

BME UNDERGRADUATE CURRICULUM

Medical Devices

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 Linear Algebra	3	MAT 22B Differential Equations	3
CHE 8A Organic Chemistry	2	CHE 8B Organic Chemistry	4	BIM 20 Fundamentals of Bioengineering	4
PHY 9B Classical Physics	5	PHY 9C Classical Physics	5	BIM 089C/20L* CAD for BME	2
ENG 6 MATLAB	4	EE: ENG 35 Statics	4	ENG 17 Circuits I	4
JUNIOR					
Fall		Winter		Spring	
BIM 105 Probability and Stats for BME	4	BIM 106 Biotransport	4	BIM 108 Biomedical Signals and Control	4
BIM 116 Physiology	5	ENG 100 Circuits II	3	BIM 109 Biomaterials	4
SE: ECS 32A	4	SE: ECS 32B	4	EE: BIM 167 Biomedical Fluid Mechanics	4
Upper Division Composition Course=4 units, Exam=0 units	4/0	EE: BIM 170 Aspects of Medical Device Design & Manufacturing	2	GE elective GE elective	
SENIOR					
Fall		Winter		Spring	
BIM 110L BME Senior Design Lab	2	BIM 110A BME Senior Design	3	BIM 110B BME Senior Design	3
BIM 111 Biomedical Instrumentation Lab	6	EE: BIM 120 Intro to Materials Science for BME	4	ENG 104 Mechanics of Materials	4
EE: BIM 171 Clinical Applications for Biomedical Device Design	4	EE: BIM 189C Intro to Rapid Prototyping	2	GE elective	
EE: ENG 105 Thermodynamics	4	ENG 190 Professional Responsibility Engineers	3	GE elective	
		GE elective			

***BIM 089C/BIM 20L must be taken concurrently with BIM 20**

Other courses: EE - BIM Skills Modules – 174 Microcontrollers, 189C/175 Metalworking, 176 Microfluidics,
189C Neuroengineering
ENG 102 Dynamics

September 2019