

**M.S. / Ph.D. Degree Planner: Applied Physics – Electronic Devices & Materials (EC76)
 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 230A-B-C	Solid State Electronics
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Quarter / Core Course	
	ECE 230A
	ECE 230B
	ECE 230C
Total: 12 units	

Any two of the following 12 unit sequences (24 units):

ECE 212AN-BN-CN*	Nanoscience & Technology, Nanoelectronics, Nanophotonics
ECE 222A-B-C	Antennas & Applications, Applied Electromagnetic Theory: Electromagnetics, Computational Methods
ECE 236A-B-C	III-IV Compound Semiconductor Materials, Optical Processes in Semiconductors, Heterojunction Field Effect Transistors
ECE 238A-B, MATS 201C	Thermodynamics of Solids, Solid State Diffusion & Reaction Kinetics, Phase Transformations
ECE 240A-B-C	Laser & Optics, Optical Information Processing, Optical Modulation & Detection
ECE 251A-B-C-D**	Digital Signal Processing I & II, Filter Banks & wavelets, Array Processing
ECE 260A-B-C	VLSI Digital System Algorithms & Architectures, Integrated Circuits & Systems Design, Advanced Topics
MATH 210A-B-C	Mathematical Methods in Physics & Engineering
PHYS 211A, 212A-B	Solid-State Physics I, Quantum Mechanics I & II

Quarter / Additional Units	
Total: 24 units	

*Students cannot receive credit for both ECE 212A & 212AN, 212B & 212BN or 212C & 212CN

**Students may choose any three of the four courses listed for ECE 251

Technical Electives (12 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.
- All courses counted towards the degree must be taken for a letter grade.

Quarter / Tech. Electives	
Total: 12 units	

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

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

Curriculum Advisor: Yuan Taur	
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Advisor's Signature _____ Date _____

Print Student Name (Last, First) _____ UCSD Email _____ PID _____