

Physics Syllabus 2019-2020

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Suffering leads to strength. Practice makes perfect.

Your work is a self-portrait. Autograph your work with excellence.

Required Textbook:

- **College Physics for AP Courses, Openstax**
PRINT BOOK ISBN-10 1-938168-93-3 ISBN-13 978-1-938168-93-2
OR PDF VERSION ISBN-10 1-947172-17-4 ISBN-13 978-1-947172-17-3
- **Active Physics volume 3, Eisenkraft (Bring to class everyday)**
ISBN10: 1607200007

Recommended Books for Reference

- Paul G. Hewitt. *Conceptual Physics*, 3rd edition (Publisher: Prentice Hall) ISBN: 978-0130542540
- Richard A. Muller. *Physics and Technology for Future Presidents: An Introduction to the Essential Physics Every World Leader Needs to Know* ISBN: 978-0691135045
- Douglas C. Giancoli. *Physics: Principles with Applications (7th Edition)* ISBN: 978-0321625922

What do you need to bring to class every day?

- Pencil and Red pen.
- Lined Paper and Binder.
- Active Physics book.
- Calculator
- Nice things to have: ruler, highlighter, eraser, other colored pens, backpack.

Course Description

An algebra-based, introductory high school-level physics course, providing students with the essential knowledge and skills required to support future advanced coursework in physics.

- Objects and systems have properties
- Fields can be used to explain interactions
- Interactions can be described by forces
- Interactions between systems can result in changes in those systems.
- Changes due to interactions are constrained by conservation laws
- Waves can transfer energy and motion

How is time managed for this class?

Classes will meet for three 48-minute periods and one 55-minute block period each week. We work in cycles.

1. Homework

- a. **Daily Homework:** Students read pages from the book and answer some assigned questions on Schoology. (If you don't want weekend homework, be ready to work ahead. But, research shows that working daily is better for memory than cramming 30 min all at the same time and taking 2 days off)
- b. **Chapter Review:** Each chapter will have a different special project – a rubric and timeline will be given out.

2. Class time

- a. Homework check-in: answer your choice of two questions.
- b. Homework corrections: We go through the answers, and write them into our notebook. students are expected to correct their homework with a red pen.
- c. Lecture: We build on elements from the book, and apply scientific principles to different ideas and problems. Students are encouraged to take notes and to ask lots of questions.
- d. Common Lab: We do experiments to illustrate or explore scientific theories.
- e. Test: Tests are 40 minutes long. After completing the test, students are encouraged to have a silent reading book or risk boredom.

How do I do my homework?

A complete homework must have all the following parts, or will have to be resubmitted as late.

1. **Read the assigned pages**
2. **Answer the assigned questions on Schoology**
3. **Show work** – if there is work to show
4. **Submit the homework online before the deadline**
5. **All problems need to be complete.** It doesn't have to be right, though that would be nice. In order for your work to be considered complete, you must have attempted every single problem. **For the problems you don't know how to do, write down a specific question about the problem.** "What is _____?" **Then google that question and write down its answer.** If you understand the problem after that, then do it!

Late work is accepted within **3** class sessions of the original due date but will receive 10% off each class period it is late. **No work accepted after 3 sessions late.** This penalty may not be imposed if the work is excellent. Waiving the penalty is subject to the teacher's discretion.

If students have an excused absence, they get the number of days they were out added to the due date, starting from the first day of their return. Then, after those extra days, regular late work policy applies.

Homework is the foundation of your education. It is a chance to practice, apply and innovate using the concepts you've learned in class. Correcting your work is just as important as doing the work. Be sure to check your answers and find out what when wrong when you do make mistakes. Take homework very

seriously, hold yourself strictly accountable for the work that you need to do, and you will find the tests very easy.

Tests

Tests will wrap up every chapter, and will be worth 100 test points. They will generally have 10 questions. There will roughly be a test every 2 weeks. 1 dropped test per semester.

Quarter Grade Weighting:

Homework (include daily homework check) 30%

Labs 30%

Exams 40%

Semester Grade Weighting:

Quarter 1 40%

Quarter 2 40%

Final 20%

Phones?

No phones or computers without permission are allowed in class. Devices will be taken on sight without warning. While the internet and other electronic resources have their value and are recommended for homework, class time will be used to foster the growth of non-electronic skills, like thinking.

Academic Integrity

California Crosspoint Academy expects that students will do their own work and that their quizzes, tests, examinations, laboratory work, research papers, essays, projects, and all other assignments honestly reflect their own learning and knowledge in the course. Violations of this policy include: copying from another student during an examination, having another person write a paper or do a homework assignment on the student's behalf, any form of plagiarism or cheating, etc. As defined by The Random House Dictionary, plagiarism is "the appropriation or imitation of the language, ideas, and thoughts of another author, and the representation of them as one's original work."

Disciplinary Action: Students found in violation of the Academic Integrity Policy are subject to a referral and a 0 for the assignment. Repeat offenders across courses will be subject to disciplinary actions as determined by the Administration.

Acknowledgement

We have read and understand the course requirements for the physics class.

Student (Print Name)

Parent/Guardian (Print)

Student Signature and Date

Parent/Guardian Signature and Date

Any questions or clarifications needed about the class (from either parent or student)?
