



AP PHYSICS C

Description

AP Physics is the equivalent of an introductory-level college course. It is *very* demanding of a student's time and intellect. The emphasis on theoretical topics, critical thinking, and problem solving makes this class challenging. Mathematics is used to illuminate physical situations rather than to show off a student's manipulative abilities. Students *must* be strong in both math and science to be successful in either AP Physics course.

AP Physics C is a two semester calculus-based course: one semester in mechanics and one in electricity and magnetism. Although fewer topics are covered in AP Physics C than in AP Physics 1 & 2, they are covered in greater depth in AP Physics C, and with greater analytical and mathematical sophistication, including calculus applications.

Special requirements

Prerequisites: Physics and a Math pre-requisite of Calculus AB or co-requisite of Calculus BC or Calculus AB/BC

Student costs/Materials to be supplied by students

Graphing calculator

Other information

Students are initially taught good laboratory skills through guided activities. Soon after, they are introduced to inquiry-based activities enabling them to work in groups of 2 or 3, planning and executing their own investigations. They are encouraged to develop mathematical models for the variables they are testing and to present their findings to the class. Students are asked to support their conclusions and class members are encouraged to evaluate the findings. Throughout the year a large degree of emphasis is placed on understanding physics principles and the thought processes involved in solving topic related problems. Students work on whiteboards when solving problems. They share their problem solving techniques with the class so that the teacher may question their understanding and address common misconceptions within a topic.

Students may receive college credit for this course by taking the Advanced Placement Examination and earning a score acceptable to their college. This acceptable score varies from school to school and department to department.