

Dear AP Physics B student,

June 2009

I am asking that you will read over the material that you have been given and reflect on what the fall will require of you, as you will need significant and consistent effort. The senior year has often been coincided by an elaborate transformation of twelfth students into social butterflies whose priorities for college preparation has taken a back seat to everything else. This transformation is often referred to as senioritis and can be a big step in the wrong direction as students are drawn in by their predecessor's perceived rights of a leisure senior year. So you will have to swim upstream from much of the crowd in avoiding this contagious plague, so to speak.

Things to plan on:

- Like most AP classes physics requires hard work and regular work.
- If you will be having a job in the fall, I suggest that you limit your hours to 10 if not significantly less. You cannot burn the candle at both ends for long; it is unhealthy. Similarly, participation in sports teams can be too taxing on your time and energies. You are not super-human; don't think that you can be the exception.
- You will need to spend at least a half-hour a night doing physics homework.
- Come to class prepared every day.
- Study partners are suggested, whether in person or by phone, just like college.
- You may need regular access to a computer at home or at school outside of class.
- Working the chapters as outlined below.

If your response to this thus far involves serious reservation in your mind in so far as having the work ethic and making school your top priority, then you may not want to attempt AP coursework as a senior. If you are concerned about your potential for success, that is normal. Otherwise, if you are up to the challenge, then proceed to this summer's assignment with gleeful expectation.

We will get a head start on our full plate of material to cover this fall. I want you to learn the first two chapters of your *Serway and Faughn* college physics text. You should do fine in learning this on your own. You should study each chapter and work out the problems assigned on paper showing work and units where appropriate. Complete all assignments and **TURN IN ON DUE DATES. REVIEW WHAT YOU HAVE DONE AS IF YOU ARE REVIEWING FOR A TEST THE FIRST DAY OF SCHOOL.** You have all summer, but don't wait till the last to do it. Do it a little at a time. The longer you put it off, the longer you'll put it off! Do at least the problems assigned. Feel free to do more if you like.

- **Part 1:** Chapter 1: The hard part of physics is reasoning how to approach problems, doing the math should be the easier part. Read the chapter and do: page 15 Conceptual Questions (2,3,5,6) and page 15 Problems (3-5,7-12,14,15,18,21,22,31,39-42,44,45). Show all work neatly and start problems with equations when appropriate.
- **Part 2:** Chapter 2: AP Physics B is algebra based physics. You do not need to be able to derive the equations on page 35 and 36, but they will be our bread and butter for much of the mechanics part of the course. Do: page 36 Conceptual Questions (1-3,5-8,10,11,14) and Problems (1,6,7,11,15,19,21,24,26,27,29,31-33,43,45,47-51).

- Look over the topics of the rest of the text in context with the outline you were given. You may enjoy doing a search on the internet of some of the topics you see. You will find some good sites that can be very helpful in explaining concepts. Try searching for projectile motion. Share one interesting thing from a web site that helped you learn something about any topic in the physics syllabus when you return to school.
- **PART 3: TBA (Check You Email)**

Don't you feel good now that you are done? The best reward for success at anything is success itself! You can't beat that feeling.

Some internet sites:

<http://members.tripod.com/~IgorIvanov/physics/>

<http://www.searchengineguide.com/pages/Science/Physics/index.html>

<http://www.aip.org/>

<http://news.bbc.co.uk/shared/hi/interstitial-news.stm>

<http://www.sciencejoywagon.com/physicszone/default.htm>

<http://www.thinkquest.org/about/index.html>

<http://www.theory.caltech.edu/people/patricia/st101.html>

<http://www.sciencejoywagon.com/physicszone/default.htm>

<http://www.kettering.edu/~drussell/demos.html>

<http://www.sciencejoywagon.com/physicszone/default.htm>

See what else you can find.

If you have trouble or questions you can't figure out, email me at **[Ihatedove@yahoo.com](mailto:Ihatedove@yahoo.com)**. Also, consider joining the Key Club this fall.

Sincerely,  
Mr. Dove