CVA Honors Physics

Class Description



The Physics Georgia Standards of Excellence are designed to continue the student investigations of the physical sciences that began in grades K-8, and provide students the necessary skills to be proficient in physics. These standards include more abstract concepts such as nuclear decay processes, interactions of matter and energy, velocity, acceleration, force, energy, momentum, properties and interactions of matter, electromagnetic and mechanical waves, and electricity, magnetism and their interactions. Students investigate physics concepts through experiences in laboratories and field work using the science and engineering practices of asking questions and defining problems, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations and designing solutions, engaging in argument from evidence, and obtaining, evaluating, and communicating information. Students taking the Honors course will study topics that increase the depth and scope of their study of the concepts in the on level course plus some additional tops in Modern Physics.

This course has three sections: Honors Physics A and is the first half of the course and includes Units 1–4. Honors Physics B is the second half of the course and includes Units 5–7. Honors Physics Y is the entire course and includes Units 1–7.

Click <u>HERE</u> Class Schedule which outlines the Units, Lessons, and Assessments for this course.

Click **HERE** for the State standards.

Class Outline

Unit 1: Galileo Gardens

This unit will present the skills and techniques to help you be successful in this physics class. Many of the skills and learning practices that you will use in this course can benefit you in other areas, as well. Overviews on graphing and measurement are included.

Unit 2: Kepler Kingdom

This unit is all about motion. Speed, direction, and acceleration, including freely falling objects are covered. Students will apply the principles through inquiry and calculation.

Unit 3: Newton's Nook

In this unit, students will learn about forces, what influences their formation, and how they interact with matter. Through inquiry-based experiences, students will apply these concepts.

Unit 4: Joule's Jungle

In this unit, students will learn about heat and energy, the ways energy converts from one form to another, and how to calculate energy transfers for different systems and substances.

Unit 5: Faraday Follies

In this unit, students will learn about electromagnetism, the components of electrical circuits, and electric and magnetic fields.

Unit 6: Maxwell Mountain

In this unit, students will learn about wave properties, types, motion, behavior, and interactions.

Unit 7: Einstein's Falls

In this unit, students will investigate the atom, fundamental particles, and the particle and wave properties of light.

CVA Work Policy

- All classwork must be completed and submitted using the links in CTLS by the DUE DATE listed on the Class Schedule.
- Work should be completed in the order it is assigned on the Class Schedule.
- All work submitted on time will be graded within 48 hours.
- Assignments not submitted by the due date will be marked missing. Missing assignments are
 calculated as zeros in the coursework average. When students submit missing work, the
 assignment will be graded and calculated into the coursework average.

The CVA term ends prior to the end of the traditional school semester. The final date work will be accepted each term is posted on the CVA website (cobbvirtualacademy.org) and the Class Schedule.

Grading

Grades for this course are calculated based on category percentages as follows:

Category	Weight
Assignments	20%
Experiments	25%
Quizzes	15%
Tests	30%
Final Exam	10%

CVA Exemption Incentive

To qualify for CVA's exemption incentive and exempt the Final Exam/lowest unit test or major assessment grade, CVA students must:

- Submit ALL assignments on OR before the due date
- Have an 85% coursework average or higher before the final exam
- Have no more than one academic integrity violation

Academic Integrity



Academic integrity is the cornerstone of learning at CVA and we take the integrity and authenticity of student work very seriously. When academic integrity is maintained, students will make decisions based on values that will prepare them to be productive, meaningful, and ethical citizens.

Students are required to abide by the CVA Academic Integrity Policy. Academic dishonesty in any form will not be tolerated. The CVA Academic Integrity Policy outlines the consequences if students fail to maintain academic integrity in their course. For additional information, the CVA Academic Integrity Policy is posted on the CVA website.

Consequence	Occurrence			
	1st	2nd	3rd	4th
Parent contact by teacher	✓	✓	✓	✓
Resubmit work for full credit	✓			
Resubmit work for half credit		✓		
Automatic Zero			✓	✓
Parent contact by CVA Administration			✓	✓
Mandated proctored exam or course work				/
Local school is notified of Academic Integrity violation		✓	✓	✓
Other as designated by CVA or local school administration	✓	✓	✓	✓

General Information

- The Cobb Teaching and Learning System (CTLS) is the platform used to deliver Cobb Virtual Academy classes.
- Students must earn 100% on the Student Orientation Quiz located inside each CVA Digital Classroom before they begin their Student Coursework.
- All coursework must be submitted through CTLS.
- All CCSD students have access to Microsoft 365 applications and must submit assignments in the requested format.
- Students in all sections of this course will take an online final exam during the window of time published on the CVA website and the Class Schedule.

Course Specific Information



There is no required textbook for this course. All content is digital and available in the online course.

Technology Requirements

CTLS is geo-restricted to the United States.

- A modern PC or Mac Computer
 - Lightweight or mobile devices such as Chromebooks, iPads, Android tablets, or smartphones may not be compatible with many of our courses.
 - Windows or Mac based computer
- Access to Microsoft 365
- Internet access

CVA Expectations

Student

- Maintain consistent access to a computer and internet
- Login to the course daily and review the announcements
- · Adhere to the deadlines listed on the Class Schedule
- · Read and promptly respond to teacher communication
- Contact the teacher with questions
- Manage your time wisely

Teacher

- Welcome Phone Call in the first two weeks
- 24 48-hour turnaround on all communication
- 24 48-hour turnaround on grading for items submitted by the due date
- Provide relevant feedback on assignments
- Be accessible via email and phone or text during published hours
- Provide two or more live sessions per term

Remind

CVA students and parents are automatically enrolled in their CVA teacher's Remind class based on the phone numbers provided during registration. If a parent and student provide the same cell phone number, they will not sync to Remind and will have to join the class manually using the join code posted on the Teacher Information page of their course.

Student Support

A student's first source for support is their CVA teacher. However, additional support is available. The **CVA Learning Center** is staffed with facilitators and is available both **in person** and **virtually**.

Facilitators can assist students with getting started, class navigation, assignment instructions, submitting work, technical issues, and strategies for online success.



The in-person Learning Center is on the Cobb Horizon High School campus at 1765 The Exchange Atlanta, GA.

All CVA students are enrolled in the Student Support digital classroom which provides access to the Virtual Learning Center (VLC). Students use the CTLS chat feature to send a message to the Student Support Team during the hours it is open.

Live Sessions

Your teacher will post live session information to the Class Board.

