

# Department of Physics and Astronomy

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**Robert F. Carlton, Chair**  
Wiser-Patten Science Building 219

The Department of Physics and Astronomy offers a minor at the graduate level.

## Courses in Physics [PHYS]

Graduate standing and consent of instructor are prerequisites for graduate courses in physics.

**5310 Electricity and Magnetism.** Three credits. Topics including electric and magnetic fields, electrostatic potential, and potential energy and fields in matter discussed in a mathematically rigorous manner. A variety of good applications of mathematical methods in physics.

**5380 Introduction to Quantum Mechanics.** Three credits. Origin of quantum theory; wave packets and deBroglie waves; Heisenberg uncertainty principles. Schroedinger wave equation, operators, eigenfunctions, square well potential, the harmonic oscillator, the hydrogen atom, molecular binding and molecular spectra.

**6330 Principles of Modern Physics.** Three credits. Charged particles and their behaviors; electronic structures of the atoms; nuclear structures and processes; and radiation.

**6340 Fundamentals of Physics.** Six credits. Basic laws and principles of classical and modern physics. Lecture topics and laboratory experiences designed to advance student's knowledge of physics.

