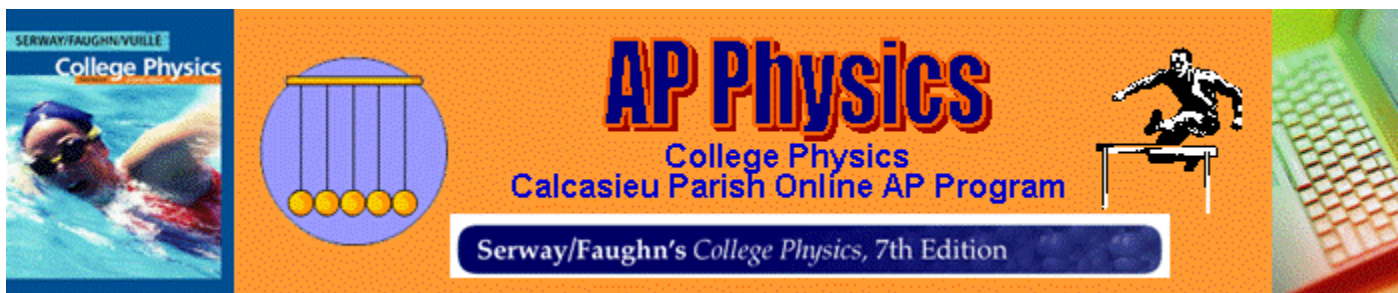


AP Physics Summer Assignments



It is important that you go through this material and become familiar with the basics. AP Physics is a fast paced course loaded with many topics.

The major concept areas that are covered in AP Physics by percent are:

- Newtonian Mechanics 35%
- Fluid Mechanics and Thermal 15%
- Electricity and Magnetism 25%
- Waves and Optics 15%
- Atomic and Nuclear 10%

Lecture: **Introduction to Physics**

Carefully read Chapter 1. Click on the link to access **Chapter 1**

Read the chapter carefully. Review and work through the sample problems.

Chapter Overview Lecture: **Measurement**

Complete the following Assignment:

Problems on pages 19, 20, and 21: 1, 3, 4, 7, 9, 10, 12, 17, 18, 19, 21, 26, 29, 30, 33, 36, 40, 41, 43, 45

Review, read and complete the following:

Section 1.1 Lecture: **Introduction to the Metric System**

Section 1.3 Lecture: **Metric Conversion and Dimensional Analysis**

Assignment: **Metrics**

Dimensional Analysis

Section 1.4 Lecture: **Making Measurements,**

Lecture: **Precision and Accuracy in Measurements**

Lecture: **Significant Figures**

Section 1.5 Lecture: **One of These Things is Not Like the Other**

Section 1.6 and 1.7:

Assignments: **Coordinate Systems, Trigonometry and Math Review**

Math Review

Section 1.9 Lecture: **Problem Solving Techniques**

Read the following Power Point lectures on scientific method and working with data.

Scientific Method

Working with Data

Special Section on Graphing.

Review the following Power Point presentations on graphing

Lecture: **Introduction to Graphing Techniques**

Carefully read the Introduction to Graphing Techniques complete the following assignment. Be sure to use graph paper. One sheet of graph paper per graph.

Be sure that you use proper graphing techniques. Graph paper is included.

Complete the following Assignment:

Graphing Technique Problems

Graphing Paper

Read the following Power Point Graphing Lectures

Lecture: **Interpreting Graphs**

Lecture: **Interpreting and Analyzing Data**

Lecture: **Interpreting and Analyzing Nonlinear Data**

Using proper graphing techniques and the techniques for analyzing nonlinear data, complete the following assignment. You are to produce a total of six graphs, one graph for the original data and one graph for the linearized data.

Complete the following Assignment:

Straightening Curves

Lecture: **How to be successful in AP Physics!**

I am glad to have you in AP Physics! If you have any questions or need help you can contact me at:

arlene.cain@cpsb.org You can email me anytime.

