

Effective Date: Summer 2005-2006

Course Description

Prerequisite: Eligibility for MATH 1021. Credit will be given for only one of the following: PHYS 1001, PHYS 2001, PHYS 2101. A study of basic principles of mechanics, heat, sound and electro-magnetism with emphasis on applications in the health professions. Three hours of lecture each week. Not for science and engineering majors.

Course Objectives

Students will:

1. Understand that physics is the fundamental of the sciences, that the principles of physics can be used to explain the fundamental interactions involved in chemistry, biology, and other sciences at the atomic or molecular level.
2. Understand the role of measurement and mathematics in physics.
3. Become familiar with the basic physical concepts and principles of mechanics.
4. Understand the force of gravity.
5. Understand the structure of atom.

Procedures to Evaluate these Objectives

1. In-class problems after concept presentation
2. In-class exams
3. Cumulative final exam

Use of Results of Evaluation to Improve the Course

1. Student responses to in-class problems will be used to immediately help clarify any misunderstandings and to later adjust the appropriate course material.
2. All exams will be graded and examined to determine areas of teaching which could use improvement.
3. All evaluation methods will be used to determine the efficacy of the material presentation.

Detailed Topical Outline

1. Introduction to Physics
2. Linear Motion
3. Newton's First Law of Motion
4. Newton's Second Law of Motion
5. Newton's Third Law of Motion
6. Momentum
7. Energy
8. Gravity
9. The Atomic Nature of Matter