

Mechanical Engineering and Nuclear Engineering Dual Major

128 credit hours total

YEAR 1		YEAR 2		YEAR 3		YEAR 4	
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	CE 533 (3) Mechanics of Materials PR: MATH 221, CE 333 ≥ C	ME 571 (3) Fluid Mechanics PR: ME 512, MATH 222 PR/CO: ME 513	ME 574 (3) Principles of Engineering Design PR: ME 212, ME 571, NE 612, ME 533 or NE 690 PR/CO: ENGL 200	•NE 585 (3) Nuclear Engineering Design Projects PR: ME 574, NE 690, NE 612, NE 630, NE 650
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	CE 333 (3) Statics PR: MATH 221, PHYS 213	ECE 519 (3) Electric Circuits for Engineers PR: PHYS 214	•NE 650 (3) Nuclear Fuel Cycles PR: MATH 340, NE 415	ME 573 (3) Heat Transfer PR: MATH 340, ME 571, ME 400 or NE 415	•NE 648 (3) Nuclear Reactor Laboratory PR: NE 630, NE 612
ME 212 (2) Engineering Graphics PR/CO: MATH 220	CHE 354 (1) Basic Concepts in Materials Science and Engineering (5-week class) PR: CHM 210, PR/CO: PHYS 213	CIS 209 (3) Computer Programming for Engineers PR: MATH 100 ≥ C	ME 513 (3) Thermodynamics I PR: MATH 221, PHYS 213, CHM 210	ME 512 (3) Dynamics PR: CE 333; PR/CO: MATH 340	•NE 612 (3) Principles of Radiation Detection PR: NE 495	•NE 630 (3) Nuclear Reactor Theory PR: NE 495, MATH 340	*Elective (3) Arts and Humanities KSC-6
DEN 160 (1) College of Engineering Orientation	CHE 355 (1) Fundamentals of Mechanical Properties (5-week class) PR: CHE 354	NE 495 (3) Elements of Nuclear Engineering PR: MATH 221, PHYS 213	•NE 415 (3) Introduction to Engineering Analysis PR: NE 495, CIS 209 PR/CO: MATH 340	•NE 690 (3) Radiation Protection and Shielding PR: NE 495, PHYS 214, MATH 340	ME 400 (3) Computer Applications in Mechanical Engineering PR/CO: MATH 340	•NE 640 (3) Nuclear Reactor Thermal Hydraulics PR: NE 495; PR/CO: ME 573	ME 570 (4) Control of Mechanical Systems I PR: MATH 340, ME 512, ME 400 or NE 415 PR/CO: NE 612
DEN 161 (1) Engineering Problem Solving	*COMM 106 (3) Public Speaking KSC-2	IMSE 250 (2) Introduction to Manufacturing Processes and Systems PR/CO: MATH 220	MATH 551 (3) Applied Matrix Theory PR: MATH 220 ≥ C	*Elective (3) Social and Behavioral Sciences KSC-5	ME 533 (3) Machine Design I PR: ME 212, ME 512, CE 533	*Elective (3) Arts and Humanities KSC-6	*Elective (3) Social and Behavioral Sciences KSC-5
*ENGL 100 (3) Expository Writing I KSC-1	*ENGL 200 (3) Expository Writing II KSC-1 PR: ENGL 100			IMSE 530 (2) Engineering Economic Analysis PR: MATH 220			

*** This degree map shows an efficient way to get both the ME and NE degrees. It takes advantage of the fact that students can count 6 required hours 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.*

(15 credit hours)

(17 credit hours)

(17 credit hours)

(16 credit hours)

(17 credit hours)

(15 credit hours)

(15 credit hours)

(16 credit hours)

KEY

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