

Biomedical Engineering Minor

To obtain a Biomedical Engineering minor, students must take at least 18 credits related to Biomedical Engineering. Two courses (8 credits) of biology are required. Two restricted requirements include Intro to Biomedical Engineering (required) and at least 3 credits of engineering electives related to BME. Two more courses (or at least 4 credits) may be chosen from the engineering and/or additional electives. The lists of electives will be modified as new related courses that fall into these categories become available.

2 Required courses (8 credits):

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| CBEN110 | FUNDAMENTALS OF BIOLOGY I | 4.0 |
| CBEN120 | STUDIO BIOLOGY II | 4.0 |

+ 2 Required from (at least 6 credits):

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| CBEN310 (required) | INTRO TO BIOMEDICAL ENGINEERING | 3.0 |
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Engineering elective courses related to BME (at least 3 credits):

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| CBEN432 | TRANSPORT PHENOMENA IN BIOLOGICAL SYSTEMS | 3.0 |
| CBEN470 | INTRODUCTION TO MICROFLUIDICS | 3.0 |
| CBEN 35x, 45x, x98, x99* | HNRS UGRAD RESEARCH, SPECIAL TOPICS | 1.0 – 3.0 |
| MEGN330 | INTRODUCTION TO BIOMECHANICAL ENGINEERING | 3.0 |
| MEGN430 | MUSCULOSKELETAL BIOMECHANICS | 3.0 |
| MEGN435/535 | MODELING AND SIMULATION OF HUMAN MOVEMENT | 3.0 |
| MEGN436/536 | COMPUTATIONAL BIOMECHANICS | 3.0 |
| MEGN530 | BIOMEDICAL INSTRUMENTATION | 3.0 |
| MEGN531 | PROSTHETIC AND IMPLANT ENGINEERING | 3.0 |
| MEGN532 | EXPERIMENTAL METHODS IN BIOMECH | 3.0 |
| MEGN537 | PROBABILISTIC BIOMECHANICS | 3.0 |
| MTGN570 | INTRO TO BIOCOMPATIBILITY | 3.0 |

+ 2 courses (or at least 4 credits) from the list above and/or the list below:

Additional elective courses related to BME:

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|-------------------------|---|-----------|
| CBEN311 | INTRODUCTION TO NEUROSCIENCE | 3.0 |
| CBEN322 | BIOLOGY OF BEHAVIOR | 3.0 |
| CBEN398 | ANATOMY | 3.0 |
| CBEN398 | ANATOMY LAB | 1.0 |
| CBEN398 | PHYSIOLOGY | 3.0 |
| CBEN320 (410) | CELL BIOLOGY AND PHYSIOLOGY | 3.0 |
| CBEN321 | INTRO TO GENETICS (+ LAB) | 4.0 |
| CBEN411 | NEUROSCIENCE, MEMORY, AND LEARNING | 3.0 |
| CBEN431/531 | IMMUNOLOGY FOR ENGINEERS AND SCIENTISTS | 3.0 |
| CBEN454/554 | APPLIED BIOINFORMATICS | 3.0 |
| CBEN 35x, 45x, x98, x99 | HNRS UGRAD RESEARCH, SPECIAL TOPICS | 1.0 – 3.0 |
| CHGN428 | INTRODUCTORY BIOCHEMISTRY | 3.0 |
| CHGN429 | INTRO TO BIOCHEMISTRY II | 3.0 |
| CHGN462 | MICROBIOLOGY | 3.0 |
| MATH331 | MATHEMATICAL BIOLOGY | 3.0 |
| MTGN472/572 | BIOMATERIALS I | 3.0 |
| PHGN433 | INTRODUCTION TO BIOPHYSICS | 3.0 |

* As the content of these courses varies, the course must be noted as relevant to the BME minor to count as an elective, and noted as having sufficient engineering content to count as an engineering elective course.

** Courses may be added to the electives lists as they become available.