

Biomechanical Engineering, Minor

This minor provides an opportunity for students to explore the interaction between mechanical engineering and health. Recommended for students interested in aspects of engineering related to human kinematics, including biomedical devices, joint injury, prosthetic development, human-machine systems, and/or prosthetics.

Minor Requirements

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

Required Biology

| Code | Title | Hours |
|--------------------------------|--------------------------------------------------------------|-------|
| Biology 1 | | |
| Complete one of the following: | | 5 |
| BIOL 1111 and BIOL 1112 | General Biology 1 and Lab for BIOL 1111 | |
| BIOL 1115 and BIOL 1116 | General Biology 1 for Engineers and Lab for BIOL 1115 | |
| Anatomy and Physiology | | |
| BIOL 1117 and BIOL 1118 | Integrated Anatomy and Physiology 1 and Lab for BIOL 1117 | 5 |

Required Mechanical Engineering

| Code | Title | Hours |
|-----------|------------------------------|-------|
| ME 5665 | Musculoskeletal Biomechanics | 4 |
| MEIE 4701 | Capstone Design 1 | 1 |
| MEIE 4702 | Capstone Design 2 | 5 |

Technical Elective

Additional electives may be approved by your academic advisor.

| Code | Title | Hours |
|--------------------------------|----------------------------------------------------|-------|
| Complete one of the following: | | 4-5 |
| IE 4520 | Stochastic Modeling | |
| IE 4522 and IE 4523 | Human-Machine Systems and Lab for IE 4522 | |
| ME 4640 | Mechanical Behavior and Processing of Materials | |
| ME 5650 | Advanced Mechanics of Materials | |
| ME 5655 | Dynamics and Mechanical Vibration | |
| PHYS 4621 | Biological Physics 1 | |

GPA Requirement

2.000 GPA required in the minor