

Robotics MS Requirements

*Must reach 30 credit minimum

		Requirement	Course Number
Date completed		(4) CORE COURSE REQUIREMENT	Course Title
	<i>Robot Mechanics Core Area</i> (Required):	ROBOT 6000/ CS 6310/ ECE 6650/ ME EN 6220	Robotics II: Mechanics
	<i>Robot Control Core Area</i> (Required):	ROBOT 6100/ CS 6330/ ECE 6651/ ME EN 6230	Robotics II: Control
	<i>Cognition Core Area</i> (Choose one):	ROBOT 6200/ CS 6370/ ME EN 6225	Motion Planning
		CS 6300	Artificial Intelligence
	<i>Perception Core Area</i> (Choose one):	CS 6640/ BME 6640/ ECE 6532	Image Processing
		CS 6320	Computer Vision
	Categories	(2 from 2 different categories) ELECTIVE COURSE REQUIREMENT	Course Title
	<i>Robot Mechanics</i>	ROBOT 7000/ ME EN 7230/ CS 7310	Manipulation and Mobility
	<i>Robot Mechanics</i>	ROBOT 7010/ CS 7320/ ME EN 7220	System ID for Robotics
	<i>Robot Control</i>	ME EN 6200 or ECE 6615	Classical Control Systems
	<i>Robot Control</i>	ECE 6670	Control of Electric Motors
	<i>Robot Control</i>	ME EN 6210/ ECE 6652/ CH EN 6203	State Space Control
	<i>Robot Control</i>	ME EN 7200	Nonlinear Control
	<i>Robot Control</i>	ME EN 7210	Optimal Control
	<i>Robot Control</i>	ECE 6570	Adaptive Control
	<i>Cognition</i>	CS 6350	Machine Learning
	<i>Cognition</i>	CS 6958	Robot Learning
	<i>Perception</i>	CS 7640	Advanced Image Processing
	<i>Perception</i>	CS 6353	Deep Learning for Image Analysis
	<i>Perception</i>	ECE 6530	Digital Signal Processing
	<i>Human-Robot Interaction</i>	CS 6360	Virtual Reality
	<i>Human-Robot Interaction</i>	ROBOT 7400/ ME EN 7240	Haptics
	<i>Human-Robot Interaction</i>	ROBOT 6400/ BME 6440/ ECE 6654	Neuro-Robotics
	<i>Robot Design</i>	ROBOT 6500/ ME EN 6240	Advanced Mechatronics
	<i>Robot Design</i>	ROBOT 6510	Wearable Robotics
	<i>Robot Design</i>	ECE 6780/ CS 6780	Embedded System Design
	<i>Robot Design</i>	ECE 6960	Robotic Millisystems
	<i>Robot Design</i>	CS 6956	Medical Robotics
Date completed		(1) ALLIED REQUIREMENT	Course Title
	Any additional elective from above OR supporting electives category:		
	<i>Supporting electives</i>	ME EN 6035	Design of Experiments
	<i>Supporting electives</i>	ME EN 6100	Ergonomics
	<i>Supporting electives</i>	ECE 6540	Estimation Theory
	<i>Supporting electives</i>	CS 6540	Human-Computer Interaction
	<i>Supporting electives</i>	ME EN 6410	Intermediate Dynamics
	<i>Supporting electives</i>	CS 6340	Natural Language Processing
	<i>Supporting electives</i>	ME EN 6205	System Dynamics

Date completed		SEMINAR REQUIREMENT (2 cr)	Course Title
		ROBOT 6800	Robotics Seminar
		ROBOT 6800	Robotics Seminar
MS-Thesis students ONLY		THESIS TRACK SEMINAR REQUIREMENT (1	Course Title
	(Enroll in Faculty Advisor's section)	ME EN 6890/ ECE 6900/ CS 7930	Department Seminar
Date completed		FINAL REQUIREMENT (6 cr)	Course Title
	<i>Final Project</i> (Choose one):	ROBOT 6970	Master's Thesis Research
		ROBOT 6920	Graduate Project
		<u>Mixed Option (Choose 2):</u> ROBOT 6920 ROBOT 6500 ROBOT 6960 ROBOT 6200 CS 6320 ROBOT 6400	<u>Project-intensive courses:</u> Graduate Project Advanced Mechatronics Wearable Robotics Motion Planning Computer Vision Neural Engineering & Neurorobotics