

# 2022 - 2023 <u>ECE</u> M.S. / Ph.D. Degree Planner: Applied Electromagnetics (EC92)

- 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, with the exception of research units.
- Students **CANNOT** repeat a course unless they earned a D, F, U, or W grade. If you'd like to repeat a course, please submit the <u>online form</u>. More information about how to repeat a course can be found <u>here</u>.
- Must meet the Academic Residency requirement. More detailed info can be found here.

### **Core Courses (12 Units)**

ECE 222A-B-C-D	Antennas & Their System Applications, Theory-Electromagnetics, Computational Methods, Advanced Antenna Design
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# 12 Additional Units Selected from the following

ECE 212AN-BN-CN	Principles of Nanoscience & Nanotechnology, Nanoelectronics, Nanophotonics	
ECE 222A-B-C-D*	Antennas & Their System Applications, Applied Electromagnetic Theory-Electromagnetics, Computational Methods for Electromagnetics, Advanced Antenna Design	
ECE 230A-B-C	Solid State Electronics I, II ,III	
ECE 236A-B-C	III-V Compound Semiconductor Materials, Optical Processes in Semiconductors, Heterojunction Field-Effect Transistors	
ECE 240A-B-C	Lasers & Optics, Optical Information Processing, Optical Modulation & Detection	
ECE 258A-B	Digital Communications I, II	
ECE 251A-B-C	Digital Signal Processing I, II, Filter Banks and Wavelets	
ECE 264A-B-C	CMOS Analog Integrated Circuits & Systems I, II, III	
ECE 265A-B-C	Communication Circuit Design I, II, Power Amplifiers for Wireless Communications	
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<sup>\*</sup> A course not counted in core coursework may be counted here.

# Total: 12 Units Quarter/Add. Courses

Quarter/Tech. Electives		
Total: 24 Units		

Total: 12 Units

## **Technical Electives (24 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. Exceptions to this list require departmental approval.
- 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 any Jacobs School of Engineering 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.
  - ECE 299, CSE 298/299, MAE 299, BENG 299, NANO 299, SE 299
- \* Not including ECE 195, 197, 198, 199, 210 or 298
- \*\* Not including CSE 123, 140, 140L, or 143
- \*\*\* Seminar courses cannot count towards your degree

## **Curriculum Advisor**

EC92 Advisor: Daniel Sievenpiper Email: dsievenpiper@ucsd.edu

Phone: (858) 822-6678

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.