

LCC Advanced Placement Physics B 2009-2010

Course Overview

Advanced Placement Physics “B” is a two-semester course designed to prepare students to succeed on College Board’s AP Physics B exam. This is a first year course and no prior background in physics is assumed. Significant algebra and trigonometry skills are required but we will not be using calculus in this course. Students who wish to take a calculus-based physics class can take AP Physics “C” as a second year course once they complete AP Physics B. This course will cover mechanics, electricity and magnetism, optics and waves, and thermodynamics and nuclear physics. Conceptual and mathematical understanding of physics will be developed through a combination of lecture, guided problem solving, interactive demonstrations and laboratory activities. All students are expected to take the AP exam in May – in fact many colleges and universities do not consider an AP course complete without this exam. Each exam cost roughly \$90.00 – please let Mr. Park or the principal know if you need help paying this fee. In the spring of 2009, 95% of Mr. Park’s students passed the exam with a score of 3 or better.

Instructor

Name: Brooks Park
Room 730

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Textbook and Supplementary Materials

- *Physics*, 6th Edition, Douglas C. Giancoli
- *Various online resources linked via my website:*
<http://teachers.sduhsd.k12.ca.us/bpark/>

Grading

The grading scale used in this class is as follows:

| Letter Grade | Class Percentage |
|--------------|------------------|
| A | $\geq 87\%$ |
| B | $\geq 77\%$ |
| C | $\geq 67\%$ |
| D | $\geq 60\%$ |
| F | $< 60\%$ |

The grading system is a simple points system. Approximately 70-75% of the grade is determined by tests and quizzes; the rest is determined by homework (approx. 5-10%) and class work (approx. 15-20%). Grades will be updated and posted on “Aeries” student information system approximately every three weeks. If extra credit is offered the total possible points will not count for more than 1-2% of the overall grade.

Homework

Just as you would in a college physics class, *it is expected that students in AP Physics B will put forth a significant amount of energy and time practicing physics on their own outside of class time.* There are four components to the homework – all equally important to success in the course.

1) **Reading** (with note-taking) is assigned from relevant sections of the textbook. This may be as much as 8-12 pages from the text for each class period. This pace is typical of a college level physics course and required in order to cover all relevant topics before the test in May.

2) **Daily homework problem sets:** Between four and six problems are assigned each night from the textbook. Online HW hints may be provided to help students get “unstuck” on a particular problem and answers are often given. In any problem the SOLUTION is much more important than the final answer. HW is stamped each day at the beginning of class for on-time credit, corrected by students during class, and then collected at the end of the unit with the class work in a unit packet.

3) **Overflow Class work/Labs:** In addition to assigned HW problem sets, unfinished class work problems and lab write-ups are also expected to be completed as part of the HW.

4) **Study/review/Reflection time** – Students will need to spend time reviewing class notes, corrected problem sets, and lab write-ups to prepare for tests. Study groups, visiting the instructor outside of class time, and reviewing relevant material online (interactive simulations, online quizzes, etc) also may be utilized by the student to help ensure success.

5) **Online Resources** – There will be many opportunities to supplement your classroom experience with various online activities (practice tests, interactive videos) and reference materials (study guides). Some of these will be required but many are going to be *optional but HIGHLY recommended.*

Class Policies and Procedures

- **Tests** – Unit tests are given approximately every two-three weeks and consist of both multiple choice and free-response questions inspired by actual AP Physics B exam questions. There will be a comprehensive first semester final exam as well as a year-long comprehensive final exam second semester given BEFORE the actual AP exam (see syllabus for dates). *Please do not schedule doctor/dentist appointments for these days.*
- **Make-ups** - Making up work that you missed due to absence *for any reason* is your responsibility. If you miss a test, you will make up the test during the next class period. If you miss a lab you will have one week to make it up. Make up work will ONLY count if the absence is cleared and excused through the attendance office.
- **Late work** – Late work may be turned in within one week of the due date and will receive no more than half credit.
- **Electronic devices** – MP3 players, cell phones, “Game boy” type devices (including graphing calculators that are used for games) are not permitted in class. Cell phones should be turned off or in silent mode. Students may not accept or make calls during class, send text messages, or take pictures with phones.
- **Safety** – Students and parents will read and sign the safety policies for Physics. Anyone doing anything that might potentially harm themselves or others will be removed from class. Students who misuse equipment will be required to pay for repair and/or replacement of equipment.

- **Cheating** – I have a strict **ZERO TOLERANCE** cheating policy in accordance with the district and school policies. *Loss of credit with no chance for make-up will occur on the first infraction. NO SECOND CHANCES!* Students may be dropped from the class for any subsequent infraction.
- **Help** – I want all my students to succeed so don't be afraid to ask for help! Do this early and often! "Dig your well before you are thirsty". I can't do miracles the day of or even the day before a major test. Most days after school and some days before school will be open and students are responsible for letting me know when they intend to come in for help.

A Final Note to Students...

Advanced Placement Physics is designed by the College Board to be the high-school equivalent to an introductory physics class for life science majors in college. The fact that you have signed up for this course is something for which you should be proud. Realize, though, that success in AP physics B will require self-discipline and consistent effort. Most important will be asking questions and getting help *AS SOON AS YOU DON'T UNDERSTAND*. My job is to help you understand any way I can, but I can't help you if you don't let me know you are having trouble. I care deeply about and am committed to your success on this test and in this course. Everyone will struggle at some point during the year, but the ones that succeed will be the ones who get help. We are in this together! My goal is to make this class one of the most interesting, enjoyable, and worthwhile classes you will take during your high school career. Your feedback along the way will help me meet that goal.

By signing here, I acknowledge having read, understood, and agree to adhere to the class policies for AP Physics B.

- Print Student Name: _____

Student Signature: _____ Date: _____

- Print Parent/Guardian Name: _____

Parent/Guardian Signature: _____ Date: _____

Parent/Guardian email: _____

- Print Parent/Guardian Name: _____

Parent/Guardian Signature: _____ Date: _____

Parent/Guardian email: _____