

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	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)	Core Courses
Total: 12 Units	

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 courses numbered: 195, 197, 198, 199, 210 or 298
- *** Not including CSE courses numbered: 123, 140, 140L, 143 or 294

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.

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