

BME UNDERGRADUATE CURRICULUM
Cellular & Tissue

FRESHMAN	units	Winter	units	Spring	units
Fall					
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: BIM 102 or 161A(odd)** or BIS 102 Cellular Dynamics or Biomolecular Engineering or Biochemistry		EE: BIM 141 Cell & Tissue Mechanics	4	EE: BIM 140 Protein Engineering	4
Upper Division Composition Course=4 units, Exam=0 units	4/0	GE elective 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	ENG 105 Thermodynamics	4	ENG 190 Professional Responsibility Engineers	3
EE: BIM 173 Cell and Tissue Engineering or BIM 162 Biophysics Molecules/Cells		EE: BIM 145 Immuno-engineering or BIM 120 Intro to Materials Science for BME	4	EE: BIM 163 Bioelectricity, Biomechanics and Signaling Systems or BIM 167 Biomedical Fluid Mechanics	4
SE: BIM 102 or 161A(odd)** or BIS 102 Cellular Dynamics or Biomolecular Engineering or Biochemistry		GE elective		GE elective	

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

****BIM 161A Biomolecular Engineering (odd years)**

Other courses: EE - BIM Skills Modules – 174 Microcontrollers, 189C/175 Metalworking, 176 Microfluidics, 189C Neuroengineering, 189C Rapid Prototyping.

September 2019