

# KU Mechanical Engineering Curriculum



Freshman Year		Sophomore Year		Junior Year		Senior Year	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
MATH 121* (GE12) <b>Calculus I</b> Pr: (see catalog)  Fall/Spring - 5 cr	MATH 122* <b>Calculus II</b> Pr: MATH 121  Spring/Fall - 5 cr	MATH 220* <b>Applied Differential Equations</b> Pr: MATH 122  Fall/Spring - 3 cr	EECS 316 <b>Circuits, Electronics and Instrumentation</b> Pr: 8 cr of PHSX, MATH 220  Spring only - 3 cr	ME 612 <b>Heat Transfer</b> Pr: ME 312, MATH 220 Co: ME 510  Fall/Spring - 3 cr	<b>Ethics (AE51)</b> PHIL 160, 180 or 320  Spring/Fall - 3 cr	ME 455 <b>ME Meas. &amp; Exp.</b> Pr: ME 208, ME 311 Co: ME 510, ME 320, ME 612, EECS 318 MATH 365  Fall/Spring - 4 cr	<b>Human Diversity<sup>1</sup></b> (AE41)  Spring/Fall - 3 cr
<b>Written Comm (GE21)</b> ENGL 101 Pr: (see catalog)  Fall/Spring - 3 cr	<b>Written Comm (GE21)</b> ENGL 102 Pr: ENGL 101  Spring/Fall - 3 cr	MATH 290* <b>Elementary Linear Algebra</b> Pr: MATH 122  Fall/Spring - 2 cr	EECS 318 <b>Circuits and Electronics Lab</b> Co: EECS 316  Spring only - 1 cr	ME 508 <b>Num. Analysis</b> Pr: ME 208, MATH 220, MATH 290  Fall/Spring - 3 cr	ME 661 <b>Finite Element Method for Stress Analysis</b> Pr: ME 311, MATH 220 MATH 290  Spring only - 3 cr	<b>Arts and Humanities<sup>1</sup></b> (GE3H)  Fall/Spring - 3 cr	<b>Global Culture/Awareness<sup>1</sup></b> (AE42)  Spring/Fall - 3 cr
ME 228* <b>Computer Graphics</b> Pr: None  Fall/ Spring - 3 cr	ME 208* <b>Intro. Digital Comp. Methods in M.E.</b> Co: MATH 121 (116)  Spring /Fall - 3 cr	ME 312* <b>Basic Engr Thermodynamics</b> Pr: PHSX 211 Co: MATH 122  Fall/Spring - 3 cr	ME 510 (C&PE511 or AE 345) <b>Fluid Mechanics</b> Pr: ME 211 (201), MATH 122 Co: ME 312  Spring/Fall - 3 cr	ME 412 <b>Thermal Systems</b> Pr: ME 312  Fall/Spring - 3 cr	<b>Economics (GE3S)</b> ECON 104, 142, or 144  Spring/Fall - 3 cr	ME 682 <b>System Dynamics and Control Systems</b> Pr: ME 320  Fall only - 3 cr	Approved Elective <sup>2</sup>  Spring/Fall - 3 cr
CHEM 150* (GE3N) <b>Chemistry for Engineers</b> Pr. None  Fall only - 5 cr	PHSX 211* (GE11) <b>Gen. Physics I</b> Pr: MATH 121  Spring/Fall - 4 cr	ME 211* <b>Statics and Intro to Mechanics</b> Pr: PHSX 211  Fall/Spring - 3 cr	ME 311* <b>Mechanics of Mat'ls</b> Pr: ME 211 Co: MATH 220  Spring/Fall - 3 cr	ME 306 <b>Science of Materials</b> Pr: CHEM 150 (130)  Fall/Spring - 3 cr	ME 628 <b>Mech. Design</b> Pr: ME 311  Spring only - 3 cr	Approved Elective <sup>2</sup>  Fall/Spring - 3 cr	Approved Elective <sup>2</sup>  Spring/Fall - 4 cr
	PHSX 216 <b>Gen. Physics I Lab</b> Co: PHSX 211  Spring/Fall - 1 cr	PHSX 212* <b>Gen. Physics II</b> Pr: PHSX 211 Co: MATH 122  Fall/Spring - 3 cr	ME 320* / 321 <b>Dynamics / Lab</b> Pr: ME 211 (201), MATH 220, MATH 290  Spring/Fall - 3+1 cr	ME 307 <b>Engr. Materials Lab</b> Pr: CHEM 150 (130) Co: ME 306, ME 311  Fall only - 2 cr	ME 501 <b>Mech. Engr. Design Process</b> Pr: ME 311, ME 312 Co: ME 228, ME 307  Spring only - 2 cr	<b>Capstone Design</b> Option: A - ME 640 + List 1 → B - ME 627 → C - ME 640 + 633 <sup>4</sup> → D - ME 644 <sup>7</sup> ← E - ME 640 + List 1 → Fall only - 2-5 cr	<b>Capstone Design (AE6)</b> Option: A - ME 641 <sup>5</sup> B - ME 642 <sup>3</sup> (FSAE) C - ME 643 <sup>6</sup> (Biomech) D - ME 640 + List 1 E - ME 645 <sup>8</sup> (EcoHwks) Spring only - 2-5 cr
		PHSX 236 <b>Gen. Physics II Lab</b> Co: PHSX 212  Fall/Spring - 1 cr	<b>Oral Comm (GE22)</b> COMS 130  Spring/Fall - 3 cr	<b>Statistics*</b> MATH 365, 526, CE 625, or DSCI 301 Pr: See Catalog  Fall/Spring - 3 cr	<sup>1</sup> Courses to satisfy the KU Core from each of the following areas: Goal 3 Arts and Humanities, Goal 4 LO1 Human Diversity, and Goal 4 LO2 Global Culture/Awareness <sup>2</sup> 6-13 credit hours Advanced Engr (List 1) and 0-7 credit hours General Elective (List 2) <sup>3</sup> Pr: ME 501, ME 627, and ME 628 Co: ME 412 and ME 455 <sup>4</sup> Counts as List 1 Elect. -- Pr: ME 311 and ME 320 <sup>5</sup> (includes 2 cr ME 640) -- Pr: ME 501, ME 455, and ME 628 <sup>6</sup> (includes 2 cr ME 640) -- Pr: ME 501, ME 628, and ME 633 <sup>7</sup> (includes 2 cr ME 640) -- Pr: ME 412, ME 501, and ME 455 <sup>8</sup> (includes 2 cr ME 640) -- Pr: ME 501, ME 510, ME 628 <div style="text-align: right;">Co : ME 455 Co: ME 628 Co : ME 412, ME 455</div>		

Pr=Prerequisite Co=Corequisite cr=semester credit hour

\* A grade of "C" or better will be required for these courses and courses substituted for these courses to satisfy pre- and co-requisites