

**M.S. / Ph.D. Degree Planner: Photonics (EC81)**

**COURSE REQUIREMENTS**

**Core Coursework (twelve units)**

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

Core Courses	
	ECE 240A
	ECE 240B
	ECE 240C
<b>Total: 12 Units</b>	

**Twelve additional units selected from the following**

ECE 212 CN <sup>1</sup>	Nanophotonics
ECE 222 B-C	Applied Electromagnetic Theory - Electromagnetics and Computational Methods for Electromagnetics
ECE 236B	Optical Processes in Semiconductors
ECE 241 A-B-C	Nonlinear Optics, Optical Devices for Computing, Holographic Optical Elements
ECE 243B	Optical Fiber Communication
ECE 244 A	Statistical Optics
ECE 247 A	Advanced BioPhotonics

Additional Units	
<b>Total: 12 Units</b>	

<sup>1</sup> Students cannot receive credit for both ECE 212C & 212CN.

**Technical Electives (twenty four units)**

- With the exception of research units, all courses counted towards the degree must be taken for a letter grade.
- Any of the courses listed above (which are not counted in the earlier category)
- Any 4 unit, 200+ course from ECE, CSE, MAE, BENG, CENG, NANO, SE, MATS MATH or PHYS taken for a letter grade may be counted. Exceptions to this list require departmental approval.
- Up to two 4-unit courses of undergraduate ECE coursework (ECE 111+ only) and one 4-unit course of undergraduate CSE coursework (CSE 100+ only).
- M.S. Students (Plan II) are allowed no more than 4 units of 299 as technical electives. Ph.D. and M.S. Students (Plan I) are allowed no more than 8 units of 299 as technical electives.

Technical Electives	
<b>Total: 24 Units</b>	

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**Advisor's Signature**

**Date**

**Student Name**

**PID**