

MECHANICAL ENGINEERING (ME)

Program of Study — Catalog Year 2022-2023

		Fall Semester				Spring Semester			
		Terms Offered	Course	Course Title	Hrs.	Terms Offered	Course	Course Title	Hrs.
Freshman	F	EGR 110 ¹	Introduction to Engineering I	1	Sp	EGR 111 ¹	Introduction to Engineering II	1	
	F, Sp, Su	EH 101	English Composition I	3	F, Sp, Su	EGR 150	Computer Methods in Engineering	3	
	F, Sp, Su	MA 125	Calculus I	4	F, Sp, Su	EH 102	English Composition II	3	
	F, Sp, Su	CH 115/R/116	General Chemistry I/Lab	4	F, Sp, Su	MA 126	Calculus II	4	
	F, Sp, Su	ME 102	Engineering Graphics	2	F, Sp, Su	PH 221/R/L	General Physics I and Lab	4	
						F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	3
Total Credits					14	Total Credits			18
Sophomore	F, Sp, Su	CE 210	Statics	3	F, Sp, Su	ME 215/R	Dynamics	3	
	F, Sp	EGR 265 ²	Math Tools for Engineering Problem Solving	4	F, Sp	CE 220	Mechanics of Solids	3	
	F, Su	ME 241/R	Thermodynamics I	3	F, Sp	CE 221	Mechanics of Solids Lab	1	
	F, Sp, Su	PH 222/R/L	General Physics II and Lab	4	Sp	ME 242	Thermodynamics II	3	
	F, Sp, Su	CH 117/R	General Chemistry II	3	F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	3	
						F, Sp, Su	MA/SCI ^{2,3}	Math/Science Elective	3
Total Credits					17	Total Credits			16
Junior	F	ME 321	Introduction to Fluid Mechanics	3	Sp	ME 322	Introduction to Heat Transfer	3	
	F	ME 364	Linear Algebra and Numerical Methods	3	Sp	ME 360	Intro to Mechatronic Systems Engineering	3	
	F	ME 370	Kinematics and Dynamics of Machinery	3	Sp	ME 361/L	Thermo-Fluids Systems and Lab	3	
	F, Sp, Su	MSE 280	Engineering Materials	3	Sp	ME 371	Machine Design	3	
	F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	3	F, Sp, Su	EE 312	Electrical Systems	3	
	Total Credits					15	Total Credits		
Senior	F	MSE 401	Manufacturing Processes	3	Sp	ME 499	Capstone Design Project II	3	
	F	ME 461/L	Mechanical Systems and Lab	3	Sp	CE 395	Engineering Economics	3	
	F	ME 498	Capstone Design Project I	3	F, Sp	ME 4XX ⁵	Mechanical Engineering Elective (2)	3	
	F, Sp	ME 4XX ⁵	Mechanical Engineering Elective (1)	3	F, Sp	ME 4XX ⁵	Mechanical Engineering Elective (3)	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	
	F, Sp, Su	HFA/SBS ⁴	Area II/IV Core Curriculum	3					
Total Credits					18	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 approved science or mathematics elective

3 Math/Science Elective chosen from approved list: BY 101, BY 108, BY 123, CH 235, ES 101, MA 180, MA 360, MA 361, MA 444, MA 445, MA 453, PH 351

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

5 One ME elective in each of these three areas is required: thermal-fluids, mechanical systems, and computer-aided engineering

- (1) Mechanical systems electives include: ME 430, ME 431, ME 432, ME 464, ME 475, ME 477, ME 478 and ME 480

(2) Thermal fluids electives include: ME 411, ME 421, ME 445, ME 447, ME 449, ME 454, ME 455, ME 456

(3) Electives with computer-aided engineering content include: ME 421, ME 456, ME 464