

Prerequisites: A grade of “85” or better in Honors Physics and Honors Pre-Calculus or Departmental permission.

Note: The information outlined below describes expectations, policies, grading, etc. under a normal classroom setting. For updated guidelines in effect during our “Virtual Learning Academy” click on the following [link](#) which will direct you to my school webpage.



Course Description:

The AP Physics 1 course is conducted using inquiry-based instructional strategies that focus on experimentation to develop students' conceptual understanding of physics principles. The students begin studying a topic by making observations and discovering patterns of natural phenomena. The next steps involve developing, testing, and applying models. Throughout the course, the students construct and use multiple representations of physical processes, solve multi-step problems, design investigations, and reflect on knowledge construction. In labs, the students may use probeware technology in data acquisition. In the classroom, they use graphing calculators and digital devices for interactive simulations, Physlet-based exercises, collaborative activities, and formative assessments.

This course is an algebra-based, first-semester college-level course. Topics include mechanics (kinematics and dynamics) waves (oscillations, mechanical waves, and sound) and electricity. These science principles are applied in significant hands-on laboratory work in class. All students should also take the AP Physics 2 examination in May and may receive college credit upon qualifying.

Textbook: OpenStax College Physics for AP[®] Courses, by Douglas Ingram & David Anderson (Rice University)

<https://openstax.org/details/books/college-physics-ap-courses>

This is an electronic textbook. You can access the textbook in the following ways: navigating to the link above in your web browser, downloading the OpenStax App (available on both iOS and Android devices), or downloading the textbook as a .pdf file.

Course Content:

Unit 1: Kinematics	Unit 3: Waves & Oscillations
Unit 2: Dynamics	Unit 4: Electricity

Class Expectations:

1. Be on time and prepared every day!
2. Raise your hand when you would like to speak
3. Use respectful language at all times
4. Class time is for class time (Stay on task at all times!)
5. Cell phone use is **only permitted** if I give you specific instructions to do so. Absolutely no cell phone use during class.
6. Respect the classroom procedures outlined below.

Preparation:

Punctuality: If you are late, you must have a late pass. If you do not have a late pass, you will have to sign in with your name, the date, and the time on the late sign in sheet. Lateness will negatively affect your class work grade. Persistent lateness will be followed up by an afterschool detention, parent phone call, and/or a referral to the principal.

Preparedness: Arriving with something to write on, something to write with, and the ability to focus on the material at hand to ensure understanding.

Homework: Homework will be either checked **or** collected daily. 50% will be subtracted from homework every day it is late! If you are absent on the day an assignment is due, you *must* turn it in the day after you return to school. **No exceptions!**

Assessments:

Quizzes and Tests: There will be a quiz approximately **every 2 weeks**. Tests will occur at the end of a unit. Because of this advance notice of all tests, you must be prepared to make up the test the day you return to school if you are absent. No exceptions!

Labs:

About 25% of the time in this course will be spent doing labs. Your labs must be completed during your scheduled lab class. I will hold your labs on file in order to verify you have completed all labs. If you are absent on a day that we complete a laboratory assignment, it is your responsibility to come see me and schedule a time to makeup the lab.

Grading Policy:

Your grade will be determined based on your performance on both Summative (80%) and Formative (20%) Assessments. Here is the breakdown of how your grade will be calculated, based on these two categories:

1. Tests and Quizzes (60%) [*Summative*]
2. Labs (20%) [*Summative*]
3. Homework (10%) [*Formative*]
4. Class Work/Participation (10%) [*Formative*]

Note: During MP1, your grade will be based on a 50% Summative/50% Formative split.*

Schoology:

Our new Learning Management System (Schoology) will be utilized for communication, completion of assignments, and collaboration between students. Over time, you will become comfortable with using this system. Should you need any assistance with navigating this system, let me know! Here are the links to the schoology class page for your course: