

Mechanical Engineering and General Physics Dual Major

142 credit hours total

YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING	
*MATH 220 (4) Analytic Geometry and Calculus I KSC-3	MATH 221 (4) Analytic Geometry and Calculus II PR: MATH 220 ≥ C	MATH 222 (4) Analytic Geometry and Calculus III PR: MATH 221 ≥ C	MATH 340 (4) Elementary Differential Equations PR: MATH 221 ≥ C	PHYS 532 (4) Electromagnetic Fields I <i>Fall Only</i> PR: PHYS 214, MATH 340	ECE 519 (3) Electric Circuits for Engineers PR: PHYS 214	ME 535 (3) Measurement and Instrumentation Laboratory PR: ME 513 and ECE 519 or ME 519	PHYS 506 (4) Advanced Physics Laboratory <i>Spring Only</i> PR: PHYS 325	ME 575 (3) Interdisciplinary Industrial Design Projects II PR/CO: ME 574
CHM 210 (4) Chemistry I	*PHYS 213 (5) Engineering Physics I KSC-4 PR/CO: MATH 220	PHYS 214 (5) Engineering Physics II PR: PHYS 213 PR/CO: MATH 221	PHYS 522 (4) Mechanics <i>Spring Only</i> PR: PHYS 214	PHYS 325 (4) Physics III, Relativity, and Quantum Physics <i>Fall Only</i> PR: PHYS 214 PR/CO: MATH 222	ME 400 (3) Computer Applications in Mechanical Engineering PR/CO: MATH 340	*Elective (3) Arts and Humanities KSC-6	*Elective (3) Arts and Humanities (US Multicultural Overlay)	PHYS 600+ (3) Physics Elective
PHYS 122 (1) Physics Today I <i>Fall Only</i>	*COMM 106 (3) Public Speaking KSC-2	MATH 551 (3) Applied Matrix Theory PR: MATH 220	*Elective (3) Social and Behavioral Sciences (Ethical Reasoning Overlay) KSC-5	PHYS 664 (3) Thermodynamics and Statistical Physics <i>Fall Only</i> PR: MATH 340, PHYS 522	PHYS 662 (4) Introduction to Quantum Mechanics <i>Spring Only</i> PR: PHYS 325, PHYS 522	ME 571 (3) Fluid Mechanics PR: ME 512 or CE 530, MATH 222 PR/CO: ME 513 or ME 310	ME 573 (3) Heat Transfer PR: MATH 340, ME 400, ME 571	ME 570 (4) Control of Mechanical Systems I PR: MATH 340, ME 400, ME 512 PR/CO: ME 535
DEN 161 (1) Engineering Problem Solving	*ENGL 200 (3) Expository Writing II KSC-1 PR: ENGL 100	NE 495 (3) Elements of Nuclear Engineering PR: MATH 221, PHYS 213	ME 212 (2) Engineering Graphics PR/CO: MATH 205 or 220	IMSE 250 (2) Introduction to Manufacturing Processes and Systems PR/CO: MATH 220	CE 533 (3) Mechanics of Materials PR/CO: MATH 221 PR: CE 333 ≥ C or 530 ≥ C	ME 533 (3) Machine Design I PR: ME 212, ME 512, CE 533	ME 574 (3) Interdisciplinary Industrial Design Projects I PR: ME 533, ME 535, ME 571 PR/CO: ENGL 200	IMSE 530 (2) Engineering Economic Analysis PR: MATH 220
*Elective (3) Social and Behavioral Sciences (Global Perspectives Overlay) KSC-5	CHE 354 (1) Basic Concepts in Materials Science and Engineering (5-week class) PR: CHM 210, PR/CO: PHYS 213		CE 333 (3) Statics PR: MATH 221, PHYS 213	Elective (3) Arts and Humanities KSC-6	Elective (3) Non-Quantitative Social Science Restricted Elective PR: Cannot be MATH or STAT	▲ Elective (3) ME/NE ≥ 200	▲ Elective (3) ME/NE ≥ 200	▲ Elective (3) ME/NE >600
*ENGL 100 (3) Expository Writing I KSC-1	CHE 355 (1) Fundamentals of Mechanical Properties (5-week class) PR: CHE 354							

*** This unofficial degree map shows the most efficient way to get both the ME and General Physics degrees. It takes advantage of the fact that ME students can count 6 hours of MATH courses towards their institutional electives. Dual Degree maps can vary between student to student. Please use this as a guide as you talk to your advisor.*

(16 credit hours) (16 credit hours) (15 credit hours) (16 credit hours) (16 credit hours) (15 credit hours) (16 credit hours) (16 credit hours) (15 credit hours)

KEY

-  = Prerequisite for another course
-  = K-State Core (KSC) course
- PR = Prerequisite requirement
- ▲ = See department approved electives
- PR/CO = Prerequisite or concurrent requirement
- = Only offered in the semester shown