

Nebraska Wesleyan University

Catalog 2015-2016

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.