

**M.S. / Ph.D. Degree Planner: Machine Learning & Data Science (EC93) – 2018-2019**

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.

**Core Coursework (16 Units):**

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

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

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

Analytics	
ECE 271B	Statistical Learning II
ECE 273	Convex Optimization and Applications
ECE 275A	Parameter Estimation
Computation	
ECE 226	Special Topics - Deep Learning: Hardware Platforms
ECE 289	Special Topics - Parallel Processing in Data Sci.
ECE 289	Special Topics - Scalable Learning
Applications	
ECE 208	Computational Evolutionary Biology
ECE 209	Statistical Learning for Biosignal Processing
ECE 227	Big Network Data
ECE 228	Machine Learning: Physical Applications
ECE 268	Hardware Embedded Systems
ECE 271C	Deep Learning Applications
ECE 276A-B-C	Robotics: Sensing & Estimation, Planning & Learning, Reinforcement Learning

Quarter / Additional Units	
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 course of undergraduate ECE coursework (ECE 111+ only\*) and one 4-unit course of CSE undergraduate coursework (CSE100+ only\*\*) may be counted.
- MS students (Plan II) are allowed no more than 4 units of ECE 299 (research units) as technical electives. PhD and MS students (Plan I) are allowed no more than 8 units of ECE 299 as technical electives.

Quarter / Tech. Electives	
Total: 16 units	

\* Not including ECE 195, 197, 198, 199 or 298  
 \*\* Not including CSE 123A, 140, 140L, or 143

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Advisor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Print Student Name (Last, First) \_\_\_\_\_ UCSD Email \_\_\_\_\_ PID \_\_\_\_\_