

## **BME 322: Sensors and Nanodevices in BME Biomedical Engineering**

Introduction to fundamentals and major types of sensor systems, scaling laws of device, miniaturization, and detection mechanisms, including molecular capture mechanisms; electrical, optical, and mechanical transducers; micro-array analysis of biomolecules; semiconductor and metal nanosensors; microfluidic systems; and microelectromechanical systems (MEMS, BioMEMS) design, fabrication and applications for biomedical engineering.

3 Credits

### **Prerequisites**

- [BME 311: Biomechanics](#)
- Pre-Requisite: 24 Earned Hours

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

- Lecture: Lecture for BME 322

### **Subject Areas**

- [Bioengineering and Biomedical Engineering](#)

