BIOMEDICAL ENGINEERING (BME)

Courses

BME 227. Biomedical Instrumentation. 3 Credits.
Measurement techniques for biomedical engineering research and industry, and health care institutions. Integrated biomedical monitoring, diagnostic, and therapeutic instrumentation.
Prerequisite: EE 100 or EE 004. Co-requisite: EE 120, ANPS 020, or Instructor permission. Cross-listed with: EE 227.

BME 240. Wearable Sensing. 3 Credits.
Covers current state-of-the-art in wearable sensors and the biomechanical and physiological phenomena they are being used to measure. Emphasis will be given to applications related to human health and medicine. Prerequisite: ME 111 or EE 171 or equivalent with Instructor permission.

BME 241. Biomedical Signal Processing. 3 Credits.
Covers several important physiological signals often monitored in biomedical contexts (e.g. EMG, ECG, PPG). Content will include the physiology that generates the signals as well as the signal processing techniques (e.g., LTI filters, empirical mode and wavelet decomposition) and algorithms used for analysis. Prerequisite: ME 111 or EE 171 or equivalent with Instructor permission.

BME 391. Master's Thesis Research. 1-18 Credits.
Credit as arranged.

BME 393. Graduate Seminar. 1 Credit.
Presentation and discussion of advanced problems, research, and current topics in Electrical Engineering by faculty, graduate students, and outside guest speakers. Prerequisite: Graduate Student standing.

BME 396. Advanced Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

BME 496. Advanced Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.