

Welcome to AP Physics 2! The goal of this course is to continue your study of physics by actively engaging in the scientific process: observation, hypothesis, testing, and application. Modern day scientists work in collaboration with other scientists in order to solve complex problems. Class work will be primarily group work, and active participation is crucial to your success.

Teacher contact info:dbuchan@bhpsnj.org

(908) 464-3100 x2332

Extra help times:

First half of lunch on days 1 and 2

Second half of lunch on day 4

Blocks C, D, or H if you have study hall

Before school (7:00) in room 210 or after school by appointment

Textbook:College Physics, Etkina, Pearson, 2014.**Recommended Book:****5 Steps to a 5: AP Physics 2 Algebra-Based 2019**

ISBN-13: 978-1260123296

ISBN-10: 1260123294

Required Supplies:

- Pencils
- High-quality eraser
- Scientific calculator
- 2” Three-Ring Binder **devoted** to AP Physics 2 with dividers labeled as follows:
 - Unit 1: Fluids
 - Unit 2: Thermodynamics
 - Unit 3: Electrostatics
 - Unit 4: Circuits
 - Unit 5: Magnetism
 - Unit 6: Optics
 - Unit 7: Wave Optics
 - Unit 8: Modern Physics

Grading and Activities:

Your course grade will be determined on a **total points** basis, and will be based on homework assignments, lab reports, quizzes, and tests. The point values will generally correspond to the following percentages:

<u>Activity</u>	<u>Percentage</u>
Homework & Projects	5%
Lab Reports	30%
Quizzes & Tests	65%

Description of activities:

Homework: Research shows that when you reflect on new information within the first eight hours, you increase the chances of making permanent connections in your brain. A brief conceptual homework assignment will be given daily. Your answers must be submitted via Google classroom. More complex, quantitative practice problems will also be provided for each unit. This assignment will not usually be checked, but effort on these problems is highly correlated with content mastery and high test scores. We will generally not discuss the practice problems in class, although answers will be provided. It is your responsibility to ask questions or come for extra help if needed.

Quizzes: Occasionally there may be a short quiz based on the topic we are currently studying. Quizzes will generally be announced, usually two days in advance. The purpose of the quizzes is to help you focus on the physics ideas and concepts.

Lab Reports: You must keep notes for all of your lab investigations. You must describe the experiment you perform, record and analyze all data, and answer any questions from the assignment sheet. While the design and performance of a lab investigation is a group task, the lab report you submit must be your own work, written in your own words.

Tests: At the end of each instructional unit you will be assessed on the topics we studied. All test dates will be announced approximately one week ahead. Your overall grade in the class is primarily based on your test grades. You will have the opportunity to make test corrections to improve your grade. To recover points lost on a test, you must submit the corrected solutions to all of your incorrect problems, along with a short explanation of what you did wrong, how you corrected it, and what you have learned. You can recover up to 33% of the points lost initially, based on the completion of your concept map at the time of the test. The AP Physics Test Correction Form must be used. This will be explained after the first test.

Topics to be explored (order may vary):

<u>Topic</u>	<u>Chapters</u>
Fluids	10 & 11
Thermodynamics	9, 12 & 13
Electrostatics	14 & 15
Circuits	16
Magnetism	17 & 18
Optics	21 & 22
Wave Optics	23 & 24
Modern Physics	25 – 28

The AP Physics 2 test date is Friday May 10, 2019.