

**Course:**

**PHYS 4000 Quantum and Atomic Physics**

**4 hours**

**Majors, Minors & Degrees:**

**Majors**

Physics (B.S.)

**Departments/Programs:**

Physics, Astronomy, and Computer Science

An introduction to the Schrodinger equation and its solution. Topics studied include the 1D infinite square well, simple harmonic oscillator potential, and finite rectangular well/barrier, and the hydrogen atom, including the theory of angular momentum.

Theories of atomic scattering will also be explored.

Three lectures per week.

One recitation per week.

*Prerequisite(s): PHYS 2400 Introduction to Modern Physics and MATH 2600 Calculus III or MATH 3100 Differential Equations and computer programming skills or permission of the instructor.*