

Biomechanics Concentration

In Mechanical Engineering

A Mechanical Engineering Undergraduate student at the University of Kansas can elect to take the required classes to complete a Biomechanics Concentration. While it will not appear on the transcript or diploma, potential employers will identify this concentration with students who have focused chosen electives in the fast growing field of Biomechanics.

The Biomechanics Concentration does not require any additional credit hours in the Mechanical Engineering Curriculum. The requirements include two List 1 Electives, one List 2 elective, and a senior design project in the area of biomechanics.

Students are required to take the following four classes:

One class from the following list (all count as a List 2 elective)

- Principles of Molecular & Cellular Biology – BIOL 150/151
- Principles of Organismal Biology – BIOL 152/153
- Human Anatomy Lecture – BIOL 240
- Human Physiology – BIOL 246

Basic Tissue Mechanics and Biodynamics – ME 633

- Counts as a List 1 elective
- Will be offered every Fall semester
- A prerequisite for the Design Project Option C (Biomechanics)

Design Project Option C (Biomechanics) – ME 643

- Counts as the capstone design project of the curriculum
- Projects will be offered every Spring semester

One class from the following list (all count as List 1 electives)

- Biomechanics of Human Motion – ME 750
- Experimental Methods in Biomechanics – ME 751
- Bone Biomechanics – ME 753
- Computer Simulation in Biomechanics – ME 755
- Biofluid Dynamics – ME 756
- Biomechanical Systems – ME 757
- Biomedical Product Development – ME 760
- Biomaterials – ME 765