Cold Spring Harbor High School
AP Physics I

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Course Description:

AP Physics 1 is an introductory college-level course designed to engage students in a challenging exploration in the world of physics. AP Physics 1 will develop the skills needed to succeed not only in physics, but in the college classroom where a relentless pursuit of excellence and a confident understanding of subject matter are a must. Experimentation, at home and in the lab, will foster observations that can be explained using physical models that students will become familiar with during the year. Topics of study in AP Physics 1 will be:

- Kinematics
- Newton's laws of motion
- Torque
- Rotational motion & angular momentum
- Gravitation & circular motion
- Work, energy, and power
- Linear momentum
- Oscillations, mechanical waves and sound
- DC circuits

This is a fun course and I will do my best to inspire you to love it as much as I do. In order to do this, I need your cooperation in creating an atmosphere of maximum learning and mutual respect. Your success is my top priority and we will work together to get you through this year. Please contact me with any questions or concerns. Extra help is available before school. To guarantee I will be available to meet with you please let me know in advance you will be coming. *Extra help is not available on exam days.*

Equipment and Materials

All students will be expected to have the following materials each day:

1. A 3 ring loose leaf binder
2. A pencil with an eraser, and a pen too
3. A scientific calculator
4. A copy of our text book
5. Your 'Good Book'

Grading Policy

Grades will be calculated by dividing the number of points earned in the quarter by the total number of points possible during the quarter. To be sure you receive the grade you deserve, I will hold onto all exams and labs. Please note: there will be no extra credit offered at any time.

$$\text{Quarter Grade} = \frac{Points\ Earned}{Points\ Possible} x100$$

Exams / Quizzes

Exams will be given approximately every two to three weeks. They will be announced and you will be responsible for all content in a chapter whether or not it is explicitly discussed in class. Please refer to your homework assignments to keep up with the readings. If a test is missed due to an *acceptable* excuse, you will be required to take a make-up exam. Please see me the morning you return, before first period, to schedule a time. If you know in advance that you will be missing an exam, please see me to make arrangements for an alternate time. Quizzes may be announced or unannounced and will cover material discussed in class and recent homework assignments.

Laboratory Work

The College Board requires that students participate in labs and learn how to conduct experiments on their own. You will be expected to design and implement investigations in a team setting in order to further explore the physical phenomena being discussed in class. You will either present your findings in a formal laboratory write-up or in an informal classroom discussion. The AP exam will test your ability to design labs and analyze data during the written portion of the exam.

Homework

Homework will consist of 'Good Book' assignments, chapter readings, and handouts. Completion of homework will be critical to your success in this course. Plan to focus on homework each and every night as it is very easy to fall behind in a college-level course. Make sure to turn in your homework on the day it is due at the beginning of class. Late assignments will be harshly penalized!

Absences / Attendance

It is your top priority to make up missed labs, exams, and class work. It is your responsibility to come to me to set up a time when the lab can be made up on the day that you return to school. Following the completion of the make-up lab, you will have a few days to turn in the lab report.

Lateness to class and excessive absences will not be tolerated. The more often you attend class, the greater the probability that you will learn. You are expected to be in your seat and ready to work when the bell rings.

Tips for success:

1) Be on time and ready to learn when the bell rings.
2) Read the assigned sections of the textbook. There will be content on exams from the text that will not be discussed in class unless you ask!
3) Read the conceptual examples in each chapter and also read through and attempt the sample problems. Ask questions on anything that does not make sense.
4) Ask a lot of questions!

Course Outcomes:

1) All students are required to take the AP Physics 1 Exam in May
2) All students are required to take a Final Exam in June
3) All students are required to complete mandatory NYS laboratory hours
4) All students are required to take the NYS Physics Regents in June