

# AP Physics

- **Course Description:**

The course is a calculus-based physics class focusing on mechanics.

Topics:

Physics and Measurement

Motion in One Dimension

Vectors

Motion in Two Dimensions

Laws of Motion

Circular Motion and Newton's Laws

Energy and Energy Transfer

Potential Energy

Linear Momentum and Collisions

Rotation of a Rigid Object about a Fixed Axis

Angular Momentum

Static Equilibrium and Elasticity

Universal Gravitation

Fluid Mechanics

- **Course Expectations:**

The course format will be lecture, problem solving and laboratory based. The problems are significantly more difficult than the problems found in Physics I.

The labs are investigative and reinforce the problems proposed in lectures and text reading. Each chapter will have about twenty problems for two weeks of study.

The problems are also supported through Internet tutorials. The time spent on the problem set varies according to the ability of the student. Ten to twelve hours per week is a reasonable amount of time for the course.

- **Special Projects:**

The AP students give aid to the first year physics students on their physics schoolwork, especially on the review nights. There is also a possibility of having extended lab work after school or during the evening hours. AP students have also been invited to various talks, lectures and social gatherings in the greater Seattle area by noteworthy physicists.

- **Beyond the general education course:**

The course assumes a mature attitude toward learning and a dedication to problem solving.