UC San Diego
Electrical and Computer Engineering

2024 - 2025 ECE M.S. / Ph.D. Degree Planner: Electronic Circuits & Systems (EC78)

- 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 Coursework (12 Units) – choose one sequence from the following options:

The following combined options are from the 264A-D series (CMOS Analog Integrated Circuits & Systems I, II, III, IV) and the ECE 265A-D series (Communication Circuit Design I & II, Power Amplifiers for Wireless Communications, Communication Circuit Design III). Students must take A-B but the 3rd class is flexible.
ECE 264A-B, choose the 3rd class ECE 264C, 264D, 265A, 265B, 265C or 265D
ECE 265A-B, choose the 3rd class ECE 265C, 265D, 264A, 264B, 264C or 264D

- B-' grade or higher needs to be earned in order to move onto the next part of the sequence. No exceptions.

Quarter (List FA##, WI##, SP## below)	Core Courses
Total: 12 Units	

12 Additional Units Selected from the following

ECE 203	Biomedical Integrated Circuits and Systems
ECE 222A-B-C-D	Antennas & Their System Applications, Applied Electromagnetic Theory-Electromagnetics, Computational Methods for Electromagnetics, Advanced Antenna Design
ECE 250	Random Processes
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
ECE 264A-B-C-D	CMOS Analog Integrated Circuits & Systems I, II, III, IV
ECE 265A-B-C-D	Communication Circuit Design I & II, Power Amplifiers for Wireless Communications, Communication Circuits III
ECE 266	CMOS Circuit Lab
ECE 283	Integrated Circuit Lab
ECE 283 (Fall)	Power Management Integrated Circuits
ECE 283 (Winter)	High-Speed Wireline Communication Circuits and Systems

Quarter (List FA##, WI##, SP## below)	Additional Units
Total: 12 Units	

Quarter (List FA##, WI##, SP## below)	Technical Electives
Total: 24 Units	

Technical Electives (24 Units)

- Any 4 unit, 200+ course from ECE, CSE, DSC, 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 units 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 293/298/299, 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

EC78 Advisor Contact Information

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.