EN.620 (ROBOTICS)

Courses

EN.620.501. Robotics MSE Undergradute Research. 3 - 9 Credits.
This course will provide a Robotics graduate-level research experience to those pursuing the Robotics MSE degree, which will help a student engage in robotics research on a specific topic and/or in specific research group under faculty supervision. Prior to course registration, students must submit a research proposal for approval by both the research advisor and the student's faculty academic advisor. In case the faculty advisor is the same as the research advisor, the proposal should be submitted to the Robotics Director of Education for approval. The research will be the equivalent of at least three credits, or approximately 120 hours of work in a typical semester. Only open to Robotics MSE students. This 3-credit course can count as one of the 10 courses required in the course option of the Robotics MSE option. This course does not count toward the 8 courses required in the essay option, but should be taken while working on the essay for this option.
Prerequisite(s): You must request Independent Academic Work using the Independent Academic Work form found in Student Self-Service: Registration, Online Forms.

EN.620.745. Seminar in Computational Sensing and Robotics. 1 Credit.
Seminar series in robotics. Topics include: Medical robotics, including computer-integrated surgical systems and image-guided intervention. Sensor based robotics, including computer vision and biomedical image analysis. Algorithmic robotics, robot control and machine learning. Autonomous robotics for monitoring, exploration and manipulation with applications in home, environmental (land, sea, space), and defense areas. Biorobotics and neuromechanics, including devices, algorithms and approaches to robotics inspired by principles in biomechanics and neuroscience. Human-machine systems, including haptic and visual feedback, human perception, cognition and decision making, and human-machine collaborative systems.Cross-listed Mechanical Engineering, Computer Science, Electrical and Computer Engineering, and Biomedical Engineering.

EN.620.801. Robotics MSE Graduate Research. 3 - 9 Credits.
This course will provide a Robotics graduate-level research experience to those pursuing the Robotics MSE degree, which will help a student engage in robotics research on a specific topic and/or in specific research group under faculty supervision. Prior to course registration, students must submit a research proposal for approval by both the research advisor and the student's faculty academic advisor. In case the faculty advisor is the same as the research advisor, the proposal should be submitted to the Robotics Director of Education for approval. The research will be the equivalent of at least three credits, or approximately 120 hours of work in a typical semester. Only open to Robotics MSE students. This 3-credit course can count as one of the 10 courses required in the course option of the Robotics MSE option. This course does not count toward the 8 courses required in the essay option, but should be taken while working on the essay for this option.

EN.620.802. Robotics MSE Graduate Internship. 3 - 9 Credits.
This course will provide a Robotics graduate-level research experience to those pursuing the Robotics MSE degree, which will help a student engage in robotics research on an internship. Prior to course registration, students must acquire an internship and research advisor and submit an Internship Mutual Work Agreement for approval by the research advisor, the internship supervisor and the Robotics MSE program. Only open to Robotics MSE students. This course does not count toward the 8 courses required in the essay/internship option, but should be taken while working on the internship and internship report for this option.