

M.S. / Ph.D. Degree Planner: Nanoscale Devices & Systems (EC86) – 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 (12 Units):

ECE 212AN	Nanoscience & Nanotechnology
ECE 212BN	Nanoelectronics
ECE 212CN	Nanophotonics

Quarter / Core Course	
	ECE 212AN
	ECE 212BN
	ECE 212CN
Total: 12 units	

Additional Coursework (12 units) 3 courses from the same group:

ECE 222A-B-C	Antennas & System Applications, Applied Electromagnetic Theory - Electromagnetics & Computational Methods
ECE 230A-B-C	Solid State Electronics I, II, III
ECE 236A-B-C ECE 235	III-V Compound Semiconductor Materials, Semiconductors: Optical Processes, Heterojunction Field Effect Transistors, Nanometer-Scale VLSI Devices
ECE 240A-B-C	Lasers & Optics, Optical Information Processing, Optical Modulation & Detection Advanced
ECE 247A-B-C, ECE 201, 202, 203	BIO Photonics, Electronics, Nanotechnology, Intro to Biophysics, Medical Devices & Interfaces, Biomedical Circuits & Systems
MATH 210A-B-C, ECE 250, ECE 269	Mathematical Methods in Physics & Engineering, Random Processes, Linear Algebra
PHYS 211A PHYS 212A-B	Solid State Physics, Quantum Mechanics

Quarter / Additional Units	
Total: 12 units	

Technical Electives (24 units)

- Any 4 unit, 200+ course from ECE, CSE, MAE, BENG, CENG, NANO, SE, MATS, MATH, or PHYS 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 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.
- With the exception of research units, all courses counted towards the degree must be taken for a letter grade.

Quarter / Tech. Electives	
Total: 24 units	

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

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

Curriculum Advisor: Shaya Fainman	
Phone: 858-822-1658	Office: Jacobs Hall/EBU1 #3406 or B521
Email: fainman@eng.ucsd.edu	Office Hours: Wed 12-1pm

 Advisor's Signature Date

 Print Student Name (Last, First) UCSD Email PID