



Physics 112

Course Outline 2011 - 2012

Teacher: Mr. Peter MacDonald

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Unit I: Kinematics (15 hours)

Vector Analysis

Graphical Analysis

Mathematical Analysis

(Chapters 2 and 3)

Unit II: Dynamics (20 hours)

Introduction

Newton's Laws

(Chapters 4 and 5)

Unit III: Work and Energy (20 hours)

Work, Power and Efficiency

Transformation, Total Energy and Conservation

(Chapters 6 and 7)

Unit IV: Waves (25 hours)

Fundamental Properties

Sound Waves and Electromagnetic Radiation

Unit V: Refraction and Diffraction of Light

Snell's Law

Total Internal Reflection

Unit VI: Lenses and Mirrors

Converging and Diverging Lenses

Thin Lens Equation

Lens Maker's Formula

Mirror Equation

Evaluation:

Tests, Quizzes, Labs

70%

Final Exam

30%

Materials:

Binder & paper

Lab Book

Scientific Calculator

Ruler/Protractor

Pen/Pencil

Textbook: Physics (McGrawHillRyerson): Text and CD ROM Price > \$153.33