



## COURSE OVERVIEW AP PHYSICS AND ON LEVEL PHYSICS



Fostering a Culture of Excellence

**INSTRUCTOR:** Mr. Branca  
**SCHOOL:** SAGINAW HIGH SCHOOL ROOM S204  
**PHONE:** 817-306-0914  
**EMAIL:** [pbranca@ems-isd.net](mailto:pbranca@ems-isd.net)  
**ADDRESS:** 800 N. Blue Mound Road, Saginaw, TX 76131  
**CONFERENCE:** 3<sup>rd</sup> Period  
**TUTORING:** Lunch, Before school Tuesdays-Thursdays

**Course Components:** Physics is the study of the how things work and finding the connections between cause and effect that explain why things happen. This is a lab oriented course that focuses on the observations, classification, and interpretation of matter and its behavior. Measurements, data communication and prediction of experimental outcomes will be stressed students will be expected to manipulate experimental outcomes will be stressed. Students will be expected to manipulate experimental procedures and apparatus, make accurate observations, collect data, analyze data and summarize results in an organized and safe manner.

**Required Supplies:** spiral or composition notebook, #2 pencils, scientific calculator (if you have one)

**Requested Supplies:** 2<sup>nd</sup> Period: Dry Erase Markers (4) 3<sup>rd</sup> Period: AAA Batteries; 4<sup>th</sup> Period: Dry Erase Markers; 5<sup>th</sup> Period: AAA batteries, 6<sup>th</sup> Period: Dry Erase Markers, 7<sup>th</sup> Period: AAA Batteries, 8<sup>th</sup> Period: Dry Erase Markers

**AP Physics Students:** Plan on purchasing a review book for the AP Physics 1 exam. Please pick one of the following: 5 steps to a 5 for AP Physics 1, Cracking the AP Physics Exam – The Princeton Review or Fast Track to a 5 – Preparing for the AP Physics 1 and AP Physics 2 Exam.

### General Classroom Policy:

1. Standard Saginaw High School classroom rules of courtesy and behavior will be required of all students.
2. Each student enrolled in this class must show respect for themselves, others students, and the teacher.
3. I expect all of my students to be in class and working for the entire period. Please take care of all your personal business before or after class.

### General Class Rules:

1. Login to Canvas when you enter the class. The class will begin with a daily warm-up. You should stop talking and begin the quiz when the class begins. Class ends when the bell rings and **I dismiss you**.
2. You are to remain in your assigned seat or lab station for the entire period unless told otherwise. You will need to ask my permission in order to move to an unassigned section of the room.
3. I will give you time in class in which you can work on class/homework. I expect you to use that time for class/homework.

**Course Goals:** Students who successfully complete this course will be able to:

1. Design and implement a lab to answer a specific physics problem.
2. Create and interpret motion graphs.
3. Answer free response questions using correct physics concepts.

### Evaluations:

Major Grades: Test, Six Weeks Exam and Large Lab Write-ups, 60% (on level), 70% (AP)

Minor Grades: Homework, Small Lab Write-ups Quizzes, 40% (on level), 30% (AP)

**Late work:** District Policy will be followed for late work.

**Attendance:** Good attendance is essential for success in Physics. Each class involves the learning of new and important Physics concepts. District policy will be followed for make-up works related to absences.

**Tutoring:** I am available for assistance after school almost every day unless meetings have been scheduled which require my attendance. Please try to make an appointment when you need to attend tutoring. Appointments prevent you from wasting time when I am unavailable. **Please attend tutorials when you are experiencing problems in this course.** Students who are failing test, quizzes or students who need help preparing for an AP exam.

**Laboratory Behavior:** GOOD BEHAVIOR IS EXPECTED DURING ALL LABORATORY ACTIVITIES. Horseplay, harming other students, or performing unauthorized experiments will result in a referral to the appropriate assistant principal and a grade of ZERO for the laboratory activity.

**Academic Integrity:** (taken from the EMS ISD 2018-2019 Grade and Reporting Handbook) Academic integrity values the work of individuals regardless if it is another student's work, a researcher, or author. The pursuit of learning requires each student to be responsible for his or her academic work. Academic dishonesty is not tolerated in our schools. Academic dishonesty, includes cheating, copying the work of another student, plagiarism, and unauthorized communication between students during an examination. The determination that a student has engaged in academic dishonesty shall be based on the judgment of the classroom teacher or other supervising professional employee and considers written materials, observation, or information from students. Students found to have engaged in academic dishonesty shall be subject to disciplinary and/or academic penalties. The teacher and campus administrator shall jointly determine such action

**Grade Reports:** School progress reports are mailed at the end of the third week of each grading period. Report cards are mailed at the end of each grading period (six weeks). Grades are also available through Skyward online. I will also be emailing grade reports to you on a regular behavior.

### **Course Schedule:**

#### **AP Physics 1:**

- 1<sup>st</sup> Six Weeks: Kinematics & Graphing
- 2<sup>nd</sup> Six Weeks: Newton's Laws, Circular Motion & Universal Gravitation
- 3<sup>rd</sup> Six Weeks: Energy
- 4<sup>th</sup> Six Weeks: Momentum & Simple Harmonic Motion
- 5<sup>th</sup> Six Weeks: Rotation and Torque
- 6<sup>th</sup> Six Weeks: AP Test Review, Physics Projects

#### **AP Physics 2:**

- 1<sup>st</sup> Six Weeks: Fluids, Thermodynamics
- 2<sup>nd</sup> Six Weeks: Thermodynamics, Electric Force, Field & Potential
- 3<sup>rd</sup> Six Weeks: Circuits, Magnetism, Electromagnetic Induction
- 4<sup>th</sup> Six Weeks: Magnetism, Electromagnetic Induction, Optics
- 5<sup>th</sup> Six Weeks: Optics, Quantum Physics, Atomic Physics
- 6<sup>th</sup> Six Weeks: AP Test Review, Physics Projects

#### **Physics:**

- 1<sup>st</sup> Six Weeks: Scientific Process, 1 Dimensional Motion
- 2<sup>nd</sup> Six Weeks: 2 Dimensional Motion, Forces, Free Body Diagrams, Electricity & Circuits
- 3<sup>rd</sup> Six Weeks: Electricity & Circuits, Electromagnetism,
- 4<sup>th</sup> Six Weeks: Work, Energy, Momentum, Impulse, Thermodynamics
- 5<sup>th</sup> Six Weeks: Thermodynamics, Waves, Light, Sound
- 6<sup>th</sup> Six Weeks: Modern Physics, Projects & Review

**I look forward to working with you this year as you develop new skills in Physics. We are going to have a great school year!!**

Mr. Branca

**Room Number: S204**

**Contact Number: 817-306-0914**

**E-mail: pbranca@ems-isd.net**

**To the parent or guardian:**

**Physics is a class that covers a great deal about the Physics that occurs in the world around them. This class does not have to be the hardest in any student's high school experience. It does, however, require keeping up with the class work and studying for tests.**

**I am here to provide all the help I can for your student to succeed in this class and on the AP test. You can contact me via phone or e-mail as noted below. In addition to the progress reports (every three weeks) and report cards (every six weeks) sent out by the school, I will email grade reports home to you. I also hold tutorials after school almost every day, both before and after school. Students will also be able to attend tutorials during their lunch period as needed.**

**I am looking forward to successful year. Your student should have bought home a copy of the class syllabus, lab safety rules for your review. Please take a moment to look these over and sign the attached form as well as the safety contract. Your student needs to return both to me next class period.**

**Peter Branca**

I acknowledge that I have read and approve of or agree with all of the stipulations or information given in this document. I want this course to be profitable for the student, their parents or guardians, and the teacher.

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Student Name

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Student Signature

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Date

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Parent Name

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Parent Signature

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Date

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Teacher Name

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Teacher Signature

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Date