Mechanical Engineering

125 credit hours total

**FALL YEAR 1**
- **MATH 220 (4)** Analytic Geometry and Calculus I
- **MATH 221 (4)** Analytic Geometry and Calculus II
- **CHM 210 (4)** Chemistry I
- **ME 212 (2)** Engineering Graphics
- **DEN 160 (1)** College of Engineering Orientation
- **ENGL 100 (3)** Expository Writing I

**SPRING YEAR 1**
- **MATH 222 (4)** Analytic Geometry and Calculus III
- **PHYS 214 (5)** Engineering Physics I
- **CHE 354 (1)** Basic Concepts in Materials Science and Engineering (5-week class)
- **DEN 161 (1)** Engineering Problem Solving
- **COMM 106 (3)** Public Speaking
- **ENGL 200 (3)** Expository Writing II

**FALL YEAR 2**
- **MATH 240 (4)** Elementary Differential Equations
- **PHYS 215 (5)** Engineering Physics II
- **CE 333 (3)** Statics
- **ME 512 (3)** Dynamics
- **NE 495 (3)** Elements of Nuclear Engineering
- **ELECTIVE (3)**

**SPRING YEAR 2**
- **MATH 551 (3)** Applied Matrix Theory
- **MATH 513 (3)** Introduction to Manufacturing Processes and Systems
- **ME 519 (3)** Electrical Circuits for Mechanical and Nuclear Engineering
- **ME 570 (4)** Control of Mechanical Systems I
- **ELECTIVE (3)**
- **ELECTIVE (3)**

**FALL YEAR 3**
- **ME 533 (3)** Mechanics of Materials
- **ME 535 (3)** Electric Circuits for Engineers
- **ME 519 (3)** Fluid Mechanics
- **ELECTIVE (3)**
- **ELECTIVE (3)**

**SPRING YEAR 3**
- **ME 571 (3)** Fluid Mechanics
- **IMSE 530 (2)** Engineering Economic Analysis
- **ELECTIVE (3)**
- **ELECTIVE (3)**

**FALL YEAR 4**
- **ME 574 (3)** Machine Design I
- **ME 575 (3)** Heat Transfer
- **ELECTIVE (3)**
- **ELECTIVE (3)**

**SPRING YEAR 4**
- **ME 573 (3)** Heat Transfer
- **ELECTIVE (3)**
- **ELECTIVE (3)**

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**KEY**

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

Degree map is for advising purposes only. Students are responsible for complying with University Catalog requirements.
To pursue a minor, please contact your advisor for more information.

FINAN 450 Principles of Finance (3 credit hours) can substitute for IMSE 530 Engineering Economic Analysis (2 credit hours) only for students who successfully complete the Business Minor.

**K-State Core**

The K-State Core (KSC) is the university’s version of the systemwide general education framework established by the Kansas Board of Regents.

- **KSC requirement 1** – English (6 hours)
- **KSC requirement 2** – Communications (3 hours)
- **KSC requirement 3** – Math and Statistics (3 hours)
- **KSC requirement 4** – Natural and Physical Sciences (4-5 hours)
- **KSC requirement 5** – Social and Behavioral Sciences (6 hours)
- **KSC requirement 6** – Arts and Humanities (6 hours)
- **KSC requirement 7** – Institutional Electives (6 hours)

To view course lists for each requirement, visit k-state.edu/provost/kstate-core.

*K Requires two courses from two different subject areas.*