



## 2018-2019 AP Physics 2 Summer Assignment

- *all summer work is dependent upon your finalized schedule;*
- *attendance at this meeting does NOT ensure your enrollment in this course.*

First, thanks for continuing your interest in the most awesome science and taking **AP Physics 2**...It's going to be a fantastic year..seriously, it's going to be epic. I mean, c'mon: lasers, radiation, thermodynamics, Bernoulli's principle, [flux] capacitors..we're basically learning how to time travel and make superheroes out of puny humans. (Editor's note: **most** of what I say this year is true, probably)

*Students enrolled in AP Physics 2 must see Mr. Pennetti in the morning before school by June 8th to record your textbooks for this year and make sure there are no fines due. (Same book as AP1)*

**Bring the completed assignment to the first class meeting of the school year in September. There will be a short quiz on Chapter 22 shortly thereafter.**

The AP Physics 2 course is a course developed by College Board. It is an algebra-based introductory college level physics course that explores such topics as: fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. It is equivalent to a second semester college physics course. Students may receive up to 8 college credits based on their score and their college's guidelines for AP credits.

You can prepare for the course by completing the following assignments. By completing this work, you will be prepared to "hit the ground running" as we cover the introductory unit.

### **Review of Concepts from AP Physics 1: GO OVER EVERYTHING YOU LEARNED ABOUT WAVES!**

Chapter 13 Read section 13.3-4. Complete multiple choice questions 8-13. Exercises 52,55,56,61,67,68.

Chapter 14 Read section 14.4-6. Complete multiple choice questions 11-17. Exercises 47,48,64,65.

### **New Material: OPTICS, BABY!**

Read and outline chapter 22. Complete multiple choice questions 1-10. Conceptual questions 5,6, 8, 14. Exercises 1, 2, 14-19, 35, 37.

Key terms/concepts: Snells Law, Indices of refraction, total internal reflection, diffraction.

A course syllabus will be put up on my website during the summer. Feel free to peruse the files that are already shared on my website! I am also going to put together a Google classroom. I will let you know when it is available. **Enjoy your summer!** I am looking forward to seeing you in September.

Mr. Jon Pennetti  
AP Physics 2 Instructor



