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  Engineering Materials II
- EMA 4003  Alternative and Renewable Energy
- EML 4141  Thermal Management of Electronic Systems
- EML 4230  Intro to Composite Materials
- EML 4246  Tribology
- EML 4310  Microcontrollers
- EML 4326  Advanced Materials Processing
- EML 4419  Propulsion
- EML 4421  Internal Combustion Engines
- EML 4503  Sustainable Design and Materials
- EML 4552  Senior Mechanical Design
- EML 4593  Haptics
- EML 4601  Air Conditioning Design
- EML 4702  Fluid Dynamics II
- EML 4703  Compressible Flow
- EML 4930  Applied FEA
- OSE 4601  Optical Product Technology
- EML 4930  Robotics Systems

**Chemical and Biomedical Engineering**
- ECH 3702  Instrument Systems
- ECH 4931  Modern Biomedical Technology

**Industrial and Management Systems Engineering**
- EGN 3615  Engineering Economics
- ESI 4244  Design of Experiments
- EIN 4601C  Automation and Robotics

**Electrical Engineering**
- EGN 3375  Electromechanical Systems

**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

Revised 10/23/2012