The Bioengineering minor prepares engineering and computer science students to pursue graduate academic and professional careers serving a wide range of the medical arena in research and development. Candidates completing this minor will also satisfy course admissions requirements for the UCF Medical School and other medical schools in the US. Engineering and computer science students interested in pursuing an MD degree at UCF or elsewhere are strongly encouraged to seek further advisement from the Office of Pre-Health and Pre-Law Advising. The minor constitutes up to: (a) for the engineering track 21 hours of coursework over the requirements for a bachelor of science degree in an engineering discipline at UCF, and (b) a minimum 17 hours of coursework over the requirements for a bachelors of science degree in computer science at UCF.

Minor Admission Requirements

- Well-qualified students in the College of Engineering and Computer Science with a cumulative UCF GPA of 3.0 or better are welcome to enter the minor. In order to remain in the program, students must maintain a UCF Undergraduate GPA 3.0.

Minor Requirements

- None

Prerequisite Courses

- None

Required Courses (32 hrs)

- PHY 2048C General Physics Using Calculus I 4 hrs
- PHY 2049C General Physics Using Calculus II 4 hrs
- BSC 2010C Biology I 4 hrs
- CHM 2045C Chemistry Fundamentals I 4 hrs
- CHM 2046 Chemistry Fundamentals II 3 hrs
- CHM 2046L Chemistry Fundamentals Laboratory 1 hr
- CHM 2210 Organic Chemistry I 3 hrs
- CHM 2211L Organic Laboratory Techniques I 2 hrs
- CHM 2211 Organic Chemistry II 3 hrs
- EGN 4941 Internship 1 hr

Select 1: 3 hrs

- BSC 2011C Biology II or 4 hrs
- BCH 4053 Biochemistry I 3 hrs

Restricted Electives (6 hrs)

- Students will select either the Engineering Track or Computer Science Track to define their elective choices.

Engineering Track 6 hrs

Select 1: 3 hrs

- EMA 5584 Biomaterials or 3 hrs
- BME 5267 Biofluid Mechanics or 3 hrs
- EEE 5272 Biomedical Sensors or 3 hrs
- EES 4111C Biological Process Control or 4 hrs
- EIN 5248 Ergonomics or 3 hrs
- BME 3211 Engineering Biomechanics or 3 hrs
- BME 5268C Applied and Computational Biofluids 3 hrs

Select 1: 3 hrs

- CAP 5512 Evolutionary Computation or 3 hrs
- BCH 4053 Biochemistry I or 3 hrs
- BSC 3403C Quantitative Biological Methods or 4 hrs
- BSC 5418 Tissue Engineering or 3 hrs
- MCB 3020C General Microbiology or 5 hrs
- PCB 3522 Molecular Biology I or 3 hrs
- PCB 3703C Human Physiology or 4 hrs
- ZOO 3733C Human Anatomy or 4 hrs
- ZOO 3744 Neurobiology or 3 hrs
- PCB 3063 Genetics 3 hrs

Select 1: 3 hrs

- BME 5267 Biofluid Mechanics or 3 hrs
- BSC 3403C Quantitative Biological Methods or 4 hrs
- BSC 5418 Tissue Engineering or 3 hrs
- MCB 3020C General Microbiology or 5 hrs
- PCB 3522 Molecular Biology I or 3 hrs
- PCB 3703C Human Physiology or 4 hrs
- ZOO 3733C Human Anatomy or 4 hrs
- ZOO 3744 Neurobiology or 3 hrs
- PCB 3063 Genetics 3 hrs

Foreign Language Requirements

- None

Total Semester Hours Required

- 38

Other Requirements

- Open only to engineering and computer science majors.
- A grade of “B-” (2.75) or better is required in each course used to satisfy the minor.
- The Bachelors of Science must be completed in order for the minor to be awarded.