

2025 - 2026 <u>ECE</u> 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 <u>here</u>.

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 who enroll in ECE 247B may not receive credit for BENG 247B or NANO 247B. Only one of these courses can be applied toward the degree requirements.

16 Additional Units Selected from the following

- One graduate or senior-level course in Bioengineering, Biology, Biochemistry, or Medicine. 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.

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.

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

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

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