



PHY 120: Introduction to Modern Physics

Can we go faster than light? What is time? Is Schrodinger's cat alive or dead? This course is designed to introduce students to some of the most fascinating and bizarre ideas in science. It covers the two pillars of modern physics, special relativity and quantum theory, at a level that nearly anyone can understand and appreciate. Three lecture hours per week.

Course Student Learning Outcomes

1. Demonstrate basic knowledge of special relativity, including Lorentz transformation and four-vectors. 2. Demonstrate basic knowledge of quantum mechanics, including using matrices to solve quantum spin problems and understanding the uncertainty principle conceptually. 3. Appreciate the scientific method and how experiments are used to investigate reality. 4. Apply mathematical problem solving techniques in order to understand various world situations.

Credits: 3

Program: Physics