

# UPenn Physics Major Requirements

## Core Requirements (13.5 cu)

- |                                   |  |                                   |
|-----------------------------------|--|-----------------------------------|
| <input type="checkbox"/> MATH 104 | <input type="checkbox"/> PHYS 150/170 (1.5 cu) | <input type="checkbox"/> PHYS 351 |
| <input type="checkbox"/> MATH 114 | <input type="checkbox"/> PHYS 151/171 (1.5 cu) | <input type="checkbox"/> PHYS 361 |
| <input type="checkbox"/> MATH 240 | <input type="checkbox"/> PHYS 230              | <input type="checkbox"/> PHYS 362 |
| <input type="checkbox"/> MATH 241 | <input type="checkbox"/> PHYS 250 (1.5 cu)     | <input type="checkbox"/> PHYS 411 |

## Concentration Requirements

### Physical Theory/Experimental Technique (4 cu)

- PHYS 401
- PHYS 364/414
- PHYS 412
- PHYS/ASTR 300+ Elective

### Chemical Principles (5 cu)

- PHYS 401
- CHEM 101
- CHEM 102
- CHEM 221/241
- CHEM 222/242

### Computer Techniques (5 cu)

- PHYS 401
- PHYS 364/414
- Computer Elective<sup>1</sup>
- Computer Elective
- Computer Elective

### Astrophysics (6 cu)

- PHYS 401
- PHYS 364/414/ASTR 250
- PHYS 364/414/ASTR 250
- PHYS 503/505/526/530
- ASTR 211
- ASTR 212

### Business and Technology (6 cu)

- PHYS 364/414
- Computer Elective<sup>1</sup>
- Business Elective<sup>1</sup>
- Business Elective
- Business Elective
- Business Elective

### Biological Sciences (7 cu)

- PHYS 401
- PHYS 280
- BIOL 121
- BIOL 204/205
- BIOL 221
- Biology Elective<sup>1</sup>
- Biology Elective

<sup>1</sup>See Undergraduate Chair to confirm selected electives and visit [physics.upenn.edu/undergraduate/physics-astronomy-major](http://physics.upenn.edu/undergraduate/physics-astronomy-major) for more information.