

BME UNDERGRADUATE CURRICULUM

Biomechanics

FRESHMAN		units		units		units
Fall			Winter		Spring	
MAT 21A Calculus	4	MAT 21B Calculus	4	MAT 21C Calculus	4	
CHE 2A General Chemistry	5	CHE 2B General Chemistry	5	CHE 2C General Chemistry	5	
BIM 1 Intro to BME	2	BIS 2A Intro to Biology	5	PHY 9A Classical Physics	5	
Lower Division Composition	4	GE elective		GE elective		
SOPHOMORE						
Fall			Winter		Spring	
MAT 21D Vector Analysis	4	MAT 22A or MAT 27A Linear Algebra	3/4	MAT 22B or MAT 27B Differential Equations	3/4	
CHE 8A or CHE 118A Organic Chemistry	2/4	CHE 8B or CHE 118B Organic Chemistry	4	BIM 20 Fundamentals of Bioengineering	4	
PHY 9B Classical Physics	5	PHY 9C Classical Physics	5	BIM 20L Graphics Design for BME	2	
ENG 6 Eng. Problem Solving	4	GE elective		ENG 17/17V Circuits I	4	
JUNIOR						
Fall			Winter		Spring	
BIM 105 Probability & Data Science for BME	4	BIM 106 Biotransport Phenomena	4	BIM 108 Biomedical Signals & Control	4	
NPB 101 Physiology	5	BIM 107 Mfg Processes for BME	2	BIM 109 Biomaterials	4	
EE: ENG 35 Statics	4	ENG 100 Electronic Circuits & Systems or EEC 100 Circuits II	3/5	SE: EXB 101: Exercise Physiology	4	
Upper Division Composition Course=4 units, Exam=0 units	4/0	EE: ENG 102 Dynamics	4	2 GE electives		
SENIOR						
Fall			Winter		Spring	
BIM 110A BME Senior Design	3	BIM 110B BME Senior Design	3	BIM 110C BME Senior Design	3	
BIM 111 Biomedical Instrumentation Lab	6	EE: ENG 104 Mechanics of Materials	4	EE: EBS 128 Biomechanics/Ergonomics	4	
EE: BIM 174 Microcontroller App Lab	2	EE: BIM 172 Intro to Neuroengineering Lab	2	ENG 105 Thermodynamics	4	
SE: EXB 125 Neuromuscular & Behavioral Aspects of Motor Control	3	2 GE electives		ENG 190 Professional Responsibilities of Engineers	3	

Cellular-tissue Biomechanics - SE: BIM 202, 161A and EE: ENG 35, 102/104, BIM 141, 162, 163

Other courses: SE - CHA 101 and 101L Human Gross Anatomy (7 units) Winter or Spring

Other courses: EE - BIM Skills Modules – 172 Neuroengineering Lab, 174 Microcontrollers Lab,
177 Rapid Prototyping, BIM 178 Cell Culture Lab

June 24