

PHYS 2001—Introduction to Physics
Four Semester Hours

CB
10/12

PREREQUISITES:

University Requisite: (MATH 1200 or math placement level 2 or higher) and
WARNING: not PHYS 2051

COURSE OVERVIEW:

First course in physics; open to students from all areas. Students should have a background in algebra, trigonometry and geometry, but no calculus is required. Recommended for students in liberal arts, architecture, industrial technology, geological sciences, plant biology, and premedicine. Mechanics of solids and liquids, oscillations, heat, thermodynamics. No credit for 2001 after 2051.

METHODS OF COURSE INSTRUCTION:

All material for this course is print-based. Instructor and students communicate and exchange materials through postal mail. You may submit your assignments as e-mail attachments, but your graded assignments will be returned to you by postal mail.

TEXTBOOKS AND SUPPLIES:

Cunell, John D. and Kenneth W. Johnson. *Physics*. 9th ed. Wiley and Sons, Inc., 2009. [ISBN: 9780470879528]

NUMBER OF LESSONS:

The course has 12 lessons, including a midcourse examination and final examination. These lessons include:

- Lesson 1: Introduction and Mathematical Concepts
- Lesson 2: Vectors and Projectile Motion
- Lesson 3: Kinematics in Two Dimensions
- Lesson 4: Forces and Newton's Laws of Motion
- Lesson 5: Dynamics of Uniform Circular Motion, Basic Work, and Energy
- Lesson 6: Midcourse Examination
- Lesson 7: Conservation of Energy, Determination of Power, and the Study of Impulse and Momentum
- Lesson 8: Rotational Kinematics and Rotational Dynamics
- Lesson 9: Simple Harmonic Motion, Elasticity, and Fluids
- Lesson 10: Temperature and Heat, Heat Transfer
- Lesson 11: The Ideal Gas Laws, Kinetics Theory, and Thermodynamics
- Lesson 12: Final Examination

TYPES OF WRITING ASSIGNMENTS:

Ten of the lessons are written lessons that must be completed and submitted for grading.

GRADING CRITERIA:

Each examination will be graded on a 100% basis, and these two scores will be combined with your writing lesson score (also on 100% basis) on an equal basis to determine your final course grade. The percentage score, determined by dividing the sum of the three parts indicated above by 3, will then be used to determine your final letter grade.