

## AP Physics 1 Second Semester Course Syllabus and Assignments

Reading assignments are from the course textbook, *Principles of Physics* (Kinetic Books, v. 2). Homework quizzes are on The Hub course page at [hub.hw.com](http://hub.hw.com).

### Unit 6: Simple Harmonic Motion

#### **Springs and Simple Harmonic Motion**

Read 5.28, 15.18  
Homework Quiz 6.1

Read 15.0-3, 5  
Homework Quiz 6.2

\*\*\*\*\*QUIZ or TEST\*\*\*\*\*

LAB: Simple Harmonic Motion

### Unit 7: Mechanical Waves and Sound

#### **Wave Behavior and Sound**

Podcast: Intro to Waves and Sound  
Homework Quiz 7.1

Read 18.0-2  
Homework Quiz 7.2

Podcast: Standing Waves  
Homework Quiz 7.3

Podcast: Doppler Effect  
Homework Quiz 7.4

\*\*\*\*\*TEST\*\*\*\*\*

LAB: Waves on a Wire

LAB: Speed of Sound

## Unit 8: Rotational Kinematics and Torque

### **Rotational Kinematics**

Read

### **Torque**

Read

\*\*\*\*\*TEST\*\*\*\*\*

LAB: Torque Balance

LAB: Rotational Inertia of a Pulley

## Unit 9: Rotational Energy and Momentum

### **Rotational Kinetic Energy**

Read

### **Rotational Momentum**

Read

\*\*\*\*\*TEST\*\*\*\*\*

LAB: Ball in Cup Challenge, Part 2

## Unit 10: Circuits

### **Circuits**

Reading Assignment 6.3 (27.1, 3-5)

Homework Quiz 6.5

Podcast 6.3: Kirchhoff's Laws

Homework Quiz 6.6

Reading Assignment 6.4 (29.2, 4)

Homework Quiz 6.7

\*\*\*\*\*TEST\*\*\*\*\*

LAB: Ohm's Law

LAB: Resistivity of Play-Doh

LAB: Kirchhoff's Laws

LAB: Circuit Design

After completing unit 10, we will spend the rest of the year reviewing for the AP Exam. You can anticipate a cumulative exam covering the entire year during the review period.

\*\*\*\*\*CUMULATIVE EXAM\*\*\*\*\*