

## 2023 - 2024 <u>ECE</u> 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 <u>here</u>.

#### **Core Courses (12 Units)**

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

# Quarter/Core Courses ECE 240A 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

<sup>\*</sup>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 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 any Jacobs School of Engineering 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.
  - ECE 299, CSE 298/299, MAE 299, BENG 299, NANO 299, SE 299

#### **Curriculum Advisor**

EC81 Advisor (Fall): Yu-Hwa Lo

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EC81 Advisor (Winter & Spring): Shayan Mookherjea

Email: smookherjea@ucsd.edu

Phone: 858-534-4483

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.

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Quarter/Add. Courses			
Total: 12 Units			

Quarter/Tech. Electives		
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Total: 24 Units		

<sup>\*</sup> Not including ECE 195, 197, 198, 199, 210 or 298

<sup>\*\*</sup> Not including CSE 123, 140, 140L, or 143

<sup>\*\*\*</sup> Seminar courses cannot count towards your degree