

Winter 2020 Course List

Updated January 18, 2020

Robotics Core

[ROB 550](#): Robotics Systems Laboratory (Gaskell)

Sensing

[BIOMEDE 517](#): Neural Engineering (Chestek)

[EECS 442](#): Computer Vision

*Enrollment is primarily reserved for undergraduate students. Grad enrollment with instructor consent

EECS 504: Foundations Computer Vision

[EECS 564](#): Estimation, Filtering, and Detection

EECS 598: The Ecological Approach to Visual Perception (Fouhey)

CLIMATE 585: Introduction to Remote Sensing and Inversion

[ROB 530/NAVARCH 568/EECS 568](#): Mobile Robotics (Ghaffari)

Acting

AEROSP 740: Multi-Agent Control (Panagou)

[EECS 461](#): Embedded Control Systems

[EECS 560/MECHENG 564 / AEROSP 550](#): Linear Systems Theory

[EECS 561/MECHENG 561](#): Design of Digital Control Systems (Vasudevan)

[EECS 562/AEROSP 551](#): Nonlinear Systems & Control

[EECS 565](#): Linear Feedback Control

EECS 598: Convex Optimization Methods in Control (Seiler)

[MECHENG 461](#): Automatic Control (Barton)

[MECHENG 542](#): Vehicle Dynamics (Orosz)

MECHENG 543: Analytical & Computational Dynamics I (Zheng)

ROB 599: Robot Modeling and Control (Gregg)

ROB 599/MECHENG 599/CEE 501/ISD 599: Dynamics and Control of Connected Vehicles (Orosz)

Reasoning

[AEROSP 552](#): Aerospace Information Systems (Kuevor)

[EECS 486](#): Information Retrieval & Web Search

[EECS 545](#): Machine Learning

[EECS 548](#): Information Visualization (Kay)

[EECS 592](#): Foundations of Artificial Intelligence

EECS 598: Reinforcement Learning (Ying)

[EECS 692](#): Advanced Artificial Intelligence

[IOE 434](#): Human Error and Complex System Failure ()

[IOE 511](#): Continuous Optimization Methods (Saigal)

[IOE 512](#): Dynamic Programming (Chao)

IOE 691: Approximation Algorithms (Guikema)

Electives

[AEROSP 585](#): Aerospace Seminar (Waas)

EECS 492: Intro to AI (undergrad course)

[EECS 460](#): Control Systems Analysis and Design

[EECS 467](#): Autonomous Robotics (Jenkins)

[EECS 501](#): Probability & Random Processes

[EECS 586](#): Design & Analysis of Algorithms

ENTR 407: Entrepreneurship Hr. (Fay)

IOE 491: Quantifying Human Motion (Stirling)

[PSYCH 614](#): Advanced Statistical Methods (Gonzalez)

[SPACE 565](#): Planetary Science (Atreya)

PUBPOL 754: Research Seminar in Science, Technology and Public Policy (Duderstadt)

ROB 599: Bioinspiration (Moore)

ROB 599/EECS 598: Robot Ethics (Atkins and Kuipers)