

2024 - 2025 ECE M.S. / Ph.D. Degree Planner: **Applied Electromagnetics (EC92)**

Quarter/Core Courses

Quarter/Add. Courses

Quarter/Tech. Electives

Total: 12 Units

Total: 12 Units

- 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 and for 4 units, with the exception of research units.
- Students CANNOT repeat a course unless they earned a D, F, or U 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.
- 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 |

12 Additional Units Selected from the following

| | <u> </u> |
|------------------------|--|
| 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 |
| * A course not counted | I in core coursework may be counted here. |

| CE 258A-B | Digital Communications I, II | | | |
|--|--|--|-----------------|--|
| CE 251A-B-C | Digital Signal Processing I, II, Filter Banks and Wavelets | | | |
| CE 264A-B-C | CMOS Analog Integrated Circuits & Systems I, II, III | | | |
| F 265A-R-(| Communication Circuit Design I, II, Power Amplifiers for Wireless Communications | | | |
| A course not counted in core coursework may be counted here. | | | | |
| chnical Electives (24 Units) | | | Total: 24 Units | |
| | | | | |

Tec

- 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 research as technical electives. Ph.D. and M.S. students (Plan I) are allowed no more than 8 units of research as technical electives.
 - The following research course(s) could be used toward the degree:
 - ECE 299, CSE 298/299, MAE 299, BENG 299, NANO 299, SE 299, DSC 299
- * Seminar courses cannot count towards the degree
- ** Not including ECE 195, 197, 198, 199, 210 or 298
- *** Not including CSE 123, 140, 140L, or 143

Curriculum Advisor

EC92 Advisor: Shayan Mookherjea Email: smookherjea@ucsd.edu Phone: (858) 534-4483

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.