

Canyon Crest Academy: AP Physics 1

Level of Difficulty	Estimated Homework	Prerequisites
<input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Difficult <input type="checkbox"/> Very Difficult	60 minutes per day* *This is a general guideline for planning and scheduling purposes. A student's ability level may affect actual preparation time needed.	District The ability and academic background to complete college-level coursework. Department Successful completion of College Prep Physics or Completion of Chemistry with an A or Honors Chemistry with B and Completion or concurrent enrollment in Integrated Math 3

Course Description

AP Physics 1 is designed for those students planning to major in engineering or physics in college and committing to a year-long physics sequence by also enrolling in AP Physics 2. **Please note that AP Physics 1 alone does not meet all physics standards, if you are only going to take one physics class, please take college preparatory Physics.** This course is taught with the assumption that students have a strong background in physics and strong math skills. The emphasis of the course is placed on understanding the basic concepts of mechanics, dynamics, optics and modern (atomic) physics, electricity, magnetism and application of these concepts. These will include the deep understanding in the following areas;

1. Objects and systems have properties such as mass and charge. Systems may have internal structure.
2. Fields existing in space can be used to explain interactions.
3. The interactions of an object with other objects can be described by forces.
4. Interactions between systems can result in changes in those systems.
5. Changes that occur as a result of interactions are constrained by conservation laws.
6. Waves can transfer energy and momentum from one location to another without the permanent transfer of mass and serve as a mathematical model for the description of other phenomena.

Students will explore these topics through discussions, laboratory investigations, teacher demonstrations, and in-class assignments. This course is aligned with the Next Generation Science Standards in Physics as well as the guidelines described by CollegeBoard.

Grading

The grading system is based on weighted percentages. Each assignment will have a point value and be weighed according to the category it falls under. Individual teachers may make slight modifications on the weighted percentages.

Category	Weight
Homework/Class work	15%
Laboratory/Projects	25%
Quiz/Exams	60%

Links

CCA Science Homepage <http://teachers.sduhsd.net/ccscience>

CollegeBoard <http://www.collegeboard.com>

CollegeBoard Description <http://media.collegeboard.com/digitalServices/pdf/ap/ap-physics-1-2-course-and-exam-description.pdf>

Supplemental Information

10 credits

Fulfills graduation requirement for physical science

Fulfills UC/CSU subject area “d”

Weighted grade