

BIOMEDICAL ENGINEERING (BME)

Program of Study — Catalog Year 2020-2021

Fall Semester					Spring Semester				
	Terms Offered	Course	Course Title	Hrs.		Terms Offered	Course	Course Title	Hrs.
Freshman	F, Sp, Su	CH 115/R/116	General Chemistry I/Lab	4	F, Sp, Su	BY 123/L	Introductory Biology I/Lab	4	
	F	EGR 110 ¹	Introduction to Engineering I	1	F, Sp, Su	CH 117/R/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/R/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/R/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, Su	BY 409/L	Principles of Human Physiology/Lab	4	Sp	BME 423	Living Systems Analysis	3	
	F, Sp, Su	ME 215/R	Dynamics	3	F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	3	
					F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	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	Biomedical Engineering Elective	3	F, Sp	BME 4XX	Biomedical Engineering Elective	3	
	F, Sp	BME 401 ⁵	Biomedical Engineering Seminar	1	F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	3	
	F, Sp, Su	Elective ^{2,3}	MA/SCI/EGR/BME Elective	3	F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	3	
	F, Sp, Su	Elective ³	MA/SCI/EGR/BME Elective	3	F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	3	
	F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	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