

**BME UNDERGRADUATE CURRICULUM**
**Cellular & Tissue**

<b>FRESHMAN</b>		units		units		units
<b>Fall</b>			<b>Winter</b>		<b>Spring</b>	
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	
<b>SOPHOMORE</b>						
<b>Fall</b>			<b>Winter</b>		<b>Spring</b>	
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	ENG 17 Circuits I	4
ENG 6 MATLAB	4		EE: ENG 35 Statics	4	GE elective	
<b>JUNIOR</b>						
<b>Fall</b>			<b>Winter</b>		<b>Spring</b>	
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	ENG 105 Thermodynamics	4
Upper Division Composition Course=4 units, Exam=0 units	4/0		GE elective		GE elective	
<b>SENIOR</b>						
<b>Fall</b>			<b>Winter</b>		<b>Spring</b>	
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 120/189C Intro to Materials Science for BME	4	ENG 190 Professional Responsibility Engineers	3
EE: BIM 173 Cell and Tissue Engineering or BIM 162 Biophysics Molecules/Cells	4		EE: BIM 145/189A Immuno-engineering	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	

\*Offered alternate years: BIM 161A Biomolecular Engineering (odd)

Additional courses: (EE) BIM 152 Molecular Control of Biosystems, BIM 167 Biomedical Fluid Mechanics, BIM 174/189C Microcontroller Applications Lab, BIM 189C/175 Advanced Manufacturing: Welding & Metalworking, (SE) BIS 102,103,104, CHE 130A (Pharm Chem - prereq CHE 118C)