

## AP Physics C

### RCAS Policies/Procedures:

Students will be required to follow all RCAS policies and procedures. To view the RCAS High School Student Handbook, click [handbook](#).

### Course Description:

The AP Physics C course utilizes Calculus, unlike AP Physics 1 or 2. It is akin to the first-year college physics course required by almost all majors in Science, Medicine, Engineering, and Technology. It is designed as a first physics course, taught alongside Calculus, but students may also take an introductory general Physics or AP Physics course to enhance their preparation. It focuses on the study of motion ranging from the flight of a javelin on Earth to the circular motion satellites orbits and rotational motion as in joints in the human skeletal system. It covers the causes of motion, namely forces and torques, in circumstances ranging from the human spine to bridge trusses, car engines to helicopter rotors, turbines to home run pitches. Furthermore, it covers momentum and energy, to simplify the analysis of collisions and the efficiency of systems. Finally, waves and oscillations ranging from earthquakes to a resonating violin string round out the course.

### Textbook:

University Physics

### Required Resources:

none

**“Limited Choice” Resources:** (students will be asked to choose at least one title from this list)

none

### **Student Choice:**

Will student be asked to choose additional reading material from the classroom or school library?

No

### **Essential Questions:**

College Board has produced an extensive 'Course and Exam Description' pdf document with all of the essential questions (referred to in the text as Enduring Understandings). It is updated regularly. The document is available here:

<https://apcentral.collegeboard.org/media/pdf/ap-physics-c-mechanics-course-and-exam-description.pdf>

If this link is no longer valid, the Course and Exam Description document is easily found by using a search engine with the query: 'AP Physics C: Mechanics Course and Exam Description'

### **Essential Learning Intentions:**

College Board has produced an extensive 'Course and Exam Description' pdf document with all of the essential questions (referred to in the text as Learning Objectives). It is updated regularly. The document is available here:

<https://apcentral.collegeboard.org/media/pdf/ap-physics-c-mechanics-course-and-exam-description.pdf>

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