

Biomedical Engineering: Cellular Engineering

	Session	Course #	Course Title	sh	Pre-Requisite and/or Co-Requisite	✓
Semester 1						
Fall	All	MATH:1550	Engineering Math I – Single Variable Calculus	4	ALEKS Score of 75 or higher OR MPT 3 Score of 9 or higher	
	F/S	ENGR:1100	Introduction to Engineering Problem Solving	3		
	All	CHEM:1110	Principles of Chemistry I & Lab	4		
	All	RHET:1030	Rhetoric	4		
	F	ENGR:1000	Engr Success for First-Year Students	1*	Status: First Year	
			Total	16		
Semester 2						
Spring	All	MATH:1560	Engineering Math II – Multivariable Calculus	4	P: MATH:1550	
	All	MATH:2550	Engineering Math III – Matrix Algebra	2	P: MATH:1550	
	F/S	ENGR:1300	Introduction to Engineering Computing	3	C: MATH:1550	
	All	PHYS:1611	Introductory Physics I with Lab	4	C: MATH:1550	
	All	CHEM:1120	Principles of Chemistry II & Lab	4	P: CHEM:1110	
	S	BME:1010	BME Forum	1*	Status: First Year	
			Total	18		
Semester 3						
Fall	All	MATH:2560	Engineering Math IV – Differential Equations	3	P: MATH:1560, MATH:2550	
	All	BIOL:1411	Foundations of Biology	4	P: CHEM:1110	
	All	ENGR:2110	Engineering Fundamentals I – Statics	2	P: MATH:1550; C: MATH:1560, PHYS:1611	
	All	ENGR:2120	Engineering Fundamentals II – Electrical Circuits	3	C: MATH:2560	
	All	ENGR:2130	Engineering Fundamentals III – Thermodynamics	3	P: CHEM:1110, PHYS:1611; C: MATH:1560	
	F/S	BME:2010	BME Professional Seminar	1*	Status: Second Year	
			Total	16		
Semester 4						
Spring	All	HHP:3500	Human Physiology	3	P: BIOL:1411, CHEM:1110	
	F/S	BME:2200	Systems, Instrumentation, & Data Acquisition / Lab	4	P: ENGR:2120; C: HHP:3500, BIOS:4120 (STAT:3510)	
	All	ENGR:2750	TR#1: Mechanics of Deformable Bodies	3	P: ENGR:2110; C: MATH:2560	
			TE#1: Track Elective #1	4		
	All	BIOS:4120	Intro to Biostatistics (or STAT:3510 Biostatistics)	3		
	F/S	BME:2010	BME Professional Seminar	1*	Status: Second Year	
			Total	18		
Semester 5						
Fall	F	BME:2110	Cell Biology for Engineers / Lab	3	P: BIOL:1411; C: BIOS:4120 (STAT:3510)	
	All	ENGR:2730	TE#2: Track Elective #2	3		
	F/S	BME:2500	Biomaterials & Biomechanics / Lab	4	P: ENGR:2110; C: HHP:3500, BIOS:4120 (STAT:3510)	
			TE#3: Track Elective #3	3		
	All		GEC Elective #1	3		
	F	BME:3010	Leadership and Resourcefulness	1*	Status: Third Year	
			Total	17		
Semester 6						
Spring	S	BME:5421	TR#2: Cell Material Interactions	3	P: BME:2110	
	F/S	BME:2210	Bioimaging & Bioinformatics / Lab	4	P: ENGR:1300, BIOL:1411; C: BIOS:4120 (STAT:3510)	
			TE#4: Track Elective #4	3		
			TE#5: Track Elective #5	3		
	All		GEC Elective #2	3		
	S	BME:4010	BME Design Seminar	1*	Status: Third Year	
			Total	17		
Semester 7						
Fall	F	BME:4910	BME Design I	4	P: Senior Status, BIOS:4120 (STAT:3510)	
	F	BME:5430	TR#3: Biotransport	3	P: BME:2500	
			TE#6: Track Elective #6	3		
	All		GEC Elective #3	3		
	All		GEC Elective #4	3		
			Total	16		
Semester 8						
Spring	S	BME:4920	BME Design II	4	P: BME:4910	
	S	BME:5435	TR#4: Systems Biology for BME	3	P: BME:2110, BME:2200	
			TE#7: Track Elective #7	3		
	F/S	PHYS:1612	Introductory Physics II with lab	4	P: PHYS:1611; C: MATH:1560	
	All		GEC Elective #5	3		
			Total	17		

* 1sh; does not count toward 128 sh total required for graduation

Note: Two Track Electives must be Engineering topics courses

Please check MyUI for the most up to date course offerings and pre/corequisites