

- ❖ 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 Courses: SIO 202A-B and 8 units (16 Units)

| | |
|------------|------------------------------|
| SIO 202A-B | Fundamentals of Wave Physics |
| SIO 210 | Physical Oceanography |
| SIO 240 | Marine Geology |
| SIO 260 | Marine Chemistry |
| SIO 280 | Biological Oceanography |

12 Additional Units Selected from the following

| | |
|----------------|---|
| ECE 222A-B | Antennas and Their System Applications, Applied Electromagnetic Theory—Electromagnetics |
| ECE 225A | Probability & Statistics for Data Science |
| ECE 228 | Machine Learning for Physical Applications |
| ECE 240A | Lasers & Optics |
| ECE 250 | Random Processes |
| ECE 251A-B-C-D | Digital Signal Processing I & II, Filter Banks & Wavelets, Array Processing |
| ECE 253 | Fundamentals of Digital Image Processing |
| ECE 269 | Linear Algebra & Applications |
| ECE 271A-B | Statistical Learning I & II |
| ECE 273 | Convex Optimization & Applications |
| ECE 275A-B | Parameter Estimation I & II |

Technical Electives (20 Units)

- ❖ Any 4 unit, 200+ course from ECE, CSE, DSC, SIO, MAE, BENG, CENG, NANO, SE, MATS, MATH, or PHYS taken for a letter grade may be counted.* Exceptions to this list require departmental approval.
- ❖ The following courses are recommended, not required: ECE 278; SIO 203 A-B/MAE 294 A-B/ECE 278 and remaining courses from SIO 210, 240, 260, 280.
- ❖ Up to 12 units of undergraduate ECE coursework (ECE 111+ only**) OR up to two 4-unit courses of undergraduate ECE coursework (ECE111+ 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

| Quarter (List FA##, WI##, SP## below) | Core Courses |
|---|------------------------|
| | SIO 202A |
| | SIO 202B |
| | |
| | |
| Total: 16 Units | |
| Quarter (List FA##, WI##, SP## below) | Additional Units |
| | |
| | |
| | |
| Total: 12 Units | |
| Quarter (List FA##, WI##, SP## below) | Technical Electives |
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| | |
| | |
| | |
| | |
| Total: 20 Units | |

Curriculum Advisor

[EC75 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.