

AP Physics II Summer Assignment

Welcome to AP Physics II! You have managed to earn success in Physics I and are ready for the challenges of AP Physics II. Please be aware that for some of you, you are moving from either a college prep or honors level physics to an AP course. That means that you should expect a more rigorous, fast-paced, intensive class. I am sure you are all up for the challenge! As you begin this course, please keep the following in mind:

- ◇ This will be a very challenging course. As the curriculum is dictated by the College Board you will find that pacing is quick and content is difficult. Stick with it and stay on top of your work.
- ◇ You are expected to be in class. You will miss a significant amount of work if you are absent.
- ◇ You are responsible for making up the work you missed.
- ◇ Ultimately, you are all preparing to take the AP Physics II exam in May. The date of this test is set by the College Board and is not subject to change.
- ◇ In addition to material covered in class, you are responsible for your own learning. You are expected to **READ THE BOOK, READ THE BOOK AGAIN**, and when you have finished you should **READ THE BOOK AGAIN!**
- ◇ It is expected that you try all work assigned, visit suggested websites, complete lab activities, etc.
- ◇ As this is a college level course, the excuses you may have gotten away with in your previous physics course will not work for you here. **DO YOUR WORK, DO IT WELL, and TURN IT IN ON TIME!**

In addition to all of the above, you should know that we will be working as a team to complete this course. The more we all put into it, the more each of us will gain. Your brain will hurt some days (mine will too) but you will learn new ways of looking at the world!

Please see the following page for an outline of the summer assignment. Email me at lhaug@krhs.net if you have any questions or problems.

Mrs. Haug

“Learn from yesterday, live for today, hope for tomorrow. The important thing is to not stop questioning.”

- Albert Einstein

Summer Assignment – Due on the first day of school. Submit to the Google Classroom. You

can include a picture of your equations if that is easiest.

Please join the AP Physics 2 18-19 Google Classroom by July 1, 2018.

Class Code: x9xfi

From the Giancoli: Physics Text

- Chapter 10 - Fluids
 - Read the entire chapter. We will not be covering sections 10.11 - 10.14 but reading them may help your comprehension of the concepts covered in this chapter.
 - Take notes on the chapter. (10pts)
 - Define the following terms: *density, pressure, absolute pressure, Pascal's principle, mechanical advantage, aneroid gauge, barometer, buoyancy, buoyant force, apparent weight, hydrodynamics, turbulent flow, viscosity, flow rate, equation of continuity, Bernoulli's principle, Torricelli's theorem, ventur tube, surface tension, cohesion, adhesion* (10pts)
 - Make an equation sheet for equations relevant to this chapter. (5pts)
 - Answer Questions 1-21. Be sure to explain your reasoning. (20pts)
 - Answer MisConceptual Questions 1-12. Explain your reasoning. Do not just choose letters for the answers. (10pts)

Helpful Websites

- http://learnapphysics.com/apphysics1and2/fluid_mechanics.php This link will allow you to access video lectures related to the topics discussed in this chapter. I've used this link in class before. The Monterey videos are usually about 10 minutes or less. The Lewin videos can be over an hour long.
- www.physicsclassroom.com
- http://wps.prenhall.com/esm_giancoli_physicsppa_6/ This is the companion website for our text book. I HIGHLY recommend that you use this site! There are practice problems, hints, etc.
- <http://dev.physicslab.org/>

Please remember the following:

- A wrong answer is better than no answer. Try everything.
- One textbook and a teacher should not be your only source of information. Look things up. Consult multiple sources.
- If you do use other sources, please be sure to add them to the end of your document.