



BIOMECHANICS SPECIALIZATION

Enhance your degree by applying **Mechanical Engineering** principles to solve problems in **medicine and biology**.

Students interested in **biomechanics** can select a set of **biology** and **biomechanics** courses to fulfill their math/science electives and technical electives within the BSME degree program. There is also an option to simultaneously complete the **Biology in Engineering Certificate (BEC) program**, which is a formal certificate designed for engineering students interested in **problems in biology and medicine**.

RECOMMENDED COURSES

Math and Science Electives (3 Credits)

- Biology 101 - Animal Biology (3)
- Biology 102 - Animal Biology Lab (2)
- Biology 151 - Introductory Biology (5)

Technical Electives (12 credits)

- ANAT&PHY 335 - Physiology (5)
- ME/BME 414 - Orthopedic Biomechanics (3)
- ME/BME 415 - Biomechanics of Human Movement (3)
- ME/BME 505 - Biofluidics (3)
- ME/BME 516 - Finite Elements for Biological and Other Soft Materials (3)
- ME 601 - Special Topics: Design for Rehabilitation (3)
- ME/BME 603 - Topics in Bio-Medical Engineering (3)
- ME/BME 605 - Special Topics in Biomechanics
- ME/BME 615 - Tissue Mechanics (3)

**Specializations are not formal, but rather a list of recommended tech elective courses and/or experiences to specialize in a certain area. Specializations do not appear on transcripts.*

SUGGESTED

EXTRACURRICULARS



- Human Powered Vehicle Competition
- American Society of Mechanical Engineers (ASME)
- Biomedical Engineering Society (BMES)
- Undergraduate Research

CAREER POSSIBILITIES



- Medical Devices
- Sports Equipment
- Orthopedic Implants
- Biomanufacturing
- Prosthetics
- Graduate Programs in Biomechanics
- Healthcare (medical school, physical therapy, etc.)



Mechanical Engineering
UNIVERSITY OF WISCONSIN-MADISON