

M.S. / Ph.D. Degree Planner: Intelligent Systems, Robotics & Control (EC80) 2021-2022

- ❖ Minimum of 12 units (Plan I) or 16 units (Plan II) must be 201+ ECE courses that must count towards your degree.
- ❖ All courses counted towards the degree must be taken for a letter grade, with the exception of research units.
- ❖ Students **CANNOT** repeat a course unless they earned a D, F, U, or W grade. If you'd like to repeat a course, please submit the [online form](#). More information about how to repeat a course can be found [here](#).
- ❖ Note that **ONLY** 100+ courses will count towards your overall GPA.
- ❖ Must meet the Academic Residency requirement. More detailed info can be found [here](#).

Core Coursework (16 Units):

ECE 269	Linear Algebra & Application
ECE 271A	Statistical Learning I
ECE 272A*	Stochastic Processes in Dynamic Systems I
ECE 276A	Sensing & Estimation in Robotics

*Students may take MAE 280A in place of ECE 272A. You can't count both courses towards your degree.

Quarter/Core Courses	
Total: 16 Units	

12 Additional Units Selected from the following:

ECE 250	Random Processes
ECE 252A-B	Speech Compression, Speech Recognition
ECE 253	Fundamentals of Digital Image Processing
ECE 271B-C	Statistical Learning II, Deep Learning & Applications
ECE 272B	Stochastic Processes in Dynamic Systems II
ECE 273	Convex Optimization & Applications
ECE 275A-B	Parameter Estimation I & II
ECE 276B-C	Planning & Learning in Robotics, Robot Reinforcement Learning
ECE 285	Special Topics in Signal & Image Processing/Robotics & Control Systems
CSE 250A	Principles of Artificial Intelligence: Probabilistic Reasoning & Learning
CSE 252A	Computer Vision I
MAE 247	Cooperative Control of Multi-Agent Systems
MAE 280A	Linear Systems Theory
MAE 281A	Nonlinear Systems

Quarter/Add. Units	
Total: 12 Units	

Quarter/Tech. Electives	
Total: 20 Units	

Technical Electives (20 Units)

- ❖ Any 4 unit, 200+ course from ECE, CSE, MAE, BENG, CENG, NANO, SE, MATS, MATH, PHYS or CogSci taken for a letter grade may be counted. Exceptions to this list require departmental approval.
 - ❖ Up to 12 units of undergraduate ECE coursework (ECE 111+ only*) OR up to two 4-unit courses of undergraduate ECE coursework (ECE 111+ only*) and one 4-unit course of CSE undergraduate coursework (CSE100+ only**) may be counted.
 - ❖ Students cannot count both ECE 150 & CSE 175
 - ❖ MS students (Plan II) are allowed no more than 4 units of any Jacobs School of Engineering Research units as technical electives. PhD and MS students (Plan I) are allowed no more than 8 units of research as technical electives.
 - ECE 299, CSE 298/299, MAE 299, BENG 299, NANO 299, SE 299
 - ❖ All courses counted towards the degree must be taken for a letter grade.
- * Not including ECE 195, 197, 198, 199, 210 or 298 ** Not including CSE 123, 140, 140L, or 143
 *** Seminar courses cannot count towards your degree

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Curriculum/Faculty Advisor: Advises M.S. students regarding course selection; Considers any exception requests requiring faculty approval (such as course substitutions); Sign forms; Technical engineering related questions & job advice- **PLEASE CONTACT [YOUR STAFF ADVISOR](#) FOR ALL OTHER ISSUES.**