

MECHANICAL ENGINEERING (ME)
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	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 150	Computer Methods in Engineering	3
	F, Sp, Su	MA 125/L	Calculus I/Lab	4	F, Sp	EGR 103	Computer-Aided Graphics & Design	3
	F, Sp, Su	CH 115/R/116	General Chemistry 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, 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	EH 102	English Composition II	3
					F, Sp, Su	MA/SCI ^{2,3}	Math/Science Elective	3
Total Credits				17	Total Credits			
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	MSE 280	Engineering Materials	3	Sp	ME 371	Machine Design	3
	F, Sp, Su	Blazer Core ⁴	Reasoning	3	F, Sp, Su	EE 312	Electrical Systems	3
					F, Sp, Su	Blazer Core ⁴	Creative Arts	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	Blazer Core ^{4,6}	City as a Classroom	3	F, Sp, Su	Blazer Core ⁴	History & Meaning	3
	F, Sp, Su	Blazer Core ⁴	Humans & Their Societies	3				
Total Credits				18	Total Credits			

1 EGR 200 preferred; other FYE courses accepted

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 Blazer Core 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

6 CE 280 preferred; other CAC courses accepted

- (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