UC San Diego
Electrical and Computer Engineering

2025 - 2026 ECE M.S. / Ph.D. Degree Planner: Machine Learning & Data Science (EC93)

- 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 and for **4 units**, with the exception of research units.
- Students **CANNOT** repeat a course unless they earned a D, F, or U 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.
- Must meet the Academic Residency requirement. More detailed info can be found here.

Core Courses (16 Units)

ECE 143	Programming for Data Analysis
ECE 269	Linear Algebra & Application
ECE 271A	Statistical Learning I
ECE 225A	Probability and Statistics for Data Science

16 Additional Units Selected from the following:

ECE 208	Computational Evolutionary Biology
ECE 225B	Universal Probability and Its Application in Data Science
ECE 226	Optimization and Acceleration of Deep Learning on Various Hardware Platforms
ECE 227	Big Network Data
ECE 228	Machine Learning for Physical Applications
ECE 229	Computational Data Analysis and Product Development
ECE 250	Random Processes
ECE 271B	Statistical Learning II
ECE 271C	Deep Learning & Applications
ECE 273	Convex Optimization and Applications
ECE 275A-B	Parameter Estimation I, Parameter Estimation II
ECE 276A-B-C	Sensing and Estimation in Robotics, Planning and Learning in Robotics, Robot Manipulation and Control
ECE 277	GPU Programming
ECE 284	Mobile Health Design/Low-Power VLSI Implementation for Machine Learning
ECE 285	Special Topics in Signal and Image Processing/Robotics and Control Systems

Quarter (List FA##, WI##, SP## below)	Core Courses
	ECE 143
	ECE 269
	ECE 271A
	ECE 225A
Total: 16 Units	

Quarter (List FA##, WI##, SP## below)	Additional Units
Total: 16 Units	

Quarter (List FA##, WI##, SP## below)	Technical Electives
Total: 16 Units	

Technical Electives (16 Units)

- Any 4 unit, 200+ course from ECE, CSE, MAE, BENG, CENG, DSC, NANO, SE, MATS, MATH, PHYS or COGS taken for a letter grade may be counted. * Exceptions to this list require departmental approval. In particular, the following courses are recommended: MATH 245 A-B-C (Convex Analysis and Optimizations), MATH 282 A-B (Applied Statistics), MATH 289C (Exploratory Data Analysis and Inferences), COGS 260 (Image Recognition).
- 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 (CSE 100+ only***) may be counted.
- M.S. students (Plan II) are allowed no more than 4 units of research units as technical electives. Ph.D. and M.S. students (Plan I) are allowed no more than 8 units of research as technical electives.
  - ➢ The following research course(s) could be used toward the degree: ECE 299, CSE 293/298/299, MAE 299, BENG 299, NANO 299, SE 299, DSC 299

* Seminar courses cannot count towards the degree
** Not including ECE courses numbered: 195, 197, 198, 199, 210 or 298
*** Not including CSE courses numbered: 123, 140, 140L, 143 or 294

Curriculum Advisor

EC93 Advisor Contact Information

Role: Advises graduate students regarding course selection; Considers any exception requests requiring faculty approval; Signs forms; Technical engineering related questions & job advice.
PLEASE CONTACT YOUR STAFF ADVISOR FOR ALL OTHER ISSUES.