

BIOMEDICAL ENGINEERING CURRICULUM

Bachelor of Science - Biomaterials Track

NAME: _____ ID: _____ DATE: _____ Student Type: _____ Admit Term: _____

1st Year (Fall)	Prerequisite	Cr	Semester	1st Year (Spring)	Prerequisite	Cr	Semester
Chem 125 Chem I	None	3		Chem 126 Chem II	Chem 125	3	
BME 111 - Intro to Phys	None	3		Chem 124 Chem Lab	Chem 126	1	
Writ, Speak, Think I: HUM 101	None	3		FED 101	None	2	
Math 111 Calc I	None	4		Wri, Speak, Think II: HUM 102	Hum 101	3	
Phys 111 Physics I	Phys 111A, Math 111/*	3		Math 112 Calc II	Math 111	4	
Phys 111A Phys I Lab	Phys 111A*	1		Phys 121 Physics II	Phys 111, Phys 121A*, Math 112*	3	
BME 101- Freshman Seminar F		0		Phys 121A Phys. II Lab	Phys 111A	1	
		17				17	
2nd Year (Fall)	Prerequisite	Cr	Semester	2nd Year (Spring)	Prerequisite	Cr	Semester
Math 211(13) Calc IIIA	Math 112	3		Math 222 Diff Equations	Math 112	4	
Engr Prob & Stat: Math 279 (333)	Math 112	2		CHEM 243 Org Chem	CHEM 126	3	
BME 301 - Electrical Fund U	C in MATH 112, PHYS 121*	3		BME 302 - Mech Fund U	C in MATH 112, PHYS 121	3	
BME 303 - Biological Fund F	C in BME 111, CHEM 126	3		BME 304 - Material Fund	C in BME 111, CHEM 126	3	
CS101 or BIOINF 135	None	3		2xx GUR:ECON/EPS/ST	None or HUM 102	3	
HUM/His 2XX	Hum 102	3		PE 1xx/2xx	None	1	
		17				17	
3rd Year (Fall)	Prerequisite	Cr	Semester	3rd Year (Spring)	Prerequisite	Cr	Semester
MATH 337 Linear Algebra	MATH 112	3		HUM 3XX - Open Hum Elect	HUM 102 & HUM/HIST 2x	3	
CHEM244 Organic Chemistry II	CHME243	3		PE 1xx/2xx	None	1	
CHE210 Chemical Proc. Calc. I	CHEM 126	2		CHE230 Chem. Eng. Thermo		3	
BME 310 Biomed Computing	C in BME 111&BME 301, CS101	3		BME420 Adv. BiomatSci S	BME302,BME 304, MATH222, & MTSE 30	3	
MTSE301 Princ. Mat. Sci. & Eng.	CHEM126, MATH 112, & PHYS 121	3		BME382 Eng Mod Phys Sys	BME301,BME302, MATH222, C in BME111	3	
2xx GUR:ECON/EPS/ST	None or HUM102	3		BME385 Cell & Biomat Lab	C in BME111,BME301, BME302, MATH222, BME303, and BME 304	3	
		17				16	
4th Year (Fall)	Prerequisite	Cr	Semester	4th Year (Spring)	Prerequisite	Cr	Semester
Engineering Track Elective	VARIOUS	3		BME422 - Biomat. Charact. S	C in MATH112 & PHYS121,BME304,N	3	
Nonengineering Track Elective	VARIOUS	3		BME427 Biotransport S	CHE230 & MATH222	3	
BME383 Meas Lab Phys Sys U	BME302,BME 310,& MATH 279	3		BME 496 Capstone Design II	BME 495	3	
MGMT390 - Pric of Management	Junior Standing	3		Capstone HSS 4XX	Senior Standing	3	
BME 495 Capstone Design I	BME 372 OR MTSE 301 OR (MECH (BME303 or RT20:102)	3		3XX HUM:LIT/HIST/PHIL/STS	HUM 102 & HUM/HIST 2xx	3	
BME430 Tissue Engineering F	BME304, MATH 222, MTSE 301	3					
		18				15	
Additional Coursework	Prerequisite	Cr	Semester	Additional Coursework	Prerequisite	Cr	Semester
All courses are offered Fall and Spring semester unless otherwise labeled: (F -Fall only; S -Spring only; U -also offered Summer)						TOTAL CREDITS	
						134	
<i>Elective courses: OPSE 410, BME 321, BME 384, BME 351, BME 451, BME 478, IE 355, IE 449, BME 491, BME 492, OPSE 301, BME 479, BME 6xx Master's Level Engineering - Excluding BME 651 and BME 672), MATH 3xx/4xx Upper Level Mathematics Course - Excluding MATH 346, CHEM 473</i>							