

## **BME 511: Computational Biomechanics**

### **Biomedical Engineering**

This course will explore the integration between computational methodologies and biomechanical principles. Topics covered include solid mechanics, fluid dynamics, finite element method, biomedical imaging and image processing. Through this course, students will develop a comprehensive understanding of how computational techniques can be applied to analyze and model biological tissues, under both normal and disease conditions. Both theoretical foundations and practical applications will be emphasized to equip students with a solid grasp of the role of computation in biomechanics.

3 Credits

### **Prerequisites**

- Prerequisite: Engr 312 or graduate standing

### **Instruction Type(s)**

- Lecture: Lecture for BME 511

### **Subject Areas**

- [Bioengineering and Biomedical Engineering](#)

