

TEXT: Princeton Review for AP Physics C (2016 Edition)

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COURSE OVERVIEW: This college level, calculus-based Physics course will cover all content on the AP Physics C exam. The course consists of lab activities, discussion, and written homework. Students are expected to have mastered the basic concepts of elementary algebra, geometry, and trigonometry and have taken or will be taking Calculus concurrently with this course. AP Physics C is an accelerated course and will cover topics in a great amount of depth. In addition, this course will be taught using an inquiry-based model based on Physics educational research from the University of Washington (PERS Research Group), University of Oregon (Solokoff), Harvard University (Mazur), and Cal Poly SLO (Knight).

COURSE OBJECTIVES:

1. To master the fundamental concepts of physics (mass, velocity, acceleration, inertia, momentum, gravitation. etc.) and how they relate to the world around us.
2. To apply the scientific method in solving physics problems and gain insight into solving other types of problems.
3. To exercise and refine analytical problem solving skills.
4. To be able to use Google spreadsheet to model and solve Physics problems.

SUPPLIES NEEDED:

1. Princeton Review for AP Physics C, 2016 Edition
2. Physics Equation Summary Foldout (will be handed out in class)
3. Scientific Calculator (NO cell phones or calculators with WiFi connectivity are allowed)
4. Loose leaf graph paper
5. Pencil, pen, highlighter

TEST/QUIZ/LAB POLICY

1. Partial credit will be given when **relevant** work is done.
2. Make-up tests/quizzes/labs will be given ONLY on EXCUSED absences.

HOMEWORK POLICY

1. Late homeworks will received $\frac{1}{2}$ credit. A maximum of eighty-five percent (85%) credit can be earned on a late assignments if TWO Low Jugs are completed for the assignment in question. This can be completed for each late assignment.
2. Homework assignments are due immediately at the beginning of class.

GRADE ALLOCATION:

Personal Points	5%
Labs	25%
Homework	20%
Quizzes	10%
Tests	40%

SENIOR PROEJCT MEETINGS:

There will be NO on-campus meetings during the month of January during the Senior Project, although there will be a long term project-based assignment assigned during this time.

GRADING SCALE (all numbers are percent values):

A	Grade ≥ 95
A-	$90 \leq \text{Grade} < 95$
B+	$87 \leq \text{Grade} < 90$
B	$83 \leq \text{Grade} < 87$
B-	$80 \leq \text{Grade} < 83$
C+	$77 \leq \text{Grade} < 80$
C	$73 \leq \text{Grade} < 77$
C-	$70 \leq \text{Grade} < 73$
D+	$67 \leq \text{Grade} < 70$
D	$63 \leq \text{Grade} < 67$
D-	$60 \leq \text{Grade} < 63$
F	Grade < 60

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Lab Safety Guidelines

While no human activity is completely risk free, it is our goal to provide an environment in which students can engage in the process of science through laboratory investigation without injury or threat to their health. In the process of studying the universe through the process of scientific investigation, our students should learn and practice laboratory "common sense" to conduct themselves in a safe and responsible manner.

I. General Student Laboratory Guidelines:

1. Perform laboratory work only when your teacher is present. Unsupervised laboratory experimentation is not allowed.
2. Stay on task. Follow directions. Unauthorized experimentation is prohibited. Do NOT push, shove, run, or throw objects during laboratory work - these can pose serious threats to the safety of you and your classmates.
3. Think about safety each time you do a laboratory investigation. Read over directions and plan out what you will do before you begin working.
4. Know the location and use of all safety equipment in your laboratory. These should include the first-aid kit and fire extinguisher.
5. Clear benchtop of all unnecessary materials such as books and clothing before starting our work.
6. Follow all instructions given you by your teacher in the use of equipment.
7. Keep lab equipment away from the edges of the lab bench.
8. Any laboratory accident, however small, should be reported immediately to your teacher.

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Academic Integrity Statement

"Loyola is a community dedicated to academic excellence, student-centered education, and the Jesuit tradition. As such, the school expects all members of its community to act with honesty and integrity at all times, especially in their academic work. Academic honesty respects the intellectual and creative work of others, flows from dedication to and pride in performing one's own best work, and is essential if true learning is to take place."

AP Physics Personal Point Agreement

I understand that at the beginning of each semester I will receive 100 personal points, which is part of my point total for the semester. I will be able to maintain my 100 points of "personal points" unless the any one of the following rules are violated:

1. BE A NICE GUY – Do NOT disrupt class (not taking notes, talking during lectures, horseplaying in lab, eating/drinking in class or lab**, inappropriate language, etc.)
2. BE A GOOD STUDENT – Raise your hand before speaking in class, bring all class supplies to class (book, notebooks, pencil, pen, calculator), bubble in name on scantrons for tests and quizzes, use electronic devices for physics purposes only. Students should use the bathroom during the allotted breaks*.
3. BE A NEAT PERSON – Pick up any new/existing trash in your area, place all lab equipment back in its original location, place computers back into laptop cart and plug in power adapters when you are done using the computer.)

* Each student will be allotted two "bathroom passes" per semester.

** Each student may bring a bottle of "pure, non-flavored" water to class to drink in classroom area only.

The first violation of these rules will result in a 10 point deduction from your "personal point" total. Each successive violation will result in a deduction of points in a geometric fashion (i.e. second violation = -20 points, third violation = -40 points, fourth violation = - 80 points, fifth violation = -160 points...).

It is therefore possible to have a negative "personal point" total which will be averaged in to your point total for the semester.

Please sign below after you have read the "*Loyola High School Lab Safety Guidelines*", *Loyola High School Academic Integrity Statement*", and the "*AP Physics Personal Point Agreement*"

Student's name (printed): _____

Student's name (signed): _____

Date: _____