

# 2024 - 2025 <u>ECE</u> 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

## 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	Integrated Circuit Lab
ECE 283 (Fall)	Power Management Integrated Circuits
ECE 283 (Winter)	Wireline Communication Circuits and Systems

Quarter/Core Courses		
Total: 12 Units		

Quarter/Add. Courses		
Total: 12 Units		

Quarter/Tech. 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 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: Tzu-Chien Hsueh Email: tzhsueh@ucsd.edu

Phone: (858) 534-4253

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.

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