



Wells College

Name: _____

Advisor: _____

Graduation Year: _____

Physics Major

The number of courses required for the major is 16 (51-56 semester hours). At least four of these courses (12 semester hours) must be at the 300-level or above. Internships may not be used to fulfill major requirements.

Requirements:

All of the following (31 sem. hrs.)

- MATH 111 Calculus I: Introduction to Calculus (4 sem. hrs.)
- MATH 112 Calculus II: Introduction to Calculus (4 sem. hrs.)
- MATH 211 Calculus III: Multivariable Calculus (3 sem. hrs.)
- MATH 213 Ordinary Differential Equations and Applications (3 sem. hrs.)
- MPS 402 Senior Seminar in Mathematical and Physical Sciences I (3 sem. hrs.fall)
- PHYS 111L Fundamentals of Physics I (4 sem. hrs.)
- PHYS 212L Fundamentals of Physics II (4 sem. hrs.)
- PHYS 302 Modern Physics (3 sem. hrs.)
- PHYS 303 Theoretical Mechanics (3 sem. hrs.)

Either of the following (3-4 sem. hrs.)

- CHEM 107L General Chemistry (4 sem. hrs.)
- CS 131 Programming I: Procedural Methods (3 sem. hrs.)

Three of the following (9-10 sem. hrs.)

- CHEM 301 Physical Chemistry (3 sem. hrs.)
- CS 132 Programming II: Object Orientation (3 sem. hrs.)
- PHYS 221L Principles of Electronics (4 sem. hrs.)
- PHYS 307 Intermediate Quantum Mechanics (3 sem. hrs.)

Two of the following (6-8 sem. hrs.)

- Courses in mathematics, computer science, or physics above the 100-level or
- CHEM 301 Physical Chemistry (3 sem. hrs.)
- CS 132 Programming II: Object Orientation (3 sem. hrs.)
- PHYS 221L Principles of Electronics (4 sem. hrs.)
- PHYS 307 Intermediate Quantum Mechanics (3 sem. hrs.)
- PHYS 340 Experimental Physics (3 sem. hrs.)

One of the following (3-4 sem. hrs.)

- Any course in computer science, mathematics or physics above the 100-level.

What can I do with this major?

See below for examples of what you can do with a Physics major after graduation!
For more information, see the full results at <http://whatcanidowiththismajor.com/major/>

Areas of specialty

- Acoustical Physics
- Astronomy
- Astrophysics
- Biophysics
- Chemical Physics
- Condensed Matter
- Engineering
- Geophysics
- Medical Physics
- Nuclear Physics
- Optical Physics
- Particle Physics
- Science Education
- High Energy Physics
- Health Physics

Potential Employers

- State Agencies
- Federal Agencies
- Nonprofit Research Centers
- Engineering firms
- Public and private K-12 schools
- Universities and colleges
- Manufacturing Firms
- Consulting Firms
- Law Firms
- Software Developers
- Medical Industries
- Observatories
- Planetariums
- Science museums

- Physicists are interested in solving complex, technical problems, often extending for long periods of time.
- Visit government laboratories or research centers to learn more about opportunities in the field. Schedule informational interviews to learn about the profession and specific career paths.
- Join relevant professional associations. Attend meetings and stay up-to-date on research/publications.
- Gain experience using scientific instruments and equipment. Computer skills are critical.
- Participate in summer research institutes.
- A bachelor's degree will qualify for positions as research assistants, high-level technicians, or computer specialists, as well as nontechnical work in publishing or sales.
- An undergraduate degree also provides a solid background for pursuing advanced degrees in other employment areas such as law, business, or accounting.