

# ERNEST RIGHETTI HIGH SCHOOL

## Science Department

### Advanced Placement Physics Course **COVID-Adjusted** Syllabus: 2020-2021

#### I. General Information:

**Course:** AP Physics 1 *A/B*

**Instructor:** Mr. Rodriguez

**Room:** 111

**Phone:** 937-2051 ext. 2111 .

**Text:** Giancoli, D. (2005). *Physics: Principles with Applications*, 6th ed. Upper Saddle River, NJ: Prentice-Hall.

**Materials:** Calculator (mandatory) **and internet accessible computer**. The College Board does not allow certain graphing calculators on exams, and the same applies for any test or quiz taken in this course.

**Website:** <http://crodriguez.righettiscience.com>

**Canvas:** <https://smjuhsd.instructure.com/login/saml>

**Email:** [crodriguez@righetti.us](mailto:crodriguez@righetti.us)

Email is the preferred method of contact, as the phone is not answered during class time.

#### II. Course Description:

AP Physics is a rigorous year long college level laboratory course designed to familiarize the student with the ten major units to be covered at an introductory collegiate level: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion, electrical charge and electric force, dc circuits, and mechanical waves and sound. By signing up for AP Physics you are expected to take the College Board's *Advanced Placement Physics Examination* in May.

#### III. Grading Procedures and Regulations:

**General:** Grades are based upon chapter tests (100 pts.), quizzes (15 pts.), laboratory reports (15 pts.), nightly homework (~3 pts.), and participation (1 point/day) Grades will be calculated using the point system. A final exam **may** be given at the end of the semester and be worth 200 pts. A student will be exempt from the final if s/he maintains a 92% test, **quiz**, and homework averages for the semester and completes the final review. All work done in AP Physics must be done as neatly as possible as illegible or disorganized assignments will receive a reduced grade.

**Grading scale:** A: 90-100%; B: 80-89%; C: 70-79%; D: 60-69%; F: below 60%. Grades are calculated by dividing the number of points earned by the number of points possible. The grade earned in physics is an accurate measure of what you have learned so grades are **not** subject to negotiation at any time.

**Tests:** Tests are given **after the completion of each unit**. **Weekly quizzes will be given online during Monday's class time**. Calculators and other materials are not to be shared during tests. Not following test taking policies (such as talking during your test or **collaborating with others**) will result in loss of points.

**Laboratories:** Laboratories are an integral part of AP Physics and are worth 15 each. Each student must complete each laboratory to fully reach the course objectives and to receive credit for laboratory reports. Laboratory reports are submitted **online**.

**Homework:** Homework is assigned most weeks and is due **by the end of the school day each Friday**. Always check **canvas** for the **week's** assignment. Homework that involves mathematical calculations must be done in pencil **or digitally** with work shown completely. If you are having difficulty with the assigned homework, submit your attempts and then ask questions during class/office hours or make arrangement to get help. **Weekly** homework assignments are posted **Canvas**.

**Makeup policy:** You are given one week to makeup laboratories (due to excused absences). If you are absent for a **prelab** day, plan immediately when you will make it up. Failure to makeup assignments within a week will result in a zero grade. One make-up test will be given for each 6 week grading period. This will be a unit test covering all material assigned during the previous 6 weeks in class and will be given during the last week of the grading period, during **office hours by appointment**. The score earned on this test will be entered in place of all missed test and quizzes (excluding unexcused absences.) No other make up opportunity will be offered. Students who have no required make ups may take the unit test as an option to improve their weakest test or quiz score. Work missed for unexcused absences such as cuts may not be made up.

**Cheating:** Any form of cheating in physics will receive a zero grade for that assignment and disciplinary action. Copying or sharing homework, **laboratory reports**, or during tests is considered cheating. During tests, the person providing the information **as well as** the cheater will receive a zero grade, so cover your work during testing.

**Citizenship and discipline:** Students at Righetti High are assigned a citizenship grade, either (S)atisfactory, (N)eeds improvement or (U)nsatisfactory, at each grading period. Students requiring repeated reminders to follow class **norms** can expect to receive an unsatisfactory citizenship grade. Any behavior that the teacher deems unacceptable will result in a private discussion with the student with loss of participation points; then, if necessary a parent notification and/or dismissal from the class for the day. If the infractions continue, disciplinary action will follow in accordance with the school's discipline policy, as described in the student handbook.

**Notebook and note taking:** Notebooks are not graded but it is highly recommended that you take detailed notes (on lectures and readings) and keep all notes, assignments, and laboratory reports in an organized notebook or binder. It is good academic practice to review all notes for current material daily.

**Electronics:** \*See class norms below\*

**Office hours:** Please plan on attending office hours if you are struggling with any of the course content. The first half of each office hour session will be dedicated to my AP physics students, however the remaining time can also be used by AP students if no POTU students are in need of aide.

#### IV. Class **Norms** and Contract.

##### Virtual Classroom Participation Norms

1. Please be prepared to participate and engage in the virtual classroom.
2. Keep microphone off until you are talking.
3. Set zoom name to YOUR name for attendance.
4. Please run the meeting on your school provided device (preferably not your phone).
5. Wear a headset (headphones, air pods, etc.) if you have one.
6. Ensure that you have an appropriate school/work background.
7. Be certain that you have a robust internet connection and adequate bandwidth. (if you have slow internet please disable non-academic programs and contact the district tech support)
8. Please keep your camera on if you are able, and if not please make your Zoom profile picture a photo of your face.
9. Do not respond to teacher prompts in the chat (unless directed)—turn on your mic and speak when prompted to. The leaders will not always see what is written in chat until later.
10. To speak, raise your hand on camera or use speaker queue.
11. No multitasking (YouTube, web-surfing, video gaming, streaming video, talking with others, etc.) See #7
12. Adhere to the daily schedule that is provided on the first day.

##### Breakout Room Participation Norms

1. Respect each other's opinions, ideas, contributions, etc....
2. Unmute yourself when in the small group (everyone is expected to speak and participate in group work)
3. In small groups, be mindful of group roles. Members of the group are expected to fulfill the following roles:
  - Timekeeper - The *timekeeper* to help move the group through the agenda.
  - Recorder – The *recorder* is someone who can listen and be objective and accurate. An effective recorder may write notes on their tablet and shares their screen for participants to see.
  - Reporter – The *reporter* serves as **group** spokesperson to the class or instructor, summarizing the **group's** activities and/or conclusions.
  - Facilitator - The *facilitator* helps the group focus, and assures that all may participate and that none dominate.

**\*Make sure that everyone serves in these roles. You never know who will be called out to report on your group's work!\***

##### Digital Submission Norms

1. The work you submit must be your own! Even if you are working in a group. (see plagiarism policy)
2. If submitting handwritten (non-digital) work, please take a clear photo that is vertical and easy to read.

Cut along this line and email a copy of this stub to Mr. Rodriguez before school starts.

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#### STATEMENT OF UNDERSTANDING

I have read the **COVID-adjusted** rules and guidelines for the AP Physics class and understand its contents.

Student's name: \_\_\_\_\_

Student's signature: \_\_\_\_\_

Date: \_\_\_\_\_

Parent or guardian's signature: \_\_\_\_\_

Date: \_\_\_\_\_

Ernest Righetti High School  
Science Department  
Summer Assignment for AP Physics 2020-2021

Mr. Rodriguez [crodriguez@righetti.us](mailto:crodriguez@righetti.us)  
Righetti Physics Page: <http://crodriguez.righettiscience.com>

Dear AP Students and Parents:

Welcome to AP Physics! This is a College Board approved course offered to juniors and seniors who wish to continue their studies in physics. Students taking AP Physics must have satisfactorily completed math analysis and a year of college preparation physics or chemistry, as well concurrently being enrolled in calculus. The concepts covered in this course are chosen to coincide with a college level physics and prepare the student for the College Board AP Physics Exam in May. As an AP student, you are expected to read and understand concepts on your own, show initiative, work independently, and submit quality work at all times. The class is two semesters in length and is the equivalent to the first year college level physics course. In order to adequately prepare for this course, you will need to review the complete the following problems in this packet. If you have not previously completed a college preparation physics course, you will also need to complete the supplemental problems to help you learn the content covered in this course.

What you need to do:

- You and your parent must sign the attached stub and email it to Mr. Rodriguez prior to the start of the school.
- [Download a pdf file of \*Physics: Principles with Applications\* textbook from Mr. Rodriguez's website.](#)
- All assigned problems are due at the beginning of the school year, and you are expected to answer all verbal questions in complete sentences and show work on all mathematical problems. For those who have not previously completed college preparation physics, you are required to also complete the supplemental problems.
- Keep in mind that many concepts discussed within these assigned pages are supported by online notes at the Righetti Physics Page at <http://crodriguez.righettiscience.com>

**Review Practice Exercises from the AP Physics Text:** Answer questions completely with supporting evidence. Show work!

**Chapter 1: Assigned Review Exercises:** P. 16-18 #1, 2, 4, 8, 9, 12, 15, 19, 26, 29

**Chapter 2: Assigned Review Exercises:** P. 39-44 #1, 5, 15, 16, 20, 23, 25, 28, 33, 34, 42, 47, 62, 74, 80

**Supplemental Problems:** These problems are **also required** for students who have not previously completed college preparation physics.

**Chapter 1: Assigned Supplemental Exercises:** P. 16-18 #3, 13, 14, 16, 18, 22, 27, 36, 41

**Chapter 2: Assigned Supplemental Exercises:** P. 39-44 #2, 3, 6, 14, 17, 18, 24, 26, 37, 39