



Approved Department Electives

Units

- (3) BIOE 120A- Molecular Bioengineering
- (3) BIOE 120B- Cellular Bioengineering
- (4) CHEM 109A – Organic Chemistry
- (4) CHEM 123 – Fundamentals of Environmental Chemistry
- (5) ECE 147A – Feedback Control Systems – Theory and Design
- (5) ECE 147C – Control System Design Project
- (3) ECE/CMPSC 181B- Introduction to Computer Vision
- (4) ENGR 101 – Ethics in Engineering
- (3) ENGR 195A, B, C- Multidisciplinary
- (4) ENV S 105 – Solar and Renewable Energy
- (3) MATRL 100A – Structure and Properties I
- (3) MATRL 100B – Structure and Properties II
- (3) MATRL/ME 186A – Manufacturing and Materials
- (3) MATRL/ME 186B- Additive Manufacturing
- (2) MATRL 188 – Topics in Materials
- (3) ME 102- Finite Elements Analysis of Heat Transfer and Fluid Flow with COMSOL
- (3) ME 110 – Aerodynamics and Aeronautical Engineering
- (3) ME 112 – Energy Conversion
- (3) ME 124 – Advanced Topics in Transport Phenomena/Safety
- (3) ME 125 AA-ZZ – Special Topics
- (3) ME 128 – Design of Biomedical Devices
- (3) ME 133- Renewable Energy Technologies
- (3) ME 134 – Advanced Thermal Science
- (3) ME 135- Wind & Tidal Energy
- (3) ME 140A- Numerical Analysis
- (3) ME 140B – Theoretical Analysis in Mechanical Engineering
- (3) ME 141A – Intro to Nano and Microelectrical Systems (NEMS/MEMS)
- (4) ME 141B –MEMS: Processing and Device Characterization
- (3) ME 146 – Molecular and Cellular Biomechanics
- (3) ME 147- LabView and Mechatronics
- (3) ME 151C- Thermoscience III- Heat Transfer
- (3) ME 155A- Control System Design I
- (3) ME 155B – Control System Design II
- (3) ME 155C- Control Systems Laboratory
- (3) ME 157- Introduction to Multiphysics Simulation
- (3) ME 158 – Computer Aided Design and Manufacturing
- (3) ME 159- Introduction to Design Optimization
- (3) ME 162 – Intro to Elasticity
- (3) ME 163- Engineering Mechanics- Vibrations
- (3) ME 166 – Advanced Strength of Materials
- (3) ME 167 – Structural Analysis
- (3) ME W 167- Structural Analysis (Online version of ME 167)
- (4) ME 169 – Nonlinear Phenomena
- (4) ME/ECE 179D – Intro to Robotics: Dynamics & Control
- (4) ME 179L – Intro to Robotics: Design Laboratory
- (4) ME/ECE 179P – Intro to Robotics: Planning & Kinematics



- (3) ME 180- Crystalline Defects
- (3) ME 185 – Materials in Engineering
- (1-4) ME 197 – Independent Projects in Mechanical Engineering Design
- (1-5) ME 199 – Independent Studies in Mechanical Engineering
- (4) TMP 120 – Business Strategy & Leadership Skills*
- (4) TMP 122 – Entrepreneurship*

*Only one of these courses may be counted toward the Elective Requirement