Biological and Chemical Found of Biomed Engr.		
	Math, Math 211, Calculus III		
	Math 225 or Math 279 or Math 333		
2 nd Year Spring	Humanities, Basic Social Science		
	Biomedical Engr, BME 310, Biomedical Computing		3.00
	Chemistry, Chem 243, Organic Chemistry		
	Math, Math 337, Linear Algebra		
	Math , Math 222, Differential Equations		
	Physical Education		
3 rd Year, Fall	Basic Social Science		
	BME 381, Engineering Models of Physiology 1 or BME 383 (Lab)		3.00
	Electrical Engineering, ECE 251, Digital Design		3.00

3 rd Year, Spring	Biomedical Engineering, BME 372, Biomedical Electronics		3.00
	Biomedical Engineering, BME 333, Biomedical Signals and Systems		3.00
	Physical Education		
	Open Elective in Humanities and Soc Sci		
	BME 382, Engineering Models of Physiology II or BME 383 (lab)		3.00
	Electrical Engineering, ECE 252, Microprocessors		3.00
	Biomedical Engineering, BME 373, Biomedical Electronics II		3.00
	* Bioinstrumentation Engineering Track Elective		3.00
4 th Year, Fall	Management, Mngmt 390, Principles of Management		
	Biomedical Engineering, BME 495, Capstone Design I		3.00
	Biomedical Engineering, BME 489, Medical Instrumentation		3.00
	Bioinstrumentation Engineering Track Elective		3.00
	Bioinstrumentation Track Elective		
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4 th Year, Spring	Humanities/Social Science, Capstone Seminar		

Humanities, Literature, History, Philosophy STS, History		
Biomedical Engineering, BME 496, Capstone Design II		3.00
Bioinstrumentation Engineering Track Elective		3.00
Bioinstrumentation Track Elective		
	0.00	50.00

Bioinstrumentation Approved Electives	Sci/Math	Engrg
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Optical Science and Engineering, OPSE 301, Introduction to Optical Science & Engineering	3 credits	
Math 3xx or 4xx With approval ; No Math 371 or Math 346	3 credits	
Chemistry, Chem 244, Organic Chemistry II	3 credits	
Optical Science and Engineering, OPSE 410, Biophotonics		3 credits
Civil Engineering, Mech 320, Statics and Strengths of Materials		3 credits
Material Science and Engineering, MTSE 301, Principles of Material Science and Engineering		3 credits
Biomedical Engineering, BME 383, Engineering Physiology Lab		3 credits
Biomedical Engineering, BME 384, Biomech Lab (prereq: Mech 320) 3 credits Biomedical Engineering, BME 498, Bioinstrumentation Laboratory 3 credits Biomedical Engineering, BME 420, Biomaterials 3 credits Biomedical Engineering, BME 384, Experimental Procedures in Biomech		3 credits
Biomedical Engineering, BME 498, Bioinstrumentation Laboratory		3 credits

Biomedical Engineering, BME 420, Biomaterials		3 credits
Biomedical Engineering, BME 479 Biomems		3 credits
Industrial Engineering, IE 355, Human Factors		3 credits
Electrical Engineering, ECE 431, Systems and Virtual Instrumentation		3 credits
Electrical Engineering, ECE 435, Medical Imaging Instrumentation & Data Acquisition Systems		3 credits
Electrical Engineering, ECE 436, Bio-Control Systems		3 credits
Electrical Engineering, ECE 438, Bio-Electronic Systems Laboratory		3 credits
Biomedical Engineering, BME 491, BME Research and Independent Study I		3 credits
Biomedical Engineering, BME 492, BME Research and Independent Study II		3 credits

The following graduate courses are also accepted, with Approval. These courses can also be applied to the BS/MS program for qualified students

<u>BME 667 - SYSTEMS STUDY IN BIOENGINEERING</u>	3 credits
<u>BME 669 - ENGINEERING PHYSIOLOGY</u>	3 credits
<u>BME 670 - INTRO TO BIOMECH ENGR</u>	3 credits
<u>BME 671 - BIOMECH OF HUM STR MOTN</u>	3 credits
<u>BME 672 - BIOMATERIALS</u>	3 credits
<u>BME 698 - ST:ADV CAD FOR ORTHOPEDIC DEVICE</u>	3 credits
<u>BME 698 - ST:ADV CHARACTERIZTN OF BIOMATER</u>	3 credits

<u>BME 698 - ST:CAD FOR BIOMECH & BIOMATERIAL</u>	3 credits
<u>BME 698 - ST:INSTRUMENTATION PHYSIO MEASUR</u>	3 credits
<u>BME 698 - ST:INTRO TO BIOMEMS & MICROFLUID</u>	3 credits
<u>BME 698 - ST:MEDICAL DEVICE DESIGN</u>	3 credits
<u>BME 698 - ST:MEDICAL IMAGING</u>	3 credits
<u>BME 698 - ST:NEUROMUSCULAR ENGINEERING</u>	3 credits
<u>BME 651 - PRINCIPLES OF TISSUE ENGINEETING</u>	3 credits
<u>BME 661 - NEURAL ENGINEERING</u>	3 credits
<u>BME 687 - MEDICAL INSTRUMENTATION</u>	3 credits
<u>BME 698 - ST:BIOMEDICAL SIGNAL PROC & ACQ</u>	3 credits
<u>BME 698 - ST:BIOMEMS DESIGN & RESEARCH</u>	3 credits
<u>BME 698 - ST:BIROBOTICS</u>	3 credits
<u>BME 698 - ST:CARDIOAVASCULAR MECHANICS</u>	3 credits
<u>BME 698 - ST:CELL & MOLECULAR TISSUE ENGR</u>	3 credits
<u>BME 698 - ST:EXPERIMENTAL DESIGN</u>	3 credits
<u>BME 698 - ST:INTRO COMPUTATIONAL BIOMECH</u>	3 credits
<u>BME 698 - ST:INTRO TO CAD-ORTHOPEDIC DEVIC</u>	3 credits
<u>BME 698 - ST:MEDICAL IMAGE INST & PROCESS</u>	3 credits
<u>BME 698 - ST:MODELING PHYSIOLOGICAL SYSTEM</u>	3 credits
<u>BME 698 - ST:ORTHOPEDIC MEDICAL DEVICES</u>	3 credits

BME 698 - ST:SEM NEUROMUSCULAR REHAB 3 credits

BME 698 - ST:VIRTUAL BIOMED INSTRUMENTS 3 credits