
This is a chart showing a typical sequence of Physics and Math courses of an APIE major with an Opto-Electronics certificate.

Electives may also be taken from courses that are part of another certificate option.

MATH 256 Linear Alg is required for PHYS 465
PHYS 465 is required for PHYS 427
PHYS 379 Internship credit is also an elective
Physics Major: Applied Physics for Industry and Engineering – Biology

This is a chart showing a typical sequence of Physics and Math courses of an APIE major with a Biology certificate.

- **Fall**
  - MATH 166 Calc I (4)
  - PHYS 211 (3) Programming (recommended)
  - PHYS 362 MPE II (3) or PHYS 204 (1) Intermed. Lab
  - CSIS 161 (3) (option)
  - PHYS 311 Electronics (4)
  - PHYS 131 (5)
  - GENG 121 Eng. Draw. (3)
  - BIOL 160 Gen Biol. (4)

- **Spring**
  - MATH 167 Calc II (4)
  - PHYS 279 Internships (1)
  - BIOL 230 Zoology (3)
  - BIOL 240 Cell & Molec. (3)
  - PHYS 132 (5)
  - CSIS 162 (3) (option)

- **Fall**
  - MATH 256 Lin. Alg. (3)
  - PHYS 361 MPE I (3)
  - PHYS 264 (4) Modern Phys.
  - PHYS 204 (1) Intermed. Lab
  - CSIS 161 (3) (option)

- **Spring**
  - MATH 331 Diff. Eqns. (3)
  - BIOL 341 Anat. & Physio. (4)
  - BIOL 240 Cell & Molec. (3)
  - PHYS 313 Digital (4)
  - PHYS 415 Thermo (3)
  - PHYS 318 Astrophys (3)
  - PHYS 324 Acoustics (3)
  - PHYS 442 E&M (4)

- **Fall**
  - MATH 266 Calc. III (3)
  - PHYS 415 Thermo (3)
  - PHYS 362 MPE II (3)
  - PHYS 301 (3) Advanced Lab

- **Spring**
  - BIOL 464 Stem Cells & Regen. Med. (3)
  - BIOL 230 Zoology (3)
  - PHYS 302 (3)
  - Advanced Lab

**Electives** may also be taken from courses that are part of another certificate option.
- MATH 256 Linear Alg is required for PHYS 465
- PHYS 465 is required for PHYS 427
- PHYS 379 Internship credit is also an elective

Even years: Academic years ending in an even year (2015-16, 2017-18,...)
Odd years: Academic years ending in an odd year (2016-17, 2018-19,...)

This is a chart showing a typical sequence of Physics and Math courses of an APIE major with an Entrepreneurship certificate.

Electives may also be taken from courses that are part of another certificate option.

MATH 256 Linear Alg is required for PHYS 465
PHYS 465 is required for PHYS 427
PHYS 379 Internship credit is also an elective

This is a chart showing a typical sequence of Physics and Math courses of an APIE major with a Mechanics certificate.

Electives may also be taken from courses that are part of another certificate option.
MATH 256 Linear Alg is required for PHYS 465
PHYS 465 is required for PHYS 427
PHYS 379 Internship credit is also an elective