

# Almeta Crawford High School

Home of the Chargers



Dr. Amber Grady, Principal DeAndria Brigham, Associate Principal Walter Benavides, Assistant Principal Brandon Woodard, Assistant Principal

## **AP Physics 1**

2024 – 2025 Academic Year Room A248

Instructor: Dr. Anthony D. Ford Hayes

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Email: <u>Anthony.Hayes@fortbendisd.gov</u>
Tutorials: Tuesdays 3:00 pm - 3:30 pm

Conference Time: Monday through Friday 10:25 am – 11:15 am

#### I. Rationale

Physics encompasses understanding the relationship between matter and energy, the role of its motion and behavior through space and time. Students will learn the scientific methods of problem solving and will apply them in laboratory settings. This course is geared towards preparing high school students to enter into the world of collegiate academia.

### II. Textbook and Materials

<u>College Physics: A Strategic Approach</u> by Knight et al. via Fort Bend ISD's Clever portal Composition notebook

One subject spiral notebook

Protractor

Three-ring (2") binder, one set of five-tab dividers, and a calculator (four function)

#### **III. Course Aims and Objectives**

By the end of this course, students will:

- Conduct field and laboratory investigations using safe, environmentally appropriately, and ethical practices.
- Use scientific methods during field and laboratory investigations.
- Use critical thinking and scientific problem solving to make informed decisions.
- Use physics formulas to solve motion and energy problems when given all needed values.
- Identify characteristics and behavior of waves.
- Describe and recognize examples of atomic, nuclear, and quantum phenomena.
- Analyze wave characteristics, behaviors, and applications.
- Analyze thermodynamic systems is terms of energy transfer and conservation.
- Apply the laws of conservation of energy and momentum quantitatively and qualitatively to a variety of situations.
- Interpret relationships between current, potential difference, power, and resistance in electric circuits.
- Investigate and describe gravitational, electromagnetic, and nuclear forces.
- Describe and analyze the laws of motion qualitatively and quantitatively.

# IV. Attendance and Participation

In order to guarantee continued success in Physics, it is *extremely* important for students to be present in class, ask questions, and participate in classroom discussions and laboratory investigations. Borrowing notes from a classmate is not the same as being present in class. Students are responsible for all assignments missed. Missed exams and laboratory investigations must be made up before or after school, as soon as possible.

## V. Grading Procedures

Fort Bend Independent School District grading policy enforced

50% Daily Assignments

50% Exams/Laboratory Investigations

### VI. Academic Integrity

Each student in this course is expected to abide by the Almeta Crawford High School Code of Academic Integrity. Any work submitted by a student in this course for academic credit will be the student's own work.

Students are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. Students can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e-mail, an e-mail attachment file, a diskette, or a hard copy.

Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and disciplinary action.

During examinations, students must do their own work. Talking or discussion is not permitted during the examinations; students may not compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and disciplinary action.