

M.S. / Ph.D. Degree Planner: Applied Electromagnetics (EC92) 2021-2022

- ❖ Minimum of 12 units (Plan I) or 14 units (Plan II) must be 201+ ECE courses that must count toward 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 [online form](#). More information about how to repeat a course can be found [here](#).
- ❖ Note that **ONLY** 100+ courses will count towards your overall GPA.
- ❖ Must meet the Academic Residency requirement. More detailed info can be found [here](#)

Core Coursework (12 Units):

ECE 222A-B-C-D	Antennas & Their System Applications, Theory-Electromagnetics, Computational Methods, Advanced Antenna Design
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Quarter/Core Courses	
Total: 12 Units	

12 Additional Units Selected from the following:

ECE 222A-B-C-D**	Antennas & Their System Applications, Applied Electromagnetic Theory-Electromagnetics, Computational Methods for Electromagnetics, Advanced Antenna Design
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
ECE 240A-B-C	Lasers & Optics, Optical Information Processing, Optical Modulation & Detection
ECE 212AN-BN-CN	Principles of Nanoscience & Nanotechnology, Nanoelectronics, Nanophotonics
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 258A-B	Digital Communication
ECE 251A-B-C	Digital Signal Processing I, II, Filter Banks and Wavelets

Quarter/Add. Units	
Total: 12 Units	

** A course not counted in core coursework may be counted here.

Technical Electives (24 Units)

- ❖ Any 4 unit, 200+ course from ECE, CSE, MAE, BENG, CENG, NANO, SE, MATS, MATH, PHYS or CogSci 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 (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, 210 or 298

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

Quarter/Tech.Electives	
Total: 24 Units	

Curriculum Advisor: Daniel Sievenpiper dsievenpiper@ucsd.edu (858) 822-6678

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.**