

MATERIALS ENGINEERING (MSE)
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/Laboratory	4	F, Sp, Su	CH 117/118	General Chemistry II/Laboratory	4	
	F	EGR 110 ¹	Introduction to Engineering I	1	Sp	EGR 111	Introduction to Engineering II	1	
	F, Sp, Su	EH 101	Written Composition I	3	F, Sp, Su	EH 102	Written Composition II	3	
	F, Sp, Su	MA 125	Calculus I	4	F, Sp, Su	MA 126	Calculus II	4	
	F, Sp, Su	ME 102	Engineering Graphics	2	F, Sp, Su	PH 221/L	General Physics I and Laboratory	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, Su	MSE 280	Engineering Materials	3	F, Sp	ME 251	Introduction to Thermal Sciences	2	
	F, Sp, Su	PH 222/L	General Physics II and Laboratory	4	F, Sp	MSE 281	Physical Materials I	4	
	F, Sp, Su	HU/SS 1 ³	Area II/IV Core Curriculum	3	F, Sp, Su	EGR 150	Computer Methods in Engineering	3	
	Total Credits				17	F, Sp, Su	HU/SS 2 ³	Area II/IV Core Curriculum	3
Total Credits				17	Total Credits				18
Junior	F	CE 344 ⁵	Engineering Analysis I	3	F, Sp, Su	SM XXX ⁴	SCI/MA Elective	3	
	F	MSE 380	Thermodynamics of Materials	3	Sp	MSE 382	Mechanical Behavior	3	
	F	MSE 381	Physical Materials II	3	Sp	MSE 470	Ceramic Materials	4	
	F	MSE 401	Materials Processing	3	F, Sp, Su	HU/SS 3 ³	Area II/IV Core Curriculum	3	
	F	MSE 465	Materials Characterization	4	Sp	MSE 464	Metals and Alloys	4	
	Total Credits				16	Total Credits			
Senior	F	MSE 413	Composite Materials	3	Sp	MSE 430	Polymeric Materials	3	
	F, Sp, Su	SME XXX ⁴	SCI/MA/EGR Elective	3	Sp	MSE 499	Design Project II	3	
	F	MSE 498	Design Project I	3	F, Sp, Su	MSE 4XX	Materials Elective	3	
	F, Sp, Su	HU/SS 4 ³	Area II/IV Core Curriculum	3	F, Sp, Su	SME XXX ⁴	SCI/MA/EGR Elective	3	
	F, Sp, Su	HU/SS 5 ³	Area II/IV Core Curriculum	3	F, Sp, Su	HU/SS 6 ³	Area II/IV Core Curriculum	3	
	Total Credits				15	Total Credits			

1 Transfer students substitute EGR 200 (2 hrs) for EGR110/111

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

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

4 Course must be approved by MSE Undergraduate Curriculum Coordinator

5 May substitute EE 300 or PUH 250 for CE 344