

CORE COURSES

Required

<p>ROBOT 6000 Robotics I: Mechanics</p>	<p>ROBOT 6100 Robotics II: Control</p>	<p>ROBOT 6200 Motion Planning or CS 6300 Artificial Intelligence</p>	<p>CS 6640 Image Processing or CS 6320 Computer Vision</p>
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SEMINARS

Required

<p>ME EN 6890 or CS 7930 or ECE 6900</p>	<p>ROBOT 6800 Robotics Seminar (Enroll in 2 semesters for 1 credit each semester)</p>
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ALLIED COURSES

9-10 Cr. (as needed to reach the 30-credit hour coursework minimum requirement)

RESEARCH

ELECTIVE COURSES

Select 3 classes from two different categories:

<p>ROBOT 7970 PhD Dissertation (14 credits minimum)</p>
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MECHANICS	CONTROL	DESIGN	HUMAN-ROBOT INTERACTION	PERCEPTION
<p>ROBOT 7000 Manipulation, Mobility ROBOT 7010 System Identification for Robotics</p>	<p>ME EN 6200/ ECE 6615 Classical Control Systems ECE 6670 Control of Electric Motors ME EN 6210/ ECE 6652/ CH EN 6203 State Space Control ME EN 7200 Nonlinear Control ME EN 7210 Optimal Control ECE 6570 Adaptive Control</p>	<p>ROBOT 6500 Advanced Mechatronics ROBOT 6960 Wearable Robotics ECE 6780/ CS 6780 Embedded System Design ECE 6960 Robotic Millisystems CS 6956 Medical Robotics</p>	<p>CS 6360 Virtual Reality ROBOT 7400 Haptics for VR, Tele- operation, and Physical Human-Robot Interaction ROBOT 6400 Neural Engineering and NeuroRobotics</p>	<p>CS 7640 Adv. Image Processing CS 6353 Deep Learning for Image Analysis ECE 6530 Digital Signal Processing</p>
COGNITION				
<p>CS 6350 Machine Learning CS 6958 Robot Learning</p>				