



PHY 108 Introduction to Engineering/Physics

Course Description

This is an introductory course on engineering/physics analysis with practice in analyzing and solving problems in physics and engineering. It includes use of computational devices and methods. Class meets two hours of lecture and two hours of recitation per week.

Textbook Requirements

See current semester textbook list at <http://www.physics.sfasu.edu/docs/books.pdf>

Specific Course Requirements

Course Objectives

The course objectives are to develop basic introductory level problem solving skills in prospective engineers and physicists and to have students become familiar with Newton's laws and associated conservation principles. A cooperative problem solving approach is taken where students develop time management skills and teaming skills. This course along with analytic geometry will prepare the student for the rigors of the PHY 240 series.

Student Learning Outcomes

- Demonstrate the ability to analyze and solve introductory physics and engineering problems.
- Demonstrate the ability to communicate analysis of problems in a professional manner.
- Exhibit the ability to work in teams/groups effectively.

Course Content

- Vectors - Addition and Subtraction and an Introduction to Unit Vectors
- Kinematics - Description of Rectilinear and Projectile Motions
- Kinetics - Newton's Laws of Motion, Momentum, Energy, Conservation Principles, and Rotational Motion

Course Assessment

Assessment is done with exams, homework, portfolio of all problems worked in the course, and in-class oral, problem presentations.