

BIOMEDICAL ENGINEERING CURRICULUM

BACHELOR OF SCIENCE IN BME -ACCELERATED PREHEALTH TRACK - FALL 2021 AND LATER

NAME: _____

ID: _____

1st Year (Fall)	Prerequisite	Cr	Semester	1st Year (Spring)	Prerequisite	Cr	Semester
Chem 125 Chem I	None	3		BME 101- Freshman Seminar S		0	
Chem 125A Chem Lab	co-req CHEM125	1		Chem 126 Chem II	Chem 125	3	
Math 111 Calc I	None	4		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	3	
FED 101	None	2		Phys 121A Phys. II Lab	Phys 111A	1	
HUM 101 Writ, Speak, Think I:	None	3		BME 111 - Intro to Anatomy and Pl	None	3	
		17				17	
1st Year (Summer)	Prerequisite	Cr	Semester				
Engr Prob & Stat: Math 279 (333)	Math 112	2					
CHEM 243 Org Chem	CHEM 126	3					
Liberal Arts Literacy 2XX	VARIOUS	3					
		8					
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	
R120:101 BioI or Biol205/206 **	None	4		CHEM473 Biochemistry I	C in Chem244	3	
BME 301 - Electrical Fund U	C in MATH 112, PHYS 121	3		BME 210 Biomed Computing U	C in BME111, BME 301, CS101	3	
BME 302 - Mech Fund U	C in MATH 112, PHYS 121	3		Liberal Arts Literacy 3XX	HUM102 or Math 279/333	3	
BME 304 - Material Fund	C in PHYS 111, CHEM 126	3		R120:102 BioII or R120:201 ***	None	4	
CHEM244 Organic Chemistry II	CHME243	3		BME491 **or 2nd year summer	Advisor Approval	3	
CHEM244A Orgo Lab **		2					
		21				20	
3rd Year (Fall)	Prerequisite	Cr	Semester	3rd Year (Spring)	Prerequisite	Cr	Semester
BME382 Eng Mod Phys Sys	BME301,BME302, MATH222, C in BME111	3		BME383 Meas Lab Phys Sys U	BME302,BME 310,& MATH 279	3	
Engineering Track Elective	VARIOUS	3		BME 496 Capstone Design II	BME 495	3	
Engineering Track Elective	VARIOUS	3		Capstone HSS 4XX	Senior Standing	3	
Engineering Track Elective	VARIOUS	3		Management GER - IE492	VARIOUS	3	
Engineering Track Elective	VARIOUS	3		Engineering Track Elective	VARIOUS	3	
BME 495 Capstone Design I	BME372 OR MTSE301 OR (MECH236 & BME320) OR (MECH236 & BME321) OR	2		Engineering Track Elective	VARIOUS	3	
Liberal Arts Literacy 3XX	BME 386	3					
		20				18	
All courses are offered Fall and Spring semester unless otherwise labeled: (F -Fall only; S -Spring only; U -also offered Summer)						TOTAL CREDITS	121
Additional Coursework	Prerequisite	Cr	Semester	Additional Coursework	Prerequisite	Cr	Semester

** this course is not required for accredited BME curriculum

*** lab component of this course not required for accredited BME curriculum

Engineering Elective: Technical elective courses with sufficient engineering content: Generally any 300-level or higher courses with prefix BME, ME, CHE, EE, OPSE (excluding MECH320)

Advanced Science Elective: Generally any 300-level or higher science course with prefix CS, BIOL, MATH, PHYS, CHEM, IE, MTSE **exceptions apply, check with your academic advisor

Liberal Arts Literacy: A comprehensive list of 200 level GER courses: bit.ly/2TL9wXO and 300 level: bit.ly/2WG0mhc.

The BME department recommends STS221 or STS352 and STS359 for MCAT preparation

***Students who score a 5 on the AP Biology exam are recommended to take a higher level Biology sequence: Biol205/206 and Biol201/202, see advisor