

Bioengineering

Department of Mechanical and Aerospace Engineering, Ohio State University

- A total of 12 credit hours are required to complete the Technical Elective Requirements
- Students must complete two courses (a minimum of 6 credit hours) from two of the three categories (Design, Computational, Applications)
- **This is an example curriculum. All students must meet program requirements as detailed here: <https://mae.osu.edu/mechanical-engineering-technical-electives>**

Design Classes- Take up to 3 credit hours of

Course	Hours	Course Name
ME 5144	3	Fracture Mechanics

Computational Classes- Take up to 9 credit hours of

Course	Hours	Course Name
ME 5030	3	Intermediate Dynamics
ME 5134	3	Introduction to Vibrations of Deformable Solids
ME 5139	3	Applied Finite Element Method

Applications Classes- Take up to 9 credit hours of

Course	Hours	Course Name
ME 5180	3	Mechanics of Biomolecular Systems
ME 5550	3	Engineering Principles in Cancer
ME 5700	3	Introduction to Musculoskeletal Biomechanics

Other Classes- Take no more than 3 credit hours of the following

Course	Hours	Course Name
BME 4110	3	Bioimaging
BME 4310	3	Biomaterials
BME 4210	3	Biotransport
BME 4510	3	Cell, Molecular, and Tissue Engineering
NEUROSC 3000	3	Cellular and Molecular Neuroscience
BUSMHR 2500	3	Entrepreneurship
PHYSIO 3200	5*	Human Physiology (*only 3 credit hours will count towards Technical Electives)
EEOB 2520	3	Human Physiology
ACCAD 5140	3	Interactive Arts Media: Web
ENGR 5050	3	Introduction to Humanitarian Engineering
PUBAFRS 3000	3	Introduction to Public Policy Analysis
PUBAFRS 5600	3	Science, Engineering, and Public Policy