

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 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