UC San Diego
Electrical and Computer Engineering

2025 - 2026 ECE M.S. / Ph.D. Degree Planner: Medical Devices & Systems (EC90)

- 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.

Quarter (List FA##, WI##, SP## below)	Core Courses
	ECE 201
Total: 12 Units	

Core Courses (12 Units Including ECE 201) - Choose 2 Courses

ECE 201	Intro to Biophysics
ECE 202	Medical Devices & Interfaces
ECE 203	Biomedical Integrated Circuits & Systems
ECE 207A	Principles of Medical Imaging
ECE 208	Computational Evolutionary Biology
ECE 209	Statistical Learning for Biosignal Processing
ECE 247 A-B-C*	Advanced BioPhotonics, BioElectronics, BioNanotechnology

*Students may enroll in ECE **247A-B-C**; however, they may not receive duplicate credit for BENG **247A-B-C** or NANO **247A-B-C**, as these courses are cross-listed. Credit may only be applied once toward degree requirements.

Quarter (List FA##, WI##, SP## below)	Additional Units
Total: 16 Units	

16 Additional Units Selected from the following

- Three CORE graduate (200+) courses from the same major area of ECE.
  Please list the major area of your choice _____
  (AEM, AOS, AP-EDM, CTS, CE, ECS, ISRC, MI, MLDS, NDS, PHO, or SIP)
- One graduate or upper-division course in **Biology, Biochemistry, or Medicine** focused areas; course eligibility is based on content, not department.
  Some examples of courses that satisfy this requirement can be found **here**.
  This is by no means a comprehensive list of courses. Ph.D. students should discuss with their faculty advisor and M.S. students with their curriculum advisor to choose course(s) in biomedicine relevant to their graduate study.

Quarter (List FA##, WI##, SP## below)	Technical Electives
Total: 20 Units	

Technical Electives (20 Units)

- Any 4 unit, 200+ course from ECE, CSE, 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 as technical electives. Ph.D. and M.S. students (Plan I) are allowed no more than 8 units of research as technical electives.
  - ECE 299, CSE 293/298/299, MAE 299, BENG 299, NANO 299, SE 299
- Students are strongly encouraged to take at least 2 seminar courses about translational research and FDA regulatory procedures and requirements from ECE, Center for Medical Device and Instrumentation, School of Medicine, or other departments. (Will NOT be counted toward the degree).

* 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

EC90 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.