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)