MEng COURSES for Fall 2019 – Spring 2020

Advanced Energy Technology

Fall
- Mech Eng 250A (3 units) - Advanced Conductive and Radiative Transport
- Mech Eng 254 (3 units) - Thermodynamics
- Mech Eng 255 (3 units) - Advanced Combustion Processes

Spring
- Mech Eng 235 (4 units) - Design of Microprocessor-Based Mechanical Systems
- Mech Eng 250B (3 units) – Advanced Convective Transport and Computational Methods
- Mech Eng 292E (3 units) – Advanced Special Topics in Energy Science and Technology

BIOMechanics

Fall
- Mech Eng C210 (4 units) – Advanced Orthopedic Biomechanics
- Mech Eng C223 (3 units) - Polymer Engineering
- Mech Eng 239 (3 units) - Advanced Design and Automation
- Mech Eng C278( 4 units) – Advanced Designing for the Human Body
- Mech Eng 292C-001 (3 units)- Human-Centered Design Methods

Spring
- Mech Eng C214 (3 units) – Advanced Orthopedic Biomechanics
- Mech Eng 270 (4 units) – Advanced Augmentation of Human Dexterity
- Mech Eng C215 (3 units) - Advanced Structural Aspects of Biomaterials
- Mech Eng C225 (3 units) – Deformation and Fracture of Engineering Materials

Control of Robotic and Autonomous Systems  
(Formerly Experimental Advanced Control Systems Design)

Fall
- Mech Eng C231A / El Eng C220B (3 units)- Experiential Advanced Control Design I (required)
- Mech Eng C232 / El Eng C220A (3 units) - Advanced Control Systems I
- Mech Eng 292B – 002 (3 units) - Feedback Control of Legged Robots (new to MEng)
Spring
- Mech Eng C231B / El Eng C220C (3 units) – Experiential Advanced Control Design II *(required)*
- Mech Eng 233 (3 units) - Advanced Control Systems II
- Mech Eng 235 (4 units) - Design of Microprocessor-Based Mechanical Engineering

Fluids and Ocean
Fall
- Mech Eng 260A (3 units) – Advanced Fluid Mechanics
- Mech Eng 263 (3 units) - Turbulence

Spring
- Mech Eng 260B (3 units) – Advanced Fluid Mechanics II
- Mech Eng 266 (3 units) – Finite Diff. Meth. for Fluid Dynamics
- Mech Eng 290C (3 units) – Topics in Fluid Mechanics

MEMS/Nano
Fall
- Mech Eng C231A / El Eng C220B (3 units)- Experiential Advanced Control Design I
- Mech Eng 280A (3 units) - Introduction to the Finite Element Method

Spring
- Mech Eng C231B / El Eng C220C (3 units) – Experiential Advanced Control Design II *(required)*
- Mech Eng 235 (4 units) - Design of Microprocessor-Based Mechanical Engineering

Mechanics and Dynamics
Fall
- Mech Eng 271 (3 units) – Intermediate Dynamics
- Mech Eng 280A (3 units) - Introduction to the Finite Element Method *(required)*

Spring
- Mech Eng C279 / Civ Eng C235 (3 units) – Statistical Mechanics of Elasticity
- Mech Eng 282 (3 units) – Theory of Elasticity
Modeling and Simulation of Advanced Manufacturing Processes
Fall
• Mech Eng 203 (3 units) – Nanoscale Processing of Materials
• Mech Eng C223 (3 units) Polymer Engineering
• Mech Eng 280A (3 units) - Introduction to the Finite Element Method (required)

Spring
• Mech Eng C201(3 units) - Modeling and Simulation of Advanced Manufacturing Processes (required)
• Mech Eng 229 (3 units) – Design of Basic Electro-Mechanical Devices
• Mech Eng C279 (3 units) – Introduction to Statistical Mechanics for Engineers

Product Design
Fall
• Mech Eng C200 (3 units) – Design, Evaluate, and Scale Development Technologies
• Mech Eng C223 (3 units) - Polymer Engineering
• Mech Eng C231A / El Eng C220B (3 units)- Experiential Advanced Control Design I
• Mech Eng 239 (4 units) – Advanced Design and Automation
• Mech Eng C278 (3 units) – Advanced Designing for the Human Body
• Mech Eng 292C-001 (3 units)- Human-Centered Design Methods

Spring
• Mec Eng C205 (3 units) – Critical Making
• Mech Eng 229 (3 units) - Design of Basic Electro-Mechanical Devices
• Mech Eng 235 (4 units) - Design of Microprocessor-Based Mechanical Engineering
• Mech Eng 292C-002 (3 units) – Advanced Special Topics in Design