

ME Department Electives 2024-2025

Fall 2024

BIOE 120A/220A	Molecular Bioengineering	Plaxco, Kevin
ECE/ME 179D/ECE 289	Introduction to Robotics: Dynamics & Control	Bly, Katie
ENGR 101	Ethics in Engineering	Hough, Kenneth
MATRL 185/ME 185	Materials in Engineering	Beyerlein, Irene
ME 112	Energy	Matthys, Eric
ME 125AS/225AS	Special Topics: Introduction to Multiphase Flow	Alban, Sauret
ME 125TB	Special Topics: Waves & Flow	Bennett, Ted
ME 125TD/225TD	Special Topics: Advanced Engineering Thermodynamics	Bolin, Liao
ME 125/225YZ	Special Topics: Interfacial Phenom	Zhu, Yangying
ME 128	Design of Biomedical Devices	Laguette, Stephen
ME 140A	Numerical Analysis in Engineering	Meiburg, Eckart
ME 154	Design & Analysis of Structures	McMeeking, Robert
ME 157/257	Introduction to Multiphysics Stimulation	Meinhart, Carl
ME 167	Structural Analysis	Yang, Henry
ME 179L	Introduction to Robotics: Design Laboratory	Marks, Trevor

Winter 2025

BIOE 120B/220B	Cellular Bioengineering	Stowers, Ryan
ECE/ME 141A	Introduction to Nanoelectromechanical & Microelectromechanical Systems (NEMS/MEMS)	Pennathur, Sumita
ENGR 101	Ethics in Engineering	Hough, Kenneth
MATRL/ME 186A	Manufacturing & Materials	Oropeza, Daniel
ME 102	Finite Elements Analysis of Heat Transfer & Fluid Flow w/ COMSOL	Matthys, Eric
ME 125AS/225AS	Special Topics: Introduction to Multiphase Flow	Alban, Sauret
ME 125ED/225ED	Special Topics: Bio-Inspired Design in Fluid Mechanics	Dressaire, Emilie
ME 125EH	Special Topics: Soft Robotics	Hawkes, Elliot
ME 125FA/225FA	Special Topics: Failure Analysis	Daly, Samantha
ME 125FM/225FM	Special Topics: Fluid Mechanics & Soft Matter in Additive Manufacturing	Sauret, Alban
ME 125KF	Special Topics: Design & Construction of Scientific Apparatus	Fields, Kirk
ME 125RM/225RM	Special Topics: Chemo-Mechanics	McMeeking, Robert
ME 127	Introduction to Mechanisms	Tsai, Geoff
ME 135/235	Wind & Tidal Extraction	Luzzatto-Fegiz, Paolo
ME 158	Computer Aided Design & Manufacturing	Chamber, Ryan
ME 159	Introduction to Design Optimization	Meinhart, Carl Petzold, Linda
ME 163	Engineering Mechanics: Vibrations	Bamieh, Bassam

Spring 2025

ECE/ME 141B	MEMS: Processing & Device Characterization	Pennathur, Sumita
ECE 147C/ME 155C	Control System Design Project	Hespanha, Joao
ECE 183/ME 169/PHYS 106	Nonlinear Phenomena	Bly, Katie
ENGR 101	Ethics in Engineering	Hough, Kenneth
ENV S 105	Renewable Energy Systems	TBD
MATRL/ME 186B	Introduction to Additive Manufacturing	Oropeza, Daniel
ME 110	Aerodynamics & Aeronautical Engineering	Meinhart, Carl
ME 125F/225F	Special Topics: Hydrodynamic Instability & Turbulence	Alban, Sauret
ME 125RA/225RA	Special Topics: Radiative Energy Transfer	Bennett, Ted
ME 125MB	Special Topics in ME: TBD	Begley, Matt
ME 125MV/225MV	Special Topics: Wicked Problems	Valentine, Megan
ME 125YV	Special Topics: Vehicle Dynamics	Visell, Yon
ME 129	Manufacturing & Geometric Dimensioning & Tolerancing	Tsai, Geoff
ME 134	Advanced Thermal Science	Matthy's Eric
ME 151C	Thermosciences 3	Zhu, Yangying
ME 155A	Control System Design	Yeung, Enoch
ME 166	Advanced Strength of Materials	Daly, Samantha
ME W 167	Structural Analysis	Yang, Henry
ME 180/280	Crystalline Defects	Beyerlein, Irene

* These Electives may change frequently throughout the year.