

BIOMEDICAL ENGINEERING (BME)
Program of Study — Catalog Year 2019-2020

		Fall Semester				Spring Semester				
		Terms Offered	Course	Course Title	Hrs.	Terms Offered	Course	Course Title	Hrs.	
Freshman	F, Sp, Su	CH 115/116	General Chemistry I/Lab	4	F, Sp, Su	BY 123	Introductory Biology I	4		
	F	EGR 110 ¹	Introduction to Engineering I	1	F, Sp, Su	CH 117/118	General Chemistry II/Lab	4		
	F, Sp, Su	EH 101	English Composition I	3	Sp	EGR 111 ¹	Introduction to Engineering II	1		
	F, Sp, Su	MA 125	Calculus I	4	F, Sp, Su	EH 102	English Composition II	3		
	F, Sp, Su	ME 102	Engineering Graphics	2	F, Sp, Su	MA 126	Calculus II	4		
	Total Credits					14	Total Credits: 16			
Sophomore	F, Sp, Su	BY 210	Genetics	3	Sp	BME 210	Engineering in Biology	3		
	F, Sp	EGR 265 ²	Math Tools for Engineering Problem Solving	4	F, Sp, Su	CE 210	Statics	3		
	F, Sp, Su	PH 221/L	General Physics I/Lab	4	F, Sp, Su	EE 312	Electrical Systems	3		
	F, Sp	MA 260	Introduction to Linear Algebra	3	F, Sp, Su	EGR 150	Computer Methods in Engineering	3		
	F, Sp, Su	MSE 280	Engineering Materials	3	F, Sp, Su	PH 222/L	General Physics II/Lab	4		
	Total Credits					17	Total Credits: 16			
Junior	F	BME 310	Biomaterials	3	Sp	BME 333	Biomechanics of Solids	3		
	F	BME 312	Biocomputing	3	Sp	BME 340	Bioimaging	3		
	F	BME 313	Bioinstrumentation	3	Sp	BME 350	Biological Transport Phenomena	3		
	F	BY 409	Principles of Human Physiology	4	Sp	BME 423	Living Systems Analysis	3		
	F, Sp, Su	ME 215	Dynamics	3	F, Sp, Su	HFA I ⁴	Core Curriculum Area II	3		
					F, Sp, Su	SBS I ⁴	Core Curriculum Area IV	3		
Total Credits					16	Total Credits: 18				
Senior	F	BME 498	Capstone Design I	3	Sp	BME 499	Capstone Design II	3		
	F, Sp	BME 4XX	BME Elective	3	F, Sp	BME 4XX	BME Elective	3		
	F, Sp	BME 401 ⁵	BME Seminar	1	F, Sp, Su	HFA III ⁴	Core Curriculum Area II	3		
	F, Sp, Su	Elective ³	MA/SCI/EGR/BME Elective	3	F, Sp, Su	SBS II ⁴	Core Curriculum Area IV	3		
	F, Sp, Su	Elective ³	MA/SCI/EGR/BME Elective	3	F, Sp, Su	SBS III ⁴	Core Curriculum Area IV	3		
	F, Sp, Su	HFA II ⁴	Core Curriculum Area II	3						
Total Credits					16	Total Credits: 15				

¹ Transfer students substitute EGR 200 (2hrs) for EGR 110/111

² May substitute MA 227 and MA 252 for EGR 265 and one MA/SCI/EGR/BME elective

³ Students using this curriculum as a pre-health professional program (pre-med, pre-dental or pre-optometry) may use CH 235, CH 237, or CH 460 for this elective

⁴ Please refer to the Core Curriculum as specified for engineering majors

⁵ May be taken any semester