Photonics Certificate

www.PhysAst.Pitt.edu/~Snoke/Photonics
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Overview

University of Pittsburgh students may sign up for the program at any time. They may have any major, but the program fits most naturally with majors in Physics, Chemistry, or Electrical Engineering. As part of the they take courses in the departments which will fulfill requirements in their own department.

Laboratory courses
Choose one course in each of the following groups
CHEM 0250 Analytical Chemistry with Lab 1 **and**
CHEM 0260 Analytical Chemistry with Lab 2
PHYS 0219 Basic Laboratory Techniques
PHYS 0577 Modern Physical Measurement
EE 0501 Digital Systems Lab

CHEM 1255 Instruments Lab **and**
CHEM 1430 Physical Chemistry Lab
PHYS 0525 Electronics Lab
EE 1201 Electronics Lab 1 **and**
EE 1212 Electronics Lab 2

Advanced courses
PHYS 1361 Waves and Optics Lab
EE 1247 Semiconductor Devices
EE 1232 Lasers and Optronics

One of the following groups
CHEM 1410 Physical Chemistry: Quantum Mechanics and
    Spectrscopy
PHYS 1370 Introduction to Quantum Mechanics 1 **and**
PHYS 1371 Introduction to Quantum Mechanics 2

Two of the following courses or sequences
PHYS 1351 Electricity and Magnetism **or**
EE 1259 Electromagnetics 1 **and**
EE 1266 Applications of Fields and Waves

CHEM 1250 Instrumental Analysis
TELCOM 2222 Photonic Communication

Two of the following courses
PHYS 1374 Solid State Physics
CHEM 1620 Atoms, Molecules, and Materials
MEMS 1057 Micro/Nano Manufacturing

Grade Requirements
A minimum GPA of 2.0 is required in each course that counts toward the certificate.

Satisfactory/No Credit Option
No course that counts toward this certificate may be taken on the S/NC basis.