

Honors Physics

Course Information and Requirements

de la Paz

Introduction

Physics is the first science course for all freshmen at Clayton High School. The Honors Physics course is designed for students with accelerated reasoning and student skills. Students are expected to have well developed study skills and tenacity in the pursuit of understanding.

Why Physics first? Physics study provides a solid foundation for all following science courses and provides the following advantages to all students:

- Physics provides a systematic understanding of the fundamental laws that govern physical, chemical, and biological processes.
- Physical topics are easily observable and measurable with elegantly simple apparatus and methods.
- Physics experiments provide students with a suitable opportunity to gain valuable experience in the process of scientific modeling.
- Physics provides a natural framework within which analysis skills can be mastered.
- Physics can be readily explored without reliance upon written text material as the primary source of study.

Course Content

The Honors Physics course focuses upon the fundamental principles in the following areas:

- Uniform Motion
- Uniformly Accelerated Motion
- Forces
- Energy
- Uniform Circular Motion
- Electric Circuits
- Electrostatics
- Mechanical Waves

This is an honors level course. The expectations are higher, the pace is faster, and the material is extended to a greater depth than in the regular level course. Students are expected to consistently complete all daily assignments, maintain organized notes and materials, commit to diligent study, and seek additional help and elaboration when needed.

Students in previous years have found the experience of Honors Physics challenging yet satisfying, and a solid foundation for future study both at CHS and in college physics. Always giving your best in this class will be extremely rewarding academically and will be a lot of fun as well. I am looking forward to an excellent year.

Class Procedures

Materials (required each day):

Chromebook or laptop	metric ruler (15cm or longer)
loose-leaf binder (1" or shared is fine)	pen
dividers for binder	pencil with eraser
loose-leaf paper	graph paper
protractor	set of colored pencils
scientific calculator	set of four dry erase markers
earbuds or headphones for Chromebook	

You should keep a larger binder at home for completed units. You can use this material later to study for final exams and a future AP Physics course.

Expectations:

Following are some details on specific classroom policies and procedures:

- **Regular Attendance** - absences are a serious impediment to success in any honors level course. Students are expected to make-up any missed labs or assignments in a timely manner. Students are expected to be in class on time and prepared for learning. Each tardiness after the third will result in a lunch detention. Unexcused absence or tardiness will result in lost credit for work done on the day of the violation.
- **Active participation** in all discussions, presentations, laboratories, and demonstrations. You are ultimately responsible for all of your learning.
- **Check the Google Classroom.** Assignments will be posted along with summaries of lessons and any supplementary materials.
- **Quality of work should reflect honors expectations.** The use of proper English is expected at all times. Whenever you are given a written assignment that asks you to answer a question, it is expected that you will answer that question in complete sentences. Your answer should be phrased in a way that makes it clear what question was asked as well as the answer. Support your answers with evidence. Yes or no type questions should always be answered with an explanation for why your answer is a yes or no. Photographs and scans should be well lit and in focus. Math should be written legibly and with enough work shown to clearly describe your thought process.
- **Turning in work** – It is important for assignments to be completed on time. Virtually all assignments will be turned in electronically in Google Classroom. For some, you will turn in a Google Doc, but for the many assignments involving sketches or a lot of math, you will learn to create and turn in a PDF file using your phone, laptop or chromebook.
- **Organization** of materials is mandatory because there is no published textbook for this course. Keep all work in a binder, and keep all electronic work organized. At the end of the year, labs will be turned in again (for credit) to make a lab portfolio. *It is essential that you do not throw any materials away.*
- **Academic Integrity**—I encourage you to study and discuss assignments with your classmates. What you turn in, however, must represent your own individual thought. Copying homework, labs, problem sets or graphs is not acceptable. Also refrain from discussing tests and quizzes with students who have not yet taken them. Using AI (e.g., ChatGPT) is not acceptable.

Determining Grades

Your semester grade will be determined by five different categories of points. You should keep all returned papers electronically or in a binder so that you always have some idea of how you are doing. If you need to see me about your grade, make an appointment to meet with me at some time outside of class.

Summative Tests (30%)

There will be a test at the end of each unit. The tests may consist of short answer questions, multiple choice questions, fill in the blank questions, essay questions and problems. These test items will be based on material from labs, in-class discussion, homework, and reading assignments. Missing a test will result in an “Insufficient Evidence” grade of 0%. Making up the test will be required to receive credit for the course. Students who score below 80% on a test and have completed at least 80% of the work for the unit will be allowed to take one retake for a final grade of up to 80%.

Formative Labs (20%)

This grade will reflect the effort put into doing labs as well as the understanding of the concept that you demonstrate in both oral and written form. Some assignments in this category will be small. I will not accept any of these smaller assignments after the due date and failing to have them done will result in a “Final Missing” grade of 48%. Make sure you are careful to keep all assignments from this category because you will organize them into a graded portfolio project at the end of the year.

Formative Prep/Practice (5%)

These points include classroom work and various worksheets and problems assigned for homework. Each assignment has a due date, which is usually just before class on the day after it is assigned. You will not be able to turn in these assignments after the due date. You will receive a “Final Missing” grade of 48% for anything not submitted in Google Classroom by the due date.

Formative Quizzes (25%)

There will be a quiz every Friday. The quiz will consist of two parts—one part over new material and one part over old material. Because material will be assessed multiple times, missing a quiz will result in a grade of “Excused” and will not count unless you miss more than two quizzes in a quarter.

Summative Final Exam (20%)

There will be a 90-minute final examination each semester worth the remaining 20% of the semester grade. The second semester exam will focus mainly on second semester, but because of the story line that runs through the curriculum, you will be expected to have mastered first semester material in order to do well on the second semester exam.

Grading Scale

<u>Percentage</u>	<u>Letter Grade</u>
98% or above	A+
93-97%	A
90-92%	A-
87-89%	B+
83-86%	B
80-82%	B-
77-79%	C+
73-76%	C
70-72%	C-
67-69%	D+
63-66%	D
60-62%	D-
Below 60%	F

Extra Help

If you are having trouble with a part of this course, please come and talk to me about it outside of class time. The best students come after lab, before school, during greyhound time, or during mutual free periods to ask questions.

The best way to reach me for quick questions is to stick around on our lab days since after dismissal you have about 50 minutes of free time. I am also available before school (7:30-8:15) just about every day. Greyhound time on A and B days (11:40-12:10) is a third alternative. Keep in mind that if you have questions that will take more than a couple of minutes, you should make an appointment to meet with me so I can make sure that I can fully dedicate my attention to you.

Personal Electronic Devices

Our goal at Clayton High School is always to maintain a distraction free, academic environment. With this in mind, the use of electronic devices such as (but not limited to) cell phones and earbuds is prohibited during instructional time. Smart watches and similar wearable devices should be placed in airplane or school mode. The expectation is that all students will have these devices put away during instructional time unless the teacher has given permission for use in a specific instructional activity. Students who violate the personal electronic device expectations will be subject to progressive disciplinary consequences including, but not limited to, loss of privileges. Exceptions to this rule may apply based on accommodations included in a student's 504, IEP or health plan. As a reminder, students should only access the internet through district-provided networks during the school day.

Attendance

Clayton High School values students being in class every day and recognizes the importance of regular student attendance to a successful learning experience. CHS recognizes that frequent absences of students from regular classroom learning experiences disrupt the continuity of the instructional process and that the benefits of classroom instruction, once lost, cannot be entirely regained. Partnering with the families of Clayton High School to increase student attendance has been mission critical. With these partnerships in mind and valuing the learning experience, below is our expectation of student attendance for all classes:

A student will not be allowed more than EIGHT (8) absences per semester, excused or unexcused. On the ninth absence, "No Credit - Absences" (NCA) will be issued for the class. Students will need to serve a Greyhound Time detention to mitigate a class absence (One detention served will count for one class absence removed). If the student is failing the course at the end of the semester, an "F" will override the "NCA." If the student is passing the class, an "NCA" will appear on the grade report to indicate that a passing grade was earned but credit was not awarded for that course due to lack of attendance in the class. For more information, please reference this document.

*Please note, Religious Observances, while excused, do not factor into the count of 8+ absences.

Greyhound Time

Clayton High School provides a common time each day to support the academic and personal growth of students. This time may be used in a variety of ways such as academic support (tutoring, reassessment, conferences), club meetings, LINK Crew meetings, exercise and mental wellness activities. While students are encouraged to be proactive in meeting their academic needs, teachers may require students to come to office hours for additional assistance. The expectation is that students will prioritize their academic needs during this time. Failure to comply with teacher requests may result in a loss of privileges until their academic obligations are met and/or appropriate disciplinary action.