

PRE-AP PHYSICS SYLLABUS

Course Overview & Expectations | 2026–2027 School Year

Instructor: Coach Hernandez

Room: 403

Course: Pre-AP Physics (TEA Aligned)

Contact: 361-584-2547

1. Course Overview

Pre-AP Physics is an advanced introductory physics course aligned with the Texas Essential Knowledge and Skills (TEKS) standards. Students will explore motion, forces, momentum, energy, electricity, magnetism, waves, and quantum phenomena. Designed to prepare students for advanced science courses, Pre-AP Physics mirrors the general physics curriculum while incorporating a higher level of multi-step problem solving, in-depth laboratory analysis, and independent inquiry.

2. Year-at-a-Glance (TEA TEKS Sequence)

Term	Unit / Focus Area	Key TEKS Concepts Covered
Q1 (1st Six Wks)	Kinematics & Motion	Position, velocity, acceleration, motion graphs, 1D & 2D kinematic equations & multi-step problem solving.
Q2 (2nd Six Wks)	Forces & Dynamics	Newton's 1st & 2nd Laws, free-body diagrams, friction, net forces, inclined planes & friction analysis.
Q3 (3rd Six Wks)	Momentum & Gravitation	Newton's 3rd Law, momentum conservation, impulse, universal gravitation, circular motion & satellite orbits.
Q4 (4th Six Wks)	Work, Energy & Power	Work-energy theorem, kinetic & potential energy, conservation of energy, power calculations & efficiency.
Q5 (5th Six Wks)	Electricity & Magnetism	Electrostatics, Coulomb's Law, series & parallel circuits, Ohm's Law, multi-loop circuit analysis & induction.
Q6 (6th Six Wks)	Waves & Modern Physics	Mechanical & EM waves, sound, light, optics, Doppler effect, photoelectric effect & introduction to quantum concepts.

3. Class Rules & Expectations

- No Cell Phones / Personal Electronics:** Cell phones, smartwatches, earbuds, and unapproved electronics must be turned off/silenced and put away before entering the classroom. Unauthorized use will result in disciplinary action according to campus policy.
- Be Prepared:** Bring your physics notebook, a positive attitude, and required materials daily.
- Safety First:** Adhere strictly to laboratory safety procedures and Coach Hernandez's instructions.
- Active Engagement & Rigor:** Participate in class discussions, collaborate during lab experiments, complete short extension assignments, and submit work on time.

- **Respect:** Show respect to fellow classmates, school property, and yourself at all times.

4. Grading Policy

Major Grades (Tests, Projects) 50 % | Quizzes 30%

Daily Grades 20%

5. Syllabus Acknowledgment & Signature

Please read through the syllabus above, sign below, and return this slip to Coach Hernandez. Your signature indicates that you have read and understood the course expectations, electronic device policies, safety protocols, and Pre-AP grading rules.

Student Signature: _____

Parent/Guardian Signature:

Printed Name: _____

Printed Name: _____

Date: _____

Date: _____