

MATERIALS ENGINEERING (MSE)
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	CH 117/R/118	General Chemistry II/Lab	4	
	F	EGR 200 ¹	Introduction to Engineering	3	Sp	EGR 194	Engineering Explorations	1	
	F, Sp, Su	EH 101	English Composition I	3	F, Sp	EGR 103	Computer-Aided Graphics & Design	3	
	F, Sp, Su	MA 125/L	Calculus I/Lab	4	F, Sp, Su	MA 126	Calculus II	4	
					F, Sp, Su	PH 221/R/L	General Physics I and Lab	4	
	Total Credits				14	Total Credits			
Sophomore	F, Sp, Su	CE 210	Statics	3	F, Sp	CE 220	Mechanics of Solids	3	
	F, Sp	EGR 265 ²	Math Tools for Engineering Problem Solving	4	F, Sp, Su	EE 312	Electrical Systems	3	
	F, Sp	MSE 280	Engineering Materials	3	F, Sp	ME 251	Introduction to Thermal Sciences	2	
	F, Sp, Su	PH 222/R/L	General Physics II and Lab	4	F, Sp	MSE 281/L	Physical Materials I/Lab	4	
	F, Sp, Su	EH 102	English Composition II	3	F, Sp	EGR 150	Computer Methods in Engineering	3	
					F, Sp, Su	Blazer Core ³	Reasoning	3	
	Total Credits				17	Total Credits			
Junior	F	MSE 425	Statistics and Quality	3	F, Sp, Su	MA/SCI ^{2,4}	Math/Science Elective	3	
	F	MSE 380	Thermodynamics of Materials	3	Sp	MSE 382	Mechanical Behavior of Materials	3	
	F	MSE 381	Physical Materials II	3	Sp	MSE 470/L	Ceramic Materials/Lab	4	
	F	MSE 401	Materials Processing	3	F, Sp, Su	Blazer Core ³	Creative Arts	3	
	F	MSE 465/L	Materials Characterization/Lab	4	Sp	MSE 464/L	Metals and Alloys/Lab	4	
	Total Credits				16	Total Credits			
Senior	F	MSE 413	Composite Materials	3	Sp	MSE 430/L	Polymeric Materials/Lab	3	
	F, Sp, Su	Elective ⁴	MA/SCI/EGR Elective	3	Sp	MSE 499	Capstone Design Project II	3	
	F	MSE 498	Capstone Design Project I	3	F, Sp, Su	MSE 4XX ⁴	Materials Engineering Elective	3	
	F, Sp, Su	Blazer Core ^{3,5}	City as a Classroom	3	F, Sp, Su	Elective ⁴	MA/SCI/EGR Elective	3	
	F, Sp, Su	Blazer Core ³	Humans & Their Societies	3	F, Sp, Su	Blazer Core ³	History & Meaning	3	
	Total Credits				15	Total Credits			

1 EGR 200 preferred, other FYE courses accepted

2 May substitute MA 227 and MA 252 for EGR 265 and MA/SCI Elective

3 Please refer to the Blazer Core as specified for Engineering Majors

4 Course must be approved by MSE Undergraduate Curriculum Coordinator

5 CE 280 preferred, other CAC courses accepted