

KU Mechanical Engineering Curriculum

(Total credit hours for degree: 128 – see back for details)



Freshman Year		Sophomore Year		Junior Year		Senior Year	
Fall (16 hrs)	Spring (17 hrs)	Fall (17 hrs)	Spring (17 hrs)	Fall (15 hrs)	Spring (15 hrs)	Fall (15-17 hrs)	Spring (14-16 hrs)
ME 101 ME Seminar	ME 208 Intro. Digital Comp. Methods in M.E. Co: MATH 125	ME 211* Statics and Intro to Mechanics Pr: PHSX 210 (211 or 201)	ME 311 Mechanics of Mat'ls Pr: ME 211 (210), MATH 126 (C-)	ME 307 Engr. Materials Lab Pr: CHEM 150, ME 228 Co: ME 306, ME 311	ME 628 Mech. Design Pr: ME 311	Adv. Engr. Elective★ (List 1) (ME 627 ³ if Capstone Option B – FSAE) (ME 633 ⁵ if Capstone Option C – BIO)	Adv. Engr. Elective★ (List 1)
Fall - 1 cr	Fall, Spr - 3 cr	Fall, Spr - 3 cr	Fall, Spr - 3 cr	Fall, Spr - 2 cr	Fall, Spr - 3 cr	Fall only - 3 cr	Fall, Spr - 3 cr
ME 228 Computer Graphics Co: MATH 104	MATH 126* Calculus II Pr: MATH 125	MATH 127 Calculus III Pr: MATH 126	MATH 290 Elementary Linear Algebra Pr: MATH 126	ME 508 Num. Analysis Pr: ME 208, MATH 220, MATH 290	ME 501 Mech. Engr. Design Process Pr: ME 228, ME 311	Capstone Design Option: (AE6) A - ME 640 ¹ → B - N/A → C - ME 640 ¹ →	Capstone Design Option: (AE6) A - ME 641 ² (Gen/EcoHawks) B - ME 642 ⁴ (JMS) C - ME 643 ⁶ (BIO)
Fall, Spr - 3 cr	Fall, Spr, Su - 4 cr	Fall, Spr, Su - 4 cr	Fall, Spr, Su - 2 cr	Fall, Spr - 3 cr	Fall, Spr - 2 cr	0-2 cr	2-4 cr
MATH 125* (GE1.2) Calculus I Pr: see catalog	MATH 365 or 526 Statistics Pr: see catalog	ME 212* Basic Engr Thermo Pr: PHSX 210 (211 or 201), MATH 126 (C-)	ME 306 Science of Materials Pr: CHEM 150	ME 510 (CPE 511) Fluid Mechanics Pr: ME 211 (201), ME 312, MATH 127	ME 612 Heat Transfer Pr: ME 312, ME 510, MATH 220	ME 455 ME Meas. & Exp. Pr: ME 208, ME 307, ME 320, MATH 365 Co: ME 612, EECS 318	KU Core** ★ (GE2.2, GE3H, GE3S, AE4.1, AE4.2, or AE5.1)
Fall, Spr, Su - 4 cr	Fall, Spr, Su - 3 cr	Fall, Spr, Su - 3 cr	Fall, Spr, Su - 3 cr	Fall, Spr - 3 cr	Fall, Spr, Su - 3 cr	Fall, Spr - 4 cr	Fall, Spr, Su - 3 cr
CHEM 150 (GE3N) Chemistry for Engineers	PHSX 210* + 216 (GE1.1) Gen. Physics I Pr: MATH 125 Co: MATH 126 Co: PHSX 210 for PHSX 216	PHSX 212 + 236 Gen. Physics II Pr: PHSX 210 (211 or 201), MATH 126 Co: PHSX 212 for PHSX 236	MATH 220 Applied Differential Equations Pr: MATH 126	ME 320 + 321 Dynamics / Lab Pr: ME 211 (201), MATH 220, MATH 290 Co: ME 320 for ME 321	EECS 316 + 318 Circuits, Electronics and Instrumentation Pr: 8 cr of PHSX, MATH 220 Co: EECS 316 for EECS 318 Spring only - 3+1 cr	ME 682 System Dynamics and Control Systems Pr: ME 320	General Elective★ (List 2)
Fall, Spr - 5 cr	Fall, Spr, Su - 3+1 cr	Fall, Spr, Su - 3+1 cr	Fall, Spr, Su - 3 cr	Fall, Spr - 3+1 cr	Fall, Spr, Su - 3 cr	Fall only - 3 cr	Fall, Spr, Su - 3 cr
ENGL 101 Written Comm (GE2.1) Pr: see catalog	ENGL 102 Written Comm (GE2.1) Pr: ENGL 101	KU Core** ★ (GE2.2, GE3H, GE3S, AE4.1, AE4.2, or AE5.1)	KU Core** ★ (GE2.2, GE3H, GE3S, AE4.1, AE4.2, or AE5.1) Fall, Spr, Su - 3 cr	KU Core** ★ (GE2.2, GE3H, GE3S, AE4.1, AE4.2, or AE5.1)	ME 661 Finite Element Method for Stress Analysis Pr: ME 311, MATH 220, MATH 290	Adv. Engr. Elective (List 1) Fall, Spr - 3 cr	KU Core** ★ (GE2.2, GE3H, GE3S, AE4.1, AE4.2, or AE5.1)
Fall, Spr, Su - 3 cr	Fall, Spr, Su - 3 cr	Fall, Spr, Su - 3 cr	KU Core** ★ (GE2.2, GE3H, GE3S, AE4.1, AE4.2, or AE5.1) Fall, Spr, Su - 3 cr	Fall, Spr, Su - 3 cr	Spr, Su - 3 cr	General Elective★ (List 2) Fall, Spr, Su - 2 cr	Fall, Spr, Su - 3 cr

- NOTES: 1. If Course A is a pre-/co-requisite for Course B, and if Course B is a pre-/co-requisite for Course C, then Course A is a pre-/co-requisite for Course C.
 2. Pr = Prerequisite; Co = Corequisite; cr = semester credit hour
 ★ = Taken in any order as long as any pre- and co-reqs are met
 *A grade of "C-" or better is required by the Math and Physics Departments for these courses and courses substituted for these courses to satisfy pre- and co-requisites.
 **GE3S must be ECON 104, 142, or 144. AE5.1 must be PHIL 160, 161, or 180 or CE 610.
 6. If a student plans to pursue a profession in the energy industry, or take upper level engineering courses in this area then they should take ME 412 prior to their Senior Year.

Capstone Design Footnotes (see back for detailed tracks)

- ¹ Fall, Spring -- Pr: ME 501/628
² Fall, Spring -- Pr: ME 640 (2 cr), ME 501/510/628 Co: ME 412/ 455
³ Fall Only -- Pr: Instructor's Permission Counts as Adv. Engr.
⁴ Spring Only -- Pr: ME 501/627/628 Co: ME 412/ 455
⁵ Fall Only -- Pr: ME 311/320 Counts as Adv. Engr.
⁶ Fall, Spring -- Pr: ME 640 (2 cr), ME 501/628/633 Co: ME 455