

Michael E. DeBakey High School for Health Professions

Pre-AP Physics Syllabus

Course: Pre-AP Physics Spring 2009

Teacher: Pia M Denzmore

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Course Outline

(Note: This is a tentative schedule only. Topic sequence may be adjusted)

Cycle IV: Jan 6th – Feb 20th

Work and Energy (Ch.5) – 1 week

- Kinetic and Potential Energy
- Work-energy theorem
- Power
- Conservation of energy

Momentum (Ch. 6) – 1 week

- Impulse-momentum theory
- Conservation of momentum in elastic and inelastic collisions

Circular Motion (Ch. 7) – 1 week

- Centripetal force and acceleration
- Universal law of gravitation
- Torque

Fluids (2 weeks)

- Buoyant Force
- Pressure and Pascal's Principle
- Fluids in motion

Cycle V: Feb 23rd - April 9th

Rotational Motion and Simple Harmonic Motion (Ch. 12) -2 weeks

- Pendulums
- Hooke's Law

Waves (Ch 12) -1 week

- Properties of waves
- Wave interactions

Sound (Ch 13) - 1 week

- Characteristics of sound waves
- Doppler effect
- Behavior of waves

Light and Reflection (Ch. 14) – 2 weeks

- Characteristics of light
- Concave and Convex Mirrors

Cycle VI: April 13th – May 28th

Refraction (Ch. 15) – 1 week

- Snell's Law
- Total internal reflection
- Convex and Concave Lenses

Electricity (4 weeks)

- Electric charge, force, field, potential
- Ohm's Law and resistance
- Electrical energy, power
- Series and parallel circuits

Textbook & Resources You will need to bring **all** of the following materials to class **EVERYDAY**.

1. Textbook: Physics by Serway & Faughn
2. Scientific Calculator
3. Pencils
4. Blue or Black Pen (no other colors are permitted)

Class Rules

1. **Be Prompt** - Be on time
2. **Be Prepared** - Bring all necessary supplies and assignments to class each day.
3. **Be Productive** - Stay focused and on task at all times.
4. **Be Polite** - Respect yourself, your peers, your teacher and your school at all times.
5. **Be Proud** – Respectfully show your pride in being a member of this class, DeBakey HSHP and your community.

Grading Policy

Tests = 50% of grade (generally given every 2-3 weeks or at the end of a unit)

Labs and quizzes= 40 % of grade

Homework/Class Participation = 10% of grade

Homework is always due **at the beginning of class**. If you fail to turn it in at that time you will have until the next class to turn it in, however, you will receive a grade no higher than 70%.

Special Project: Pre-AP students will construct mousetrap cars and participate in SECME competitions. This project will count for 10% of the class grade during cycles 4 & 5.

Absences

When you are absent, it is your **responsibility** to complete the missed work and get the notes from class. If you are absent on the day an assignment is given you have **three days** to complete the assignment. If you are absent on the day a prior assignment is due, you have to hand in the assignment (or complete the test/quiz) **the day you return to school**.

Assignment Format

Label all assignments in the **upper right-hand corner** as follows:

Student's First and Last Name
Teacher Name
Subject and Period
Date