Minor in Biomedical Engineering
Plan of Study
School of Engineering
2015-2016

Minor in Biomedical Engineering

Biomedical engineers apply engineering methods, science and technology to problems in medicine and biology. Biomedical Engineering is a growing field that will continue to have a significant impact on health care. In fact, many feel that biomedical engineering will be the technological area with the most impact on peoples lives in the 21st century. A minor in Biomedical engineering is offered for students at the University of Connecticut who wish to expand their knowledge in the field.

Biomedical engineering involves learning about biology in new ways and developing new tools to diagnose and treat disease and to repair or replace diseased organs. Many students select biomedical engineering to be of service to people and for the excitement of working in a health field. Additionally, biomedical engineering provides excellent preparation for entrance into medical school.

Biomedical engineering is interdisciplinary; that is, biomedical engineers often work with other medical health care professionals as members of a team. Exciting advances in medicine, such as the artificial hearts, pacemakers, medical imaging techniques, lasers, prosthetic implants, life support systems, and devices that help the paralyzed walk, have been the result of team efforts by biomedical engineers and other professionals. In addition, bioengineers have developed new processes for manufacturing products for the pharmaceutical and biotechnology industries, an example being humulin, or human insulin, the first product based on recombinant DNA technology.

Requirements. The following five courses are necessary to fulfill requirements of the Biomedical engineering minor.

- Introduction to Biomedical Engineering - BME 2101, 3 credits (Prerequisite or corequisite: MATH 1132Q and PHYS 1230 or 1501Q or 1530Q. Recommended Prep: BIOL 1107)
- Biomedical Engineering Measurements - BME 3500, 4 credits (Pre-req: BME 2101; BME 3400 or ECE 3101, which may be taken concurrently)
- Biomechanics - BME 3600W, 4 credits (Pre-req: BME 2101; BME 3150 or CE 2110; ENGL 1010 or 1011)
- Biomaterials - BME 3700, 4 credits (Pre-req: BME 2101; MSE 2101; MATH 2410Q)
- One BME Course from the following list:
    - Computational Genomics - BME 3810, 3 credits
    - Introduction to Medical Imaging-BME 4201, 3 credits
    - Physiological Control Systems - BME 4300, 3 credits
    - Bioinstrumentation - BME 4500, 3 credits
    - Biosolid Mechanics - BME 4600, 3 credits
    - Advanced Biomaterials - BME 4701, 3 credits
    - Introduction to Tissue Engineering - BME 4710, 3 credits
    - Bioinformatics - BME 4800, 3 credits

***(Extra courses required as pre-reqs include, but are not limited to: PHYS 1502Q, CHEM 1127Q, MATH 2110Q; check university catalog for official pre-requisites for all courses; students are strongly advised to ensure that all appropriate prerequisites are met prior to taking each of the required courses).

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Minor Requirements ~ Audit Check List 2015-2016

Course Requirements
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    - Advanced Biomaterials - BME 4701, 3 credits
    - Introduction to Tissue Engineering - BME 4710, 3 credits
    - Bioinformatics - BME 4800, 3 credits

Instructions to Students: When you are preparing your final plan of study, you must obtain approval from the Biomedical Engineering Program Director. Submit the original of this form with your final plan of study to the Registrar, give one copy to your advisor, and keep one copy for your records.

Name of Student_____

Peoplesoft Number_____

I approve the above program for the Minor in Biomedical Engineering:

BME Program Director Date