



AP Physics B Course Info Sheet

Mr. Darlington
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Room 104

Text: Physics, Giancoli.

Welcome

A description of AP Physics from the College Board:

"This course provides a systematic introduction to the main principles of physics and emphasizes the development of conceptual understanding and problem-solving ability using algebra and trigonometry, but rarely calculus. In most colleges, this is a one-year terminal course including a laboratory component and is not the usual preparation for more advanced physics and engineering courses. However, the B course provides a foundation in physics for students in the life sciences, premedicine, and some applied sciences, as well as other fields not directly related to science."

"The current AP Exam is deliberately designed to be more broad than any one college (or AP) physics course so that it can measure a variety of different schools' selection of physics content. Accordingly, the exam assigns minimal weight to each individual question, so that students whose teachers choose to provide them with a deeper exploration of some topics over others will not be disadvantaged on the AP Exam."

What does this mean for us?

Covering every topic in the AP Physics B curriculum is like trying to drink of water from a fire hose. There is far too much material to cover completely and yet ensure understanding. Because of this fact, approximately 20% of the material students will see on the AP exam will not be covered in class – these units (they are fluid mechanics and half of nuclear physics) instead have been outlined by Mr. Darlington and will be optional units for student self study.

What's the AP exam like?

Extremely difficult, but not impossible. The scoring scale of the AP Physics B exam generally works out like this. Students who answer roughly 5/8 (about 63%) of the questions correctly on the exam receive a 5. Students who answer roughly 4/8 (50%) of the questions correctly on the exam receive a 4. And it continues exactly like that down to a 1.

Why is the exam scored this way?

The college board writes such a difficult exam so that only those who truly know their physics score a 4 or 5. If it were easier to score very well, there wouldn't be enough clear separation between those who are performing at a university level and those who are not.

Grading

Marking Period Grade: 50% Exams + 25% Problem Sets + 15% labs+ 10% Blitzes

- Exam format** Exams will consist of old AP Physics exam questions. Because AP Exams are traditionally scored so low, the first 40 points of the possible 100 will be given automatically. There will be no additional curve.
- Problem sets** Homework is due in the form of problem sets collected at each exam. Dates are forthcoming.
- At the beginning of each unit you will be given an **Assignment Sheet** containing the reading assignments and problem set problems for that unit. Problem sets will be graded out of 25 points - five problems are selected for grading at random out of those assigned for that unit.
- Labs** Labs will be inquiry based – that is, they will generally pose open-ended questions for students to investigate. The college board requires 12 labs to be completed but leaves the selection of these labs up to the instructor. Labs will not necessarily be performed every lab period. All labs must be completed in a specially designated lab notebook – more on the lab notebook to follow.
- Blitzes** Blitzes are short unannounced quizzes covering any in-class or homework topic. Blitzes are open notebook and closed textbook. You may use on blitzes: your class or lab notebook, your homework set, any handouts given for that unit, your calculator. You may not use on blitzes: anything not listed above.
- Extra credit** No extra credit will be given.

Supplies

Students are required to have with them when required:

Notebook Two are required – one for class work, one for labs.

Class work notebook – bring to class every day

Bound with at least two subjects for note taking and in class exercises. Students must print their name in large lettering on the inside front cover of this notebook so its readable from ten meters. Students who maintain a well-kept notebook will find it invaluable in future Physics courses.

Lab notebook – bring to class only on lab days

Bound with at least one subject. All lab work will be completed in this notebook, with the exception of any formal lab write-ups. Occasionally, colleges and universities will request to see a student's lab notebook to help them determine if they are going to grant credit for AP course. Therefore, students must keep one throughout this year.

Calculators The AP Physics exam has two parts: Part I consists of multiple-choice questions and Part II consists of free response questions. On the AP Exam, students are not allowed to use calculators on Part I, but they are on Part II. Students must have calculators in class; however, keep the above information in mind when learning new material. During in class exams, the same calculator policy will be used as that of the AP Exam

Pen and pencil Pen is best for taking notes; pencil is best for homework and practice problems. You may use either anytime, except when a pencil is required for the exam multiple choice bubble sheet.

Can I borrow a . . No. Students who are unprepared for class – will not be permitted to go to their locker to retrieve supplies. If a student forgets said supplies on an exam day, they may exchange **three points of an exam grade per item** for a pen, pencil or calculator.

Procedures

Guidelines for what goes on during class and for submitting assignments to Mr. Darlington.

Late to class Class begins promptly. Students not in their seats with their notebook out at the sound of the tone are considered late to class. Students arriving late to class without a valid pass in hand will be assigned detention with Mr. Darlington.

Missed class Students are responsible for asking Mr. Darlington or a fellow student what happened during a missed class. Class notes will always be posted under the lecture section of the course website (www.totallyatomic.org/apphysics) Students will still be accountable for any information that was given during their absence.

Students who miss class because of an unexcused absence will not be allowed to make up a missed exam or submit an assignment due that day. Such exams and assignments will be given a zero.

Late work

Labs are due the following lab period. The late policy described below applies to labs also.

Problem sets will be collected at the end of each unit, and **are due at the beginning of class** the day that a unit exam is given. **Problem sets handed in after this will be marked late**. Students can submit problem sets within one week of the original due date but will be penalized 50%. Problem sets not turned in at the end of this one-week grace period will be given a zero grade.

Students who miss a class the day an exam and problem set are due will be given two days for every day they are absent to turn in a problem set and make up an exam. Both must be done at the same time. If an exam is made up or problem set turned in after the adjusted due date a late penalty will be applied.

The most common reason for students receiving a zero on an assignment is that they did not make it up when they were absent. Mr. D does not chase down students who have not completed assignments or have missed work when they are absent.

It is the student's responsibility to make sure all assignments have been completed on time. Students are always welcome in room 104 after school to discuss any question they have about chemistry or their progress.

Problem set format *When completing a problem set, especially one towards the beginning of the year, students should have this list in front of them to ensure proper formatting. Problem sets not adhering to these formatting guidelines will be docked points.*

Heading: On top left of the first sheet must be: Name, Date, Class Period – written one on top of the other. On the top right of the paper must be the problem set title.

Format of your answers: Problem sets are practice problems out of the textbook. For each problem, students must rewrite the question on the paper being submitted for grading. At least one line must be skipped between questions, and a solid line must be drawn between problems. All short answer questions requiring an explanation must be answered in complete sentences.

Neatness counts: Illegible answers will be graded as if the problem has not been attempted, as Mr. Darlington is not good at deciphering messy handwriting. If you are unable to print legibly, consider using a word processor as many students have in the past. In addition, papers submitted torn from a notebook with frayed edges will be loose neatness points. Multiple pages should be affixed together with a staple.

Submitting it during class: On exam day when problem sets are due at the beginning of class, Mr. Darlington will have a bin out for students to put their problem sets in. **DO NOT** plan on making last minute additions to your problem set in room 104 the day it is due. Problem sets not submitted when a student walks into the room will be considered late and assessed a 50% penalty. On time to class means being in your seat ready to go when the bell rings. If you are scrambling to hand in your problem set because you are unprepared you are late to class.

Students prepared for AP Physics are prepared for college: Students are expected to be prepared for class every day, and assignments are expected to be completed when they are due. Do not ask Mr. Darlington for a stapler, hole puncher, etc. These policies are designed to teach you what to expect when in college, teach students how to construct well-presented homework that will impress college professors and to encourage students to take pride in their schoolwork.

Keys to success

Students are welcome to conference with Mr. Darlington whenever they have questions about class material, if they are concerned with their grade, or if they are stuck on a homework problem. He is at CBA until at least 3:00 pm every day. His door is always open for extra help, and will inform students in the event he becomes unavailable.

Work hard. With patience and effort, you have the ability to figure out anything you put your mind too.

Student Name _____ Date _____

AP Physics course Info sign off form

I have read and understand the expectations set forth for AP Physics in the AP Physics Course Info Sheet. I will live up to these rules and expectations in the course information sheet.

Please print and sign below.

Student

Parent

Name _____

Name _____

Signature _____

Signature _____

Parents! Want to know what is happening in class?

You can always find out when assignments are due by visiting our course website: www.totallyatomic.org/apphysics

In the event direct communication with parents becomes necessary, please provide the contact information most convenient for you.

Please indicate your preference:

___ Email Email address _____

___ Phone Phone Number _____