

Fall 2021 Course List

Updated May 13, 2021

Robotics Core:

- ROB 501: Math for Robotics (Ozay)
- ROB 502: Programming for Robotics (TBD)
- ROB 550: Robotics Systems Lab (Gaskell)

Sensing:

- AEROSP 567: Inference Estimation and Learning (Gorodetsky)
- EECS 442: Computer Vision (Owens)
*Enrollment is primarily reserved for undergraduate students. Grad enrollment with instructor consent
- EECS 542: Advanced Topics in Computer Vision (Fouhey)
- EECS 551: Matrix Methods for Signal Processing (Fessler)
- ROB 535 / MECHENG 599 / NAVARCH 565 / EECS 498: Self Driving Cars: Perception and Control (Johnson-Roberson / Vasudevan)

Reasoning:

- AEROSP 584: Navigation & Guidance of Aerospace Vehicles (Vasileios)
- EECS 505: Computational Data Science and Machine Learning (Nadakuditi)
- EECS 545: Machine Learning (Hero)
- EECS 548: Info Visualization (Adar)
- EECS 550: Information Theory (Ying)
- EECS 592: Foundations of Artificial Intelligence (Lu)
- EECS 595: Natural Language Processing (Chai)
- EECS 598.002: Computational Modeling in HCI (Banovic)
- IOE 512: Dynamic Programming (Shen)
- IOE 536: Cognitive Ergonomics (Sarter)
- IOE 611: Nonlinear Programming (Fattah)

Acting:

- AEROSP 540 / MECHENG 540: Intermediate Dynamics (Bernstein)
- EECS 461: Embedded Systems Control (Freudenberg)
- EECS 560 / MECHENG 564 / AEROSP 550: Linear Systems Theory (Gillespie)
- MECHENG 461: Automatic Control (Barton)
- MECHENG 599.004: Introduction to Robotic Manipulation (Fazeli)
- NAVARCH 540: Marine Dynamics III (Pan)
- ROB 535 / MECHENG 599 / NAVARCH 565 / EECS 498: Self Driving Cars: Perception and Control (Johnson-Roberson / Vasudevan)

Elective:

**In addition to the courses listed below, any 500-level CoE course can count as an elective.*

- AEROSP 585: Aerospace Seminar (topic varies by term)
- EECS 460: Control Systems Analysis and Design (Seiler)
- EECS 467: Autonomous Robotics (TBD)
- EECS 498: Special Topics - Introduction to Algorithmic Robotics (Berenson)
- EECS 501: Probability & Random Processes (Sadanandarao)
- EECS 587: Parallel Computing (Stout)
- EECS 598.003: Applied GPU Programming (Das)
- ELI 521: Writing for Academic Purposes I
- ENTR 407: Entrepreneurship Hour
- ENTR 500: Intro to Innovation Careers
- ENTR 520: Tech-Inspired Business Models
- ENTR 530: Innovation & IP Strategy
- ENTR 550: Interpersonal Skills
- ENTR 560: Project Management and Consulting
- ENTR 599 (all sections)
- ISD 599F: Vehicle Crashworthiness and Occupant Protection (Hu)
- MATH 451: Advanced Calculus I (Ji)
- MATH 525: Probability Theory (TBD)
- MECHENG 552: Mechatronic Systems Design (Awtar)
- MECHENG 560: Modeling Dynamic Systems (Stein)
- TCHNCLCM 610: Academic and Professional Writing