

PHYS 4334 : Quantum Mechanics

An advanced contemporary undergraduate treatment of the foundation and fundamental principles of Quantum Theory. Topics include the uncertainty principle, the wave nature of matter, Schroedinger's wave equation in one and three dimensions, the quantum nature of energy and angular momentum, harmonic oscillator, applications to atoms and molecules, and perturbation theory. Mathematical concepts are treated that arise in quantum mechanics, including operators, eigenvectors and eigenvalues, Hilbert space, Dirac notation and boundary value problems.

Credits 3

Course ID

008451

Requisites

PHYS 4334 Prerequisites: [PHYS 3337](#), [PHYS 3343](#), and either PHYS 3342 or [PHYS 3338](#)

Semester Offered

Fall semester, odd years