

# BIOMEDICAL ENGINEERING CURRICULUM

## Bachelor of Science - Pre-Health 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 <b>F</b>		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 <b>U</b>	C in MATH 112, PHYS 121	3		BME 302 - Mech Fund <b>U</b>	C in MATH 112, PHYS 121	3	
BME 304 - Material Fund	C in BME 111, CHEM 126	3		R120:101 BioII	None	4	
CS101 or BIOINF 135	None	3		STS221 Sociology	None	3	
R120:101 BioI	None	4		PE 1xx/2xx	None	1	
STS210 GUR	HUM102	3					
		21				18	
3rd Year (Fall)	Prerequisite	Cr	Semester	3rd Year (Spring)	Prerequisite	Cr	Semester
MATH 337 Linear Algebra	MATH 112	3		CHEM473 Biochemistry I	C in Chem244	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 <b>U</b>	C in BME 111 & BME 301, CS101	3		BME420 Adv. Biomat. Science	BME302, BME 304, MATH222, & MTSE 301	3	
MTSE301 Princ. Mat. Sci. & Eng	CHEM126, MATH 112, & PHYS 121	3		BME382 Eng Mod Phys Sys	BME301, BME302, MATH222, C in BME111	3	
				BME385 Cell & Biomat Lab	C in BME111, BME301, BME302, MATH222	3	
		14				16	
4th Year (Fall)	Prerequisite	Cr	Semester	4th Year (Spring)	Prerequisite	Cr	Semester
HUM/His 2XX	Hum 102	3		BME422 - Biomat. Charact. <b>s</b>	C in MATH112 & PHYS121, BME304 & MTSE301	3	
Engineering Track Elective	VARIOUS	3		BME427 Biotransport <b>s</b>	CHE230 & MATH222	3	
BME383 Meas Lab Phys Sys <b>U</b>	BME302, BME 310, & MATH 279	3		BME 496 Capstone Design II	BME 495	3	
BME 495 Capstone Design I	BME 372 OR MTSE 301 OR (MECH 236 & BME321)	3		Capstone HSS 4XX	Senior Standing	3	
BME430 Tissue Engineering <b>F</b>	BME302, (BME303 or R120:102), BME 304, MATH 222, MTSE 301	3		MGMT390 - Pric of Managem	Junior Standing	3	
HUM 3XX - Open Hum Elect	HUM 102 & HUM/HIST 2x	3					
		18				15	
Additional Coursework	Prerequisite	Cr	Semester	Additional Coursework	Prerequisite	Cr	Semester
All courses are offered Fall and Spring semester unless otherwise labeled: ( <b>F</b> -Fall only; <b>S</b> -Spring only; <b>U</b> -also offered Summer)						<b>TOTAL CREDITS</b>	
						136	
<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>							