Tentative Schedule of Classes (By Area of Concentration)

Advanced Energy Technology
Fall 2021
• Mech Eng 249 (3 units) – Machine Learning Tools
• Mech Eng 250A (3 units) - Advanced Conductive and Radiative Transport
• Mech Eng 254 (3 units) - Thermodynamics

Aerospace Engineering (NEW)
Fall 2021
• Mech Eng 249 (3 units) – Machine Learning Tools
• Mech Eng 263Z (3 units) - Engineering Aerodynamics
• Mech Eng 236U (3 units) – Control and Dynamics of Unmanned Aerial Vehicles
• Mech Eng 287 (3 units) – Introduction to Continuum Mechanics
• Mech Eng C231A / El Eng C220B (3 units)- Experiential Advanced Control Design I
• Mech Eng C232 / El Eng C220A (3 units) - Advanced Control Systems I

BioMechanics
Fall 2021
• Mech Eng 249 (3 units) – Machine Learning Tools
• Mech Eng C223 (3 units) – Polymer Engineering
• Mech Eng 292C-001 (3 units)- Human-Centered Design Methods

Control of Robotic and Autonomous Systems (Formerly Experimental Advanced Control Systems Design)
Fall 2021
• Mech Eng 249 (3 units) – Machine Learning Tools
• Mech Eng C231A / El Eng C220B (3 units)- Experiential Advanced Control Design I
• 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
Fluids and Ocean
Fall 2021
• Mech Eng 249 (3 units) – Machine Learning Tools
• Mech Eng 248 (3 units) – Experimental Methods in Single and Multiphase Flows
• Mech Eng 260A (3 units) – Advanced Fluid Mechanics
• Mech Eng 262 (3 units) – Hydrodynamic Stability and Instability
• Mech Eng 263Z (3 units) - Engineering Aerodynamics

MEMS/Nano
Fall 2021
• Mech Eng 249 (3 units) – Machine Learning Tools
• Mech Eng 219 (3 units)- Introduction to Microelectromechanical Systems
• Mech Eng C231A / El Eng C220B (3 units)- Experiential Advanced Control Design I
• Mech Eng 280A (3 units) - Introduction to the Finite Element Method

Mechanics and Dynamics
Fall 2021
• Mech Eng 249 (3 units) – Machine Learning Tools
• Mech Eng 280A (3 units) - Introduction to the Finite Element Method
• Mech Eng 281 (3 units) – Methods of Tensor Calculus and Differential Geometry
• Mech Eng 287 (3 units) - Introduction to Continuum Mechanics

Modeling and Simulation of Advanced Manufacturing Processes
Fall 2021
• Mech Eng 249 (3 units) – Machine Learning Tools
• Mech Eng C223 (3 units) – Polymer Engineering
• Mech Eng 226 (3 units)- Tribology
• Mech Eng C231A / El Eng C220B (3 units)- Experiential Advanced Control Design I
• Mech Eng 280A (3 units) - Introduction to the Finite Element Method (required)
Product Design
Fall 2021

- Mech Eng 249 (3 units) – Machine Learning Tools
- 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) – Robotic Locomotion
- Mech Eng 292C-001 (3 units) - Human-Centered Design Methods
- Mech Eng 292C-002 (3 units) – Advanced Engineering Graphical Communication