



ADVANCED PLACEMENT PHYSICS 2

Insert Teacher Name

Insert Room Number

Full Year

Insert Period

Insert Email Address

COURSE DESCRIPTION

AP Physics 2: Algebra-based is the equivalent of the second semester of introductory, algebra-based college course. Since this course is a year-long course, teachers have time to foster deeper conceptual understanding through student-centered, inquiry-based instruction and students have time to master foundational physics principles. AP Physics 2 explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work with an emphasis on inquiry based investigations that provide students with opportunities to apply the science practices. Students in AP Physics 2 are learners with exceptional mathematical and problem-solving ability. Students are expected to take the AP Physics 2 examination in May.

COURSE OBJECTIVES

Students will understand that:

- The laws of conservation of energy and momentum provide a way to predict and describe the movement of objects. Energy cannot be created or destroyed although, in many processes, energy is transferred to the environment as heat
- Waves have characteristic properties that do not depend on the type of wave
- Electric and magnetic phenomena are related and have many practical applications

UNITS OF STUDY

- fluid statics and dynamics
- thermodynamics with kinetic theory
- PV diagrams and probability
- electrostatics
- electrical circuits with capacitors
- magnetic fields
- electromagnetism
- physical and geometric optics
- quantum, atomic, and nuclear physics

COURSE POLICIES AND REQUIREMENTS

GRADING (see [FPS BOE Policy 6154AR](#))

Cumulative/In-Progress Grade:

10% of the grade will be based on formative assessments, homework completion, or behavior

90% will be based on summative assessments based on a minimum of eight assessments

Individual Tests, Projects, Performance Tasks, Mid-Chapter Tests, Summative Quizzes, Written Papers, Labs, etc.

End-of-the-Year Grade:

80% of the overall course grade will reflect the student's mastery of course content and skills during the school year through the Cumulative/In-Progress Grade.

10% of the End-of-the-Year course grade will be based on the Mid-Year Assessment

10% of the End-of-the-Year course grade will be based on the Final Assessment.

Grade Reporting:

All grades will be communicated through Infinite Campus

Summative assessment results will be reported back to the student within ten school days from the date of submission or the due date.

Guidelines for Late Work (see FPS BOE Policy 6146AR):

Late work will be accepted for both summative and formative tasks within a defined timeline agreed upon between the student and the teacher.

The total points may be reduced as a penalty for late work.

Reassessments:

- Any extenuating circumstances may be discussed with administration to allow alternative reassessment opportunities with administrative approval.

- Reassessment opportunities are defined as twice per year (with a maximum of one per quarter) for assignments that students met the original required deadlines and do not violate the academic integrity policy. Reassessment does not apply to midyear assessments or final assessments.

- Gradebook impact of Reassessment: original and reassessment scores will be averaged in the gradebook.

MATERIALS

Course Text: Text: Knight et al, [College Physics: A Strategic Approach](#), 4e edition

EXPECTATIONS OF STUDENTS

Insert Course Expectations Here

EXTRA HELP

Insert Course Expectations Here

Insert Additional Information Here

