

COLLEGE OF ENGINEERING

Bachelor of Science, Biomedical Engineering

Four-Year Academic Map 2024-2025

YEAR 1	Semester 1 Fall			Semester 2 Spring			Total	
	ENGI 1100	Introduction to Engineering	1	ENGI 1331	Computing for Engineers	3		
	BIOL 1306	Biology for Science Majors I*	3	BIOL 1307	Biology for Science Majors II	3		
	BIOL 1106	Biology for Science Majors I (lab)	1	BIOL 1107	Biology for Science Majors II (lab)	1		
	ENGL 1301	First Year Writing I*	3	PHYS 2325	University Physics I	3		
	CHEM 1311	Fundamentals of Chemistry*	3	CHEM 1312	Fundamentals of Chemistry 2	3		
	CHEM 1111	Fundamentals of Chemistry Lab	1	CHEM 1112	Fundamentals of Chemistry Lab	1		
	MATH 2413	Calculus I*	4	MATH 2414	Calculus II*	4		
Semester Hours			16	Semester Hours			18	34

YEAR 2	Semester 1 Fall			Semester 2 Spring			Total	
	BIOE 2100	Intro to Biomedical Engineering	1	ECE 2201	Circuit Analysis I	2		
	CHEM 2323	Organic Chemistry I	3	BIOE 2331	Biomedical Processes	3		
	CHEM 2123	Organic Chemistry Lab I	1	BCHS 3304	General Biochemistry I	3		
	Math 2415	Calculus III	4	MATH 3321	Engineering Mathematics	3		
	PHYS 2326	University Physics II	3	CORE	Social and Behavioral Sciences*	3		
	ENGL 1302	First year Writing II*	3	CORE	Creative Arts*	3		
	Semester Hours			15	Semester Hours			17

YEAR 3	Semester 1 Fall			Semester 2 Spring			Total	
	GOVT 2306	U.S. & TX Constitution & Politics*	3	BIOE 3341	Biothermodynamics	3		
	MECE 3400	Intro to Mechanics	4	BIOE 4302	Numerical Analysis for BIOE	3		
	INDE 2333	Engineering Statistics I	3	BIOE Elect	BIOE Technical Elective	3		
	ENGI 2304	Technical Communications*	3	BIOE 3340	Quantitative Physiology	3		
	HIST 1301	The United States to 1877*	3	BIOE 3140	Quantitative Physiology Lab	1		
				HIST 1302	The United States Since 1877*	3		
	Semester Hours			16	Semester Hours			16

YEAR 4	Semester 1 Fall			Semester 2 Spring			Total	
	BIOE 4335	Capstone Design I	3	BIOE 4336	Capstone Design II	3		
	BIOE 4315	Intro to Bioinstrumentation	3	BIOE 4350	Genomic and Proteomic Engineering	3		
	BIOE 4115	Intro to Bioinstrumentation Lab	1	BIOE 4150	Genomic and Proteomic Engineering Lab	1		
	BIOE Elect	BIOE Technical Elective	3	BIOE Elect	BIOE Technical Elective	3		
	BIOE Elect	BIOE Technical Elective	3	BIOE Elect	BIOE Technical Elective	3		
	GOVT 2305	U.S. Government*	3	CORE	Language, Philosophy & Culture*	3		
	Semester Hours			16	Semester Hours			16
							130	

*State of Texas Core Curriculum

Students should meet with their academic advisor to formulate their own plan.