



AP Physics II
SUMMER ASSIGNMENT
Summer, 2023
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Welcome to Advanced Placement (AP) Physics II! My primary objective for the year is to prepare you to ace the AP exam in May. If you work hard consistently and follow my instructions, you will. To be successful in this course, you will need to be **proactive and responsible for your learning**: completing homework and watching instructional videos at home so that we can spend more time in class working on problem-solving and clearing conceptual misconceptions. The workload will be significant; remember that this is a college-level course.

It might be the most rigorous course you have ever taken in your high school career. It is fast-paced and will require you to quickly master concepts and then apply mathematics to solve practical problems. **At a minimum, you need a strong background in physics and algebra and be comfortable modelling, graphing and analyzing data and manipulating linear and quadratic equations**. Being enrolled concurrently in one of the Honors/AP Math courses will help you take full advantage of what the course offers.

You will also need to improve your written communication skills. The AP's algebra-based physics course sequence was re-designed two years ago, and precise, technical writing using appropriate vocabulary is emphasized.

Completion of this summer assignment is obligatory for entering the course in August.

To motivate you further, a test covering this summer assignment material will be administered during the first week of classes and will count 10% towards your first quarter grade.

If we need to speak in real-time during the summer, please email me after August 1st. If possible, I will make the appropriate arrangements to Zoom.

Purpose of this summer assignment:

This summer assignment aims to get ahead in the curriculum with the most accessible topic so that we can dedicate more teaching time to the more challenging sections. Another skill you will learn is to orient your summer practice experience towards self-learning and independence. **It should take approximately ten (10) hours to complete.**

Materials:

1. AP Physics 2 Secret Book (find it)
2. A **sewn** notebook, 8 1/2" x 11", graph-paper type
3. Pencil, pen (blue or black), sharpener, eraser



4. Scientific calculator (TI-89 or TI-Npire CX CAS)
5. MacBook
6. ASFG Google account (if you are a new student you should contact the HS office or the tech center to obtain the details of your email/google account).
7. Online resources: [The Khan Academy](#) (please join the class with class code **K8VWDUZY**)

Summer Assignment Instructions:

1. Read the Fluids Unit Lecture Notes PowerPoint document and fill in any gaps by watching the corresponding Khan Academy videos for each sub-topic.
2. Complete all the Basic Understanding Exercises included in the Lecture Notes.
3. Complete each Homework assignment detailed in the Lecture Notes in your Homework Notebook. The exercises are in the Homework-Fluids.pdf document.
4. Create a side list of questions/exercises to discuss the first week. **If you do not have questions, you did not do the work.**
5. Try your best to work independently. If you cannot solve a problem alone, contact a classmate. If you and your classmate(s) cannot figure it out, conduct an Internet search for a hint (or solution).
6. Have fun, be safe and try your best!

Next Steps

1. Join Google Classroom "AP Physics 2 23-24" with class code **VHKSHNB**. This is the join [GC link](#).
2. Join Khan Academy with class code **K8VWDUZY** or the [KA link](#).
3. Download AP Physics 2 Secret Book (having the book will help you check your answers) from the Internet. Its distribution is not permitted, but individual downloads are allowed.
4. Download your Summer Assignment documents from Google Classroom's "Summer Assignment" section and start working.