

2025 - 2026 ECE M.S. / Ph.D. Degree Planner: **Photonics (EC81)**

- 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 (12 Units)

ECE 240A	Lasers and Optics
ECE 240B	Optical Information Processing
ECE 240C	Optical Modulation and Detection

ECE 240B ECE 240C Total: 12 Units

12 Additional Units Selected from the following

ECE 212CN	Nanophotonics
ECE 222B-C	Applied Electromagnetic Theory – Electromagnetics & Computational Methods for Electromagnetics
ECE 236B	Optical Processes in Semiconductors
ECE 241A-B-C	Nonlinear Optics, Integrated Photonics, Holographic Optical Elements
ECE 243B	Optical Fiber Communication
ECE 244A	Statistical Optics
ECE 247A*	Advanced BioPhotonics

^{*}Students may take BENG 247A/NANO 247A in place of ECE 247A. May only receive credit for one of these courses towards their degree.

Technical Electives (24 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 ECE Department 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.
 - The following research course(s) could be used toward the degree:
 - ECE 299, CSE 293/298/299, MAE 299, MATS 299, BENG 299, NANO 299, SE 299

- ** 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

EC81 Advisor Contact Information

Curriculum Advisor Role: Advises graduate students regarding course selection; considers any exception requests requiring faculty approval; signs forms; provides technical engineering related questions and job advice. PLEASE CONTACT **YOUR STAFF ADVISOR** FOR ALL OTHER ISSUES.

Quarter (List FA##, WI##, SP## below)	Additional Units	
Total: 12 Units		

Core Courses

ECE 240A

Quarter (List FA##, WI##, SP## below)

Quarter (List FA##, WI##, SP## below)	Technical Electives	
Total: 24 Units		

^{*} Seminar courses cannot count towards the degree