

Mechanical Engineering Curriculum

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
MATH 121 Calculus I Pr: (see catalog)	MATH 122 Calculus II Pr: MATH 121	MATH 220 Applied Differential Equations Pr: MATH 122	EECS 316 Circuits, Electronics and Instrumentation Pr: PHSX 212, MATH 220	ME 508 Num. Analysis Pr: ME 208, MATH 220, MATH 290	ME 455 Mech. Engr. Meas. & Exp. Pr: ME 208, ME 311, Math 365 Co: ME 520, ME 612, EECS 318, ME 510	General Ed. Comp. Elective ¹	General Ed. Comp. Elective ¹
Fall/Spring - 5 cr	Spring/Fall - 5 cr	Fall/Spring - 3 cr	Spring only - 3 cr	Fall only - 3 cr	Spring only - 4 cr	Fall/Spring - 3 cr	Spring/Fall - 3 cr
ENGL 101 Composition Pr: (see catalog)	ENGL 102 Critical Reading and Writing Pr: ENGL 101	MATH 290 Elementary Linear Algebra Pr: MATH 122	ME 412 Thermal Systems Pr: ME 312	ME 612 (CPE 521) Heat Transfer Pr: ME 312, MATH 220 Co: ME 510	ME 661 Finite Element Method for Stress Analysis Pr: ME 311, ME 508	General Ed. Comp. Elective	Approved Elective ²
Fall/Spring - 3 cr	Spring/Fall - 3 cr	Fall/Spring - 2 cr	Spring only - 3 cr	Fall/Spring - 3 cr	Spring only - 3 cr	Fall/Spring - 3 cr	Spring/Fall - 4 cr
ME 228 Computer Graphics Pr: None	ME 208 Intro. Digital Comp. Methods in M.E. Co: MATH 121 or 116	ME 312 (CPE 221) Basic Engr Thermodynamics Co: MATH 122, Pr: PHSX 211	ME 510 (CPE 511 or AE 345) Fluid Mechanics Pr: ME 201, ME 312	ME 420 Mechanisms Pr: PHSX 211	ME 520 Dynamics of Machinery Pr: ME 201, ME 420, MATH 220, MATH 290	ME 682 Control Systems Pr: ME 520	Approved Elective ²
Fall only - 3 cr	Spring only - 3 cr	Fall/Spring - 3 cr	Spring/Fall - 3 cr	Fall only - 3 cr	Spring Only - 3 cr	Fall Only - 3 cr	Spring/Fall - 3 cr
General Ed. Comp. Elective ¹ 3 cr	PHSX 211 Gen. Physics I Pr: MATH 121	ME 201 (CE 201) Statics Pr: PHSX 211	CHEM 125 College Chemistry Pr: None	ME 311 (CE 310) Mechanics of Mat'ls Pr: ME 201, MATH 220 Co: ME 307	ME 501 Mech. Engr. Design Process Pr: ME 311, ME 312, ME 228, ME 307	ME 628 Mech. Design II Co: ME 528, ME 520	Approved Elective ²
Fall/Spring - 3 cr	Spring/Fall - 4 cr	Fall/Spring - 2 cr	Spring only - 5 cr	Fall only - 4 cr	Spring only - 3 cr	Fall only - 3 cr	Spring/Fall - 3 cr
General Ed. Comp. Elective ¹		PHSX 212 Gen. Physics II Pr: PHSX 211 Co: MATH 122	EECS 318 Circuits and Electronics Lab Co: EECS 316	ME 306 Science of Materials Pr: CHEM 125 or CHEM 184	ME 528 Mechanical Design I Pr: ME 311	Capstone Design Option: A - List 1 Elective B - ME 627 C - ME 633 ⁴ D - ME 644 ⁷ E - List 1 Elective Fall Only - 3 cr	Capstone Design Option: A - ME 641 ⁵ B - ME 642 ³ C - ME 643 ⁶ D - List 1 Elective E - ME 645 ⁸ Spring Only - 3 cr
Fall/Spring - 3 cr		Fall/Spring - 4 cr	Spring only - 1 cr	Fall/Spring - 3 cr	Spring only - 3 cr		
		MATH 365 (or MATH 526 or CE 625 or DSCI 301) Statistics Pr: See Catalog Fall/Spring - 3 cr		ME 307 Engr. Materials Lab Pr: CHEM 125 Co: ME 311, ME 306 Fall Only - 1 cr			

Pr=Prerequisite Co=Corequisite cr=semester credit hour

¹ One course from each of the Communication, Contemporary Issues, Economics, Environmental Concern, and Ethics electives
² 6-13 credit hours from List 1 and 0-7 credit hours from List 2
³ Pr: ME 501, ME 627, and ME 628 Co: ME 412 and ME 455
⁴ Counts as List 1 Elective. Pr: ME 311 and ME 520
⁵ (may include 1 cr ME 640) -- Pr: ME 501, ME 455, and ME 628
⁶ Pr: ME 501, ME 628, and ME 633 Co: ME 455
⁷ (may include 1 cr ME 640) -- Pr: ME 412, ME 501, and ME 455 Co: ME 628
⁸ Pr: ME 412, ME 510, ME 628 Co: ME 455