## **BIOMEDICAL ENGINEERING (BME)**

Program of Study — Catalog Year 2023-2024

	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 200 <sup>1</sup>	Introduction to Engineering	3	F, Sp, Su	CH 117/R/118	General Chemistry II/Lab	4
	F, Sp, Su	EH 101	English Composition I	3	Sp	EGR 194	Engineering Explorations	1
	F, Sp, Su	MA 125/L	Calculus I/Lab	4	F, Sp	EGR 103	Computer-Aided Graphics & Design	3
					F, Sp, Su	MA 126	Calculus II	4
		-	Total Credits	14		-	Total Credits:	16
Sophomore	F, Sp, Su	BY 210/L <sup>6</sup>	Genetics/Lab	4	Sp	BME 210	Engineering in Biology	3
	F, Sp	EGR 265 <sup>2</sup>	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	EGR 150	Computer Methods in Engineering	3
	F, Sp	MSE 280	Engineering Materials	3	F, Sp, Su	PH 222/R/L	General Physics II/Lab	4
			Total Credits	18			Total Credits:	16
Junior	F	BME 310	Biomaterials	3	Sp	BME 333	Biomechanics of Solids	3
	F	BME 312	Biocomputing	3	Sp	BME XXX	Biomedical Engineering Elective	3
	F	BME 313	Bioinstrumentation	3	Sp	BME 350	Biological Transport Phenomena	3
	F	BME 370	Integrated Physiology	3	Sp	BME 423	Living Systems Analysis & Biostatistics	3
	F, Sp, Su	ME 215/R	Dynamics	3	F, Sp, Su	EH 102	English Composition II	3
					F, Sp, Su	Blazer Core <sup>4</sup>	Creative Arts	3
	Total Credits 15 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 <sup>5</sup>	Biomedical Engineering Seminar	1	F, Sp, Su	Blazer Core <sup>4</sup>	History & Meaning	3
	F, Sp, Su	Elective <sup>2,3</sup>	MA/SCI/EGR/BME Elective	3	F, Sp, Su	Blazer Core <sup>4,7</sup>	City as a Classroom	3
	F, Sp, Su	Elective <sup>3</sup>	MA/SCI/EGR/BME Elective	3	F, Sp, Su	Blazer Core <sup>4</sup>	Reasoning	3
	F, Sp, Su	Blazer Core <sup>4</sup>	Humans & Their Societies	3				
	Total Credits			16			Total Credits:	15

<sup>1</sup> EGR 200 preferred, other FYE courses accepted

6 May substitute BY 115/L

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

<sup>3</sup> 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

<sup>4</sup> Please refer to the Blazer Core as specified for engineering majors

<sup>5</sup> May be taken any semester

7 CE 280 preferred, other CAC accepted