

2019-20 Physics A Syllabus

Instructor Name: Dr. Mansergh

Availability Hours: by appointment

Email: gary.mansergh@ahschools.us

Wednesday – after school

Thursday - mornings

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Text: Physics: Principles and Problems (Glencoe Science)

Course Description:

Physics is the study of the physical world. This trimester we will be studying Motion, Gravity (including projectiles), Forces, and Circular Motion. We will do many demonstrations and inquiry activities to explore and explain these concepts, but a large part of physics is explained through math. We will do practice problems and you will be expected to do some for homework some nights. Practice makes perfect! The class will be easier if you try all homework problems on your own first. Then if there are questions, *I am available before and after school for help, but you must try the problems on your own first before coming in for help.*

Key Topics:

- Kinematics (Linear Motion)

- Forces (Newton's Laws)

- Free Fall and Projectiles

- Circular Motion

Guidelines for Student Success:

● Materials Needed

Bring the following items to class every day:

- a pen **and** a pencil
- **Composition Notebook**
- Spiral notebook paper
- a calculator
- Physics Textbook

● Behavior

Respect: To show honor or esteem for yourself, your classmates, your teacher and the equipment in the classroom. A little respect goes a long way!

Be on Time: Learn starts right away in physics. Being ready to learn is far more important than just being present at a given time in the classroom. There will be a warm-up (GYMLU) on your desk at the beginning of every class. This is where your attention should go when you enter the classroom.

Ask Questions: You are encouraged to ask questions. Questions lead to research, research leads to discoveries and discoveries lead to understanding. There are no dumb questions, just more appropriate times to ask certain questions.

- **Formative Work:** Formative work (problem sets, online learning, and reinforcing classroom activities) is an essential part to learning physics concepts. By completing formative work and participating in classroom discussion about the work, students will be able to learn physics concepts, evaluate their level of understanding, and deepen their abilities to apply these concepts in several different scenarios. **Formative Work will not be entered into the online grade book but will be turned in and recorded.**
- **Investigative Work:** Because physics is an inquiry type of class, work done to investigate concepts will be graded, not for correctness, but for think and reflecting. A composition notebook is needed for this type of learning. All data, conclusions, thoughts, and ideas need to be recorded. At the end of each unit, this notebook will be turned in, and random investigations will be looked at. Put your best writing and thinking into this work, because it will help you learn the concepts the most.
- **Late Work:** All late and missing work should be turned in by the end of the following unit. Under special circumstances, late and missing work can be turned in beyond the deadline but must be approved by instructor prior to turning in the work. It is the student's responsibility to make up any investigations that he or she has missed for an excused absence. All work will be turned into the instructor directly.
- **Quizzes (Formative Assessments):** Quizzes will be given for each Learning Target to check for individual understanding and let students know how well they are learning the content in accordance to my expectations. These Quizzes will be graded. This way students can see how they are doing, but it is **not affecting their grade** since its sole purpose is for students to learn what they know and don't know.
- **Exams (Summative Assessments):** Students are expected to take the exam on the day it is scheduled. The instructor reserves the right to postpone the scheduled exam date. If a student is absent for the scheduled exam date, they will be expected to take the exam on the day they return to class. Students will have an opportunity to relearn and to show their progress throughout the course. Students who have turned in all their formative work prior to the unit summative assessment (Unit Exam) will be eligible to retake an equivalent assessment. Students who are eligible for the retake will be required to do a relearning activity, within one week after the original exam, before taking the retake exam. In addition, students will have the opportunity to show their relearning on the Final Exam at the end of the trimester.
- **Absences:** Be **RESPECTFUL** of your and your classmate's education. This class allows for a lot of group work and by missing days of school it makes it difficult for groups to function properly and effectively. It is **your** responsibility to obtain and make up notes, labs, worksheets, quizzes and tests.
- **Help: ASK!!** I am available three days a week. Please let me know if you are planning to come in and get extra help. Other meeting times can be arranged, you just need to ask. I am here for you and your education so please don't be afraid to ask for help!

Grading Practices:

● A	93 -100%	B-	80-82%	D+	67-69%
● A-	90-92%	C+	77-79%	D	63-66%
● B+	87-89%	C	73-76%	D-	60-62%
● B	83-86%	C-	70-72%	F	below 60%

Grading Weights: Grading is broken down as follow:

- **Investigative work:** Investigative Notebook/Activity with findings and ideas (20%)
- **Summative Assessments:** Unit Exams (65%), and Final Exam (15%)
- **Uniqueness: We are all different and unique, and so is the way we think.** Show the instructor what you think by doing your own work. Other people's thinking will come out in their own work.
- **Focus on Learning.** The most important time spent learning is when you are in class. If you focus on physics for the short time we have everyday, you will learn physics. **Cell Phones, iPods, or other electronic devices** besides a calculator are distracters from the learning, which means you will not learn as much as when you are focus on the physics concept. *Cell phones are prohibited during class time.*

Learning is an investment in yourself. Learn as much as you can now, so that you don't have to learn so much later.