

# **Biomedical Engineering Capstone Design II**

### **BIOMEDE 4902**

#### **Credit Hours:**

3.00

#### **Course Levels:**

Undergraduate (1000-5000 level)

#### **Course Components:**

Lecture

#### **Course Description:**

Second course in a two-course BME capstone sequence. Applying design principles; challenges of biomedical device design; engineering and testing devices that focus on helping persons with disabilities.

#### **Prerequisites and Co-requisites:**

Prereq: 4901, or permission of instructor.

#### **Course Goals / Objectives:**

- Students will be able to demonstrate team management skills and complete a design project with clinical significance; (5)
- • Students will be able to develop a testing plan and analyze the device prototype against performance metrics (6)
- • Students will be able to deliver a written and oral presentation.
- a) GE Reflctn Booknd LO: Engaged Citiznshp & Intercultural Competency: Studnts consider public health, safety, welfare, global, cultural, social, environmental, & econ factors in applying eng design to produce solutions meeting specified needs.
- b) GE Refleth Bookhd LO: Personal & Professional Development: Students individually assess and pursue personal professional growth in concert with project requirements and personal career goals.
- c) GE Refl Bkend LO: Engaged Citiznshp & Intercultural Competency: Cultivate Engr Mindset: Studnts develop an engr mindset that demonstrates constant curiosity, makes connections betwn disparate bodies of info, & seeks opportunities to create value.
- GE Reflctn Booknd LO: Cultivate Engineering Mindset: Students develop an engineering mindset that
  demonstrates constant curiosity, makes connections between disparate bodies of information, and seeks
  opportunities to create value.

## **Course Topics:**

- Build devices
- Design team updates and meetingsTest Devices

### **Designation:**

Required