

Course Description

Welcome to AP Physics 1. This is a year-long course designed to develop your scientific reasoning skills and inspire in you a greater appreciation for God's handiwork displayed in the laws of nature. The course work will cover mechanics, waves, and electricity. AP Physics is all about observing motion and interactions of objects. By collecting and analyzing data, you will develop an understanding of the principles that govern these behaviors and develop the skills of data collection and analysis. You will explore these topics through interactive reading activities, animations, class discussions and online research, as well as inquiry-based laboratory experiment simulations.

Your coursework will include reading and completing self-check assignments, problem solving, assignments based on online labs (simulating lab work, data collection and analysis), class discussions, quizzes, and exams. This course is designed to prepare you for success on the AP exam and college level physics courses. The math ability required in this course includes algebra, geometry, and right triangle trigonometry.

This is a year-long course consisting of 8 units. Upon successful completion students will receive 1 credit towards high school graduation.

Course Overview

Semester 1 Units:

Semester 2 Units:

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|------------------------------------|---------------------------------|
| 1. Kinematics | 5. Momentum and Impulse |
| 2. Dynamics | 6. Simple Harmonic Motion |
| 3. Circular Motion and Gravitation | 7. Torque and Rotational Motion |
| 4. Work and Energy | 8. Fluids |

Methods of Evaluation

Students will demonstrate mastery through the following formative and summative assessments:

- 40% Assignments
- 10% Participation (Discussion Posts, Live Classes)
- 10% Quizzes
- 25% Final Assessment
- 15% Unit Tests

Additional Course Information

Detailed information regarding OC Online policies on proctored final exams, grading policy, late/missing assignment policy, weekly live sessions, course expectations, and additional school policies can be found on the website.