

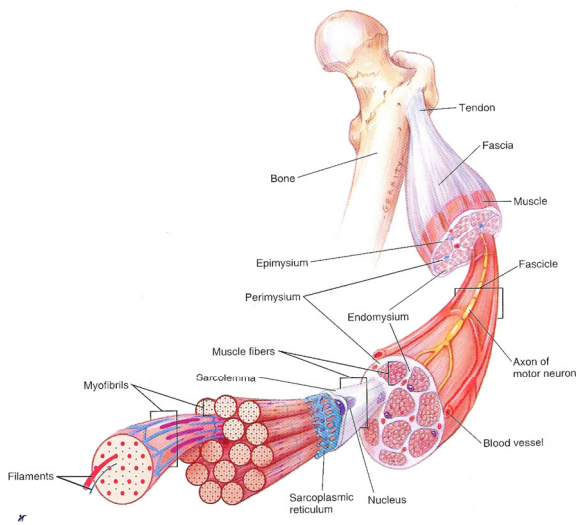
# BME 752 – Applied Human Biomechanics

**Instructor:** Dr. Hakansson, [nils.hakansson@wichita.edu](mailto:nils.hakansson@wichita.edu)

**Semester:** Spring, 3 credit hours

**Prerequisite:** BME 452 or equivalent, BIOL 223, or instructor consent

## Muscle and bone in movement



## Musculoskeletal modeling and simulation



In the Applied Human Biomechanics course we will examine the biology, physiology, and structure of skeletal muscle, the mechanisms of skeletal muscle force generation, and the adaptations to muscle that arise from changes in muscle usage. Students will learn how to create biomechanical models and generate simulations of human movement based on data collected in the Human Biomechanics and Design Lab. Experimental design and data analysis and interpretation will be emphasized in the course.

## Biomedical modeling and analysis

