

## M.S. / Ph.D. Degree Planner: Electronic Circuits & Systems (EC78) 2021-2022

- ❖ Minimum of 12 units (Plan 1) or 14 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, 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 info can be found [here](#).

### Core Coursework (12 Units) – one A-B-C Sequence from the following:

ECE 264A-B-C-D*	CMOS Analog Integrated Circuits & Systems I, II, III, IV
ECE 265A-B-C**	Communication Circuit Design I & II, Power Amplifiers for Wireless Communications

\*Students may take A-B-C or A-B-D to satisfy the core coursework requirement

\*\*Students may take ECE 264A, B, C or D in places of ECE 265C

Quarter/Core Courses	
<b>Total: 12 Units</b>	

### 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	Communication Circuit Design I & II, Power Amplifiers for Wireless Communications

Quarter/Add. Units	
<b>Total: 12 Units</b>	

### Technical Electives (24 Units)

- ❖ Any 4 unit, 200+ course from ECE, CSE, MAE, BENG, CENG, NANO, SE, MATS, MATH, or PHYS 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.
  - ❖ 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
  - ❖ With the exception of research units, all courses counted towards the degree must be taken for a letter grade.
- \* Not including ECE 195, 197, 198, 199, 210 or 298 \*\* Not including CSE 123, 140, 140L, or 143

Quarter/Tech. Electives	
<b>Total: 24 Units</b>	

**Curriculum Advisor:** Tzu-Chien Hsueh [✉tzhshueh@ucsd.edu](mailto:tzhshueh@ucsd.edu) [📞](https://www.whatsapp.com/channel/0029va211111111111111111) (858)-534-4253

**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.**