Photonic Science & Engineering 2018-2019

Major Courses Flowchart*

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Major Acceptance Requirements (*C or better in these courses*)

- CHM 2045C** Chem Fundamentals I (4) *PR: Chem Placement Test*
- Or
- CHS 1440** Principles of Chemistry (4) *PR: 1 Yr HS Chemistry*
- MAC1140C & MAC1114 C or better or appropriate score on math placement exam
- MAC 2311C** Calculus I (4)
- MAC 2312** Calculus II (4)
- PHY 2048C** Physics for Engineers I (4)

Year 2 Fall

- PHY 2049C** Physics for Engineers II (4)
- EGN 3211** Engineering Analysis (3)
- MAC 2313** Calculus III (4)

Year 2 Spring

- PHY 3101 Physics for Engineers III (3)
- EEL 3004C** Electrical Networks (3)
- MAP 2302 Differential Equations (3)**

Year 2 Summer

- STA 3032 Probability / Statistics (3)
- EEE 3350 Semiconductor Devices 1 (3)

Year 3 Fall

- OSE 3200 Geometric Optics (3)
- OSE 3200L (1)
- EEE 3307C Electronics I (4)
- EEL 3123C** Networks & Systems (3)
- EEL 3552C Signal Analysis & Analog Comm. (4)
- OSE 3052 Foundations of Photonics (3)
- OSE 3052L (1)

Year 3 Spring

- OSE 3053 EM Waves for Photonics (3)
- OSE 4410 Optoelectronics (3)
- OSE 4410L (1)
- OSE 4520 Laser Engineering (3)
- OSE 4520L (1)

Year 4 Fall

- OSE 4930 Frontiers of Optics & Photonics (3)
- OSE 4951 Senior Design I (3)
- OSE 4470 Fiber-Optic Commun (3)
- OSE 4470L (1)

Year 4 Spring

- OSE 4830 Imaging and Display (3)
- OSE 4830L (1)
- OSE 4952 Senior Design II (3)

KEY

- PREREQUISITE: →
- COREQUISITE: ⇢
- CRITICAL PATH COURSES
- Pre major requirements
- Lab courses
- Senior Standing Required
- RED BORDER: Course used for Major GPA Calc.

Lab courses are required for PSE majors.
** A grade of C (2.0) or better required.

Electives Requirement

EGS 1006C Intro to Engineering (1) +
EGN 1007C Engr. Concepts and Methods (1) +
See Advisor Restricted Electives (10) =
See Advisor Restricted Electives (12)

A total of 14 CR are needed to satisfy the restricted electives requirement. If EGS 1006C and EGN 1007C are completed, these two courses count toward the elective requirement.

Approved Restricted Electives:

Refer to myKnight Audit for full list

OSE4721 Biophotonics (3)
OSE4240 Optics & Photonics Design (3)
OSE4720 Visual Optics (3)
EEE 3342C Digital Systems (3)
EEL 3470 EM Fields (3)
EGN 4931H Eng. Honors Seminar-Research (3)
EMA 4413 Fundamentals of Electronic Materials
MAP 4303 Ordinary Differential Equations II (3)
MAP 4341 Partial Differential Equations (3)
MAP 4371 Numerical Methods for Diff. Eq. (3)
MAS 3105 Linear Algebra (4)
MAS 5145 Adv. Linear Alg. and Matrix Theory (3)
OSE 4900 Directed Independent Research (1)
OSE 4903H Honors Directed Reading (3)
OSE 4970H Honors Thesis (3)
PHY 4604 Wave Mechanics I
PHY 4605 Wave Mechanics II
PHZ 3113 Introduction to Theoretical Methods

Selected EEL/PHY/Math 4XXX Courses

Good Things to Know:

- 2.25 Major GPA required for graduation
- Register for courses early so you are not closed out.
- Register for Critical Path Courses first.
- Once you complete Major Acceptance Requirement Courses, change major to PSE in my.ucf.edu.
- Check with advisor before selecting electives.

Scan to visit the PSE Website

PSE Advising

The Photonic Science and Engineering Advising Office is located in CREOL, Building 53, Room 108B. Email undergrad@creol.ucf.edu for questions about the major.

***Flowchart is a sugggested plan. Meet with advisor for personalized plan. Gen. Ed. courses not listed. In the event of an error, UCF Catalog takes precedence.**