

Approved Elective Courses for Undergraduate Mechanical Engineering Students

All BSME students must take 12 hours (4 courses) of technical/design/science electives. Of these 12 hours, at least 9 hours (3 courses) must be within the Department of Mechanical Engineering. Note that many technical electives have very specific pre-requisite courses that all students might not have completed. Be sure to check the pre-requisites in the course catalog before trying to register. Approved electives must be at least 3000 level or higher.

Mechanical Engineering

BME 4332	Cell and Tissue Engineering
BME 4440	Introduction to Bioastronautics
EAS 4121	Hydro and Aerodynamics
EGN 4366	Materials Engineering II
EML4141	Thermal Management of Electronic Systems
EML4230	Intro to Composite Materials
EML4246	Tribology
EML4310	Microcontrollers
EML4326	Advanced Materials Processing
EML4419	Propulsion
EML4421	Internal Combustion Engines
EML4450	Alternative and Renewable Energy
EML4503	Sustainable Design and Materials
EML4552	Senior Mechanical Design
EML4575	Principles of Fracture Mechanics
EML4593	Haptics
EML4601	Air Conditioning Design
EML4702	Fluid Dynamics II
EML4703	Mechanics of Compressible Fluids
EML4905	Undergraduate Independent Study (3 credits)
EML4930	Applied FEA
EML4930	Robotic Systems
EML4930	Leadership in Engineering
EML4284	Compliant Mechanisms
OSE 4601	Optical Product Technology ("Optics")
EGN 3615	Engineering Economics with Social and Global Implications

Chemical and Biomedical Engineering

ECH 3702	Instrument Systems
ECH 4931	Modern Biomedical Technology

Industrial and Management Systems Engineering

ESI 4244	Design of Experiments
EIN 4601C	Automation and Robotics

Electrical Engineering

EGN 3375	Electromechanical Systems
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Civil and Environmental Engineering

CES 3102	Structures I
ENV 4001	Environmental Systems Engineering

College of Arts and Sciences

MCB 3020C	General Microbiology
PHY 3101	Modern Physics
BCH 3023	Introductory Biochemistry