Biomedical Engineering (EBI)

15 Credit Hours College of Engineering

Minor Description

The Biomedical Engineering minor is open to all Engineering majors and other students who meet the prerequisites listed below. For engineering majors, at least nine (9) credit hours beyond the B.S. in any Engineering discipline must be completed for the Biomedical Engineering minor.

Student must register with the Department of Chemical & Biomedical Engineering's undergraduate advisor prior to starting this minor.

Total Minor Hours - 15 Hours

This Biomedical Engineering minor is a 15-credit hour program that is open to all Engineering majors and other students who meet the prerequisites listed under additional minor requirements.

Core Courses - 6 Hours

- BME 4100 Biomedical Engineering
- BME 4406 Engineering of Biological Systems

Elective Courses - 9 Hours

The remaining 9 credit hours can be taken from the following list:

- BCH 3023 Introductory Biochemistry or BCH 3053 General Biochemistry
- BME 4332 Cell and Tissue Engineering
- BME 4440 Introduction to Bioastronautics
- <u>BME 4409</u> Engineering Physiology
- BME 4571 Nanomedicine
- BME 4931 Selected Topics in Biomedical Engineering**
- <u>BME 5040</u> Pharmaceutical Engineering
- BME 5320 Theory and Design of Bioprocesses
- BME 5937 Selected Topics in Biomedical Engineering**
- ECH 4931 Special Topics in Chemical Engineering*
- ECH 5748 Selected Topics in Biomedical Engineering**
- EEE 4274 Chemical/Bio Sensors & Mircofabrication
- EEE 4506 Biomedical Image Processing
- EIN 4243C Human Factors
- PHZ 4702 Applications of Physics to Biology & Medicine I
- PHZ 4703 Applications of Physics to Biology & Medicine II

^{*}The list of approved special topics courses is below. ECH 4931 Bioseparations

- ECH 4931 Bioseparations
- <u>ECH 4931</u> Modern Biomedical Technologies
- <u>ECH 4931</u> Research Design Methods & Interpretations
- ECH 4931 or EEL 4936 Bioelectricity

Additional Minor Requirements

Student must register with the Department of Chemical & Biomedical Engineering undergraduate advisor prior to starting this minor program

Prerequisite courses:

1. Biology I: <u>BSC 2010</u>

2. Calculus II: <u>MAC 2282</u>, <u>MAC 2242</u>, or <u>MAC 2312</u>

3. Physics II: PHY 2049 or PHY 20544. General Chemistry II: CHM 2046

^{**}Please see academic advisor for other special topics courses.