Updated July 24, 2019

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
- Mech Eng 292E (3 units) – Advanced Special Topics in Energy Science and Technology

Spring

- Mech Eng 235 (4 units) - Design of Microprocessor-Based Mechanical Systems
- Mech Eng 250B (3 units) – Advanced Convective Tranport and Computational Methods

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 Biomechnics
- Mech Eng 270 (4 units) – Avanced 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 236 U (3 units) – Introduction to Control of Unmanned Aerial Vehicles
- Mech Eng 292B – 003 (3 units) - Feedback Control of Legged Robots

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)
- Mech Eng 287 (3 units) – Graduate Introduction to Continuum Mechanics

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
- Mech Eng 292C-002 (3 units) – Reimagining Mobility

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