- ❖ 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.
- ❖ List of pre-approved course substitutions can be found here.

## Core Course (4 Units)

| ECE 260B | VLSI Integrated Circuits & Systems Design |
|---|---|

*Students may take CSE 241A in place of ECE 260B. May only receive credit for one of these courses towards the degree.

| Quarter/Core Course | |
|---|---|
| | |

**Total: 4 Units**

## 20 Additional Units Selected from the following

| ECE 226 | Optimization and Acceleration of Deep Learning on Various Hardware Platforms |
|---|---|
| ECE 228 | Machine Learning for Physical Applications |
| ECE 250 | Random Processes |
| ECE 251A | Digital Signal Processing I |
| ECE 252A | Speech Compression |
| ECE 253 | Fundamentals of Digital Image Processing |
| ECE 254 | Detection Theory |
| ECE 257A-B | Modern Communication Networks, Principles of Wireless Networks |
| ECE 258A-B | Digital Communication |
| ECE 260A, C | VLSI Digital System Algorithms & Architectures, VLSI Advanced Topics |
| ECE 265A | Communication Circuit Design I |
| ECE 267 | Wireless Embedded & Networked Systems |
| ECE 268 | Security of Hardware Embedded Systems |
| ECE 277 | GPU Programming |
| ECE 284 | Special Topic in CE: Low-power VLSI Implementation for Machine Learning |
| ECE 284 | Special Topic in CE: Mobile Health Design |
| ECE 284 | Special Topic in CE: Parallel Computing in Bioinformatics |
| CSE 202 | Algorithm Design & Analysis |
| CSE 221 | Operating Systems |
| CSE 222B | Internet Algorithmics |
| CSE 224 | Graduate Networked System |
| CSE 237A | Intro to Embedded Computing |
| CSE 240A | Principles of Computer Architecture |
| CSE 243A | Intro to Synthesis Methodologies in VLSI CAD |
| CSE 245 | Computer Aided Circuit Simulation & Verification |

| Quarter/Add. Courses | |
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**Total: 20 Units**

| Quarter/Tech. Electives | |
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**Total: 24 Units**

## 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/CSE coursework (ECE 111+ only** and CSE 100+ only***)
- ❖ 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 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

EC79 Advisor: Yatish Turakhia
Email: yturakhia@ucsd.edu
Phone: (858) 534-4493

Role: Advises graduate students regarding course selection; Considers any exception requests requiring faculty approval; Sign forms; Technical engineering related questions & job advice. **PLEASE CONTACT YOUR STAFF ADVISOR FOR ALL OTHER ISSUES.**