KU - ChE Emphasis Courses

All options require at least 12 hours of engineering electives. Petroleum requires 13 hours of engineering elective. 1 hour of C&PE 327 is used as advanced science.

**Biomedical**

- Biol 150 Principles of Molecular and Cellular Biology
- C&PE 656 Intro to Biomedical Engineering

**Choose 1 of the following:**

- Biol 600 Intro to Biochemistry
- Biol 646 Mammalian Physiology

**Environmental**

- CE 477 Introduction to Environmental Engineering and Sciences
- CE 5XX/7XX Upper level Environmental Engineering Course

**Petroleum**

- Geol 101 Introduction to Geology
- Geol 103 Introduction to Geology Lab
- C&PE 327 Reservoir Engineering I
- C&PE 527 Reservoir Engineering II
- C&PE XXX Petroleum Engineering Elective

**Premedical**

- Biol 150 Molecular/Cellular Biology
- Biol 152 Organismal Biology
- Chem 335 Organic Chemistry II
- Biol 600 Introduction to Biochemistry

Courses that may be required for admission to medical school or covered on MCAT but not required for graduation with the premedical option:

- Psyc 104 Psychology
- Soc 104 Sociology
- Biol 646/647 Mammalian Physiology and Lab
- Biol 350 Principles of Genetics
- Biol 416 Cell Structure and Function

* Materials Science on other side
Materials Science
Choose 4 of the following:

ARCE 350 Building Materials Science
AE 507 Aerospace Structures
AE 510 Aerospace Materials and Processes
CE 310 Strength of Materials
CE 412 Structural Engineering Materials
CE 461 Structural Analysis
C&PE 655 Introduction to Semiconductor Processing
C&PE 657 Polymer Science and Technology
C&PE 752 Tissue Engineering
C&PE 765 Corrosion Engineering
ME 306 Science of Materials
ME 311 Mechanics of Materials
ME 767 Molecular Biomimetics

CHEM 680, C&PE 715,
BIOL 420, PHSX 600, Introduction to nanotechnology
EPHX 600
C&PE 651/661 Undergraduate Research (By petition)

It is also recommended that students choose 1 of the following to satisfy the Advanced Science Elective

Phsx 313 Introduction to Modern Physics
Biol 150 Principles of Molecular & Cellular Biology
Chem 620/621 Analytical Chemistry & Lab
Chem 635/636 Instrumental Methods of Analysis
Chem 660 Systematic Inorganic Chemistry