UC San Diego
Electrical and Computer Engineering

ECE Graduate Student Affairs
EBU 1, 2nd Floor
ece-gradoffice@ece.ucsd.edu

M.S. / Ph.D. Degree Planner: Machine Learning & Data Science (EC93) 2020-2021

Core Coursework (16 Units):

- Minimum of 12 units (Plan 1) or 14 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.

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

Quarter/Core Course	
	ECE 143
	ECE 269
	ECE 271A
	ECE 225A
Total: 16 Units	

16 additional units (at least 1 course in each area) from the following:

Analytics	
ECE 271B	Statistical Learning II
ECE 273	Convex Optimization and Applications
ECE 275A-B	Parameter Estimation I/II
Computation	
ECE 226	Optimization and Acceleration of Deep Learning on Various Hardware Platforms
ECE 229	Computational Data Analysis and Product Development
ECE 289	Scalable Learning
ECE 277	GPU Programming
Applications	
ECE 208	Computational Evolutionary Biology
ECE 285	Machine Learning for Image Processing
ECE 209	Statistical Learning for Biosignal Processing
ECE 227	Big Network Data
ECE 228	Machine Learning for Physical Applications
ECE 268	Security of Hardware Embedded Systems
ECE 271C	Deep Learning & Applications
ECE 276A-B-C	Sensing & Estimation in Robotics, Planning & Learning in Robotics, Robot Reinforcement Learning
ECE 286	SoA Topics in Computational Statistics & M.L.

Quarter/Add. Units	
Total: 16 Units	

Quarter/Tech.Electives	
Total: 16 Units	

Technical Electives (16 Units)

- Any 4 unit, 200+ course from ECE, CSE, MAE, BENG, CENG, NANO, SE, MATS, MATH, PHYS or COGS taken for a letter grade may be counted. 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), and COGS 289 (Machine Learning and Signal Processing for EEG-based Brain Computer Interfaces)."
- 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.
- 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

* Not including ECE 195, 197, 198, 199 or 298

** Not including CSE 123A, 140, 140L, or 143

Curriculum Advisor: Michael Yip yip@ucsd.edu (858)-822-4778

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.**