Acceptable ME Technical Electives

These are courses that we have recently evaluated as possible ME Technical Electives. In general, a course from another department must be junior or senior level in order to be acceptable. Be sure that any pre-reqs or co-reqs are satisfied before enrolling.

### Acceptable Courses from MEMS Department

- ENGR 1700 Introduction to Nuclear Engineering
- ENGR 1701 Fundamentals of Nuclear Reactors
- ENGR 1702 Nuclear Plant
- MEMS 1010 Experimental Methods in MSE
- MEMS 1020 Mechanical Vibrations
- MEMS 1030 Material Selection in Mechanical Design
- MEMS 1032 Automotive Design & Fabrication
- MEMS 1033 Fracture Mechanics for Manuf. & Perform.
- MEMS 1045 Automatic Controls
- MEMS 1047 Finite Element Analysis
- MEMS 1049 Mechatronics
- MEMS 1053 Structure of Crystals & Diffraction
- MEMS 1055 Comp. Aided Analysis in Trans. Phenomena
- MEMS 1057 Micro/Nano Manufacturing
- MEMS 1058 Electromagnetic Properties of Materials
- MEMS 1059 Phase Equilibria in Multi-Component Materials
- MEMS 1062 Orthopedic Engineering
- MEMS 1063 Phase Transformations & Microstructure Evolution
- MEMS 1065 Thermal Systems Design
- MEMS 1070 Mechanical Behavior of Materials
- MEMS 1097 Special Projects
- MEMS 1098 Special Projects 2
- MEMS 1101 Ferrous Physical Metallurgy
- MEMS 1102 Princ. & Appl. of Steel Alloy Design
- MEMS 1103 Princ. & Appl. of Steel Processing and Design
- MEMS 1162 Computer Applications in MSE
- MEMS 1163 Ceramic Materials
- MEMS 1172 Physical Metallurgy
- MEMS 1174 Ceramic Processing
- MEMS 1180 Advanced Mechanical Behavior of Materials
- ME 2001 Differential Equations
- ME 2002 Linear and Complex Analysis
- ME 2003 Introduction to Continuum Mechanics
- ME 2022 Applied Solid Mechanics
- ME 2027 Advanced Dynamics
- ME 2045 Linear Control Systems
- ME 2046 Digital Control Systems
- ME 2056 Introduction to Combustion Theory
- ME 2060 Numerical Methods
- ME 2080 Intro. to Microelectromechanical Systems
- ME 2082 Princ. of Electromechanical Sensors and Actuators

Most Upper-level (i.e. non-Sophomore) courses from other departments are accepted as equivalents to ME Technical Electives.

The courses listed below are Sophomore-level and therefore do NOT satisfy the ME technical elective requirement. This list is not comprehensive – there may be other non-acceptable classes that are offered. Substitute courses should be cleared with the Undergraduate Director.

Study abroad courses will be considered on a case-by-case basis.

- BIOENG 1070 Cell Biology 1
- BIOENG 1071 Cell Biology 2
- BIOENG 1210 Biothermodynamics
- BIOENG 1310 Linear Systems & Elec. 1 (Bioinstrumentation)
- BIOENG 1630 Biomechanics 1
- ENGR 0020 Probability & Statistics for Engineers 1
- ENGR 0131 Statics for Civil & Environmental Engineers 1
- ENGR 0141 Statics for Civil & Environmental Engineers 2
- ENGR 0151 Dynamics for Civil & Environmental Engineers
- ENGR 0716 Art of Hands-on System Design and Engineering
- IE 1040 Engineering Economic Analysis
- IE 1054 Productivity Analysis
- IE 0015 Intro to Information Systems Engineering
- IE 1070 Probability, Random Variables and Distributions
- IE 1071 Probability and Statistics for Engineers 2
- CEE 0109 Computer Methods in CEE
- CHE 0100/101 Foundations of Chemical Engineering/Lab
- CHE 0200/201 ChE Thermodynamics/Lab
- CHE 0300/0301 Transport Phenomena/Lab
- CHE 0400/0401 Reactive Processes/Lab
- CHE 0500/0501 Systems Engineering I/Lab
- CHE 0613 Systems Engineering II: Process Design
- CHE 0614 Systems Engineering II: Product Design
- CHE 0601 Systems Engineering Lab 1
- CHE 0602 CHE Safety and Ethics
- CEE 1105 Materials of Construction CEE
- ECE 0031 Linear Circuits & Systems 1
- ECE 0041 Linear Circuits & Systems 2
- ECE 0132 Digital Logic
- ECE 0142 Computer Organization
- ECE 0501 Digital Laboratory
- ECE 0257 Analysis & Design of Electronic Circuits
- COE 0132 Digital Logic
- COE 0401 Intro to Java
- COE 0031 Linear Systems & Circuits 1
- COE 0147/0447 Computer Organization
- COE 0445 Data Structures
- COE 0501 Digital Laboratory
- COE 0041 Linear Systems & Circuits 2