

MS Degree Requirements

CORE COURSES

Required

ROBOT 6000

Robotics I:
Mechanics

ROBOT 6100

Robotics II:
Control

ROBOT 6200

Motion Planning

or

CS 6300

Artificial Intelligence

CS 6640

Image Processing

or

CS 6320

Computer Vision

ALLIED COURSES

3-4 Cr. (as needed to reach the 30-credit hour coursework minimum requirement)

ELECTIVE COURSES

Select 2 classes from two different categories:

MECHANICS

ROBOT 7000

Manipulation, Mobility

ROBOT 7010

System Identification for
Robotics

COGNITION

CS 6350

Machine Learning

CS 6958

Robot Learning

CONTROL

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

DESIGN

ROBOT 6500

Advanced Mechatronics

ROBOT 6960

Wearable Robotics

ECE 6780/ CS 6780

Embedded System Design

ECE 6960

Robotic Millisystems

CS 6956

Medical Robotics

HUMAN-ROBOT INTERACTION

CS 6360

Virtual Reality

ROBOT 7400

Haptics for VR, Teleoperation,
and Physical Human-Robot
Interaction

ROBOT 6400

Neural Engineering
and NeuroRobotics

PERCEPTION

CS 7640

Adv. Image Processing

CS 6353

Deep Learning for
Image Analysis

SEMINARS

ME EN 6890

or CS 7930

or ECE 6900

(Thesis option only)

ROBOT 6800

Robotics Seminar

(Enroll in 2 semesters for
1 credit each semester)

THESIS or PROJECT

ROBOT 6970 Master's Thesis

or

ROBOT 6920 Graduate Project

or

ROBOT 6920 + Approved coursework with
intensive project (6 Credits)